

KILLARK[®]

RELIABLE-ELECTRICAL- SOLUTIONS

Harsh and Hazardous Products



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Harsh & Hazardous

Established in 1913, Hubbell Killark, a member of the Hubbell Harsh & Hazardous group of companies, has become a global provider of harsh and hazardous location products. Our range encompasses industrial and explosion proof equipment engineered to perform in the most extreme climates.

Safety and reliability has been the cornerstone of our business for more than a century. We are dedicated to exceed customer needs, with engineering solutions, new product development and worldwide product accreditations.

Hubbell's dedication goes beyond it's product and service, our Quality Systems conforms to the requirements of ISO 9001 : 2008. Our organization is committed to sustainability which we define as ***"meeting the needs of the present without compromising the ability of the future generations to meet their own needs."*** In 2010, Hubbell announced HSI – the Hubbell Sustainability Initiative – which is an enterprise-wide commitment to develop sustainable products and business practices.

Our mission is to:

Achieve an ongoing culture of environmental responsibility with our employees, community, and industry, implementing educational programs and sustainable practices.

Hubbell Harsh & Hazardous Brands

All of our brands are all long established and well respected businesses within each of their industries. Our primary products include telephones, communications systems, lighting, control devices, motor control, power distribution systems and connection products. Can't find exactly what you want in the catalog? We have a long history of manufacturing products to specific requirements, simply tell us what you need.



HAZARDOUS (CLASSIFIED) LOCATIONS

Hazardous locations are those locations where the risk of a fire or explosion may exist due to the presence of flammable gases or vapors, flammable liquids, combustible dust, or ignitable fibers or flyings.

In reality, flammable gases and vapours and combustible dusts exist almost everywhere. Fortunately they are usually present in quantities far less than what is required for a fire or explosion hazard to occur. Therefore the fact that flammable gases, vapours, or combustible dust may be present does not define a hazardous location; materials must be present in sufficient quantities or concentrations that pose a risk that an explosion could occur.

The National Electrical Code (NEC®) defines the “Classified Locations as follows: “Locations shall be classified depending on the properties of the flammable gas, flammable liquid–produced vapor, combustible liquid–produced vapors, combustible dusts, or fibers/flyings that may be present, and the likelihood that a flammable or combustible concentration or quantity is present. Each room, section, or area shall be considered individually in determining its classification. Where pyrophoric materials are the only materials used or handled, these locations are outside the scope of this article.”

The NEC does not classify locations where there is an explosion hazard due to the presence of high explosives, such as dynamite, TNT, Ammonium Nitrate/Fuel Oil (ANFO) mixtures, blasting caps, propellants, ammunition, firework, etc. as hazardous locations. There are other standards and Federal regulations covering the handling and use of such materials. Some of these standards require the use of electrical equipment suitable for use in hazardous locations as defined in the NEC as it provides a greater degree of safety than general-purpose equipment; not because it was tested for use in the presence of high explosives. In a similar manner, areas containing or manufacturing pyrophoric materials, such as some phosphorous compounds are not within the scope of the NEC.

UNDERSTANDING HAZARDOUS LOCATIONS

The evolution of hazardous location electrical codes and standards throughout the world has taken two distinct paths. In North America, the “Class, Division” System has been used since the 1930s as the basis for area classification of hazardous (classified) locations. Since the hazards, and the methods of protecting against the those hazards, differ for various materials,

the NEC® separates hazardous locations into “Classes” based on the nature of the material or product, i.e. gas or vapor, dusts, or fibers. Each Class is then further divided into “divisions” or “Zones” based on the material being present in sufficient quantities for an explosion to occur. While Canada and the United States have some differences in acceptable wiring methods and product standards, their systems are quite similar.

In other parts of the world, explosive atmospheres are dealt with using the “Zone System” based on the International Electrotechnical Commission (IEC®) standards.

While specific requirements differ, both the United States and Canada have incorporated the IEC Zone System of Area Classification into their electrical codes. The NEC permits the use of either the Class/Division System or the Class/Zone System.

In the United States, NEC Articles 500 through 517 deal with Hazardous (Classified) Locations. NEC Article 500 provides general rules and permits the use of either the Division System or Zone System.

In Canada, the Canadian Electrical Code (CEC) mandates the use of the Zone system for all new construction. It does allow existing facilities, classified using the Division System, to continue using the Class/Division System. In 2015, the CEC removed the term “Class” from the main body of the Code. The rules dealing with the Division System are contained in Annex J18 and J20 of the CEC.

Both systems provide effective solutions for electrical equipment used in hazardous locations and both have excellent safety records.

The Zone System (in the NEC, CEC and IEC) defines hazardous materials as follows:

- **Explosive Atmospheres** — mixture with air, under atmospheric conditions, of flammable substances in the form of gas, vapour, dust, fibers, or flyings which, after ignition, permits self-sustaining propagation
- **Explosive Gas Atmospheres** — a mixture with air, under atmospheric conditions, of flammable substances in the form of gas, vapor, or mist in which, after ignition, combustion spreads throughout the unconsumed mixture
- **Explosive Dust Atmosphere** — mixture with air, under atmospheric conditions, of flammable substances in the form of dust, fibers, or flyings which, after ignition, permits self-sustaining propagation

In the Division System, Hazardous (Classified) Locations are divided into three Classes based

on the explosive characteristics of the material. The Classes of material are further divided into “Divisions” or “Zones” based on the probability that the material will be present in sufficient quantities for an explosion could occur. The Zone system has three levels of hazard whereas the Division system has two levels.

The table below provides a comparison between the “Class/Division” System and the “Zone” System.

EXPLOSIVE ATMOSPHERE	DIVISION SYSTEM	ZONE SYSTEM
Gases and Vapors [ⓐ]	Class I	Explosive Gas Atmospheres, Zones 0, 1 and 2
Combustible Dusts	Class II	Explosive Dust Atmospheres, Zones 20, 21 and 22
Easily Ignited Fibers & Flyings	Class III	

[ⓐ]The United States and Canada have incorporated the Zone System of Area Classification for all explosive atmospheres into their Electrical Codes

CLASS I LOCATIONS

Class I locations are those in which flammable gases vapors or mists are, or may be, present in the air in quantities sufficient to produce explosive or ignitable mixtures.

Explosive Gas Atmospheres are defined as those in which flammable gases or vapors are, or may be, present in the air in quantities sufficient to produce explosive gas atmosphere. The use of the two similar terms, ‘gas’ and ‘vapor’ is intended to differentiate between a gas as being in the gaseous state such as hydrogen or methane, and a vapor that flashes off (rises) from a liquid such as gasoline under normal atmospheric conditions.

General

The subdivision of Class I, locations into Zones or Divisions is based on the probability of an explosive material being present in sufficient quantities for an explosion to occur. If the risk is extremely low, the location may be considered non-hazardous location. A good example of a low risk area is a family residence that uses natural gas or propane furnace for heating or cooking. The gas could, and on extremely rare occasions does, leak into the home and encounter an ignition source which can result in an explosion, often with devastating consequences. However, since the risk is so low, because of the safety systems built into the gas supply and equipment, these areas are not classified as “hazardous locations”. If the risk is higher, the area would need to be classified based on the probability that an explosion could occur. Area Classification is essentially a risk assessment that identifies potential sources of release for flammable materials, the nature

of those materials and other factors such as ventilation and assigns a level of risk based on the Division or Zone System.

For Explosive Gas Atmospheres, NEC Article 501 contains the Rules for the Class/Division System and Article 505 contains the Rules for the Class/Zone System

Unclassified Locations

According to the American Petroleum Institute (API), there are locations that contain explosive gases or vapors that are not necessarily classified. This would include all-welded closed piping systems or continuous metallic tubing without valves without valves, flanges and containers or vessels used for storage or transport of materials that are Department of Transport (DOT) approved for that purpose.

CLASS I LOCATIONS DIVISION CLASSIFICATION

Class I, Division 1

Class I, Division 1 locations are defined as those in which hazardous concentrations of flammable gases or vapours exist continuously, intermittently, or periodically under normal operating conditions. This is a very broad definition since there is no times associated with intermittently or periodically which are open to many interpretations.

Division 1 also includes area that may exist frequently because of repair or maintenance operation or because of leakage and locations where breakdown or faulty operation of electrical equipment or processes might release ignitable concentrations of flammable gases or vapors, and may also cause simultaneous failure of electrical equipment.

An example of such a location might be an area where a flammable liquid is stored under cryogenic conditions. A leak of the extremely low temperature liquid directly onto electrical equipment could cause failure of the electrical equipment at the same time the vapors of the evaporating liquid could be within the flammable range.

Class I, Division 2

Class I Division 2 areas are defined in the code as; "areas where flammable volatile liquids, flammable gases, or vapors are, processed, handled or used, but in which the liquids, gases, or are normally confined within closed containers or closed systems from which they can escape only as a result of accidental rupture or breakdown of the containers or systems or the abnormal operation of the equipment". Or, where hazardous concentrations of gases or vapors

are normally prevented by positive mechanical ventilation, but which may become hazardous as the result of failure or abnormal operation of the ventilating equipment."

Division 2 locations also exist around Division 1 locations where there is no barrier or partition to separate the Division 1 space from a non-hazardous location, or where ventilation failure (an abnormal condition) might extend the area where flammable material is present under normal conditions.

The abnormal conditions of occurrence, or lower risk areas, Division 2 and Zone 2 are basically identical in the Zone and Division system. However, in areas where a hazard is expected to occur during normal operation, Division 1 and Zone 1 and 0, the Zone system deals with highest risk areas Zone 0 separately, and risk associated with the remaining location Zone 1, is considered lower. The Division system tends to be less specific in its consideration of Division 1. The Division system treats all areas where a hazard is expected to occur in normal operation the same.

CLASS I LOCATIONS ZONE CLASSIFICATION

Class I, Zone 0

These are locations in which ignitable concentrations of flammable gases or vapors are present continuously or for long periods of time. Zone 0 represents the most dangerous part of the Division 1 classification.

There are situations where flammable liquids are stored in tanks and the vapor space above the liquid is above the upper flammable limit. If the vapor space is above the upper flammable limit most of the time, the space is not a Zone 0 location because the requirements are for "ignitable concentrations" of flammable gases or vapors (concentrations within the flammable range).

Class I, Zone 1

These locations are very similar to Class I, Division 1 locations except they do not include those locations defined as Class I,

Zone 0, where ignitable concentrations are present all or most of the time.

Class I, Zone 2

These locations are effectively the same as Class I, Division 2 locations.

CLASS I LOCATIONS COMPARING THE DIVISION & ZONE SYSTEMS

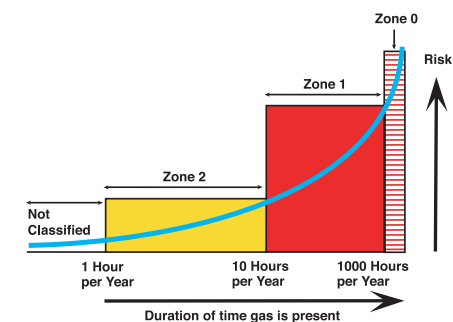
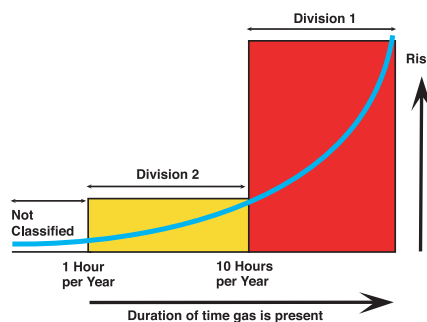
Unlike the Division System, the Zone System includes guidelines based on hours per year as one of the criteria that determines an area classification. These are by no means intended as absolute numbers.

For example, an area which may be in the explosive range in excess of 1000 hours per year should be identified as Zone 0. However, that does not suggest an area that is in the explosive range 999 hours per year, or even 900 hours per year, should automatically become Zone 1. Similarly, if the probability of a gas release in a building was extremely low, it would likely be identified as Zone 2. However if this was a remote, unmanned building, it could take more than ten hours to reach which could put it above the hours per year suggested for Zone 2 locations. In all cases, common sense and sound engineering judgement should be used.

GRADE OF RELEASE	ZONE	FLAMMABLE MIXTURE PRESENT
Continuous	0	1000 hours per year or more (10%)
Primary	1	Between 10 and 1000 hours per year or more (0.1% to 10%)
Secondary	2	Less than 10 hours per year (0.01% to 0.1%)
Unclassified		Less than 1 hour per year (Less than 0.01%)*

*This is a combination of Tables 2 and 3 from API RP505
Some controversy surround the 1 hour per year figure. The IEC does not define hours per year.

The illustrations below compare the similarities and differences between the Division System and the Zone System. It is accepted that the higher the concentration of explosive atmospheres or greater the time it is present, the higher the risk.



The key difference between the two systems is that the Zone system looks at the highest level of risk (in excess of 1000 hours per year) and identifies it “Zone 0”, with the remainder being defined as “Zone 1”. The Division System identifies the higher risk areas as Division 1 which basically is the combination of Zones 0 and 1. The criteria used to identify the lower risk areas of Zone 2 and Division 2 is virtually identical.

The Table below provides a comparative view of the relationship between Divisions and Zones. The chart below compares the Class/Division locations to Class/Zone Locations

CLASS I	DIVISION SYSTEM	ZONE SYSTEM	NOTES:
Gases and Vapors	Division 1	Zone 0	Zone 0 locations are a typically less than 1% of hazardous locations in a facility.
		Zone 1	Class I, Division 1 locations encompass both Zones 0 and 1. While the wiring practices and acceptable products differ, Zone 1 represents most of Division 1.
	Division 2	Zone 2	Zone 2 and Division 2 are essentially the same

CLASS I LOCATIONS GAS GROUPS

In terms of physical properties, most gases and vapors are unique. The combinations of how each reacts in air, when they change from a liquid to a gas or what causes them to ignite are infinite. These properties that include ignition temperature, flash point, flammable limits, and minimum ignition energy are explained later in this chapter.

While the area classification of a facility is based on the specific type of material present, electrical equipment can be tested and approved for use in multiple explosive gas atmospheres. Gases or vapors are categorized by two key factors they have in common; how much energy is required to ignite them, and how that explosion moves through the air. Without gas groups, the certification of electrical equipment would be extremely difficult and the cost would be prohibitive.

This allows multiple gasses and vapors to be “grouped” together based on their “Minimum Igniting Current (MIC) Ratio” and the “maximum experimental safe gap (MESG)” between surfaces that will allow an explosion to propagate from a contained atmosphere, such as an enclosure, to an outer atmosphere. These are measured based on the “most easily ignited” or “stoichiometric”

gas-air mixture ratio. The ignition energy required increases as the percent air/mixture ratio deviates from the stoichiometric ratio.

Minimum Ignition Current is the smallest amount of current flowing in a circuit that will cause a spark when the current flow is interrupted which cause an explosion in a fuel oxygen mixture. Minimum ignition current can come from multiple sources which include; discharge of a capacitive circuit, interruption of an inductive circuit, intermittent making and breaking of a resistive circuit, or hot wire fusing. If the MIC of a material is known, electrical circuits can be designed so that any sparks created do not have enough energy to cause an explosion. Controlling the spark energy is the basic concept in intrinsically safe and non-inductive equipment.

Minimum Ignition Energy (MIE) is the minimum energy input required to initiate combustion. This is the smallest amount of energy stored in a capacitor that when discharged across a spark gap is capable of igniting a stoichiometric mixture. All hazardous location materials have a minimum ignition energy that is specific to its’ chemical or mixture, the concentration, pressure, and temperature.

Minimum Igniting Current (MIC) Ratio: The ratio of the minimum current required from an inductive spark discharge to ignite the most easily ignitable mixture of a gas or vapor, divided by the minimum current required from an inductive spark discharge to ignite methane under the same test conditions.

The grouping is therefore based on the two key factors; maximum gap an exploding gas can pass through is based on laboratory tests performed in an apparatus, which varies both the width and gap of a joint and the pressure rise caused by an explosion.

Maximum Experimental Safe Gap (MESG) is maximum spacing between flat surfaces of a specified width in experimental test equipment that will prevent the propagation of an explosion from inside the explosion test chamber to a surrounding flammable atmosphere. The MESG is determined using a testing chamber such as the Westerberg Explosion Test Vessel.

While there are slight discrepancies between the North American and IEC® values, the intent is basically the same. The reasons for the differences are the introduction of new test parameters and rounding. When North America adjusted their evaluation methods, the definition for some materials also changed. The committees responsible for those changes decided not to reclassify the materials. This is the primary reason some gases in the division system are not aligned with those in the Zone system.

CLASS I LOCATIONS DIVISION SYSTEM GAS GROUPS A, B, C, & D

Group A

The highest explosion pressures of the materials grouped are generated by acetylene, the only material in Group A. Thus, explosionproof equipment designed for Group A must be very strong to withstand the explosion anticipated, and must have a very small gap between joint surfaces. Explosionproof equipment for Group A is the most difficult to design and there is less explosionproof equipment listed for this group than for any other group.

Group B

Group B materials produce explosion pressures somewhat less than acetylene, and the design of explosionproof enclosures for this group is somewhat less rigorous than for Group A enclosures. However, because of the very high explosion pressures in both Groups A and B, and, in particular, the very small gap between mating surfaces needed to prevent propagation of an explosion, there are no explosionproof motors listed for use in either Group A or B locations.

Group C

The chemical materials in Group C fall within the range between Groups B and D in both the explosion pressures generated and the gap between mating surfaces of explosion proof equipment that will prevent an explosion.

Group D

Group D is the most common group encountered in the field, and there is more equipment available for this group than for any other group.

CLASS I LOCATIONS ZONE SYSTEM GAS GROUPS IIC, IIB, & IIA

Zone Gas Groups General information

The Zone gas groups are based on the IEC and prefixed by “II” which means equipment intended for surface industries. The prefix “I” identifies equipment intended for underground coal mining. Since the NEC does not deal with mining; references to “I” are excluded.

Group IIC

(Effectively the combination of the Division system Groups A and B) includes materials such as acetylene, butadiene, propylene oxide, carbon disulphide or hydrogen or other gases or vapours of equivalent hazard.

Group IIB

(basically Division System Group C) includes materials such as cyclopropane, diethyl ether, ethylene, ethylene oxide, hydrogen sulfide, or unsymmetrical dimethyl hydrazine (UDMH), or other gases or vapours of equivalent hazard.

Group IIB +Hydrogen (or IIB+H₂)

The identification of Group IIB +Hydrogen excludes acetylene and actually aligns to the Division System Group B definition. The issue was that an acetylene explosion will propagate through any flat joint. Group IIB+H₂ was introduced to allow for enclosure for hydrogen atmospheres that do not propagate through properly designed flat joints.

Group IIA

(basically Division System Group D) includes materials such as acetaldehyde, acetone, alcohol, ammonia, benzene, butane, gasoline, hexane, isoprene, lacquer solvent vapours, natural gas, propane, propylene, styrene, vinyl chloride, xylenes, or other gases or vapour of equivalent hazard.

**CLASS I LOCATIONS
COMPARING DIVISION & ZONE
GAS GROUPS**

The first definitions of flammable gases in North American Standards appeared in 1935 and were based on theoretical calculations. In the 1960s an engineer at UL developed an instrument called the Westerberg Explosion Test Vessel that could vary gap and joint width dimensions of a chamber to perform actual test. In the early 1970s, the IEC® developed a different test vessel that could perform the same test. Although most of the results were similar, they were not identical. Both Systems grouped materials based on the test results.

In the 1997 Edition of NFPA 497 a new method to estimate the group classification of a mixture was introduced. While some materials, mostly Groups C and D, no longer met the new definitions exactly, based on the safety of historical practices, the standard committee decided not to reclassify them.

This results in slight differences in how gases are identified in the Zone system versus the same gas in the Division System. For purposes of equipment selection, area classifications should identify both the Zone and Division gas group of the material(s) present.

GAS GROUPS	
DIVISION	ZONE
A	IIC
B	
B*	(IIB + H ₂)
C	IIB
D	IIA

* Added to Accommodate Flat Joints for Hydrogen Atmospheres

COMPARISON OF DIVISION AND ZONE SYSTEM GAS GROUPS EVALUATION					
DIVISION SYSTEM			ZONE SYSTEM		
GROUP	MESG (MM)	MIC RATIO	GROUP	MESG (MM)	MIC
Not Classified	< 0.076 (e.g. Carbon Disulphide)				
A	Acetylene (Has same MESG and MIC Ratio as group B, but generates much higher explosive pressures)		IIC	≤ 0.50	≤ 0.45
B	> 0.076 ≤ 0.45	≤ 0.40			
C	> 0.45 ≤ 0.75	> 0.40 ≤ 0.80	IIB	> 0.50 ≤ 0.90	> 0.45 ≤ 0.80
D	> 0.75	> 0.80	IIA	> 0.90	> 0.80

**CLASS I LOCATIONS
TEMPERATURE ISSUES**

Ambient Temperature

The ambient temperature is the surrounding temperature of the environment in which a piece of equipment is installed, whether it is indoors or outdoors. Certain heat producing equipment such as lighting fixtures list a Temperature Code or T-Code at a given ambient temperature. (See below)

A heat producing product is considered acceptable for the location, provided the minimum ignition temperature of the hazardous material present and the ambient temperature of the location do not exceed the limits set by the manufacturer. If the ambient temperature is higher than the maximum stated on the name plate, it might still be acceptable to use the product under certain conditions, provided the minimum ignition temperature of the hazardous material has not been exceeded. In all cases, consult the factory for assistance.

Operating Temperature

The rated operating temperature for hazardous (classified) products is determined by conducting laboratory test in an ambient temperature of 40°C. Products certified by the various agencies consider products certified to their standards to be suitable for different temperature ranges. The range for the range for UL is -25°C to +40°C, the range for CSA is -50°C to +40°C, and the range for IEC is -20°C to +40°C.

TEMPERATURE CODE OR T-CODE

The "Temperature Code" or "T-Code" of an explosive gas material relates to the autoignition temperature of the gas or vapour present. The autoignition temperature is the minimum temperature that will ignite a material without a spark or flame. Heat producing equipment Electrical equipment such as lighting fixtures, motors, electrical trace heating, etc. needs to operate below the auto ignition temperature of the explosive materials it is likely to come into contact with. Use of the Temperature Code marking allows equipment to be designed for a multiple materials with different autoignition temperatures based on specific temperature ranges. In some cases the NEC Requires the T-Code be reduced to 80% of the normal value.

HAZARDOUS LOCATION DATA

The relationship between ambient temperature and T-Code is somewhat linear in that a product running at 450°C at a 40°C ambient will run at approximately 460°C at a 50°C ambient. This is only a rule of thumb and since it does not consider the effect of a higher ambient on the performance or life of a product should not be used without consulting the manufacturer.

The ignition temperature or autoignition temperature (AIT) is the minimum temperature that will cause an explosive material to ignite without a spark or flame. The lowest published ignition temperature should be the one used to determine the acceptability of equipment. This is of particular concern when selecting heat producing equipment such as lighting fixtures or motors which may generate sufficient heat to ignite the surrounding atmosphere.

The T-Codes used in the Division System vary slightly from those in the Zone System. While the basic values are identical, the Division System has intermediate levels which are not used in the NEC Zone System. Internationally only Canada permits the use of these intermediate levels for Zone locations. The IEC System has no intermediate levels.

TEMPERATURE CODES NEC (DIV.) & CEC	TEMPERATURE CODES (ZONES) NEC/IEC/ATEX	MAXIMUM TEMPERATURE	
		°C	°F
T1	T1	450	842
T2	T2	300	572
T2A	-	280	536
T2B	-	260	500
T2C	-	230	446
T2D	-	215	419
T3	T3	200	392
T3A	-	180	356
T3B	-	165	329
T3C	-	160	320
T4	T4	135	275
T4A	-	120	248
T5	T5	100	212
T6	T6	85	185

CLASS II, LOCATIONS

General

The NEC contains two systems to deal with combustible or explosive dusts. NEC Article 502 contains the rules for areas classified using the Division System and Article 506 contains the rules using the Zone System. Similar to Class I locations, Class II is separated area into Divisions or Zones

base on the likelihood combustible dust is normally in suspension in the air in sufficient quantities to produce ignitable mixtures or where a failure or abnormal operation of equipment might produce a hazardous concentration of dust.

Unlike gases and vapors, one of the key determining factors of Class II material is particle size. The definition of a Class II dust is; any finely divided solid material that is 420 microns or smaller in diameter (material passing through a No. 40 Standard Sieve) and presents a fire or explosion hazard when dispersed and ignited in air. An example of the importance of particle size would be wood; a log will burn but not explode, however very fine sawdust particles suspended in air are highly explosive.



Typical Class II Dust Location

There is a major difference between the NEC Class/Division and Class/Zone Systems in that the Class/Zone System combines both Class II and Class III. For this reason the Class/Zone System (Article 506) later in this section.

Division 1

A Class II, Division 1 location is one where combustible dust is normally in suspension in the air in sufficient quantities to produce ignitable mixtures, or where mechanical failure or abnormal operation of equipment or machinery might cause an explosive or ignitable dust-air mixture to be produced, and might also provide a source of ignition through simultaneous failure of electrical equipment.

Division 2

A Class II, Division 2 location is one where combustible dust is not normally in the air in quantities sufficient to produce explosive or ignitable mixtures, and dust accumulations are not normally sufficient to interfere with the normal operation of electrical equipment, such as clogging ventilating openings or causing bearing failure. It includes locations where combustible dust may be

in suspension in the air only as a result of infrequent malfunctioning of handling or processing equipment, and those locations where dust accumulation may be on or in the vicinity of the electrical equipment and may be sufficient to interfere with the safe dissipation of heat from the equipment, or may be ignitable by abnormal operation or failure of the electrical equipment.

GUIDE TO CLASSIFICATION OF CLASS II LOCATIONS BY DIVISION*		
THICKNESS OF DUST LAYER ON EQUIPMENT**	DUST GROUP	DIVISION
Greater than 1/8 in.	E, F, G	1
1/8 in or less but surface color not discernible	E	1
1/8 in or less but surface color not discernible	F, G	2
1/8 in or less and surface color discernible under dust layer	E, F, G	non-classified

* From NFPA 497B-1991

** Based on build-up of dust level in a 24-hr period on the major portions of the horizontal surfaces.

**CLASS II LOCATIONS
DIVISION DUST GROUPS E, F
AND G**

Class II substances are divided into three groups for similar reasons to those of Class I materials, equipment design and area classification. Class II groups are based on different characteristics than those of Class I, given the requirements for an explosion to occur and the protection methods required for equipment. In Class II locations the ignition temperature, the electrical conductivity, and the thermal blanketing effect the dust are critical when dealing with heat-producing equipment, such as lighting fixtures and motors. It is these factors which are the deciding factors in determining the Class II groups.

Group E

This includes metal dusts, such as aluminums and magnesium. In addition to being highly abrasive, and likely to cause overheating in equipment such as motor bearings should the dust get into the bearing, these (Group E) dusts are electrically conductive. If allowed to enter an enclosure, they are likely to cause electrical failure of the equipment. Since Group E, dusts can potentially be the source of the equipment failure, the source of ignition and fuel for an explosion at the same time, any accumulation is normally considered to be Division 1.

Group F

These are carbonaceous, the primary dust in this group being coal dust. These dusts have somewhat lower ignition temperatures than those in Group E and a higher thermal insulating value than a layer of a Group E dust. Therefore Group F dusts require careful control of the temperature on the surface of electrical equipment to prevent an explosion. Such dusts are semi-conductive, which is not usually issue in dealing with equipment rated 600 volts and less.

Group G

This includes plastic dusts, most chemical dusts, and food and grain dusts. These are not electrically conductive. Group G dusts generally have the highest thermal insulating characteristics and the lowest ignition temperatures. Electrical equipment for use in Group G atmospheres must have very low surface temperatures to prevent ignition of a dust layer by the heat generated within the equipment.

While it is common for Class I, products certified for use in Class II locations; it is not always the case. Given the different design requirements, equipment suitable for Class I locations are not necessarily suitable for Class II locations, nor is equipment suitable for Class II locations necessarily suitable for Class I locations. Equipment must be designed, approved and marked for use in specific hazardous locations.

Manufacturers typically develop equipment to suit a wide range of hazardous locations to be more cost effective. The equipment is marked as such and may have different temperature limitations on heat producing devices for different types of hazardous material. As always, care must be taken in selecting equipment for any hazardous location.

Temperature Restrictions

In Class II areas all products must operate at temperatures as shown below based on whether they are heat producing or subject to overloading or not, and based on the Group which they fall under. Class III products in all cases must operate below 165° C.

CLASS II GROUPS	EQUIPMENT THAT IS NOT SUBJECT TO OVERLOADING		EQUIPMENT (SUCH AS MOTORS OR POWER TRANSFORMERS)			
	°C	°F	NORMAL OPERATION		ABNORMAL OPERATION	
E	200	392	200	392	200	392
F	200	392	150	302	200	392
G	165	329	120	248	165	329

CLASS III LOCATIONS

Class II, Division System Dust Groups E, F, and G

Class III locations are those that are hazardous because of the presence of easily ignitable fibers or flyings, but in which the fibers or flyings are not likely to be in suspension in the air in quantities sufficient to produce ignitable mixtures. Easily ignitable fibers and flyings present a fire but not an explosion hazard. A typical example of this type of material is the cotton lint that accumulates in the lint trap of clothes dryers. Listed clothes dryers are designed so that even if the lint ignites, the fire will be contained within the dryer enclosure.

CLASS III, DIVISIONS 1 AND 2

Division 1
This is a location where the equipment producing the ignitable fibers or flyings is located (near textile mill machinery, for example) or where the material is handled (for example, where the material is stuffed into bags).

Division 2

This is a location where the easily ignitable fibers are stored or handled, except in manufacturing processes (which is Division 1).

Class III Groups

There are no groups in Class III locations.

CLASS II ZONE SYSTEM

The differences between the IEC system for Explosive Dust Atmospheres and the North American Class/Division system are far greater than those for explosive gases. In 2005 the NEC added Article 506 to mirror the IEC system for Explosive dust Atmospheres, making its use optional (as was done with Explosive gas Atmospheres). The CEC adoption of the IEC System for Explosive Dust Atmospheres in 2015 was quite different; Not only is the use of the new system mandatory for new construction, all references to the original “Class” system rules were removed in the main body of the Code and relocated to Annex J. Unlike the NEC, the new CEC rules cannot be ignored and are likely to cause some initial confusion for users.

Similar to the system for Explosive Gas Atmospheres, the IEC Zone system for combustible dusts has three levels of hazard. In the Division system, Division 1 meant the material was present under normal operating

conditions, Division 2 meant the material was present under abnormal conditions only. The Zone system introduces Zones 20, 21 and 22 based on the probably of the material being present and suspended in air in sufficient quantities for an explosion to occur.

Zone 20:

A location in which an Explosive Atmosphere in the form of combustible dust in air is present continuously, frequently, or for long periods

Zone 21:

A location in which an Explosive Atmosphere in the form of combustible dust in air is likely to occur under normal operation occasionally

Zone 22:

A location in which an Explosive Atmosphere in the form of combustible dust in air is not likely to occur under normal operation but, if it does occur, it will persist only for a short period of time

Materials are grouped on their physical properties. In the original system Group E was electrically conductive dust, Group F, carbonaceous dust, and Group G, agricultural dust. In the Zone system, Group E becomes Group IIIC, Groups F and G become Group IIIB and Class III becomes Group IIIA. (See Table below)

ZONE DUST GROUPS		
TYPE OF DUST	DIVISION DUST GROUP	ZONE DUST GROUP
Conductive dust	Class II, Group E	IIIC
Non-conductive dust	Class II, Groups F, G	IIIB
Combustible flyings	Class III Locations	IIIA

GENERAL PROPERTIES OF HAZARDOUS LOCATION MATERIALS

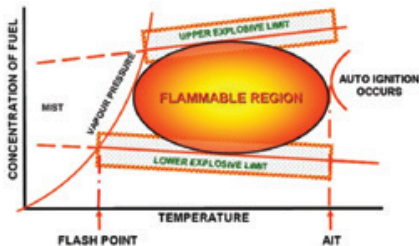
Simply because hazardous location materials are present does not mean that the conditions necessary for an explosion to occur also exist. With explosive materials several other factors must occur simultaneously to result in an explosion. Larger dust particles are often referred to as fibres or flyings and, if sufficient material is present, elevated temperatures may not cause a fire but may result in a flash fire.

Although there is the risk of an explosion with both Explosive gas and dust materials, the factors required for that to occur are somewhat different. In both cases the

material needs to mix with air (to provide the oxygen required), be in specific fuel to air concentrations (flammable limits) and then encounter an ignition source with sufficient energy to start an explosion.

The physical properties of gases and vapours allow them to easily mix with air whereas dusts tend to settle on surfaces. If gas is released into the atmosphere it can rise, settle or linger in the air around it depending on the vapour density and dispersion depends on the air movement in the area. For a dust to form and explosive cloud it needs to be suspended. This can take place in process equipment, leaking equipment or by strong air movement which could be caused by a smaller explosion.

Flammable Limits



With all flammable gases or vapours there is a minimum and maximum concentration in oxygen (air) beyond at which an explosion cannot occur. These minimum and maximum concentrations are called the flammable or explosive limits. If the mixture has too little fuel (a lean mixture) or if there is too much fuel (a rich mixture), it cannot be ignited or cause an explosion. The flammable limits of gases and vapours are usually measured in percentage in air, by volume and referred to as the lower explosive limit (LEL) and upper explosive limit (UEL). Some materials have very broad flammable limits, whereas others have very narrow flammable limits.

While combustible dusts suspended in air have measurable lower flammable limits, there is no finite upper limit; even as the dust approaches the density of the solid material from which it originates. The lower explosive limit for combustible dust suspended in air is usually so dense that visibility beyond one or two meters is impossible. The lower flammable limit of dust air mixtures is usually measured in ounces per cubic foot.

Oxygen

For an explosion to occur oxygen must be present and be mixed within the explosive limits of a fuel. While sufficient oxygen is usually available in the air around us it is not the only source. For example, a mixture of the (now

seldom used) aesthetic gases, ethyl ether and nitrous oxide can produce violent explosions because oxygen is provided by the nitrous oxide.

If the oxygen concentration exceeds that normally found in air (21% by volume) flammable limits are normally expanded and the ignition energy needed to cause an ignition decreases. An explosion with increased oxygen is often considerably more violent than if the oxygen concentration had been the same as in air.

The Fire Triangle

For a fire or explosion to occur, three conditions must exist in the correct combination.

- There must be a fuel (flammable gas or vapour) in ignitable quantities
- There must be an ignition source (energy in the form of heat or a spark) of sufficient energy to cause ignition
- There must be oxygen, usually the oxygen in the air

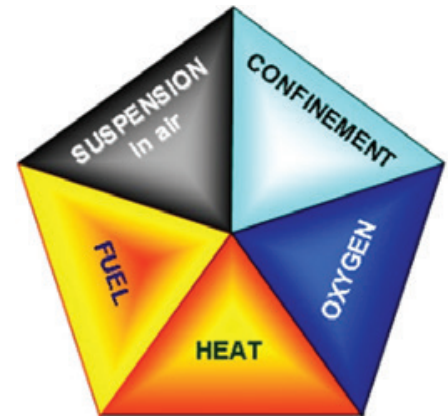


By remove any one or more of these three components, it is impossible for a fire or explosion to occur. This is the basis of the various methods of protection used in the design of electrical equipment permitted for use in hazardous locations.

The Dust Pentagon

The fire triangle indicates the condition required for combustion for gases and vapors. Dust explosions however require two other factors to sustain an explosion; suspension and containment. This is called the Dust Pentagon

- There must be a fuel (Combustible dust) in ignitable quantities
- There must be an ignition source (energy in the form of heat or a spark) of sufficient energy to cause ignition
- There must be oxygen, usually the oxygen in the air
- The Dust must be suspended in air
- The location must be confined



Dust that is not suspended in air may pose fire risk but is not necessarily explosive. Catastrophic dust explosions differ from those involving gases and vapours. A fire or an initial explosion in processing equipment or confined location may damage containment systems or cause other accumulated dust in the area to be dispersed in the atmosphere. This can result in a secondary, far more powerful explosion. These secondary explosions can continue and increase in intensity as more material is dispersed.

As with the Fire Triangle, elimination of one of the components of the Dust Explosion Pentagon can prevent an explosion from happening. In most Class II locations the elimination of oxygen or confinement by buildings or process equipment is difficult to eliminate. However the other components of the Dust Pentagon can be controlled through proper design, operation and maintenance.

BASIC DESIGN OF ELECTRICAL EQUIPMENT FOR HAZARDOUS LOCATIONS

There are a number of ways of protecting electrical equipment so that it cannot cause an ignition of an explosive atmosphere. The approach for explosive gas atmospheres is somewhat different to that of explosive dust atmospheres.

Division Approved Equipment

Electrical equipment must be designed and manufactured in such a way that it cannot become a source of ignition when used in an explosive gas atmosphere. The code addresses this by permitting only certain types of equipment to be installed in hazardous locations (either "explosionproof" or "intrinsically safe"). Equipment that is approved for Class I, Division 1, locations has to be specifically manufactured for the

intended use and must carry markings to identify that. In Class I, Division 2 locations, certain “non-hazardous” types of equipment, such as terminals and non-sparking motors, are permitted. Equipment specifically built for Class I locations will be marked to indicate where the equipment can be installed. This is discussed in greater detail below.

Class II, Division 1 areas the primary protection method are dustproof or dust-ignition-proof. In many cases, equipment which is suitable for use in Class I locations is acceptable in Class II locations however, it must be specifically marked as such.

For Class III locations the determining factor is more preventing accumulations inside equipment and temperature control.

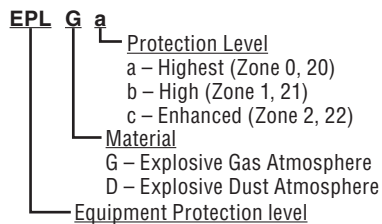
Zone Approved Equipment

The Zone system identifies Equipment protection levels (EPL) which assign a code defining the level of protection of equipment that is based on the likelihood of the equipment becoming a source of ignition. The EPL uses “G” for Explosive Gas Atmospheres and “D” for Explosive Dust Atmospheres. This is followed by one of the three levels of protection with “a” being the highest and “c” the lowest which translate into suitability for the various Zones or Divisions. The IEC also identifies Explosive Atmospheres in mines susceptible to firedamp which is not part of the NEC or CEC.

- **EPL Ga** — equipment for Explosive gas Atmospheres, having a “very high” level of protection, which is not a source of ignition in normal operation, during expected malfunctions or during rare malfunctions
- **EPL Gb** — equipment for Explosive gas Atmospheres, having a “high” level of protection, which is not a source of ignition in normal operation or during expected malfunctions
- **EPL Gc** — equipment for Explosive gas Atmospheres, having an “enhanced” level of protection, which is not a source of ignition in normal operation and which may have some additional protection to ensure that it remains inactive as an ignition source in the case of regular expected occurrences (for example failure of a lamp)
- **EPL Da** — equipment for Explosive dust Atmospheres, having a “very high” level of protection, which is not a source of ignition in normal operation, during expected malfunctions, or during rare malfunctions
- **EPL Db** — equipment for Explosive dust Atmospheres, having a “high” level of protection, which is not a source of ignition

in normal operation or during expected malfunctions

- **EPL Dc** — equipment for Explosive dust Atmospheres, having an “enhanced” level of protection, which is not a source of ignition in normal operation and which may have some additional protection to ensure that it remains inactive as an ignition source in the case of regular expected occurrences (for example failure of a lamp)



EQUIPMENT PROTECTION LEVEL		
EPL	ZONE SUITABILITY	DIVISION SUITABILITY
Ga	Zone 0	Class I, Division 1
Gb	Zone 1	Class I, Division 2
Gc	Zone 2	Class I, Division 2
Da	Zone 20	Class II/III, Division 1
Db	Zone 21	Class II/III, Division 2
Dc	Zone 22	Class II/III, Division 2

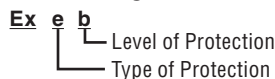
Both the NEC and CEC refer to newer versions of the IEC 60079 Series of Standards. Many of these have been rewritten to include multiple levels of protection. Originally, with the exception of Intrinsic Safety which had 2 levels of protection (“ia” for Zone 0, and “ib” for Zone 1) all other standards had a single level of protection (later Encapsulation “Ex ma” “Ex mb” were added). All Zone 2 requirements were contained in IEC 60079-15 (UL/ISA/ANSI and CSA adopted these standards).

To address the specific technical requirements of Zone 2, Explosive Dust Atmospheres and to allow for other equipment to be allowed in Zone 0, changes to the IEC standards are underway to add “Levels of Protection” to each “Types of Protection”. Many of these are recognized in the NEC and CEC. The Levels of Protection follow the EPL in that “a” is the highest protection and “c” is the lowest.

Original Marking



New Marking



BASIC TYPES OF PROTECTION OF EQUIPMENT FOR HAZARDOUS LOCATIONS

EXPLOSION PROOF (TYPE OF PROTECTION “Ex d” FLAMEPROOF) (Also “Ex da” (for gas detection only), “Ex db” and “Ex dc”)

The basic protection concept of Explosionproof and Flameproof are the same although certification requirements for flameproof are less severe than those for explosionproof equipment. The intent of both is to contain an internal explosion of gas or vapor and prevent the escape of any hot or burning materials that could ignite the surrounding atmosphere. Because “Flameproof equipment” is not permitted to be used in Zone 0 Locations this type of construction cannot be used permitted in Class I, Division 1 locations (which theoretically includes Zone 0).

Since flammable gases and vapors are expected to be inside the enclosure the equipment design must be capable of withstanding an explosion caused by sparks from contactors or other switching devices, high temperatures, or electrical faults. The enclosure is designed so that hot gases generated during an internal explosion are cooled below the ignition temperature of the surrounding flammable atmosphere as they are transmitted through the joints of the enclosure.

In addition, the external surfaces of enclosures must reach temperatures that could ignite a surrounding atmosphere as a result of heat energy within the enclosure. This heat energy may be the result of normal operation of heat producing equipment such as lighting fixtures, or the result of an electrical arc to the enclosure from an arcing ground fault. Explosionproof and Flameproof use various types of joints to maintain their protection.

- **Threaded Joints** used for conduit entries or enclosure covers.
- **Flat Joints** between mating surfaces that are bolted tightly together,
- **Cylindrical Joints** such as used in push-buttons, toggle switches, and shafts for electric motors
- **Rabbit Joints** commonly used for large diameter cylindrical parts, such as between a motor end bell and the main frame.
- **Labyrinth Joints** is used on both rectangular and cylindrical parts which force expanding hot gases to make several right-angle turns before they can exit an enclosure

Care should be taken when dealing with any joints in an Explosionproof and Flameproof product.

ENCAPSULATION - TYPE OF PROTECTION "Ex m" (Also "Ex ma", "Ex mb" and "Ex mc")

Encapsulation is a type of protection in which the parts than can ignite an explosive atmosphere are enclosed in a resin (plastic). The resin must be sufficiently resistant to environmental influences that the explosive atmosphere cannot be ignited by either sparking or heating, which may occur within the device. This is typically used with small contacts such as used in relays or electronic devices.

HERMETICALLY SEALED

A common type of hermetically sealed equipment is a contact block or reed switch. In this method, the arcing components of the switch are encased in a glass tube. The connecting wires are fused to the glass sealing the unit to prevent any ingress of flammable gases. Hermetically sealed equipment is suitable for Division 2 or Zone 2 only.

INCREASED SAFETY - TYPE OF PROTECTION "Ex e" (Also "Ex eb" and "Ex ec" will eventually replace "Ex nA")

This protection system is for equipment that, under normal operating conditions, does not produce ignition-capable arcs or sparks or high temperatures. It provides special increased spacing between live parts and live parts of opposite polarity or grounded metal parts. Special insulating materials are used to reduce the likelihood of arc tracking along with special terminals to reduce the likelihood of high temperatures caused by loose connections and temperature control on heat producing equipment. It is commonly used for protection of squirrel cage motors, terminal and connection boxes (junction boxes), and terminal boxes of flameproof equipment where the arcing contacts are in a separate enclosure connected to the increased safety enclosure by special factory sealed fittings.

INTRINSICALLY SAFE OR INTRINSIC SAFETY (IS) EQUIPMENT-TYPES OF PROTECTION "i", "Ex ia" and "Ex ib" (Also "Ex ic")

With the adoption of the IEC Standard, North America now identifies three versions of this protection method. Types "i" and "ia" are virtually identical as it was originally based on the IEC Standard. In Zone 0 the only

acceptable type of equipment is types "i" and "ia". Type "Ex ib" is acceptable in Zone 1 and the recently introduced "Ex ic" is acceptable for Division/Zone 2 locations.

The intent of IS equipment is to limit the energy within the entire circuit to a level below that which could ignite the surrounding atmosphere. For testing purposes the most easily ignited gas mixture is used. The common protective device used in the circuit is a IS Barrier device (often called a Zener Diode Barrier although other barriers are available). While this type of device controls the energy going to a circuit, it does not prevent products such as capacitors, cables, etc from storing energy which could increase beyond the maximum permitted in the complete system. Therefore Intrinsic Safety is a "system approach" and that no single device provides total protection.

NON-SPARKING - TYPE OF PROTECTION "n X"

The ordinal concept of Type "n" was to deal with equipment suitable for use in Class I, Zone 2 or Division 2 areas only. This is changing in future versions (and North American adopted versions) of IEC 60079-15 will likely include Restricted Breathing ("Ex nR") only.

Symbol Ex n X Protection

- R Restricted breathing enclosure
- L Energy limitation devices (non-incendive)
- P Enclosure with simplified pressurization

NON-INCENDIVE EQUIPMENT

Non-Incendive is similar to Intrinsic Safety in that it considers spark energy. It is intended for Class I, Division/Zone 2 locations. It also considers contacts for making or breaking an incendive circuit where the contact mechanism is constructed so that the component is incapable of igniting the specified flammable gas or vapour-air mixture. The housing of a non-incendive component is not intended to exclude the flammable atmosphere or contain an explosion.

OIL IMMERSION - TYPE OF PROTECTION "Ex o" (Also "Ex ob" and "Ex oc")

Oil immersion is similar to powder filling in that it excludes the outer atmosphere from coming in contact with the arcing, sparking or heat producing parts of the apparatus. In the past, large transformers or circuit breakers used this technique. Its use today is limited.

PURGED AND PRESSURIZED - TYPE OF PROTECTION "p"

(Also "Ex p", "Ex px", "Ex pxb", "Ex py", "Ex pyb", "Ex pz" or "Ex pzc")

This type of protection prevents the surrounding atmosphere from entering an enclosure by maintaining a positive pressure within the unit. Clean air or inert gas is used to maintain a higher pressure than the surrounding atmosphere. In purging, the electrical equipment is interlocked with a system which cycles clean air within the unit to remove explosive gases prior to start up.

The IEC Standard has become quite complicated and has multiple levels of protection identified.

There is also an NFPA Standard used for the Division system and Zone 2.

NFPA 496 Identifies three types of pressurization as follows:

TYPE	EXPLANATION
X	Changes the area within the unit from Class I, Division 1 to non- hazardous
Y	Changes the area within the unit from Class I, Division 1 to Class I, Division 2
Z	Changes the area within the unit from Class I, Division 2 to non- hazardous

SAND FILLED APPARATUS TYPE OF PROTECTION "q" (Also "Ex qb" and "Ex qc")

In this type of protection, the enclosure, or electrical apparatus, is filled with a material in finely granulated quartz (or very small glass beads) to prevent any arc which may occur within the enclosure from igniting the surrounding atmosphere. The equipment can have no moving parts, which are in direct contact with the filling materials, and the enclosure must have a minimum protection of IP 54.

DUST- IGNITION-PROOF EQUIPMENT

This concept is similar to Dust-Tight however enclosures were designed to contain an internal dust explosion. Since the explosive pressures generated a dust explosion are significantly less than those generated by gases, enclosures could be made with much thinner walls. In most equipment used today, dust tight provides a more cost effective option.

DUST-TIGHT EQUIPMENT

The "Dust-Tight" method of protection removes the fuel leg of the fire triangle (by preventing dust from entering the enclosure, and the heat leg of the fire triangle, by restricting its surface temperature. This type of protection makes the equipment safe for use in Class II hazardous locations.

Dust-Tight equipment is designed to prevent combustible dust from entering apparatus and to prevent any hot particles or sparks generated within the unit from passing from to the outside of the enclosure through its joints. The objective is to prevent the ignition of combustible dust suspended in the air or the ignition of layers of dust on the equipment from being ignited by materials escaping the enclosure. This heat can, as in explosion proof apparatus, result from normal or abnormal equipment operation, or arcing ground faults.

Since the combustible materials are kept outside the unit, the enclosure is not expected to withstand an internal explosion and its physical strength needs only to be sufficient to withstand abuse. The unit must also withstand internal arcing ground faults for enough time for the circuit over-current protection to open the circuit and stop the arcing. The types of joints used in Dust-Tight products are similar to explosion-proof equipment, but the requirements are not as rigid. These joints are needed to prevent dust from entering the enclosure and hot particles from exiting under fault conditions.

Since the ignition temperature of dusts is usually lower than that of gases and vapours, the control of external surface temperatures is more rigorous in dust-tight equipment than in explosion proof equipment. Dust layers on the equipment can prevent dissipation of heat generated within the equipment and increase the surface temperature even under normal operating conditions.

EQUIPMENT DUST IGNITION PROTECTION BY ENCLOSURE “t” (Also “Ex ta”, “Ex tb” and “Ex tc”)

Much like North American dust tight requirements the objective of the IEC version is to keep dust from entering the enclosure. The testing parameters and material are different.

ENVIRONMENTAL PROTECTION

The following are environmental protection designations, which are specified in addition to electrical or hazardous location requirements. Many people refer to the NEMA (National Electrical Manufacturers Association) when requesting enclosure types, however the NEMA 250 Standard is for reference only. In North America products are tested to the harmonized with UL 50/ CSA C22.2 No. 94 standard and identified as Enclosure Type followed by the appropriate number as indicated below.

Type 1 Enclosures

Intended for indoor use primarily to provide a degree of protection against limited amounts of falling dirt.

Type 2 Enclosures

Intended for indoor use primarily to provide a degree of protection against limited amounts of falling water and dirt.

Type 3 Enclosures

Intended for outdoor use primarily to provide a degree of protection against rain, sleet, windblown dust; and damage from external ice formation

Type 3R Enclosures

Intended for outdoor use primarily to provide a degree of protection against rain, sleet; and damage from external ice formation, and must have a drain hole.

Type 3S Enclosures

Intended for outdoor use primarily to provide a degree of protection against rain, sleet, windblown dust; and to provide for operation of external mechanisms when ice laden.

Type 4 Enclosures

Intended for indoor or outdoor use primarily to provide a degree of protection against windblown dust and rain, splashing water, hose directed water; and damage from external ice formation.

Type 4X Enclosures

Intended for indoor or outdoor use primarily to provide a degree of protection against corrosion, windblown dust and rain, splashing water, hose directed water; and damage from external ice formation.

Type 5 Enclosures

Intended for indoor use primary to provide a degree of protection against settling airborne dust, falling dirt, and dripping non corrosive liquids.

Type 6 Enclosures

Intended for indoor or outdoor use primarily to provide a degree of protection against hose directed water, the entry of water during occasional temporary submersion at a limited depth; and damage from external ice formation.

Type 6P Enclosures

Intended for indoor or outdoor use primarily to provide a degree of protection against hose-directed water, the entry of water during prolonged submersion at a limited depth; and damage from external ice formation.

Type 12 Enclosures

Intended for indoor use primarily to provide a degree of protection against circulating dust, falling dirt, and dripping non-corrosive liquids.

Type 12K Enclosures

Intended knockouts are intended for indoor use primarily to provide a degree of protection against circulating dust, falling dirt, and dripping non corrosive liquids.

Type 13 Enclosures

Intended for indoor use primarily to provide a degree of protection against dust, spraying of water, oil, and non-corrosive coolant.

DEFINITIONS REFERRING TO NEMA REQUIREMENTS FOR HAZARDOUS LOCATIONS

The following NEMA type enclosures occasionally appear on specifications and product literature however, they are not included in the UL 50/CSA C22.2 No. 94 Standard. These NEMA types are specific to the US only.

NEMA 7 Enclosures

Intended for indoor use in locations classified as Class I, Groups A, B, C, or D, as defined in the NEC.

NEMA 8 Enclosures

Intended indoor or outdoor use in locations classified as Class I, Groups A, B, C, or D, as defined in the NEC.

NEMA 9 Enclosures

Intended for indoor use in locations classified as Class II, Groups E, F, and G, as defined in the NEC.

NEMA 10 Enclosures

Are constructed to meet the applicable requirements of the Mine Safety and Health Administration. (MSHA)

HAZARDOUS LOCATION DATA

COMPARISON OF SPECIFIC APPLICATIONS OF ENCLOSURES FOR INDOOR NONHAZARDOUS LOCATIONS										
PROVIDES A DEGREE OF PROTECTION AGAINST THE FOLLOWING ENVIRONMENTAL CONDITIONS	TYPE OF ENCLOSURE									
	1*	2*	4	4X	5	6	6P	12	12K	13
Incidental contact with the enclosed equipment	X	X	X	X	X	X	X	X	X	X
Falling dirt	X	X	X	X	X	X	X	X	X	X
Falling liquids and light splashing	—	X	X	X	X	X	X	X	X	X
Circulating dust, lint, fibers, and flyings**	—	—	X	X	—	X	X	X	X	X
Settling airborne dust, lint, fibers, and flyings**	—	—	X	X	X	X	X	X	X	X
Hosedown and splashing water	—	—	X	X	—	X	X	—	—	—
Oil and coolant seepage	—	—	—	—	—	—	—	X	X	X
Oil and coolant spraying and splashing	—	—	—	—	—	—	—	—	—	X
Corrosive agents	—	—	—	X	—	—	—	—	—	—
Occasional temporary submersion	—	—	—	—	—	X	X	—	—	—
Occasional prolonged submersion	—	—	—	—	—	—	—	—	—	—

* These enclosures may be ventilated. However, Type 1 may not provide protection against small particles of falling dirt when ventilation is provided in the enclosure top.

** These fibers and flyings are nonhazardous materials and are not considered as Class III type ignitable fibers or combustible flyings. For Class III type ignitable fibers or combustible flyings see the National Electrical Code®, Article 500.

COMPARISON OF SPECIFIC APPLICATIONS OF ENCLOSURES FOR OUTDOOR NONHAZARDOUS LOCATIONS							
PROVIDES A DEGREE OF PROTECTION AGAINST THE FOLLOWING ENVIRONMENTAL CONDITIONS	TYPE OF ENCLOSURE						
	3	3R***	3S	4	4X	6	6P
Incidental contact with the enclosed equipment	X	X	X	X	X	X	X
Rain, snow, sleet*	X	X	X	X	X	X	X
Sleet**	—	—	X	—	—	—	—
Windblown dust	X	—	X	X	X	X	X
Hosedown	—	—	—	X	X	X	X
Corrosive agents	—	—	—	—	X	—	X
Occasional temporary submersion	—	—	—	—	—	X	X
Occasional prolonged submersion	—	—	—	—	—	—	X

* External operating mechanisms are not required to operate when the enclosure is ice covered.

** External operating mechanisms are operable when the enclosure is ice covered.

*** These enclosures may be ventilated.

COMPARISON OF SPECIFIC APPLICATIONS OF ENCLOSURES FOR INDOOR HAZARDOUS (CLASSIFIED) LOCATIONS									
PROVIDES A DEGREE OF PROTECTION AGAINST ATMOSPHERES TYPICALLY CONTAINING HAZARDOUS GASES, VAPORS, AND DUSTS***	TYPE OF ENCLOSURE NEMA 7 & 8, CLASS I GROUPS**					TYPE OF ENCLOSURE NEMA 9 & 10, CLASS II GROUPS**			
	CLASS	A	B	C	D	E	F	G	10
Acetylene	I	X	—	—	—	—	—	—	—
Hydrogen, manufactured gases	I	—	X	—	—	—	—	—	—
Diethyl ether, ethylene, cyclopropane	I	—	—	X	—	—	—	—	—
Gasoline, hexane, butane, naphtha, propane, acetone									
Toluene, isoprene	I	—	—	—	X	—	—	—	—
Metal dusts	II	—	—	—	—	X	—	—	—
Carbon black, coal dust, coke dust	II	—	—	—	—	—	X	—	—
Flour, starch, grain dust	II	—	—	—	—	—	—	X	—
Fibers, flyings*	III	—	—	—	—	—	—	X	—
Methane with or without coal dust	MSHA	—	—	—	—	—	—	—	X

* Due to the characteristics of the gas, vapor, or dust, a product suitable for one Class or Group may not be suitable for another Class or Group unless so marked on the product.

** For Class III type ignitable fibers or combustible flyings refer to the National Electrical Code® Article 500.

*** For a complete listing of flammable liquids, gases, or vapors refer to NFPA 497 - 1997 (Recommended Practice for the Classification of Flammable Liquids, Gases, or Vapors and of Hazardous (Classified) Locations for Electrical Installations in Chemical Process Areas and NFPA 325 - 1994 (Fire Hazard Properties of Flammable Liquids, Gases, and Volatile Solids). Reference also NFPA 499 - 1997 Classifications of Combustible Dusts and of Hazardous (Classified) Locations for Electrical Installations in Chemical Process Areas.

PROTECTION CLASSES OF ENCLOSURES (IP CODE)

The IEC uses the term “Ingress Protection” to identify the environmental protection of an enclosure.

This is defined in IEC Standard 529 and is referenced by the CEC®. IP Codes are comparable to NEMA Enclosure Types.

The IP classification system designates, by means of a number, the degree of protection provided by an enclosure and the electrical equipment against physical contact, foreign bodies and water ingress.

The protection classes for electrical equipment in respect of:

- I. Protection of persons against contact with live or moving parts. (Physical contact protection)
- II. Protection against ingress of solid foreign bodies. (Foreign body protection)
- III. Protection against ingress of water. (Water protection)

Structure and use of the IP Code:

- I. If a code digit does not have to be given it should be replaced with the letter “X”.
- II. Additional and/or supplementary letters may be omitted without substitute letters.
- III. If more than one supplementary letter is required, alphabetical order should be followed.

The numbering system and degree of protection follows:

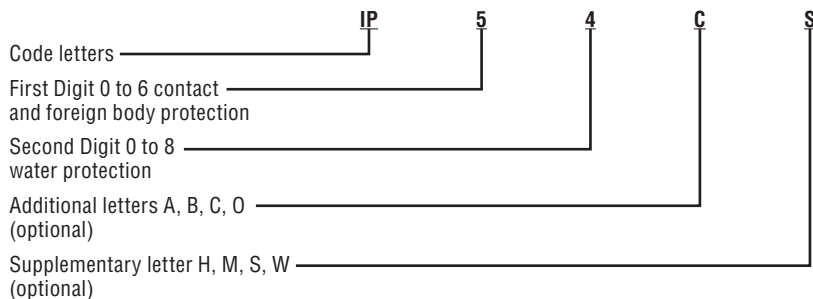
The additional (optional) letter concerns protection of persons and refers to information about protection against access to dangerous parts by:

- | | |
|---------------------|----------|
| I. Back of the hand | letter A |
| II. Finger | letter B |
| III. Tool | letter C |
| IV. Wire | letter O |

The supplemental (optional) letter concerns protection of the equipment and provides supplementary information specially for:

- | | |
|---------------------------------------|----------|
| I. High voltage equipment | letter H |
| II. Water-proofing during operation | letter M |
| III. Water-proofing during standstill | letter S |
| IV. Weather conditions | letter W |

IP Code: Numbering System



DIGIT	FIRST DIGIT PHYSICAL PROTECTION	FOREIGN BODY PROTECTION	SECOND DIGIT WATER PROTECTION
0	Non-protected	Non-protected	Non-protected
1	Protection against back of hand contact.	Protected against solid objects greater than 50 mm (1.97 in.).	Protected against water dripping vertically.
2	Protection against finger contact.	Protected against solid objects greater than 12 mm (0.47 in.).	Protected against vertically dripping water when tilted up to 15 degrees.
3	Protection against contact from a wire or tools.	Protected against solid objects greater than 2.5 mm (0.098 in.).	Protected against spraying water at an angle up to 60° degrees from the vertical.
4	Protection against contact with a wire or strip of thickness greater than 1.0 mm (0.039 in.).	Protected against solid objects greater than 1.0 mm (0.039 in.).	Protected from splashing water from any direction.
5	Protection against contact with a wire.	Dust-protected prevents ingress of dust in sufficient quantity to interfere with operation of equipment.	Protected against water jets from any direction.
6	Protected against contact with a wire.	Dust-tight no dust ingress.	Protected against heavy seas or powerful jets of water and prevents ingress sufficient to cause harm.
7			Protected against the effects of immersion between a depth of 150 mm to 1 meter.
8			Protected against submersion, suitable for continuous immersion in water under conditions specified by the manufacture.

Refer to IEC Standards Publication 529 (Classification of Degrees of Protection Provided by Enclosures) for complete descriptions and test requirements.

NEMA ENCLOSURE TYPES VS. IEC CLASSIFICATION DESIGNATION	
NEMA ENCLOSURE TYPE NUMBER	IEC ENCLOSURE CLASSIFICATION
1	IP 23
2	IP 30
3	IP 64
3R	IP 32
3S	IP 54
4 and 4X	IP 66
5	IP 52
6 and 6P	IP 67
12 and 12K	IP 55
13	IP 65

Marking

Typical North American marking

- | | |
|--|---------------------------|
| Class I, Divisions 1 & 2 | Groups A, B, C, and D, T6 |
| Class I, Zones 1 & 2 | Groups IIC, IIB, IIA, T6 |
| Class II, Divisions 1 & 2 | Groups E, F, and G |
| Class III | |
| NEMA 3, 4, 4X | |
| United States “AEx” marking requires Class and Zone suitability (Class I, Zone 1, AEx e IIC T5) | |

EQUIPMENT CERTIFICATION

In most cases, equipment for use in hazardous locations must be certified to an appropriate National Standard and marked as such by an accredited third party testing organization. Follow-up inspection to ensure conformance is usually part of the program. Products may carry multiple markings for multiple countries. The specific requirements for product certification vary from country to country.

United States and Canada

While CSA, FM and UL are similar in there are a number of differences in specific product standards that still exist. Acceptance is up to the "Authority Having Jurisdiction" (AHJ) responsible for electrical installations in a specific location. Product certification can be obtained by a Nationally Recognized Testing Laboratory (NRTL) approved by the Occupational Health and Safety Administration (OSHA) in the US or the Standards Council of Canada (SCC) in Canada. Most NRTLs issue component listing of products which means that selected products may be offered in modular form, which the customer may assemble without affecting the listing.

IECEX Scheme.

The IECEX Scheme is a global conformity assessment program administered by the International Electrotechnical Commission (IEC). The objective of the IECEX System is to facilitate international trade in equipment and services for use in explosive atmospheres, while maintaining the required level of safety. This certification scheme is based upon IEC TC 31 Standards as the basis for participating countries' certification of electrical equipment for hazardous locations.

The intent of IECEX Scheme is that certificates for product testing issued by one member certification body are transferable to another member a certification body. This reduces testing and certification costs and

time to market. An IECEx certificate alone is not acceptable to most countries and other requirements apply. For Example; In North America products must also meet ordinary location product standard requirements however and IECEx certificate can be used to prove compliance of the hazardous location requirements.

Presently the US Coast Guard (USCG), Australia, New Zealand and Singapore permit an IECEx Certificate of Compliance to be used without further investigation..

ATEX

ATEX – comes from the French for "ATmosphères EXplosibles" it identifies Equipment and Protective systems intended for use in Potentially Explosive Atmospheres and confirms that products meet the Applicable Essential Health and Safety Requirements (EHSR) of the European Economic Area (EEA). The EEA includes the European Union (EU), the European Free Trade Association (EFTA), Switzerland and Turkey.

ATEX is not actually a certification system since conformity assessment principles are not consistently applied and it does not require compliance to specific any standards. The primary objective of ATEX is not about safety, it is about removing barriers to trade within the (EEA). In fact, it creates minor trade barriers with the rest of the world. ATEX defines minimum requirements for equipment and avoids safety issues becoming barriers to trade. Much or an ATEX listing is self declared by the manufacturer following certain minimal requirements.

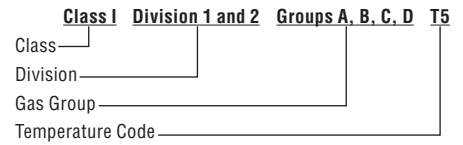
The USCG specifically has banned vessels with equipment certified to ATEX only from operating in US waters.

US (NEC 500) Marking for Division Equipment

The basic marking for Division product is as follows. Abbreviations may be used for example "Div" or "D" instead of the whole word "Division". Products marked as Class I only are taken to be suitable for both Division 1 and 2.

EXPANDED MARKINGS

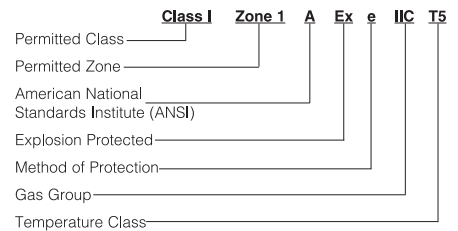
US. (NEC 500)



US (NEC 500) Marking for Zone Equipment

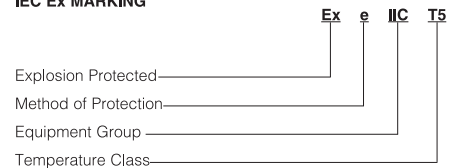
The "Ex" type(s) of protection used in the product must proceeded with the letter "A" or "AEx" to indicate the certification is to US Standards.

U. S. (NEC 505)



IECEX Marking

IEC Ex MARKING



EQUIPMENT CERTIFICATION

Equipment certified by the various test authorities may require additional marking information such as the symbol or name of the test authority, certificate number, year of issue, etc. European countries issue certificates of conformity, and these certificates will include special instructions on the installation, including installation limitations.

With the advent of free trade, the Standards Council of Canada (SCC) and OSHA have accredited a number of nationally recognized testing laboratories (NRTL) to certify equipment to each others' National Standards.

USA

Multiple agencies issue product standards

- OSHA accredits testing agencies (Listing to ANSI Standards)
- Specific, multiple or no marking may be acceptable to, or required by regulatory agencies.
- If approved by the authority having jurisdiction over electrical installations in a specific area agrees, self-certification by a manufacturer is permitted.

Canada

The SCC is responsible for approving standards development organizations (SDO) to write electrical standards. Until recently, only the Canadian Standards Association (CSA) was approved. More recently, the SCC has approved Underwriters Laboratories Inc. (UL) as an SDO for Canadian Standards. In the case of UL no duplication of standard is permitted.

- Standards Council of Canada accredits testing agencies (Listing to CSA Standards)
- Specific marking required for approval by regulatory agencies.

European Union (EU)

GENELEC is the European Committee for Electrotechnical Standardization and is responsible for standardization in the electrotechnical engineering field. CENELEC prepares voluntary standards, which help facilitate trade between member countries, create new markets, cut compliance costs and support the development of a Single European Market. The Standards developed by CENELEC are called Euro Norms (EN) Standards are harmonized with IEC Standards through parallel voting.

Products designed for use in explosive

atmospheres must meet the essential health and safety requirements (EHSR) of the applicable EU 94/9/EC "Equipment" Directive. The objective of Directive 94/9/EC is to ensure free movement for the products to which it applies in the EU territory.

For approval purposes equipment intended for use in Category 1 (Zone 0) and Category 2 (Zone 1) locations require the involvement of a Notified Body (NB). For Category 3 equipment, the NB can issue a voluntary certificate. A Notified Body is a "third party" body "notified" to the European Commission by a National Government to perform specific actions in relation to a directive. Currently there is no requirement for them to prove their competency. In a new directive, ATEX 2014/34/EU NBs will need to be properly assessed.

The NB prepares a technical file which allows the manufacturer to issue an ATEX Declaration of Conformity (DoC). This DoC is the responsibility of the manufacturer to maintain. The DoC is commonly referred to as an ATEX Certificate.

ATEX Certificates are used throughout the European Economic Area (EEA) which includes the European Union (EU), the European Free Trade Association (EFTA), Switzerland and Turkey

IECEX

The IECEx Conformity Assessment Scheme allows testing to IEC Standards both electrical and non-electrical that deal with equipment for explosive atmospheres. IECEx identifies Certification Bodies (CB) and Test Laboratories (ExTL) in member countries and closely monitors them. Unlike the NBs of the EU, each CB and ExTL undergoes regular peer assessment to confirm they are competent to perform their function. (CBs can also be a ExTLs). The ExTL issues a Technical Report (TR) which is used by the CB to issue a Certificate of Compliance (CoC) for a product. Self certification by the manufacturer is not permitted under IECEx rules.

Valid TRs can be used as proof of compliance to all other IECEx CBs which can eliminate the need for retesting of the explosion protection compliance in another IECEx member country. For example, North America is an IECEx member and adopts IEC Standards dealing with explosive atmospheres. While they may impose some minor deviations to the IEC Standard in their adoption process, the standards are technically identical. Both the US and Canada require that all electrical products meet the ordinary location standards related

to shock and fire safety. Products can be tested to the ordinary location standards and the IECEx CoC and TR can be used to prove compliance with the requirements for explosive atmospheres.

Currently the US Coast Guard, Australia, New Zealand and Singapore are the only jurisdictions that permit IECEx products to be used without further investigation.

UNITED STATES ACCEPTABLE CERTIFICATION MARKS

The following are some of the certification marks permitted by OSHA for certain types of equipment for Hazardous (Classified) Locations. Final acceptance of a certification mark is up to the individual AHJs. With the exception of UL, all these agencies have one level of listing refer to as either "certified" or "approved". These terms mean the same type of approval.

Canadian Standards Association (CSA)



FM Approvals LLC (FM)



Intertek Testing Services NA, Inc. (ITSNA)



MET Laboratories, Inc. (MET)



QPS Evaluation Services Inc.



SGS North America, Inc. (IS & non-incendive only)



Underwriters Laboratories Inc. (UL)



UL is the leading certification body in the US. Unlike the other NRTLs, UL has three levels of certification as follows:



Listed means the same as certified or approved. This means a product has been fully investigated to a specific set of construction standards. In hazardous locations, Zone type products must be specifically "Listed" for the location.



Classified products are different than listed products. Products carrying this mark have been evaluated for specific properties. Although UL has a Canadian mark, CSA has no equivalent certification process.

CERTIFICATION MARKINGS

UL® UL's Component Recognition Service covers the testing and evaluation of component products that are incomplete or restricted in performance capabilities. These components will later be used in complete products or systems approved by UL. UL's Component Recognition Service covers components, such as plastics, wire and printed wiring boards that may be used in very specific, or a broad spectrum of end-products, or components such as motors or power supplies. These components are not intended for separate installation in the field, they are intended for use as components of complete equipment submitted for investigation to UL.

CANADA ACCEPTABLE CERTIFICATION MARKS

Standards Council of Canada has accredited multiple NRTLs to approve product for use in Canada

- Canadian Standards Association (CSA) 
- ESA Field Evaluation (ESAFE) 
- FM Approvals LLC (FM) 
- Intertek Testing Services NA, Inc. (ITSNA) 
- LabTest Certification Inc. 
- MET Laboratories, Inc. (MET) 
- QPS Evaluation Services Inc. 
- SGS North America, Inc. (IS & non-incendive only) 
- Underwriters Laboratories of Canada 
- Underwriters Laboratories Inc. (UL) 

COMBINATION US AND CANADIAN ACCEPTABLE CERTIFICATION MARKS

The use of dual marking for the US and Canada can be confusing to users. Typically marks contain the letters "US" in the four o'clock position and "C" in the eight o'clock position as identifiers although the positioning of these letters is up to the specific NRTL.



EUROPEAN ECONOMIC AREA (EEA) REQUIRED CERTIFICATION MARKS

This includes the European Union (EU), the European Free Trade Association (EFTA), Switzerland and Turkey

CE The CE mark indicates a specific product complies with the applicable European Union (EU) directives that apply to it. Directives for a particular type of product such as electromagnetic compatibility (EMC) or electromagnetic interference (EMI). This mark is self declared by the manufacturer.

Ex The "Hex EX" mark identifies products which are approved to the ATEX Directive. The Ex symbol is accompanied by the name of the testing agency and a report number. All hazardous location products used in the EU must have the Ex mark along with CE and ATEX markings

OTHER COUNTRY SPECIFIC CERTIFICATION REQUIREMENTS

Many other countries have specific requirements for approval to be used in their country. In some cases this is merely an administration procedure, in others additional requirements must be met.

For example,

- Brazil requires Inmetro approval.
- The Russian Federation, Belarus, Kazakhstan, Armenia and Kyrgyzstan recently replaced Gost-R requirement with the need for a Customs Union TR approval.
- India has a combination of the PESO (Petroleum and Explosives Safety Organization) and DGMS (Director General of Mines Safety) approvals to import product

Killark can assist customers in better understanding the global requirements for product certification. Killark offers products that meet most Global requirements

The designs of Killark products are original and proprietary and in many instances are covered by patents.

Killark products are designed to be installed as governed by the National Electric Code. The products are designed to conform with suitable Third Party Certifier standards where such standards exist. Most Killark standard cataloged products are covered by third party certification reports and inspection procedures. These certifications are a matter of record and are indicated by the product identification marking and the certifiers logo. Generally, the marking is required on the product itself, however, under certain circumstances, the marking may be applied to the carton only.

In general, products are Third Party Certified as complete assemblies, however, exceptions do exist. One such exception would be separate shipment of control station cover assemblies and the splice boxes. In some instances, components may be covered (i.e., UL Recognized) for use in other equipment which will be submitted for certification of the complete assembly. The nature of the agreements with Third Party Certifiers requires that product deviations from the originally submitted design be resubmitted for evaluation prior to application of the logo. It is not uncommon for re-submittals to take a substantial length of time.

Generally, Killark's standard cataloged products are covered by one or more of the following Third Party certifiers: Underwriters Laboratories Inc., Factory Mutual Research Corporation, Canadian Standards Association, CENELEC, BASEEFA and PTB. Products covered are indicated by the Third Party Certifiers logo and file number on the individual catalog pages. There may be instances where not all products on a particular page containing a logo are listed. When certification information is required, consult the factory or refer to the appropriate certifier for listings.



KILLARK®

Registered Logotype and Trademark of: Killark
A Division of Hubbell Incorporated (Delaware)
St. Louis, MO USA
Manufacturer of Electrical Products for Hazardous and Non-Hazardous Locations: Fittings, Enclosures, Distribution Equipment, Plugs and Receptacles, Controls and Lighting Fixtures.

K-PAK®

Is a registered trademark identifying Killark Shelf packaging.

CorroSAFE® Electrical Conduit Fittings

CorroSAFE is a trademark identifying a protective coating.

DURALOY® Electrical Conduit Fittings

DURALOY is a trademark identifying a Tri-Coat protective finish used on Iron Electrical Conduit Fittings.

CLENGHER® Cable Connectors

CLENGHER is a registered trademark identifying Killark Cable Connectors.



Z-SERIES® Cord and Cable Connectors

Z-SERIES is a trademark identifying Killark Cord and Cable Connectors.

SEAL-X® Control Stations

SEAL-X is a registered trademark identifying Killark Factory Sealed Control Stations.

QUANTUM® Enclosures for Hazardous & Hostile Locations

QUANTUM is a registered trademark identifying Killark Electrical Junction Boxes and Enclosures.

PRISM® Enclosures

PRISM is a registered trademark identifying Killark Enclosures, Motor Controls, Disconnect Switches and Panelboards.

ACCEPTOR® Plugs and Receptacles

ACCEPTOR is a registered trademark identifying Killark interchangeable Plug and Receptacle System.

VersaMATE® Plugs & Receptacles

VersaMATE is a registered trademark identifying Killark Pin & Sleeve Plugs and Receptacles.

CERTILITE® Lighting

CERTILITE is a registered trademark identifying Killark Luminaires.

ENVIORITE® Lighting

ENVIORITE is a registered trademark identifying Killark Luminaires.

HOSTILELITE® Lighting

HOSTILELITE is a registered trademark identifying Killark Luminaires.

MARI-GARD® Lighting

MARI-GARD is a trademark identifying Killark Stainless Steel Floodlights.

LINEARLITE® * Lighting

LINEARLITE is a trademark identifying Killark Fluorescent Luminaires.

LINEARLITE® * E EMERGENCY

LINEARLITE E is a trademark identifying Killark Emergency Fluorescent Luminaires.

TECHNETERM® Terminal Enclosures

TECHNETERM is a registered trademark identifying Killark Increased Safety Terminal Enclosures.

SEAL-XM™ Factory Sealed Control Stations

SEAL-XM is a registered trademark identifying Killark Control Stations.

HAZCON™ Controls

HAZCON is a trademark identifying Killark Factory Sealed Control Stations.

HP20®

HP20 is a trademark identifying RigPower connectors.

MCC-1®

MCC-1 is a trademark identifying RigPower connectors.

RMP® II

RMP is a trademark identifying RigPower connectors.

Secure Mount®

Secure Mount is a trademark identifying RigPower connectors.

StrateLine™

StrateLine is a trademark identifying Vantage connectors.

Vantage® Technology Connectors

Vantage Technology is a trademark identifying Vantage Connectors



CONTROLS

CONTROLS INDEX



HAZCON Series
 HKH Non-Metallic Control Stations2-14
 Rocker Switch 15
 HKH Stainless Steel Control Stations.. 16-29
 HKH Actuators & Accessories 30-37
 Catalog Number Logic 38



SEAL-XM Series
 Factory Sealed Controls.....39-43



FXCS Series
 Factory Sealed Control Stations44-49



FXB Series
 Splice Boxes, Blank Cover, Spacer 45



FXCS Series
 Factory Sealed Cover Assemblies.....46-49



XCS/XS/XST/SWB Series
 Control Stations
 External Sealing Required.....50-57



SWB Series
 Device Boxes.....51



SWB Series
 Conduit Opening Data52



XCS Series
 Cover Assemblies Control Stations53-57



XCS Series
 Blank Covers 58



FXCS/XCS Series
 Accessories, Replacement Parts58-59



XS/XST Series
 Tumbler Switch 60



XAL/XAS Series
 Fire Alarm Stations61



G Series
 Custom Control Panel Operators
 Push Buttons, Pilot Lights,
 Selector Switches62-67



G Series
 Specialty Operators..... 68



G Series
 Operator Bodies 69



G Series
 Accessories/Replacement Parts..... 70-71



G Series
 Operator Ordering System
 and Symbols 72-73

G Series
 Dimensions74



NON-METALLIC DIN RAIL MOUNT



Applications

- Hazardous and corrosive environments due to the presence of flammable gases or vapors, combustible dusts or ignitable fiber or flyings.
- Installations at petroleum refineries, chemical and petrochemical plants and other processing or storage facilities where similar hazards exist.
- Use in conjunction with motor starters or contactors for remote control of motors.

Materials

- Impact Resistant Non-Metallic PA6 Glass Reinforced Antistatic Material with f1 UV Protection against the most severe exposure to sunlight with a Flame Retardant rating of V-0.
- Silicone gasketing on all enclosures and operators throughout.
- Brass gland plates available for metric size applications of plastic enclosures.

Features

- Size 1 Control Stations available as 1a, 1b, & 1c as standard catalog number offerings for 1, 2 & 3 device openings and will accept 2-M20 entries in either end. Ammeters available in 1b & 1c. Size 2 Enclosures available as 2a & 2c for 2, 4 & 6 device entries in cover with ability to accept 2-M25 entries in either end.
- Operating Temperature of -50°C to +60°C
- Explosion Protected contact blocks 690VAC N.O. & N.C. capable of 20 Amps for Switching Duty and HP Ratings up to 1HP.
- LED Pilot Light modules for 12-250V AC/DC for UL applications. 12-254V AC/DC for IEC applications.
- Contacts & Pilot lights can be mounted inside enclosure on Din Rail or in cover to the actuator.
- Accessories available for Lockout/Tag Out functions made in 316 stainless steel.

Complies with RoHS, WEEE, ATEX, EMC and Low Voltage directives.



TR RU C-US.M1062.B.04167



NON-METALLIC PANEL MOUNT

**Applications**

- Hazardous and corrosive environments due to the presence of flammable gases or vapors, combustible dusts or ignitable fiber or flyings.
- Installations at petroleum refineries, chemical and petrochemical plants and other processing or storage facilities where similar hazards exist.
- Use in conjunction with motor starters or contactors for remote control of motors.

Materials

- Impact Resistant Non-Metallic PA6 Glass Reinforced Antistatic Material with f1 UV Protection against the most severe exposure to sunlight with a Flame Retardant rating of V-0.
- Silicone gasketing on all enclosures and operators throughout.
- Brass gland plates available for metric size applications of plastic enclosures.

Features

- Size 1 Control Stations available as 1a, 1b, & 1c as standard catalog number offerings for 1, 2 & 3 device openings and will accept 2-M20 entries in either end. Ammeters available in 1b & 1c. Size 2 Enclosures available as 2a & 2c for 2, 4 & 6 device entries in cover with ability to accept 2-M25 entries in either end.
- Operating Temperature of -50°C to +60°C
- Explosion Protected contact blocks 690VAC N.O. & N.C. capable of 20 Amps for Switching Duty and HP Ratings up to 1HP.
- LED Pilot Light modules for 12-250V AC/DC for UL applications. 12-254V AC/DC for IEC applications.
- Contacts & Pilot lights can be mounted inside enclosure on Din Rail or in cover to the actuator.
- Accessories available for Lockout/Tag Out functions made in 316 stainless steel.

Complies with RoHS, WEEE, ATEX, EMC and Low Voltage directives.



IEX 16.0079 INMETRO



TR RU C-US.MI062.B.04167



STANDARD SIZE 1a NON-METALLIC CONFIGURATIONS



Momentary Push Button



Momentary & Maintained Mushroom P.B.



Pilot Light

ATEX/IECEX Certified

CE 0518 II 2 G Ex de IIC T6...T4 Gb
 0518 II 2 D Ex tb IIIC T6...T4 Db IP66
DEMKO 15 ATEX 1405X
 Ex de IIC T6...T4 Gb
 Ex tb IIIC T85°C...T135°C Db IP66
IECEX UL 15.0054X
 Ambient Range: -50°C ≤ Ta ≤ 60°C

cULus Certified

Class I, Zone 1, AEx de IIC T6...T4 Gb / Ex de IIC T6...T4 Gb X
 Zone 21, AEx tb IIIC T85°C...T135°C Db IP66 / Ex tb IIIC T85°C...T135°C Db IP66 X
 Class I, Division 2, Groups A, B, C, D
 Class II, Division 1, Groups E, F, G (Canada Only)
 Class II, Division 2, Groups E, F, G
 Class III
UL50, 50E, 508, UL60079-0, -1, -7, -31
 Type 3, 4, 4X, 12, 13
 Ambient Range: -50°C ≤ Ta ≤ 60°C



FEATURES-SPECIFICATIONS

HAZCON™

The control stations on this page are the most commonly used configurations of pilot lights and push buttons.

One entry listed is located at bottom.

HKH MOMENTARY SINGLE PUSH BUTTON							
CATALOG NUMBER		ENTRY SIZE	CONTACT ARRANGEMENT		CONTACT BLOCKS	BUTTON COLOR	LEGEND PLATE MARKING
DIN RAIL MOUNT	PANEL MOUNT		IEC	NEMA			
HKH1AND2P11K8	HKH1ANP2P11K8	3/4" NPT SS HUB			1 N.O. / 1 N.C.	GREEN: START/(I)/BLANK RED: STOP/(O)/BLANK BLACK: BLANK	NONE
HKH1ANDAP11	HKH1ANPAP11	M20 CLEARANCE HOLE					
SUPPLIED WITH 7 COLORED AND MARKED DISCS – SEE BUTTON COLOR							

HKH MOMENTARY SINGLE PUSH BUTTON - MUSHROOM							
CATALOG NUMBER		ENTRY SIZE	CONTACT ARRANGEMENT		CONTACT BLOCKS	BUTTON COLOR	LEGEND PLATE MARKING
DIN RAIL MOUNT	PANEL MOUNT		IEC	NEMA			
HKH1AND2M11BK8	HKH1ANP2M11BK8	3/4" NPT SS HUB			1 N.O. / 1 N.C.	RED	STOP
HKH1AND2M21AK8	HKH1ANP2M21AK8					GREEN	START
HKH1AND2M31OK8	HKH1ANP2M31OK8					BLACK	BLANK
HKH1ANDAM11B	HKH1ANPAM11B	M20 CLEARANCE HOLE			1 N.O. / 1 N.C.	RED	STOP
HKH1ANDAM21A	HKH1ANPAM21A					GREEN	START
HKH1ANDAM310	HKH1ANPAM310					BLACK	BLANK

HKH MAINTAINED SINGLE PUSH PULL BUTTON - MUSHROOM							
CATALOG NUMBER		ENTRY SIZE	CONTACT ARRANGEMENT		CONTACT BLOCKS	BUTTON COLOR	LEGEND PLATE MARKING
DIN RAIL MOUNT	PANEL MOUNT		IEC	NEMA			
HKH1AND2M41BK8	HKH1ANP2M41BK8	3/4" NPT SS HUB			1 N.O. / 1 N.C.	RED	STOP
HKH1AND2M51AK8	HKH1ANP2M51AK8					GREEN	START
HKH1AND2M61OK8	HKH1ANP2M61OK8					BLACK	BLANK
HKH1ANDAM41B	HKH1ANPAM41B	M20 CLEARANCE HOLE			1 N.O. / 1 N.C.	RED	STOP
HKH1ANDAM51A	HKH1ANPAM51A					GREEN	START
HKH1ANDAM610	HKH1ANPAM610					BLACK	BLANK

HKH SINGLE PILOT LIGHT								
3/4" NPT SS HUB SUPPLIED		M20 CLEARANCE HOLE SUPPLIED		CONTACT ARRANGEMENT		LAMP VOLTAGE	COLOR	LEGEND PLATE MARKING
DIN RAIL MOUNT	PANEL MOUNT	DIN RAIL MOUNT	PANEL MOUNT	IEC	NEMA			
HKH1AND2LRL0K8	HKH1ANP2LRL0K8	HKH1ANDALRLO	HKH1ANPALRLO			12V-254V AC/DC IEC EX 12V-250V AC/DC UL	RED LED	BLANK
HKH1AND2LGL0K8	HKH1ANP2LGL0K8	HKH1ANDALGLO	HKH1ANPALGLO				GREEN LED	
HKH1AND2LAL0K8	HKH1ANP2LAL0K8	HKH1ANDALALO	HKH1ANPALALO				AMBER LED	
HKH1AND2LCL0K8	HKH1ANP2LCL0K8	HKH1ANDALCLO	HKH1ANPALCLO				CLEAR LED	
HKH1AND2LBL0K8	HKH1ANP2LBL0K8	HKH1ANDALBLO	HKH1ANPALBLO				BLUE LED	



STANDARD SIZE 1a NON-METALLIC CONFIGURATIONS



Maintained Mushroom P.B.
Pull Release



Maintained Mushroom P.B.
Twist Release



Double Momentary Push Button

ATEX/IECEX Certified

CE 0518 Ex II 2 G Ex de IIC T6...T4 Gb
0518 Ex II 2 D Ex tb IIIC T6...T4 Db IP66
DEMKO 15 ATEX 1405X
Ex de IIC T6...T4 Gb
Ex tb IIIC T85°C...T135°C Db IP66
IECEX UL 15.0054X
Ambient Range: -50°C ≤ Ta ≤ 60°C

cULus Certified

Class I, Zone 1, AEx de IIC T6...T4 Gb / Ex de IIC T6...T4 Gb X
Zone 21, AEx tb IIIC T85°C...T135°C Db IP66 / Ex tb IIIC T85°C...T135°C Db IP66 X
Class I, Division 2, Groups A, B, C, D
Class II, Division 1, Groups E, F, G (Canada Only)
Class II, Division 2, Groups E, F, G
Class III
UL50, 50E, 508, UL60079-0, -1, -7, -31
Type 3, 4, 4X, 12, 13
Ambient Range: -50°C ≤ Ta ≤ 60°C



FEATURES-SPECIFICATIONS

HAZCON™

The control stations on this page are the most commonly used configurations of mushroom push buttons and double push button.

One entry listed is located at bottom.

HKH MAINTAINED MUSHROOM STAY PUT E-STOP							
CATALOG NUMBER		ENTRY SIZE	CONTACT ARRANGEMENT		CONTACT BLOCKS	BUTTON COLOR	LEGEND PLATE MARKING
DIN RAIL MOUNT	PANEL MOUNT		IEC	NEMA			
HKH1AND2M41EK8 (PULL RELEASE)	HKH1ANP2M41EK8 (PULL RELEASE)	3/4" NPT SS HUB			1 N.O. / 1 N.C.	RED	EMERGENCY STOP
HKH1AND2M71EK8 (TWIST RELEASE)	HKH1ANP2M71EK8 (TWIST RELEASE)						
HKH1ANDAM41E (PULL RELEASE)	HKH1ANPAM41E (PULL RELEASE)	M20 CLEARANCE HOLE			1 N.O. / 1 N.C.	RED	EMERGENCY STOP
HKH1ANDAM71E (TWIST RELEASE)	HKH1ANPAM71E (TWIST RELEASE)						

HKH DOUBLE MOMENTARY PUSH BUTTON, 1 N.O. START/1 N.C. STOP							
CATALOG NUMBER		ENTRY SIZE	CONTACT ARRANGEMENT		CONTACT BLOCKS	BUTTON COLOR	LEGEND PLATE MARKING
DIN RAIL MOUNT	PANEL MOUNT		IEC	NEMA			
HKH1AND2P21K8	HKH1ANP2P21K8	3/4" NPT SS HUB			1 N.O. / 1 N.C.	GREEN: START/(I)/BLANK RED: STOP/(O)/BLANK BLACK: BLANK	—
HKH1ANDAP21	HKH1ANPAP21	M20 CLEARANCE HOLE					



HKH SERIES

KILLARK

STANDARD SIZE 1a NON-METALLIC CONFIGURATIONS



2 Position
Selector Switch Maint. & Mom.



3 Position
Selector Switch Maint. & Mom.

ATEX/IECEx Certified

CE 0518 Ex II 2 G Ex de IIC T6...T4 Gb
 CE 0518 Ex II 2 D Ex tb IIIC T6...T4 Db IP66
DEMKO 15 ATEX 1405X
 Ex de IIC T6...T4 Gb
 Ex tb IIIC T85°C...T135°C Db IP66
IECEx UL 15.0054X
 Ambient Range: -50°C ≤ Ta ≤ 60°C

cULus Certified

Class I, Zone 1, AEx de IIC T6...T4 Gb / Ex de IIC T6...T4 Gb X
 Zone 21, AEx tb IIIC T85°C...T135°C Db IP66 / Ex tb IIIC T85°C...T135°C Db IP66 X
 Class I, Division 2, Groups A, B, C, D
 Class II, Division 1, Groups E, F, G (Canada Only)
 Class II, Division 2, Groups E, F, G
 Class III
UL50, 50E, 508, UL60079-0, -1, -7, -31
 Type 3, 4, 4X, 12, 13
 Ambient Range: -50°C ≤ Ta ≤ 60°C



FEATURES-SPECIFICATIONS

HAZCON™

The control stations on this page are the most commonly used configurations of rotary selector switches.

One entry listed is located at bottom.

HKH MAINTAINED 2-POSITION SELECTOR SWITCH						
CATALOG NUMBER		ENTRY SIZE	CONTACT ARRANGEMENT		CONTACT BLOCKS	LEGEND PLATE MARKING
DIN RAIL MOUNT	PANEL MOUNT		IEC	NEMA		
HKH1AND2S11SK8	HKH1ANP2S11SK8	3/4" NPT SS HUB			1 N.C. / 1 N.O.	OFF-ON
HKH1ANDAS11S	HKH1ANPAS11S	M20 CLEARANCE HOLE				
HKH 2-POSITION SELECTOR SWITCH SPRING RETURN, MOM. RIGHT, MAINT. LEFT						
CATALOG NUMBER		ENTRY SIZE	CONTACT ARRANGEMENT		CONTACT BLOCKS	LEGEND PLATE MARKING
DIN RAIL MOUNT	PANEL MOUNT		IEC	NEMA		
HKH1AND2S210K8	HKH1ANP2S210K8	3/4" NPT SS HUB			1 N.C. / 1 N.O.	BLANK
HKH1ANDAS210	HKH1ANPAS210	M20 CLEARANCE HOLE				
HKH MAINTAINED 3-POSITION SELECTOR SWITCH INDEPENDENT CAM						
CATALOG NUMBER		ENTRY SIZE	CONTACT ARRANGEMENT		CONTACT BLOCKS	LEGEND PLATE MARKING
DIN RAIL MOUNT	PANEL MOUNT		IEC	NEMA		
HKH1AND2S349K8	HKH1ANP2S349K8	3/4" NPT SS HUB			2 N.O.	HAND-OFF-AUTO
HKH1ANDAS349	HKH1ANPAS349	M20 CLEARANCE HOLE				
HKH 3-POSITION SELECTOR SWITCH SPRING RETURN, MOM. LEFT & RIGHT, MAINT. CENTER						
CATALOG NUMBER		ENTRY SIZE	CONTACT ARRANGEMENT		CONTACT BLOCKS	LEGEND PLATE MARKING
DIN RAIL MOUNT	PANEL MOUNT		IEC	NEMA		
HKH1AND2S440K8	HKH1ANP2S440K8	3/4" NPT SS HUB			2 N.O.	BLANK
HKH1ANDAS440	HKH1ANPAS440	M20 CLEARANCE HOLE				
HKH 3-POSITION SELECTOR SWITCH SPRING RETURN, MOM. RIGHT, MAINT. CENTER & LEFT						
CATALOG NUMBER		ENTRY SIZE	CONTACT ARRANGEMENT		CONTACT BLOCKS	LEGEND PLATE MARKING
DIN RAIL MOUNT	PANEL MOUNT		IEC	NEMA		
HKH1AND2S540K8	HKH1ANP2S540K8	3/4" NPT SS HUB			2 N.O.	BLANK
HKH1ANDAS540	HKH1ANPAS540	M20 CLEARANCE HOLE				
HKH 3-POSITION SELECTOR SWITCH SPRING RETURN, MOM. LEFT, MAINT. CENTER & RIGHT						
CATALOG NUMBER		ENTRY SIZE	CONTACT ARRANGEMENT		CONTACT BLOCKS	LEGEND PLATE MARKING
DIN RAIL MOUNT	PANEL MOUNT		IEC	NEMA		
HKH1AND2S640K8	HKH1ANP2S640K8	3/4" NPT SS HUB			2 N.O.	BLANK
HKH1ANDAS640	HKH1ANPAS640	M20 CLEARANCE HOLE				



STANDARD SIZE 1a NON-METALLIC CONFIGURATIONS



2 Position
Key Selector SWT Maint. & Mom.



3 Position
Key Selector SWT Maint. & Mom.

FEATURES-SPECIFICATIONS

HAZCON™

The control stations on this page are the most commonly used configurations of keyed rotary selector switches.

One entry hole listed is located at bottom.

ATEX/IECEx Certified

CE 0518 Ex II 2 G Ex de IIC T6...T4 Gb
0518 Ex II 2 D Ex tb IIIC T6...T4 Db IP66
DEMKO 15 ATEX 1405X
Ex de IIC T6...T4 Gb
Ex tb IIIC T85°C...T135°C Db IP66
IECEx UL 15.0054X
Ambient Range: -50°C ≤ Ta ≤ 60°C

cULus Certified

Class I, Zone 1, AEx de IIC T6...T4 Gb / Ex de IIC T6...T4 Gb X
Zone 21, AEx tb IIIC T85°C...T135°C Db IP66 / Ex tb IIIC T85°C...T135°C Db IP66 X
Class I, Division 2, Groups A, B, C, D
Class II, Division 1, Groups E, F, G (Canada Only)
Class II, Division 2, Groups E, F, G
Class III
UL50, 50E, 508, UL60079-0, -1, -7, -31
Type 3, 4, 4X, 12
Ambient Range: -50°C ≤ Ta ≤ 60°C



HKH MAINTAINED 2-POSITION KEYED SELECTOR SWITCH						
CATALOG NUMBER		ENTRY SIZE	CONTACT ARRANGEMENT		CONTACT BLOCKS	LEGEND PLATE MARKING
DIN RAIL MOUNT	PANEL MOUNT		IEC	NEMA		
HKH1AND2K11SK8	HKH1ANP2K11SK8	3/4" NPT SS HUB			1 N.C. / 1 N.O.	OFF-ON
HKH1ANDAK11S	HKH1ANPAK11S	M20 CLEARANCE HOLE				
HKH 2-POSITION KEYED SELECTOR SWITCH SPRING RETURN, MOM. RIGHT, MAINT. LEFT						
CATALOG NUMBER		ENTRY SIZE	CONTACT ARRANGEMENT		CONTACT BLOCKS	LEGEND PLATE MARKING
DIN RAIL MOUNT	PANEL MOUNT		IEC	NEMA		
HKH1AND2K210K8	HKH1ANP2K210K8	3/4" NPT SS HUB			1 N.C. / 1 N.O.	BLANK
HKH1ANDAK210	HKH1ANPAK210	M20 CLEARANCE HOLE				
HKH MAINTAINED 3-POSITION KEYED SELECTOR SWITCH INDEPENDENT CAM						
CATALOG NUMBER		ENTRY SIZE	CONTACT ARRANGEMENT		CONTACT BLOCKS	LEGEND PLATE MARKING
DIN RAIL MOUNT	PANEL MOUNT		IEC	NEMA		
HKH1AND2K349K8	HKH1ANP2K349K8	3/4" NPT SS HUB			2 N.O.	HAND-OFF-AUTO
HKH1ANDAK349	HKH1ANPAK349	M20 CLEARANCE HOLE				
HKH 3-POSITION KEYED SELECTOR SWITCH SPRING RETURN, MOM. LEFT & RIGHT, MAINT. CENTER						
CATALOG NUMBER		ENTRY SIZE	CONTACT ARRANGEMENT		CONTACT BLOCKS	LEGEND PLATE MARKING
DIN RAIL MOUNT	PANEL MOUNT		IEC	NEMA		
HKH1AND2K440K8	HKH1ANP2K440K8	3/4" NPT SS HUB			2 N.O.	BLANK
HKH1ANDAK440	HKH1ANPAK440	M20 CLEARANCE HOLE				
HKH 3-POSITION KEYED SELECTOR SWITCH SPRING RETURN, MOM. RIGHT, MAINT. CENTER & LEFT						
CATALOG NUMBER		ENTRY SIZE	CONTACT ARRANGEMENT		CONTACT BLOCKS	LEGEND PLATE MARKING
DIN RAIL MOUNT	PANEL MOUNT		IEC	NEMA		
HKH1AND2K540K8	HKH1ANP2K540K8	3/4" NPT SS HUB			2 N.O.	BLANK
HKH1ANDAK540	HKH1ANPAK540	M20 CLEARANCE HOLE				
HKH 3-POSITION KEYED SELECTOR SWITCH SPRING RETURN, MOM. LEFT, MAINT. CENTER & RIGHT						
CATALOG NUMBER		ENTRY SIZE	CONTACT ARRANGEMENT		CONTACT BLOCKS	LEGEND PLATE MARKING
DIN RAIL MOUNT	PANEL MOUNT		IEC	NEMA		
HKH1AND2K640K8	HKH1ANP2K640K8	3/4" NPT SS HUB			2 N.O.	BLANK
HKH1ANDAK640	HKH1ANPAK640	M20 CLEARANCE HOLE				



HKH SERIES

KILLARK

STANDARD SIZE 1b NON-METALLIC CONFIGURATIONS



Momentary Push Button

Momentary Mushroom P.B.

Momentary Start-Stop Push Buttons

Pilot Light

ATEX/IECEX Certified

CE 0518 II 2 G Ex de IIC T6...T4 Gb
 0518 II 2 D Ex tb IIIC T6...T4 Db IP66
 DEMKO 15 ATEX 1405X
 Ex de IIC T6...T4 Gb
 Ex tb IIIC T85°C...T135°C Db IP66
 IECEX UL 15.0054X
 Ambient Range: -50°C ≤ Ta ≤ 60°C

cULus Certified

Class I, Zone 1, AEx de IIC T6...T4 Gb / Ex de IIC T6...T4 Gb X
 Zone 21, AEx tb IIIC T85°C...T135°C Db IP66 / Ex tb IIIC T85°C...T135°C Db IP66 X
 Class I, Division 2, Groups A, B, C, D
 Class II, Division 1, Groups E, F, G (Canada Only)
 Class II, Division 2, Groups E, F, G
 Class III
 UL50, 50E, 508, UL60079-0, -1, -7, -31
 Type 3, 4, 4X, 12, 13
 Ambient Range: -50°C ≤ Ta ≤ 60°C



FEATURES-SPECIFICATIONS

HAZCON™

The control stations on this page are the most commonly used configurations, including combinations of pilot lights and push buttons.

One entry listed is located at bottom.

HKH MOMENTARY SINGLE PUSH BUTTON							
CATALOG NUMBER		ENTRY SIZE	CONTACT ARRANGEMENT		CONTACT BLOCKS	BUTTON COLOR	LEGEND PLATE MARKING
DIN RAIL MOUNT	PANEL MOUNT		IEC	NEMA			
HKH1BND2P11K8	HKH1BNP2P11K8	3/4" NPT SS HUB			1 N.O. / 1 N.C.	GREEN: START/(I)/BLANK RED: STOP/(O)/BLANK BLACK: BLANK	NONE
HKH1BNDAP11	HKH1BNPAP11	M20 CLEARANCE HOLE					
SUPPLIED WITH 7 COLORED AND MARKED DISCS – SEE BUTTON COLOR							

HKH MOMENTARY SINGLE PUSH BUTTON - MUSHROOM							
CATALOG NUMBER		ENTRY SIZE	CONTACT ARRANGEMENT		CONTACT BLOCKS	BUTTON COLOR	LEGEND PLATE MARKING
DIN RAIL MOUNT	PANEL MOUNT		IEC	NEMA			
HKH1BND2M11BK8	HKH1BNP2M11BK8	3/4" NPT SS HUB			1 N.O. / 1 N.C.	RED GREEN BLACK	STOP
HKH1BND2M21AK8	HKH1BNP2M21AK8						START
HKH1BND2M31OK8	HKH1BNP2M31OK8						BLANK
HKH1BNDAM11B	HKH1BNPAM11B	M20 CLEARANCE HOLE			1 N.O. / 1 N.C.	RED GREEN BLACK	STOP
HKH1BNDAM21A	HKH1BNPAM21A						START
HKH1BNDAM310	HKH1BNPAM310						BLANK

HKH DOUBLE MOMENTARY START-STOP PUSH BUTTONS							
CATALOG NUMBER		ENTRY SIZE	CONTACT ARRANGEMENT		CONTACT BLOCKS	BUTTON COLOR	LEGEND PLATE MARKING
DIN RAIL MOUNT	PANEL MOUNT		IEC	NEMA			
HKH1BND2P11P11K8	HKH1BNP2P11P11K8	3/4" NPT SS HUB		START STOP 	1 N.O. / 1 N.C.	GREEN, START, (I) RED, STOP, (O)	—
HKH1BNDAP11P11	HKH1BNPAP11P11	M20 CLEARANCE HOLE			1 N.O. / 1 N.C.		

HKH SINGLE PILOT LIGHT								
3/4" NPT SS HUB SUPPLIED		M20 CLEARANCE HOLE SUPPLIED		CONTACT ARRANGEMENT		LAMP VOLTAGE	COLOR	LEGEND PLATE MARKING
DIN RAIL MOUNT	PANEL MOUNT	DIN RAIL MOUNT	PANEL MOUNT	IEC	NEMA			
HKH1BND2LRL0K8	HKH1BNP2LRL0K8	HKH1BNDALRLO	HKH1BNPALRLO			12V-254V AC/DC IEC EX 12V-250V AC/DC UL	RED LED GREEN LED AMBER LED CLEAR LED BLUE LED	BLANK
HKH1BND2LGL0K8	HKH1BNP2LGL0K8	HKH1BNDALGLO	HKH1BNPALGLO					
HKH1BND2LAL0K8	HKH1BNP2LAL0K8	HKH1BNDALALO	HKH1BNPALALO					
HKH1BND2LCL0K8	HKH1BNP2LCL0K8	HKH1BNDALCLO	HKH1BNPALCLO					
HKH1BND2LBL0K8	HKH1BNP2LBL0K8	HKH1BNDALBLO	HKH1BNPALBLO					



STANDARD SIZE 1b NON-METALLIC CONFIGURATIONS



Maintained Mushroom P.B. Pull Release

Maintained Mushroom P.B. Twist Release

Double Pilot Light

Pilot Light & Double Momentary Push Button

ATEX/IECEx Certified

CE 0518 Ex II 2 G Ex de IIC T6...T4 Gb
 0518 Ex II 2 D Ex tb IIIC T6...T4 Db IP66
DEMKO 15 ATEX 1405X
 Ex de IIC T6...T4 Gb
 Ex tb IIIC T85°C...T135°C Db IP66
 IECEx UL 15.0054X
 Ambient Range: -50°C ≤ Ta ≤ 60°C

cULus Certified

Class I, Zone 1, AEx de IIC T6...T4 Gb / Ex de IIC T6...T4 Gb X
 Zone 21, AEx tb IIIC T85°C...T135°C Db IP66 / Ex tb IIIC T85°C...T135°C Db IP66 X
 Class I, Division 2, Groups A, B, C, D
 Class II, Division 1, Groups E, F, G (Canada Only)
 Class II, Division 2, Groups E, F, G
 Class III
 UL50, 50E, 508, UL60079-0, -1, -7, -31
 Type 3, 4, 4X, 12, 13
 Ambient Range: -50°C ≤ Ta ≤ 60°C



FEATURES-SPECIFICATIONS

HAZCON™

The control stations on this page are the most commonly used configurations, including combinations of pilot lights and push buttons.

One entry listed is located at bottom.

HKH MAINTAINED MUSHROOM STAY PUT E-STOP							
CATALOG NUMBER		ENTRY SIZE	CONTACT ARRANGEMENT		CONTACT BLOCKS	BUTTON COLOR	LEGEND PLATE MARKING
DIN RAIL MOUNT	PANEL MOUNT		IEC	NEMA			
HKH1BND2M41EK8 (PULL RELEASE)	HKH1BNP2M41EK8 (PULL RELEASE)	3/4" NPT SS HUB			1 N.O. / 1 N.C.	RED	EMERGENCY STOP
HKH1BND2M71EK8 (TWIST RELEASE)	HKH1BNP2M71EK8 (TWIST RELEASE)						
HKH1BNDAM41E (PULL RELEASE)	HKH1BNPAM41E (PULL RELEASE)	M20 CLEARANCE HOLE			1 N.O. / 1 N.C.	RED	EMERGENCY STOP
HKH1BNDAM71E (TWIST RELEASE)	HKH1BNPAM71E (TWIST RELEASE)						

HKH MAINTAINED SINGLE PUSH PULL BUTTON - MUSHROOM							
CATALOG NUMBER		ENTRY SIZE	CONTACT ARRANGEMENT		CONTACT BLOCKS	BUTTON COLOR	LEGEND PLATE MARKING
DIN RAIL MOUNT	PANEL MOUNT		IEC	NEMA			
HKH1BND2M41BK8	HKH1BNP2M41BK8	3/4" NPT SS HUB			1 N.O. / 1 N.C.	RED	STOP
HKH1BND2M51AK8	HKH1BNP2M51AK8					GREEN	START
HKH1BND2M610K8	HKH1BNP2M610K8					BLACK	BLANK
HKH1BNDAM41B	HKH1BNPAM41B	M20 CLEARANCE HOLE			1 N.O. / 1 N.C.	RED	STOP
HKH1BNDAM51A	HKH1BNPAM51A					GREEN	START
HKH1BNDAM610	HKH1BNPAM610					BLACK	BLANK

HKH DOUBLE PILOT LIGHT								
3/4" NPT SS HUB SUPPLIED		M20 CLEARANCE HOLE SUPPLIED		CONTACT ARRANGEMENT		LAMP VOLTAGE	COLOR	LEGEND PLATE MARKING
DIN RAIL MOUNT	PANEL MOUNT	DIN RAIL MOUNT	PANEL MOUNT	IEC	NEMA			
HKH1BND2LRL0LGL0K8	HKH1BNP2LRL0LGL0K8	HKH1BNDALRL0LGL0	HKH1BNPALRL0LGL0			12V-254V AC/DC IEC EX 12V-250V AC/DC UL	RED/GREEN	BLANK
HKH1BND2LRL0LRL0K8	HKH1BNP2LRL0LRL0K8	HKH1BNDALRL0LRL0	HKH1BNPALRL0LRL0				RED/RED	
HKH1BND2LGL0LGL0K8	HKH1BNP2LGL0LGL0K8	HKH1BNDALGL0LGL0	HKH1BNPALGL0LGL0				GREEN/GREEN	

HKH DOUBLE MOMENTARY PUSH BUTTON & PILOT LIGHT								
CATALOG NUMBER		ENTRY SIZE	CONTACT ARRANGEMENT		LAMP VOLTAGE	CONTACT BLOCKS	BUTTON COLOR	LEGEND PLATE MARKING
DIN RAIL MOUNT	PANEL MOUNT		IEC	NEMA				
HKH1BND2LRL0P21K8	HKH1BNP2LRL0P21K8	3/4" NPT SS HUB			12V-254V, AC/DC	1 N.O. 1 N.C.	GREEN, START, (I)	—
HKH1BNDALRL0P21	HKH1BNPALRL0P21						M20 CLEARANCE HOLE	



HKH SERIES

KILLARK

STANDARD SIZE 1b NON-METALLIC CONFIGURATIONS



2 Position
Selector Switch
Maint. & Mom.



3 Position
Selector Switch
Maint. & Mom.

FEATURES-SPECIFICATIONS

HAZCON™

The control stations on this page are the most commonly used configurations of rotary selector switches.

One entry listed is located at bottom.

ATEX/IECEx Certified

CE 0518 II 2 G Ex de IIC T6...T4 Gb
0518 II 2 D Ex tb IIIC T6...T4 Db IP66
DEMKO 15 ATEX 1405X
Ex de IIC T6...T4 Gb
Ex tb IIIC T85°C...T135°C Db IP66
IECEX UL 15.0054X
Ambient Range: -50°C ≤ Ta ≤ 60°C

cULus Certified

Class I, Zone 1, AEx de IIC T6...T4 Gb / Ex de IIC T6...T4 Gb X
Zone 21, AEx tb IIIC T85°C...T135°C Db IP66 / Ex tb IIIC T85°C...T135°C Db IP66 X
Class I, Division 2, Groups A, B, C, D
Class II, Division 1, Groups E, F, G (Canada Only)
Class II, Division 2, Groups E, F, G
Class III
UL50, 50E, 508, UL60079-0, -1, -7, -31
Type 3, 4, 4X, 12, 13
Ambient Range: -50°C ≤ Ta ≤ 60°C



HKH MAINTAINED 2-POSITION SELECTOR SWITCH						
CATALOG NUMBER		ENTRY SIZE	CONTACT ARRANGEMENT		CONTACT BLOCKS	LEGEND PLATE MARKING
DIN RAIL MOUNT	PANEL MOUNT		IEC	NEMA		
HKH1BND2S11SK8	HKH1BNP2S11SK8	3/4" NPT SS HUB			1 N.C. / 1 N.O.	OFF-ON
HKH1BNDAS11S	HKH1BNPAS11S	M20 CLEARANCE HOLE				
HKH 2-POSITION SELECTOR SWITCH SPRING RETURN, MOM. RIGHT, MAINT. LEFT						
CATALOG NUMBER		ENTRY SIZE	CONTACT ARRANGEMENT		CONTACT BLOCKS	LEGEND PLATE MARKING
DIN RAIL MOUNT	PANEL MOUNT		IEC	NEMA		
HKH1BND2S210K8	HKH1BNP2S210K8	3/4" NPT SS HUB			1 N.C. / 1 N.O.	BLANK
HKH1BNDAS210	HKH1BNPAS210	M20 CLEARANCE HOLE				
HKH MAINTAINED 3-POSITION SELECTOR SWITCH INDEPENDENT CAM						
CATALOG NUMBER		ENTRY SIZE	CONTACT ARRANGEMENT		CONTACT BLOCKS	LEGEND PLATE MARKING
DIN RAIL MOUNT	PANEL MOUNT		IEC	NEMA		
HKH1BND2S349K8	HKH1BNP2S349K8	3/4" NPT SS HUB			2 N.O.	HAND-OFF-AUTO
HKH1BNDAS349	HKH1BNPAS349	M20 CLEARANCE HOLE				
HKH 3-POSITION SELECTOR SWITCH SPRING RETURN, MOM. LEFT & RIGHT, MAINT. CENTER						
CATALOG NUMBER		ENTRY SIZE	CONTACT ARRANGEMENT		CONTACT BLOCKS	LEGEND PLATE MARKING
DIN RAIL MOUNT	PANEL MOUNT		IEC	NEMA		
HKH1BND2S440K8	HKH1BNP2S440K8	3/4" NPT SS HUB			2 N.O.	BLANK
HKH1BNDAS440	HKH1BNPAS440	M20 CLEARANCE HOLE				
HKH 3-POSITION SELECTOR SWITCH SPRING RETURN, MOM. RIGHT, MAINT. CENTER & LEFT						
CATALOG NUMBER		ENTRY SIZE	CONTACT ARRANGEMENT		CONTACT BLOCKS	LEGEND PLATE MARKING
DIN RAIL MOUNT	PANEL MOUNT		IEC	NEMA		
HKH1BND2S540K8	HKH1BNP2S540K8	3/4" NPT SS HUB			2 N.O.	BLANK
HKH1BNDAS540	HKH1BNPAS540	M20 CLEARANCE HOLE				
HKH 3-POSITION SELECTOR SWITCH SPRING RETURN, MOM. LEFT, MAINT. CENTER & RIGHT						
CATALOG NUMBER		ENTRY SIZE	CONTACT ARRANGEMENT		CONTACT BLOCKS	LEGEND PLATE MARKING
DIN RAIL MOUNT	PANEL MOUNT		IEC	NEMA		
HKH1BND2S640K8	HKH1BNP2S640K8	3/4" NPT SS HUB			2 N.O.	BLANK
HKH1BNDAS640	HKH1BNPAS640	M20 CLEARANCE HOLE				



STANDARD SIZE 1b NON-METALLIC CONFIGURATIONS



2 Position
Key Selector SWT
Maint. & Mom.



3 Position
Key Selector SWT
Maint. & Mom.

ATEX/IECEx Certified

CE 0518 Ex II 2 G Ex de IIC T6...T4 Gb
0518 Ex II 2 D Ex tb IIIC T6...T4 Db IP66

DEMKO 15 ATEX 1405X

Ex de IIC T6...T4 Gb

Ex tb IIIC T85°C...T135°C Db IP66

IECEx UL 15.0054X

Ambient Range: -50°C ≤ Ta ≤ 60°C

cULus Certified

Class I, Zone 1, AEx de IIC T6...T4 Gb / Ex de IIC T6...T4 Gb X

Zone 21, AEx tb IIIC T85°C...T135°C Db IP66 / Ex tb IIIC T85°C...T135°C Db IP66 X

Class I, Division 2, Groups A, B, C, D

Class II, Division 1, Groups E, F, G (Canada Only)

Class II, Division 2, Groups E, F, G

Class III

UL50, 50E, 508, UL60079-0, -1, -7, -31

Type 3, 4, 4X, 12

Ambient Range: -50°C ≤ Ta ≤ 60°C



FEATURES-SPECIFICATIONS

HAZCON™

The control stations on this page are the most commonly used configurations of keyed rotary selector switches.

One entry hole listed is located at bottom.

HKH MAINTAINED 2-POSITION KEYED SELECTOR SWITCH						
CATALOG NUMBER		ENTRY SIZE	CONTACT ARRANGEMENT		CONTACT BLOCKS	LEGEND PLATE MARKING
DIN RAIL MOUNT	PANEL MOUNT		IEC	NEMA		
HKH1BND2K11SK8	HKH1BNP2K11SK8	3/4" NPT SS HUB			1 N.C. / 1 N.O.	OFF-ON
HKH1BNDAK11S	HKH1BNPAK11S	M20 CLEARANCE HOLE				
HKH 2-POSITION KEYED SELECTOR SWITCH SPRING RETURN, MOM. RIGHT, MAINT. LEFT						
CATALOG NUMBER		ENTRY SIZE	CONTACT ARRANGEMENT		CONTACT BLOCKS	LEGEND PLATE MARKING
DIN RAIL MOUNT	PANEL MOUNT		IEC	NEMA		
HKH1BND2K210K8	HKH1BNP2K210K8	3/4" NPT SS HUB			1 N.C. / 1 N.O.	BLANK
HKH1BNDAK210	HKH1BNPAK210	M20 CLEARANCE HOLE				
HKH MAINTAINED 3-POSITION KEYED SELECTOR SWITCH INDEPENDENT CAM						
CATALOG NUMBER		ENTRY SIZE	CONTACT ARRANGEMENT		CONTACT BLOCKS	LEGEND PLATE MARKING
DIN RAIL MOUNT	PANEL MOUNT		IEC	NEMA		
HKH1BND2K349K8	HKH1BNP2K349K8	3/4" NPT SS HUB			2 N.O.	HAND-OFF-AUTO
HKH1BNDAK349	HKH1BNPAK349	M20 CLEARANCE HOLE				
HKH 3-POSITION KEYED SELECTOR SWITCH SPRING RETURN, MOM. LEFT & RIGHT, MAINT. CENTER						
CATALOG NUMBER		ENTRY SIZE	CONTACT ARRANGEMENT		CONTACT BLOCKS	LEGEND PLATE MARKING
DIN RAIL MOUNT	PANEL MOUNT		IEC	NEMA		
HKH1BND2K440K8	HKH1BNP2K440K8	3/4" NPT SS HUB			2 N.O.	BLANK
HKH1BNDAK440	HKH1BNPAK440	M20 CLEARANCE HOLE				
HKH 3-POSITION KEYED SELECTOR SWITCH SPRING RETURN, MOM. RIGHT, MAINT. CENTER & LEFT						
CATALOG NUMBER		ENTRY SIZE	CONTACT ARRANGEMENT		CONTACT BLOCKS	LEGEND PLATE MARKING
DIN RAIL MOUNT	PANEL MOUNT		IEC	NEMA		
HKH1BND2K540K8	HKH1BNP2K540K8	3/4" NPT SS HUB			2 N.O.	BLANK
HKH1BNDAK540	HKH1BNPAK540	M20 CLEARANCE HOLE				
HKH 3-POSITION KEYED SELECTOR SWITCH SPRING RETURN, MOM. LEFT, MAINT. CENTER & RIGHT						
CATALOG NUMBER		ENTRY SIZE	CONTACT ARRANGEMENT		CONTACT BLOCKS	LEGEND PLATE MARKING
DIN RAIL MOUNT	PANEL MOUNT		IEC	NEMA		
HKH1BND2K640K8	HKH1BNP2K640K8	3/4" NPT SS HUB			2 N.O.	BLANK
HKH1BNDAK640	HKH1BNPAK640	M20 CLEARANCE HOLE				



STANDARD SIZE 1c NON-METALLIC CONFIGURATIONS



ATEX/IECEX Certified

CE 0518 II 2 G Ex de IIC T6...T4 Gb
 0518 II 2 D Ex tb IIIC T6...T4 Db IP66
DEMKO 15 ATEX 1405X
 Ex de IIC T6...T4 Gb
 Ex tb IIIC T85°C...T135°C Db IP66
 IECEX UL 15.0054X
 Ambient Range: -50°C ≤ Ta ≤ 60°C

cULus Certified

Class I, Zone 1, AEx de IIC T6...T4 Gb / Ex de IIC T6...T4 Gb X
 Zone 21, AEx tb IIIC T85°C...T135°C Db IP66 / Ex tb IIIC T85°C...T135°C Db IP66 X
 Class I, Division 2, Groups A, B, C, D
 Class II, Division 1, Groups E, F, G (Canada Only)
 Class II, Division 2, Groups E, F, G
 Class III
 UL50, 50E, 508, UL60079-0, -1, -7, -31
 Type 3, 4, 4X, 12, 13
 Ambient Range: -50°C ≤ Ta ≤ 60°C



FEATURES-SPECIFICATIONS

HAZCON™

The control stations on this page are the most commonly used configurations, including combinations of pilot lights, push buttons, rotary selector switches and ammeter.

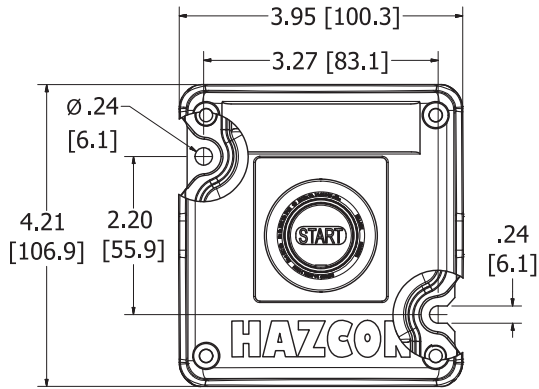
One entry hole listed is located at bottom.

HKH RED PILOT LIGHT & TWO MOMENTARY PUSH BUTTONS								
CATALOG NUMBER		ENTRY SIZE	CONTACT ARRANGEMENT		LAMP VOLTAGE	CONTACT BLOCKS	BUTTON COLOR	LEGEND PLATE MARKING
DIN RAIL MOUNT	PANEL MOUNT		IEC	NEMA				
HKHMOD000001	HKHMOD000002	3/4" NPT SS HUB			12V-254V AC/DC IEC EX	1 N.C.	RED STOP (I)	BLANK
HKHMOD000003	HKHMOD000004	M20 CLEARANCE HOLE			12V-250V AC/DC UL	1 N.O.	GREEN START (O)	
HKH THREE MOMENTARY PUSH BUTTONS								
CATALOG NUMBER		ENTRY SIZE	CONTACT ARRANGEMENT		CONTACT BLOCKS	BUTTON COLOR	LEGEND PLATE MARKING	
DIN RAIL MOUNT	PANEL MOUNT		IEC	NEMA				
HKHMOD000005	HKHMOD000006	3/4" NPT SS HUB			1 N.O. / 1 N.C.	GREEN: START/(I)/BLANK	BLANK	
HKHMOD000007	HKHMOD000008	M20 CLEARANCE HOLE			1 N.O. / 1 N.C.	1 N.O. / 1 N.C.		RED: STOP/(O)/BLANK BLACK: BLANK
HKH RED PILOT LIGHT, MUSHROOM MAINTAINED P.B., DOUBLE MOMENTARY P.B.								
CATALOG NUMBER		ENTRY SIZE	CONTACT ARRANGEMENT		LAMP VOLTAGE	BUTTON COLOR	LEGEND PLATE MARKING	
DIN RAIL MOUNT	PANEL MOUNT		IEC	NEMA				
HKHMOD000009 (PULL RELEASE)	HKHMOD000010 (PULL RELEASE)	3/4" NPT SS HUB			12V-254V AC/DC IEC EX	RED	BLANK	
HKHMOD000011 (TWIST RELEASE)	HKHMOD000012 (TWIST RELEASE)				12V-250V AC/DC UL	1 N.O. / 1 N.C.		GREEN: START/(I)/BLANK
HKHMOD000013 (PULL RELEASE)	HKHMOD000014 (PULL RELEASE)	M20 CLEARANCE HOLE			1 N.O. / 1 N.C.	RED: STOP/(O)/BLANK	EMERGENCY STOP	
HKHMOD000015 (TWIST RELEASE)	HKHMOD000016 (TWIST RELEASE)				1 N.O. / 1 N.C.	1 N.O. / 1 N.C.		1 N.O. / 1 N.C.
HKH 72MM AMMETER & 2 POSITION MAINT. SELECTOR SWITCH								
CATALOG NUMBER		ENTRY SIZE	CONTACT ARRANGEMENT		CONTACT BLOCKS	BUTTON COLOR	LEGEND PLATE MARKING	
DIN RAIL MOUNT	PANEL MOUNT		IEC	NEMA				
HKHMOD000017	HKHMOD000018	3/4" NPT SS HUB			1 N.C. / 1 N.O.	—	BLANK	
HKHMOD000019	HKHMOD000020	M20 CLEARANCE HOLE			1 N.C. / 1 N.O.	1 N.C. / 1 N.O.		

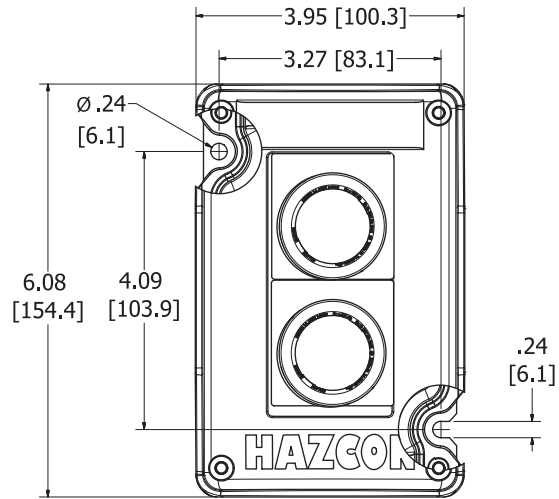
① IECEX/ATEX Only. Supplied with 72mm 1A Ammeter scale 0-5A and 25A OIL scale. For use with Current Transformer. Consult Factory for other scale ranges from page C36 and for Voltmeter options.



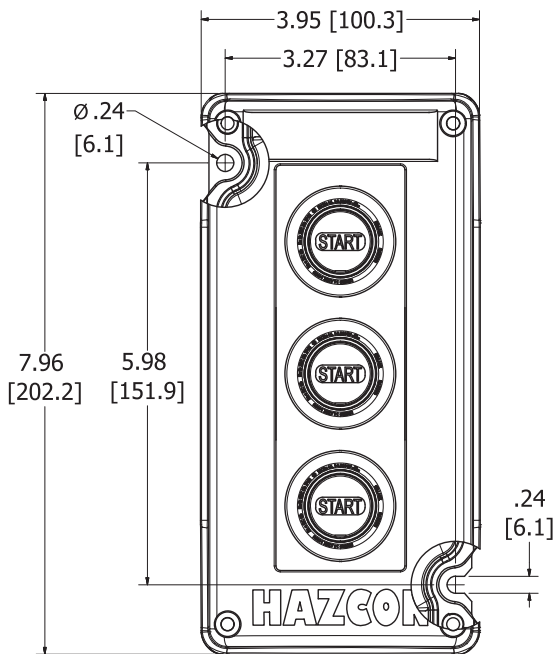
DIMENSIONAL DATA - SIZE 1 NON-METALLIC ENCLOSURES



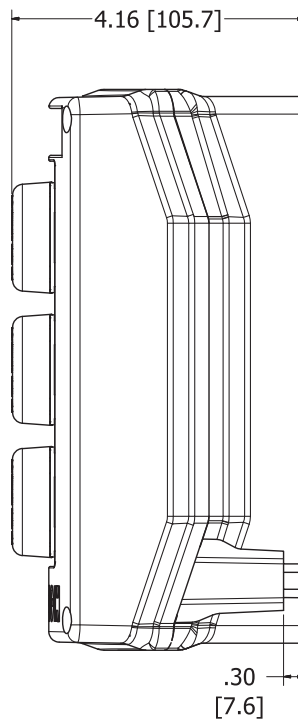
SIZE 1A



SIZE 1B



SIZE 1C



CLEARANCE HOLE FOR NPT FITTING	LOGIC CODE
1/2" TOP FEED	7
1/2" BOTTOM FEED	1
1/2" FEED THROUGH	4
3/4" TOP FEED	8
3/4" BOTTOM FEED	2
3/4" FEED THROUGH	5
1" TOP FEED	9
1" BOTTOM FEED	3
1" FEED THROUGH	6
CLEARANCE HOLE FOR METRIC FITTING	LOGIC CODE
M20 TOP FEED	C
M20 BOTTOM FEED	A
M20 FEED THROUGH	B
2 X M20 TOP FEED	F
2 X M20 BOTTOM FEED	D
M25 TOP FEED	J
M25 BOTTOM FEED	G
M25 FEED THROUGH	H



SIZE 2a & 2c NON-METALLIC



ATEX/IECEX Certified

CE 0518 Ex II 2 G Ex de IIC T6...T4 Gb
 0518 Ex II 2 D Ex tb IIIC T6...T4 Db IP66
DEMKO 15 ATEX 1405X
 Ex de IIC T6...T4 Gb
 Ex tb IIIC T85°C...T135°C Db IP66
IECEX UL 15.0054X
 Ambient Range: -50°C ≤ Ta ≤ 60°C

cULus Certified

Class I, Zone 1, AEx de IIC T6...T4 Gb / Ex de IIC T6...T4 Gb X
 Zone 21, AEx tb IIIC T85°C...T135°C Db IP66 / Ex tb IIIC T85°C...T135°C Db IP66 X
 Class I, Division 2, Groups A, B, C, D
 Class II, Division 1, Groups A, E, F, G (Canada Only)
 Class II, Division 2, Groups E, F, G
 Class III
UL50, 50E, 508, UL60079-0, -1, -7, -31
 Type 3, 4, 4X, 12, 13
 Ambient Range: -50°C ≤ Ta ≤ 60°C

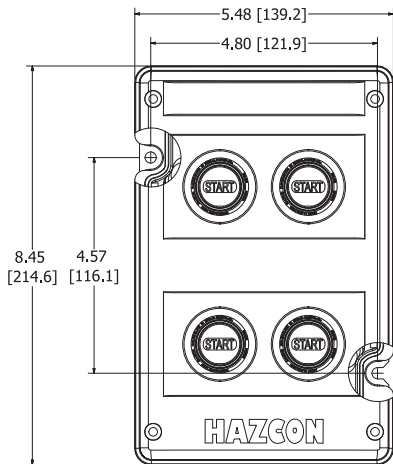


FEATURES-SPECIFICATIONS

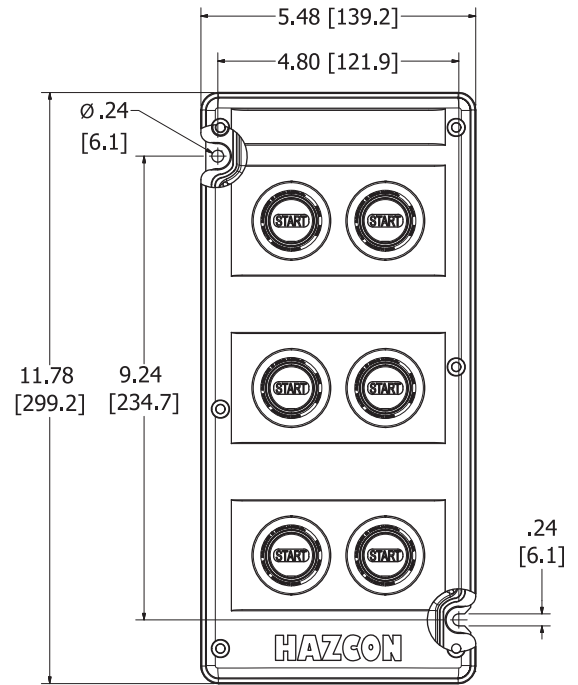
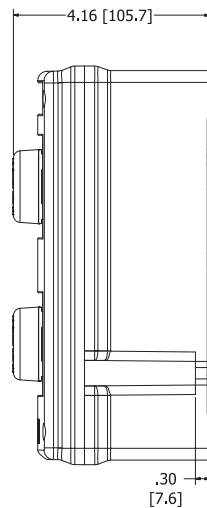
HAZCON™

Size 2a and 2c control stations can be factory ordered to include combinations of pilot lights, push buttons, rotary selector switches, ammeters and terminal blocks.

Entry holes can be located on all sides.



Size 2a



Size 2c
(Depth same as 2a)

CLEARANCE HOLE FOR NPT FITTING	LOGIC CODE
1/2" TOP FEED	7
1/2" BOTTOM FEED	1
1/2" FEED THROUGH	4
3/4" TOP FEED	8
3/4" BOTTOM FEED	2
3/4" FEED THROUGH	5

CLEARANCE HOLE FOR METRIC FITTING	LOGIC CODE
2 X M20 TOP FEED	F
2 X M20 BOTTOM FEED	D
2 X M20 FEED THROUGH	E
2 X M25 TOP FEED	M
2 X M25 BOTTOM FEED	K
2 X M25 FEED THROUGH	L
M32 TOP FEED	Q
M32 BOTTOM FEED	N
M32 FEED THROUGH	P

DRILLED & TAPPED FOR METRIC FITTING	LOGIC CODE
2 X M20 BOTTOM FEED	T
2 X M25 BOTTOM FEED	U
M32 BOTTOM FEED	V

Entry sizes available:

Clearance hole sizes for 1/2" and 3/4" NPT

Clearance hole sizes for M20, M25 and M32

Drilled and tapped holes for M20, M25 and M32



SIZE 1 NON-METALLIC 2 POLE ROCKER SWITCH



ATEX/IECEX Certified

CE 0518 Ex II 2 G Ex de IIC T6...T4 Gb
 0518 Ex II 2 D Ex tb IIIC T6...T4 Db IP66
DEMKO 15 ATEX 1405X
 Ex de IIC T6...T4 Gb
 Ex tb IIIC T85°C...T135°C Db IP66
IECEX UL 15.0054X
 Ambient Range: -50°C ≤ Ta ≤ 60°C

cULus Certified

Class I, Zone 1, AEx de IIC T6...T4 Gb / Ex de IIC T6...T4 Gb X
 Zone 21, AEx tb IIIC T85°C...T135°C Db IP66 / Ex tb IIIC T85°C...T135°C Db IP66 X
 Class I, Division 2, Groups A, B, C, D
 Class II, Division 1, Groups E, F, G (Canada Only)
 Class II, Division 2, Groups E, F, G
 Class III
UL50, 50E, 508, UL60079-0, -1, -7, -13
 Type 3, 4, 4X, 12, 13
 Ambient Range: -50°C ≤ Ta ≤ 60°C



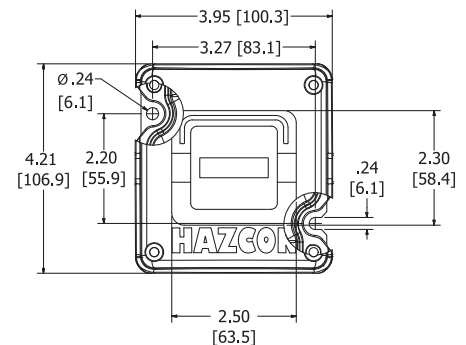
FEATURES-SPECIFICATIONS

HAZCON™

Rocker Switch Single Throw Double Pole
 Luminous fluorescent strip supplied for ease of locating.
 One entry listed is located at bottom.

Contact Block Features:

- **UL Electrical Rating:** 690Vac, 20A, 50-60Hz, 60Vdc, 5A, 110Vdc, 2A, 255Vdc, 1.5A, 1/2 HP @120Vac, 1 HP@208/240/277Vac, A600/P600- Pilot Duty 350Vac- Tungsten Lamp.
- **Wire Allowances:** WIRE RANGE with 1 or 2 WIRES: #22 to #12 AWG (SOL & STR) and #10 AWG (STR).
- **IEC Electrical Ratings:** AC690V 16A AC-12, 50-60 Hz, AC230V 16A AC-15, 50-60Hz, DC60V 5A DC-12, DC125 1A DC-13.
- **Wire Allowances:** WIRE RANGE with 1 or 2 WIRES: 0.5 to 2.5mm (SOL & STR) and 4.0mm² (STR)
- Silver Alloy contacts with Gold Flashing.

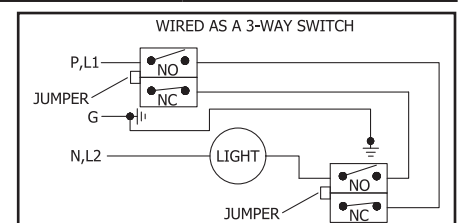


Enclosure depth 4.5" (114mm)

HKH ROCKER SWITCH MAINTAINED IN 2 POSITIONS				
CATALOG NUMBER ^①	ENTRY SIZE	CONTACT ARRANGEMENT		CONTACT BLOCKS
		IEC	NEMA	
HKH1AND2RS4K8	3/4" NPT SS HUB			2 N.O.
HKH1ANDARS4	M20 CLEARANCE HOLE			

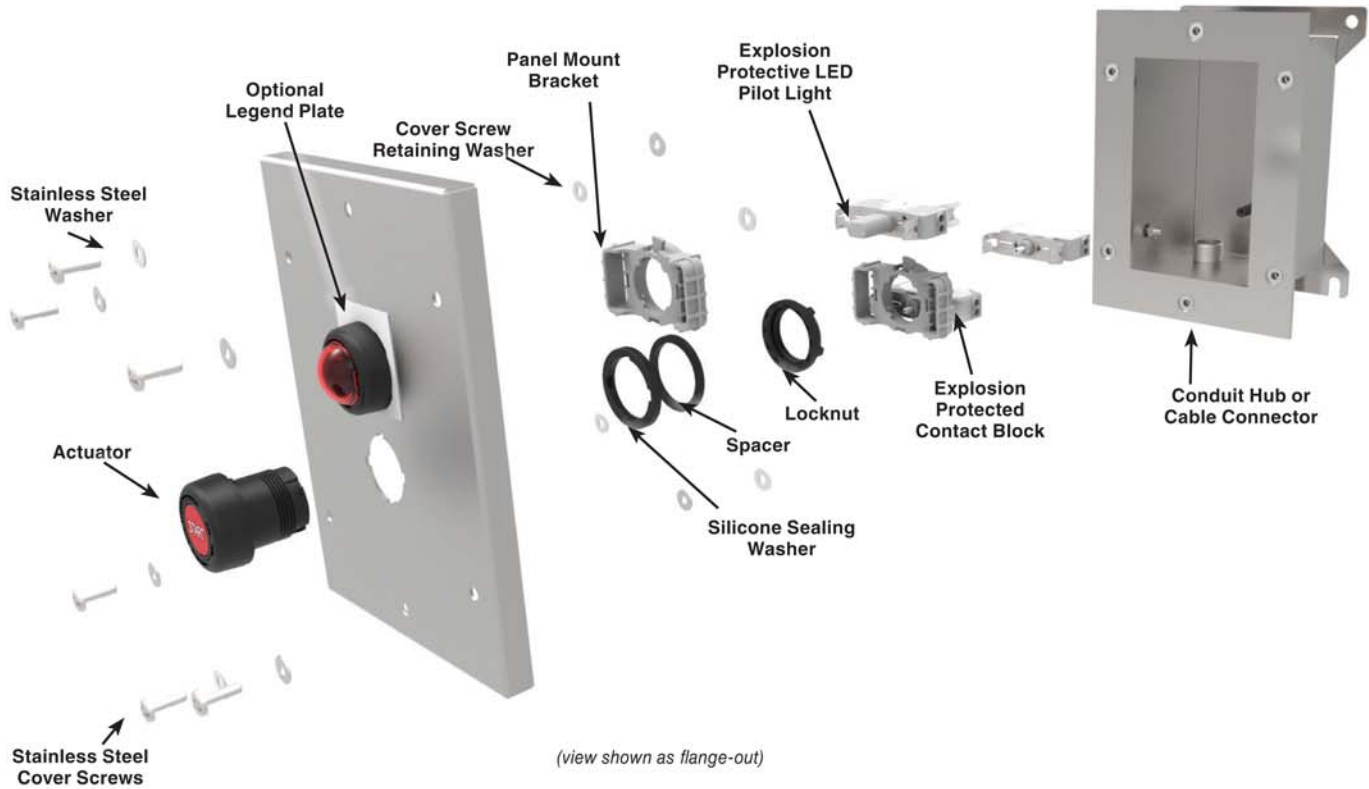
HKH ROCKER SWITCH MAINTAINED IN 2 POSITIONS				
CATALOG NUMBER ^①	ENTRY SIZE	CONTACT ARRANGEMENT		CONTACT BLOCKS
		IEC	NEMA	
HKH1AND2RS1K8	3/4" NPT SS HUB			1 N.C. / 1 N.O.
HKH1ANDARS1	M20 CLEARANCE HOLE			

① For Size 1b enclosure change 1A to 1B.
 ② Can be wired as 3 way switch when jumper installed. See instruction sheet supplied with switch enclosure.





STAINLESS STEEL PANEL MOUNT



(view shown as flange-out)

Applications

- Hazardous and corrosive environments due to the presence of flammable gases or vapors, combustible dusts or ignitable fiber or flyings.
- Installations at petroleum refineries, chemical and petrochemical plants and other processing or storage facilities where similar hazards exist.
- Use in conjunction with motor starters or contactors for remote control of motors.

Materials

- 316 Stainless Steel also available with a Standard internal flange and an external flange version when additional access is required.
- Silicone gasketing on all enclosures and operators throughout.

Features

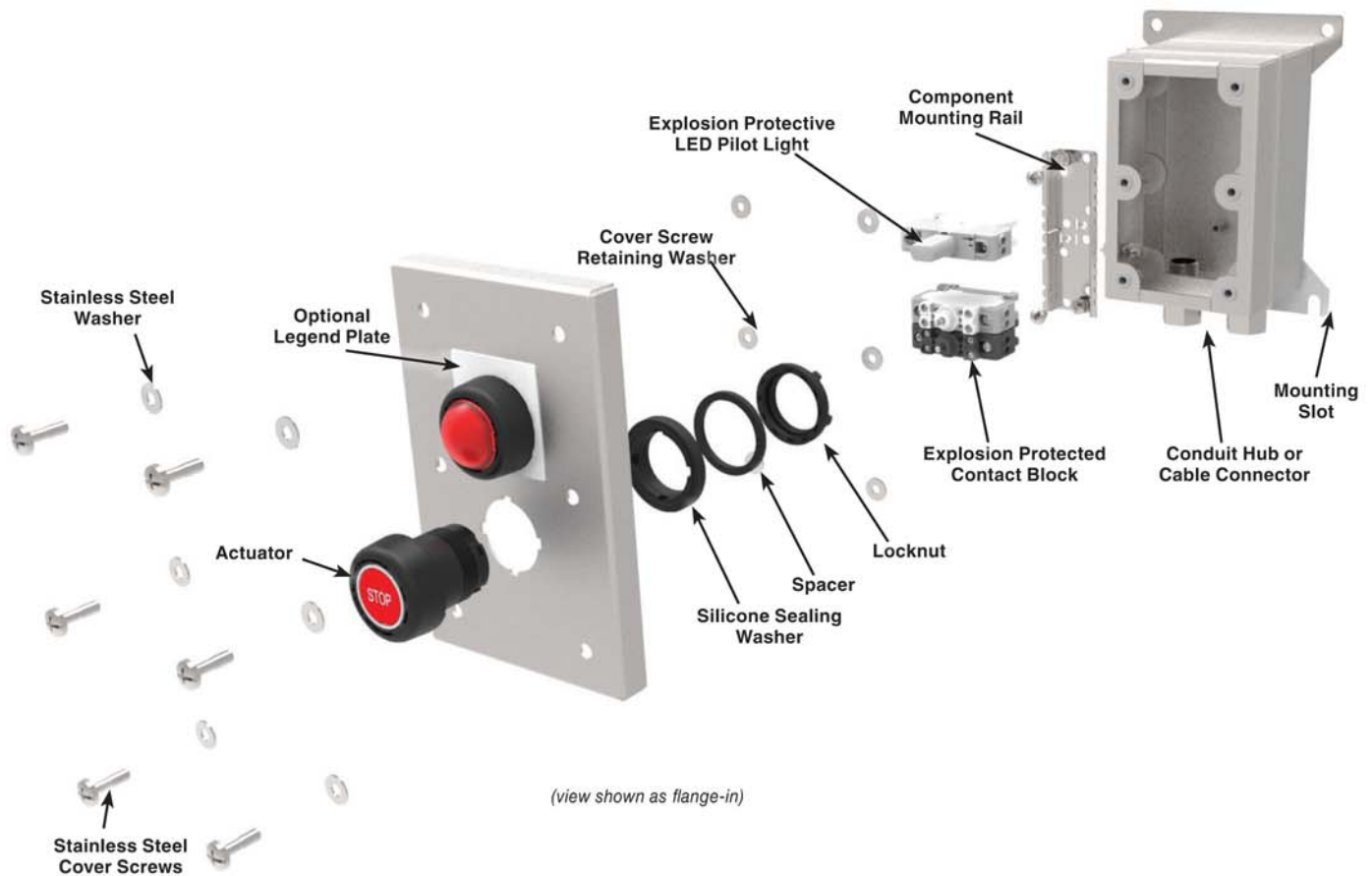
- Size 1 Control Stations available as 1a, 1b, & 1c as standard catalog number offerings for 1, 2 & 3 device openings and will accept 2-M20 entries in either end. Ammeters available in 1b & 1c. Size 2 Enclosures available as 2a & 2c for 2, 4 & 6 device entries in cover with ability to accept 2-M25 entries in either end.
- Operating Temperature of -50°C to +60°C
- Explosion Protected contact blocks 690VAC N.O. & N.C. capable of 20 Amps for Switching Duty and HP Ratings up to 1HP.
- LED Pilot Light modules for 12-250V AC/DC for UL applications. 12-254V AC/DC for IEC applications.
- Contacts & Pilot lights can be mounted inside enclosure on Din Rail or in cover to the actuator.
- Accessories available for Lockout/Tag Out functions made in 316 stainless steel.

Complies with RoHS, WEEE, ATEX, EMC and Low Voltage directives.





STAINLESS STEEL DIN RAIL MOUNT

**Applications**

- Hazardous and corrosive environments due to the presence of flammable gases or vapors, combustible dusts or ignitable fiber or flyings.
- Installations at petroleum refineries, chemical and petrochemical plants and other processing or storage facilities where similar hazards exist.
- Use in conjunction with motor starters or contactors for remote control of motors.

Materials

- 316 Stainless Steel also available with a Standard internal flange and an external flange version when additional access is required.
- Silicone gasketing on all enclosures and operators throughout.

Features

- Size 1 Control Stations available as 1a, 1b, & 1c as standard catalog number offerings for 1, 2 & 3 device openings and will accept 2-M20 entries in either end. Ammeters available in 1b & 1c. Size 2 Enclosures available as 2a & 2c for 2, 4 & 6 device entries in cover with ability to accept 2-M25 entries in either end.
- Operating Temperature of -50°C to +60°C
- Explosion Protected contact blocks 690VAC N.O. & N.C. capable of 20 Amps for Switching Duty and HP Ratings up to 1HP.
- LED Pilot Light modules for 12-250V AC/DC for UL applications. 12-254V AC/DC for IEC applications.
- Contacts & Pilot lights can be mounted inside enclosure on Din Rail or in cover to the actuator.
- Accessories available for Lockout/Tag Out functions made in 316 stainless steel.

Complies with RoHS, WEEE, ATEX, EMC and Low Voltage directives.



IEEx 16.0079 INMETRO



TR RU C-US.MI062.B.04167



CSA 17.70126964



STANDARD SIZE 1a STAINLESS STEEL CONFIGURATIONS



Momentary Push Button



Momentary & Maintained Mushroom P.B.



Pilot Light

ATEX/IECEX Certified

CE 0518 II 2 G Ex de IIC T6...T4 Gb
 0518 II 2 D Ex tb IIIC T6...T4 Db IP66
DEMKO 15 ATEX 1405X
 Ex de IIC T6...T4 Gb
 Ex tb IIIC T85°C...T135°C Db IP66
IECEX UL 15.0054X
 Ambient Range: -50°C ≤ Ta ≤ 60°C

cULus Certified

Class I, Zone 1, AEx de IIC T6...T4 Gb / Ex de IIC T6...T4 Gb X
 Zone 21, AEx tb IIIC T85°C...T135°C Db IP66 / Ex tb IIIC T85°C...T135°C Db IP66 X
 Class I, Division 2, Groups A, B, C, D
 Class II, Division 1, Groups E, F, G (Canada Only)
 Class II, Division 2, Groups E, F, G
 Class III
UL50, 50E, 508, UL60079-0, -1, -7, -31
 Type 3, 4, 4X, 12, 13
 Ambient Range: -50°C ≤ Ta ≤ 60°C



STAINLESS ENCL. ONLY
 CLASS II, DIV. 1, GRPS. E, F, G



FEATURES-SPECIFICATIONS

HAZCON™

The control stations on this page are the most commonly used configurations of pilot lights and push buttons.

One entry hole listed is located at bottom.

HKH MOMENTARY SINGLE PUSH BUTTON							
CATALOG NUMBER		ENTRY SIZE	CONTACT ARRANGEMENT		CONTACT BLOCKS	BUTTON COLOR	LEGEND PLATE MARKING
DIN RAIL MOUNT	PANEL MOUNT		IEC	NEMA			
HKH1ASD2P11K8	HKH1ASP2P11K8	3/4" NPT SS HUB			1 N.O. / 1 N.C.	GREEN: START/(I)/BLANK RED: STOP/(O)/BLANK BLACK: BLANK	NONE
HKH1ASDAP11	HKH1ASPAP11	M20 CLEARANCE HOLE					
SUPPLIED WITH 7 COLORED AND MARKED DISCS – SEE BUTTON COLOR							

HKH MOMENTARY SINGLE PUSH BUTTON - MUSHROOM							
CATALOG NUMBER		ENTRY SIZE	CONTACT ARRANGEMENT		CONTACT BLOCKS	BUTTON COLOR	LEGEND PLATE MARKING
DIN RAIL MOUNT	PANEL MOUNT		IEC	NEMA			
HKH1ASD2M11BK8	HKH1ASP2M11BK8	3/4" NPT SS HUB			1 N.O. / 1 N.C.	RED	STOP
HKH1ASD2M21AK8	HKH1ASP2M21AK8					GREEN	START
HKH1ASD2M310K8	HKH1ASP2M310K8					BLACK	BLANK
HKH1ASDAM11B	HKH1ASPAM11B	M20 CLEARANCE HOLE			1 N.O. / 1 N.C.	RED	STOP
HKH1ASDAM21A	HKH1ASPAM21A					GREEN	START
HKH1ASDAM310	HKH1ASPAM310					BLACK	BLANK

HKH MAINTAINED SINGLE PUSH PULL BUTTON - MUSHROOM							
CATALOG NUMBER		ENTRY SIZE	CONTACT ARRANGEMENT		CONTACT BLOCKS	BUTTON COLOR	LEGEND PLATE MARKING
DIN RAIL MOUNT	PANEL MOUNT		IEC	NEMA			
HKH1ASD2M41BK8	HKH1ASP2M41BK8	3/4" NPT SS HUB			1 N.O. / 1 N.C.	RED	STOP
HKH1ASD2M51AK8	HKH1ASP2M51AK8					GREEN	START
HKH1ASD2M610K8	HKH1ASP2M610K8					BLACK	BLANK
HKH1ASDAM41B	HKH1ASPAM41B	M20 CLEARANCE HOLE			1 N.O. / 1 N.C.	RED	STOP
HKH1ASDAM51A	HKH1ASPAM51A					GREEN	START
HKH1ASDAM610	HKH1ASPAM610					BLACK	BLANK

HKH SINGLE PILOT LIGHT								
3/4" NPT SS HUB SUPPLIED		M20 CLEARANCE HOLE SUPPLIED		CONTACT ARRANGEMENT		LAMP VOLTAGE	COLOR	LEGEND PLATE MARKING
DIN RAIL MOUNT	PANEL MOUNT	DIN RAIL MOUNT	PANEL MOUNT	IEC	NEMA			
HKH1ASD2LRL0K8	HKH1ASP2LRL0K8	HKH1ASDALRLO	HKH1ASPALRLO			12V-254V AC/DC IEC EX 12V-250V AC/DC UL	RED LED	BLANK
HKH1ASD2LGL0K8	HKH1ASP2LGL0K8	HKH1ASDALGLO	HKH1ASPALGLO				GREEN LED	
HKH1ASD2LAL0K8	HKH1ASP2LAL0K8	HKH1ASDALALO	HKH1ASPALALO				AMBER LED	
HKH1ASD2LCL0K8	HKH1ASP2LCL0K8	HKH1ASDALCLO	HKH1ASPALCLO				CLEAR LED	
HKH1ASD2LBL0K8	HKH1ASP2LBL0K8	HKH1ASDALBLO	HKH1ASPALBLO				BLUE LED	



STANDARD SIZE 1a STAINLESS STEEL CONFIGURATIONS



Maintained
Mushroom P.B.
Pull Release



Maintained
Mushroom P.B.
Twist Release



Double
Momentary
Push Button

ATEX/IECEX Certified

CE 0518 Ex II 2 G Ex de IIC T6...T4 Gb
0518 Ex II 2 D Ex tb IIIC T6...T4 Db IP66
DEMKO 15 ATEX 1405X
Ex de IIC T6...T4 Gb
Ex tb IIIC T85°C...T135°C Db IP66
IECEX UL 15.0054X
Ambient Range: -50°C ≤ Ta ≤ 60°C

cULus Certified

Class I, Zone 1, AEx de IIC T6...T4 Gb / Ex de IIC T6...T4 Gb X
Zone 21, AEx tb IIIC T85°C...T135°C Db IP66 / Ex tb IIIC T85°C...T135°C Db IP66 X
Class I, Division 2, Groups A, B, C, D
Class II, Division 1, Groups E, F, G (Canada Only)
Class II, Division 2, Groups E, F, G
Class III
UL50, 50E, 508, UL60079-0, -1, -7, -31
Type 3, 4, 4X, 12, 13
Ambient Range: -50°C ≤ Ta ≤ 60°C



STAINLESS ENCL. ONLY
CLASS II, DIV. 1, GRPS. E, F, G



FEATURES-SPECIFICATIONS

HAZCON™

The control stations on this page are the most commonly used configurations of mushroom push buttons and double push button.

One entry listed is located at bottom.

HKH MAINTAINED MUSHROOM STAY PUT E-STOP							
CATALOG NUMBER		ENTRY SIZE	CONTACT ARRANGEMENT		CONTACT BLOCKS	BUTTON COLOR	LEGEND PLATE MARKING
DIN RAIL MOUNT	PANEL MOUNT		IEC	NEMA			
HKH1ASD2M41EK8 (PULL RELEASE)	HKH1ASP2M41EK8 (PULL RELEASE)	3/4" NPT SS HUB			1 N.O. / 1 N.C.	RED	EMERGENCY STOP
HKH1ASD2M71EK8 (TWIST RELEASE)	HKH1ASP2M71EK8 (TWIST RELEASE)						
HKH1ASDAM41E (PULL RELEASE)	HKH1ASPAM41E (PULL RELEASE)	M20 CLEARANCE HOLE			1 N.O. / 1 N.C.	RED	EMERGENCY STOP
HKH1ASDAM71E (TWIST RELEASE)	HKH1ASPAM71E (TWIST RELEASE)						

HKH DOUBLE MOMENTARY PUSH BUTTON, 1 N.O. START/1 N.C. STOP							
CATALOG NUMBER		ENTRY SIZE	CONTACT ARRANGEMENT		CONTACT BLOCKS	BUTTON COLOR	LEGEND PLATE MARKING
DIN RAIL MOUNT	PANEL MOUNT		IEC	NEMA			
HKH1ASD2P21K8	HKH1ASP2P21K8	3/4" NPT SS HUB		START STOP 	1 N.O. / 1 N.C.	GREEN/ START/(I) RED/STOP/(O) BLACK	—
HKH1ASDAP21	HKH1ASPAP21	M20 CLEARANCE HOLE					



HKH SERIES

KILLARK

STANDARD SIZE 1a STAINLESS STEEL CONFIGURATIONS



2 Position Selector Switch Maint. & Mom.



3 Position Selector Switch Maint. & Mom.

FEATURES-SPECIFICATIONS

HAZCON™

The control stations on this page are the most commonly used configurations of rotary selector switches.

One entry hole listed is located at bottom.

ATEX/IECEx Certified

CE 0518 Ex II 2 G Ex de IIC T6...T4 Gb
 CE 0518 Ex II 2 D Ex tb IIIC T6...T4 Db IP66
DEMKO 15 ATEX 1405X
 Ex de IIC T6...T4 Gb
 Ex tb IIIC T85°C...T135°C Db IP66
 IECEx UL 15.0054X
 Ambient Range: -50°C ≤ Ta ≤ 60°C

cULus Certified

Class I, Zone 1, AEx de IIC T6...T4 Gb / Ex de IIC T6...T4 Gb X
 Zone 21, AEx tb IIIC T85°C...T135°C Db IP66 / Ex tb IIIC T85°C...T135°C Db IP66 X
 Class I, Division 2, Groups A, B, C, D
 Class II, Division 1, Groups E, F, G (Canada Only)
 Class II, Division 2, Groups E, F, G
 Class III
UL50, 50E, 508, UL60079-0, -1, -7, -31
 Type 3, 4, 4X, 12, 13
 Ambient Range: -50°C ≤ Ta ≤ 60°C



STAINLESS ENCL. ONLY
 CLASS II, DIV. 1, GRPS. E,F,G



HKH MAINTAINED 2-POSITION SELECTOR SWITCH						
CATALOG NUMBER		ENTRY SIZE	CONTACT ARRANGEMENT		CONTACT BLOCKS	LEGEND PLATE MARKING
DIN RAIL MOUNT	PANEL MOUNT		IEC	NEMA		
HKH1ASD2S11SK8	HKH1ASP2S11SK8	3/4" NPT SS HUB			1 N.C. / 1 N.O.	OFF-ON
HKH1ASDAS11S	HKH1ASPAS11S	M20 CLEARANCE HOLE				
HKH 2-POSITION SELECTOR SWITCH SPRING RETURN, MOM. RIGHT, MAINT. LEFT						
CATALOG NUMBER		ENTRY SIZE	CONTACT ARRANGEMENT		CONTACT BLOCKS	LEGEND PLATE MARKING
DIN RAIL MOUNT	PANEL MOUNT		IEC	NEMA		
HKH1ASD2S210K8	HKH1ASP2S210K8	3/4" NPT SS HUB			1 N.C. / 1 N.O.	BLANK
HKH1ASDAS210	HKH1ASPAS210	M20 CLEARANCE HOLE				
HKH MAINTAINED 3-POSITION SELECTOR SWITCH INDEPENDENT CAM						
CATALOG NUMBER		ENTRY SIZE	CONTACT ARRANGEMENT		CONTACT BLOCKS	LEGEND PLATE MARKING
DIN RAIL MOUNT	PANEL MOUNT		IEC	NEMA		
HKH1ASD2S349K8	HKH1ASP2S349K8	3/4" NPT SS HUB			2 N.O.	HAND-OFF-AUTO
HKH1ASDAS349	HKH1ASPAS349	M20 CLEARANCE HOLE				
HKH 3-POSITION SELECTOR SWITCH SPRING RETURN, MOM. LEFT & RIGHT, MAINT. CENTER						
CATALOG NUMBER		ENTRY SIZE	CONTACT ARRANGEMENT		CONTACT BLOCKS	LEGEND PLATE MARKING
DIN RAIL MOUNT	PANEL MOUNT		IEC	NEMA		
HKH1ASD2S440K8	HKH1ASP2S440K8	3/4" NPT SS HUB			2 N.O.	BLANK
HKH1ASDAS440	HKH1ASPAS440	M20 CLEARANCE HOLE				
HKH 3-POSITION SELECTOR SWITCH SPRING RETURN, MOM. RIGHT, MAINT. CENTER & LEFT						
CATALOG NUMBER		ENTRY SIZE	CONTACT ARRANGEMENT		CONTACT BLOCKS	LEGEND PLATE MARKING
DIN RAIL MOUNT	PANEL MOUNT		IEC	NEMA		
HKH1ASD2S540K8	HKH1ASP2S540K8	3/4" NPT SS HUB			2 N.O.	BLANK
HKH1ASDAS540	HKH1ASPAS540	M20 CLEARANCE HOLE				
HKH 3-POSITION SELECTOR SWITCH SPRING RETURN, MOM. LEFT, MAINT. CENTER & RIGHT						
CATALOG NUMBER		ENTRY SIZE	CONTACT ARRANGEMENT		CONTACT BLOCKS	LEGEND PLATE MARKING
DIN RAIL MOUNT	PANEL MOUNT		IEC	NEMA		
HKH1ASD2S640K8	HKH1ASP2S640K8	3/4" NPT SS HUB			2 N.O.	BLANK
HKH1ASDAS640	HKH1ASPAS640	M20 CLEARANCE HOLE				



STANDARD SIZE 1a STAINLESS STEEL CONFIGURATIONS



2 Position
Key Selector SWT Maint. & Mom.



3 Position
Key Selector SWT Maint. & Mom.

FEATURES-SPECIFICATIONS

HAZCON™

The control stations on this page are the most commonly used configurations of keyed rotary selector switches.

One entry hole listed is located at bottom.

ATEX/IECEx Certified

CE 0518 Ex II 2 G Ex de IIC T6...T4 Gb
0518 Ex II 2 D Ex tb IIIC T6...T4 Db IP66
DEMKO 15 ATEX 1405X
Ex de IIC T6...T4 Gb
Ex tb IIIC T85°C...T135°C Db IP66
IECEX UL 15.0054X
Ambient Range: -50°C ≤ Ta ≤ 60°C

cULus Certified

Class I, Zone 1, AEx de IIC T6...T4 Gb / Ex de IIC T6...T4 Gb X
Zone 21, AEx tb IIIC T85°C...T135°C Db IP66 / Ex tb IIIC T85°C...T135°C Db IP66 X
Class I, Division 2, Groups A, B, C, D
Class II, Division 1, Groups E, F, G (Canada Only)
Class II, Division 2, Groups E, F, G
Class III
UL50, 50E, 508, UL60079-0, -1, -7, -31
Type 3, 4, 4X, 12
Ambient Range: -50°C ≤ Ta ≤ 60°C



STAINLESS ENCL. ONLY
CLASS II, DIV. 1, GRPS. E, F, G



HKH MAINTAINED 2-POSITION KEYED SELECTOR SWITCH						
CATALOG NUMBER		ENTRY SIZE	CONTACT ARRANGEMENT		CONTACT BLOCKS	LEGEND PLATE MARKING
DIN RAIL MOUNT	PANEL MOUNT		IEC	NEMA		
HKH1ASD2K11SK8	HKH1ASP2K11SK8	3/4" NPT SS HUB			1 N.C. / 1 N.O.	OFF-ON
HKH1ASDAK11S	HKH1ASPAK11S	M20 CLEARANCE HOLE				
HKH 2-POSITION KEYED SELECTOR SWITCH SPRING RETURN, MOM. RIGHT, MAINT. LEFT						
CATALOG NUMBER		ENTRY SIZE	CONTACT ARRANGEMENT		CONTACT BLOCKS	LEGEND PLATE MARKING
DIN RAIL MOUNT	PANEL MOUNT		IEC	NEMA		
HKH1ASD2K210K8	HKH1ASP2K210K8	3/4" NPT SS HUB			1 N.C. / 1 N.O.	BLANK
HKH1ASDAK210	HKH1ASPAK210	M20 CLEARANCE HOLE				
HKH MAINTAINED 3-POSITION KEYED SELECTOR SWITCH INDEPENDENT CAM						
CATALOG NUMBER		ENTRY SIZE	CONTACT ARRANGEMENT		CONTACT BLOCKS	LEGEND PLATE MARKING
DIN RAIL MOUNT	PANEL MOUNT		IEC	NEMA		
HKH1ASD2K349K8	HKH1ASP2K349K8	3/4" NPT SS HUB			2 N.O.	HAND-OFF-AUTO
HKH1ASDAK349	HKH1ASPAK349	M20 CLEARANCE HOLE				
HKH 3-POSITION KEYED SELECTOR SWITCH SPRING RETURN, MOM. LEFT & RIGHT, MAINT. CENTER						
CATALOG NUMBER		ENTRY SIZE	CONTACT ARRANGEMENT		CONTACT BLOCKS	LEGEND PLATE MARKING
DIN RAIL MOUNT	PANEL MOUNT		IEC	NEMA		
HKH1ASD2K440K8	HKH1ASP2K440K8	3/4" NPT SS HUB			2 N.O.	BLANK
HKH1ASDAK440	HKH1ASPAK440	M20 CLEARANCE HOLE				
HKH 3-POSITION KEYED SELECTOR SWITCH SPRING RETURN, MOM. RIGHT, MAINT. CENTER & LEFT						
CATALOG NUMBER		ENTRY SIZE	CONTACT ARRANGEMENT		CONTACT BLOCKS	LEGEND PLATE MARKING
DIN RAIL MOUNT	PANEL MOUNT		IEC	NEMA		
HKH1ASD2K540K8	HKH1ASP2K540K8	3/4" NPT SS HUB			2 N.O.	BLANK
HKH1ASDAK540	HKH1ASPAK540	M20 CLEARANCE HOLE				
HKH 3-POSITION KEYED SELECTOR SWITCH SPRING RETURN, MOM. LEFT, MAINT. CENTER & RIGHT						
CATALOG NUMBER		ENTRY SIZE	CONTACT ARRANGEMENT		CONTACT BLOCKS	LEGEND PLATE MARKING
DIN RAIL MOUNT	PANEL MOUNT		IEC	NEMA		
HKH1ASD2K640K8	HKH1ASP2K640K8	3/4" NPT SS HUB			2 N.O.	BLANK
HKH1ASDAK640	HKH1ASPAK640	M20 CLEARANCE HOLE				



STANDARD SIZE 1b STAINLESS STEEL CONFIGURATIONS*



Momentary Push Button

Momentary Mushroom P.B.

Momentary Start-Stop Push Buttons

Pilot Light

ATEX/IECEX Certified

CE 0518 Ex II 2 G Ex de IIC T6...T4 Gb
 0518 Ex II 2 D Ex tb IIIC T6...T4 Db IP66
DEMKO 15 ATEX 1405X
 Ex de IIC T6...T4 Gb
 Ex tb IIIC T85°C...T135°C Db IP66
IECEX UL 15.0054X
 Ambient Range: -50°C ≤ Ta ≤ 60°C

cULus Certified

Class I, Zone 1, AEx de IIC T6...T4 Gb / Ex de IIC T6...T4 Gb X
 Zone 21, AEx tb IIIC T85°C...T135°C Db IP66 / Ex tb IIIC T85°C...T135°C Db IP66 X
 Class I, Division 2, Groups A, B, C, D
 Class II, Division 1, Groups E, F, G (Canada Only)
 Class II, Division 2, Groups E, F, G
 Class III
UL50, 50E, 508, UL60079-0, -1, -7, -31
 Type 3, 4, 4X, 12, 13
 Ambient Range: -50°C ≤ Ta ≤ 60°C



STAINLESS ENCL. ONLY
 CLASS II, DIV. 1, GRPS. E, F, G



FEATURES-SPECIFICATIONS

HAZCON™

The control stations on this page are the most commonly used configurations, including combinations of pilot lights and push buttons.

One entry hole listed is located at bottom.

HKH MOMENTARY SINGLE PUSH BUTTON							
CATALOG NUMBER		ENTRY SIZE	CONTACT ARRANGEMENT		CONTACT BLOCKS	BUTTON COLOR	LEGEND PLATE MARKING
DIN RAIL MOUNT	PANEL MOUNT		IEC	NEMA			
HKH1BSD2P11K8	HKH1BSP2P11K8	3/4" NPT SS HUB			1 N.O. / 1 N.C.	GREEN: START/(I)/BLANK RED: STOP/(O)/BLANK BLACK: BLANK	NONE
HKH1BSDAP11	HKH1BSPAP11	M20 CLEARANCE HOLE					
SUPPLIED WITH 7 COLORED AND MARKED DISCS – SEE BUTTON COLOR							

HKH MOMENTARY SINGLE PUSH BUTTON - MUSHROOM							
CATALOG NUMBER		ENTRY SIZE	CONTACT ARRANGEMENT		CONTACT BLOCKS	BUTTON COLOR	LEGEND PLATE MARKING
DIN RAIL MOUNT	PANEL MOUNT		IEC	NEMA			
HKH1BSD2M11BK8	HKH1BSP2M11BK8	3/4" NPT SS HUB			1 N.O. / 1 N.C.	RED	STOP
HKH1BSD2M21AK8	HKH1BSP2M21AK8					GREEN	START
HKH1BSD2M31OK8	HKH1BSP2M31OK8					BLACK	BLANK
HKH1BSDAM11B	HKH1BSPAM11B	M20 CLEARANCE HOLE			1 N.O. / 1 N.C.	RED	STOP
HKH1BSDAM21A	HKH1BSPAM21A					GREEN	START
HKH1BSDAM310	HKH1BSPAM310					BLACK	BLANK

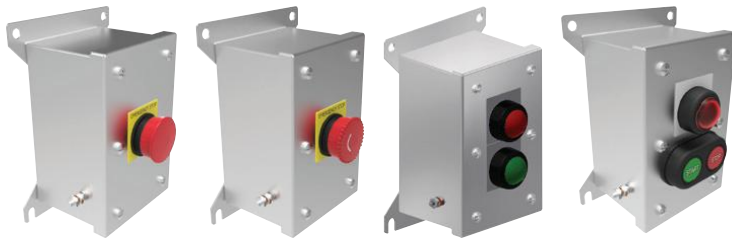
HKH DOUBLE MOMENTARY START-STOP PUSH BUTTONS							
CATALOG NUMBER [Ⓛ]		ENTRY SIZE	CONTACT ARRANGEMENT		CONTACT BLOCKS	BUTTON COLOR	LEGEND PLATE MARKING
DIN RAIL MOUNT	PANEL MOUNT		IEC	NEMA			
HKH1BSD2P11P11K8	HKH1BEP2P11P11K8	3/4" NPT SS HUB		START STOP 	1 N.O. / 1 N.C.	GREEN, START, (I) RED, STOP, (O)	—
HKH1BSDAP11P11	HKH1BEPAP11P11	M20 CLEARANCE HOLE			1 N.O. / 1 N.C.		

HKH SINGLE PILOT LIGHT								
3/4" NPT SS HUB SUPPLIED		M20 CLEARANCE HOLE SUPPLIED		CONTACT ARRANGEMENT		LAMP VOLTAGE	COLOR	LEGEND PLATE MARKING
DIN RAIL MOUNT	PANEL MOUNT	DIN RAIL MOUNT	PANEL MOUNT	IEC	NEMA			
HKH1BSD2LRL0K8	HKH1BSP2LRL0K8	HKH1BSDALRLO	HKH1BSPALRLO			12V-254V AC/DC IEC EX 12V-250V AC/DC UL	RED LED	BLANK
HKH1BSD2LGL0K8	HKH1BSP2LGL0K8	HKH1BSDALGLO	HKH1BSPALGLO				GREEN LED	
HKH1BSD2LAL0K8	HKH1BSP2LAL0K8	HKH1BSDALALO	HKH1BSPALALO				AMBER LED	
HKH1BSD2LCL0K8	HKH1BSP2LCL0K8	HKH1BSDALCLO	HKH1BSPALCLO				CLEAR LED	
HKH1BSD2LBL0K8	HKH1BSP2LBL0K8	HKH1BSDALBLO	HKH1BSPALBLO				BLUE LED	

Ⓛ Din Rail mount assemblies supplied in Flange In type enclosures.(S) Panel mount assemblies supplied with Flange Out enclosures.(E)



STANDARD SIZE 1b STAINLESS STEEL CONFIGURATIONS*



Maintained Mushroom P.B. Pull Release

Maintained Mushroom P.B. Twist Release

Double Pilot Light

Pilot Light & Double Momentary Push Button

ATEX/IECEx Certified

CE 0518 Ex II 2 G Ex de IIC T6...T4 Gb
 0518 Ex II 2 D Ex tb IIIC T6...T4 Db IP66
DEMKO 15 ATEX 1405X
 Ex de IIC T6...T4 Gb
 Ex tb IIIC T85°C...T135°C Db IP66
 IECEx UL 15.0054X
 Ambient Range: -50°C ≤ Ta ≤ 60°C

cULus Certified

Class I, Zone 1, AEx de IIC T6...T4 Gb / Ex de IIC T6...T4 Gb X
 Zone 21, AEx tb IIIC T85°C...T135°C Db IP66 / Ex tb IIIC T85°C...T135°C Db IP66 X
 Class I, Division 2, Groups A, B, C, D
 Class II, Division 1, Groups E, F, G (Canada Only)
 Class II, Division 2, Groups E, F, G
 Class III
 UL50, 50E, 508, UL60079-0, -1, -7, -31
 Type 3, 4, 4X, 12, 13
 Ambient Range: -50°C ≤ Ta ≤ 60°C



STAINLESS ENCL. ONLY
 CLASS II, DIV. 1, GRPS. E, F, G



FEATURES-SPECIFICATIONS

HAZCON™

The control stations on this page are the most commonly used configurations, including combinations of pilot lights and push buttons.

One entry listed is located at bottom.

HKH MAINTAINED MUSHROOM STAY PUT E-STOP							
CATALOG NUMBER		ENTRY SIZE	CONTACT ARRANGEMENT		CONTACT BLOCKS	BUTTON COLOR	LEGEND PLATE MARKING
DIN RAIL MOUNT	PANEL MOUNT		IEC	NEMA			
HKH1BSD2M41EK8 (PULL RELEASE)	HKH1BSP2M41EK8 (PULL RELEASE)	3/4" NPT SS HUB			1 N.O. / 1 N.C.	RED	EMERGENCY STOP
HKH1BSD2M71EK8 (TWIST RELEASE)	HKH1BSP2M71EK8 (TWIST RELEASE)						
HKH1BSDAM41E (PULL RELEASE)	HKH1BSPAM41E (PULL RELEASE)	M20 CLEARANCE HOLE			1 N.O. / 1 N.C.	RED	EMERGENCY STOP
HKH1BSDAM71E (TWIST RELEASE)	HKH1BSPAM71E (TWIST RELEASE)						

HKH MAINTAINED SINGLE PUSH PULL BUTTON - MUSHROOM							
CATALOG NUMBER		ENTRY SIZE	CONTACT ARRANGEMENT		CONTACT BLOCKS	BUTTON COLOR	LEGEND PLATE MARKING
DIN RAIL MOUNT	PANEL MOUNT		IEC	NEMA			
HKH1BSD2M41BK8	HKH1BSP2M41BK8	3/4" NPT SS HUB			1 N.O. / 1 N.C.	RED	STOP
HKH1BSD2M51AK8	HKH1BSP2M51AK8					GREEN	START
HKH1BSD2M61OK8	HKH1BSP2M61OK8					BLACK	BLANK
HKH1BSDAM41B	HKH1BSPAM41B	M20 CLEARANCE HOLE			1 N.O. / 1 N.C.	RED	STOP
HKH1BSDAM51A	HKH1BSPAM51A					GREEN	START
HKH1BSDAM610	HKH1BSPAM610					BLACK	BLANK

HKH DOUBLE PILOT LIGHT								
3/4" NPT SS HUB SUPPLIED		M20 CLEARANCE HOLE SUPPLIED		CONTACT ARRANGEMENT		LAMP VOLTAGE	COLOR	LEGEND PLATE MARKING
DIN RAIL MOUNT	PANEL MOUNT	DIN RAIL MOUNT	PANEL MOUNT	IEC	NEMA			
HKH1BSD2LRL0LGL0K8	HKH1BEP2LRL0LGL0K8	HKH1BSDALRL0LGL0	HKH1BEPALRL0LGL0			12V-254V AC/DC IEC EX	RED/GREEN	BLANK
HKH1BSD2LRL0LRL0K8	HKH1BEP2LRL0LRL0K8	HKH1BSDALRL0LRL0	HKH1BEPALRL0LRL0				RED/RED	
HKH1BSD2LGL0LGL0K8	HKH1BEP2LGL0LGL0K8	HKH1BSDALGL0LGL0	HKH1BEPALGL0LGL0				GREEN/GREEN	

HKH DOUBLE MOMENTARY PUSH BUTTON & PILOT LIGHT								
CATALOG NUMBER		ENTRY SIZE	CONTACT ARRANGEMENT		LAMP VOLTAGE	CONTACT BLOCKS	BUTTON COLOR	LEGEND PLATE MARKING
DIN RAIL MOUNT	PANEL MOUNT		IEC	NEMA				
HKH1BSD2LRL0P21K8	HKH1BEP2LRL0P21K8	3/4" NPT SS HUB			12V-254V AC/DC IEC EX	1 N.O. / 1 N.C.	GREEN, START, (I)	—
HKH1BSDALRL0P21	HKH1BEPALRL0P21	M20 CLEARANCE HOLE					RED, STOP, (O)	—

① Din Rail mount assemblies supplied in Flange In type enclosures. (S) Panel mount assemblies supplied with Flange Out enclosures. (E)



HKH SERIES

KILLARK

STANDARD SIZE 1b STAINLESS STEEL CONFIGURATIONS



**2 Position
Selector Switch
Maint. & Mom.**



**3 Position
Selector Switch
Maint. & Mom.**

FEATURES-SPECIFICATIONS

HAZCON™

The control stations on this page are the most commonly used configurations of rotary selector switches. One entry listed is located at bottom.

ATEX/IECEx Certified

CE 0518 Ex II 2 G Ex de IIC T6...T4 Gb
 CE 0518 Ex II 2 D Ex tb IIIC T6...T4 Db IP66
DEMKO 15 ATEX 1405X
 Ex de IIC T6...T4 Gb
 Ex tb IIIC T85°C...T135°C Db IP66
IECEX UL 15.0054X
 Ambient Range: -50°C ≤ Ta ≤ 60°C

cULus Certified

Class I, Zone 1, AEx de IIC T6...T4 Gb / Ex de IIC T6...T4 Gb X
 Zone 21, AEx tb IIIC T85°C...T135°C Db IP66 / Ex tb IIIC T85°C...T135°C Db IP66 X
 Class I, Division 2, Groups A, B, C, D
 Class II, Division 1, Groups E, F, G (Canada Only)
 Class II, Division 2, Groups E, F, G
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UL50, 50E, 508, UL60079-0, -1, -7, -31
 Type 3, 4, 4X, 12, 13
 Ambient Range: -50°C ≤ Ta ≤ 60°C



STAINLESS ENCL. ONLY
 CLASS II, DIV. 1, GRPS. E, F, G



HKH MAINTAINED 2-POSITION SELECTOR SWITCH						
CATALOG NUMBER		ENTRY SIZE	CONTACT ARRANGEMENT		CONTACT BLOCKS	LEGEND PLATE MARKING
DIN RAIL MOUNT	PANEL MOUNT		IEC	NEMA		
HKH1BSD2S11SK8	HKH1BSP2S11SK8	3/4" NPT SS HUB		OFF ON	1 N.C. / 1 N.O.	OFF-ON
HKH1BSDAS11S	HKH1BSPAS11S	M20 CLEARANCE HOLE				
HKH 2-POSITION SELECTOR SWITCH SPRING RETURN, MOM. RIGHT, MAINT. LEFT						
CATALOG NUMBER		ENTRY SIZE	CONTACT ARRANGEMENT		CONTACT BLOCKS	LEGEND PLATE MARKING
DIN RAIL MOUNT	PANEL MOUNT		IEC	NEMA		
HKH1BSD2S210K8	HKH1BSP2S210K8	3/4" NPT SS HUB			1 N.C. / 1 N.O.	BLANK
HKH1BSDAS210	HKH1BSPAS210	M20 CLEARANCE HOLE				
HKH MAINTAINED 3-POSITION SELECTOR SWITCH INDEPENDENT CAM						
CATALOG NUMBER		ENTRY SIZE	CONTACT ARRANGEMENT		CONTACT BLOCKS	LEGEND PLATE MARKING
DIN RAIL MOUNT	PANEL MOUNT		IEC	NEMA		
HKH1BSD2S349K8	HKH1BSP2S349K8	3/4" NPT SS HUB		HAND OFF AUTO	2 N.O.	HAND-OFF-AUTO
HKH1BSDAS349	HKH1BSPAS349	M20 CLEARANCE HOLE				
HKH 3-POSITION SELECTOR SWITCH SPRING RETURN, MOM. LEFT & RIGHT, MAINT. CENTER						
CATALOG NUMBER		ENTRY SIZE	CONTACT ARRANGEMENT		CONTACT BLOCKS	LEGEND PLATE MARKING
DIN RAIL MOUNT	PANEL MOUNT		IEC	NEMA		
HKH1BSD2S440K8	HKH1BSP2S440K8	3/4" NPT SS HUB			2 N.O.	BLANK
HKH1BSDAS440	HKH1BSPAS440	M20 CLEARANCE HOLE				
HKH 3-POSITION SELECTOR SWITCH SPRING RETURN, MOM. RIGHT, MAINT. CENTER & LEFT						
CATALOG NUMBER		ENTRY SIZE	CONTACT ARRANGEMENT		CONTACT BLOCKS	LEGEND PLATE MARKING
DIN RAIL MOUNT	PANEL MOUNT		IEC	NEMA		
HKH1BSD2S540K8	HKH1BSP2S540K8	3/4" NPT SS HUB			2 N.O.	BLANK
HKH1BSDAS540	HKH1BSPAS540	M20 CLEARANCE HOLE				
HKH 3-POSITION SELECTOR SWITCH SPRING RETURN, MOM. LEFT, MAINT. CENTER & RIGHT						
CATALOG NUMBER		ENTRY SIZE	CONTACT ARRANGEMENT		CONTACT BLOCKS	LEGEND PLATE MARKING
DIN RAIL MOUNT	PANEL MOUNT		IEC	NEMA		
HKH1BSD2S640K8	HKH1BSP2S640K8	3/4" NPT SS HUB			2 N.O.	BLANK
HKH1BSDAS640	HKH1BSPAS640	M20 CLEARANCE HOLE				



STANDARD SIZE 1b STAINLESS STEEL CONFIGURATIONS



2 Position
Key Selector Swt
Maint. & Mom.



3 Position
Key Selector Swt
Maint. & Mom.

FEATURES-SPECIFICATIONS

HAZCON™

The control stations on this page are the most commonly used configurations of keyed rotary selector switches. One entry listed is located at bottom.

ATEX/IECEx Certified

CE 0518 Ex II 2 G Ex de IIC T6...T4 Gb
0518 Ex II 2 D Ex tb IIIC T6...T4 Db IP66
DEMKO 15 ATEX 1405X
Ex de IIC T6...T4 Gb
Ex tb IIIC T85°C...T135°C Db IP66
IECEx UL 15.0054X
Ambient Range: -50°C ≤ Ta ≤ 60°C

cULus Certified

Class I, Zone 1, AEx de IIC T6...T4 Gb / Ex de IIC T6...T4 Gb X
Zone 21, AEx tb IIIC T85°C...T135°C Db IP66 / Ex tb IIIC T85°C...T135°C Db IP66 X
Class I, Division 2, Groups A, B, C, D
Class II, Division 1, Groups E, F, G (Canada Only)
Class II, Division 2, Groups E, F, G
Class III
UL50, 50E, 508, UL60079-0, -1, -7, -31
Type 3, 4, 4X, 12
Ambient Range: -50°C ≤ Ta ≤ 60°C



STAINLESS ENCL. ONLY
CLASS II, DIV. 1, GRPS. E, F, G



HKH MAINTAINED 2-POSITION KEYED SELECTOR SWITCH						
CATALOG NUMBER		ENTRY SIZE	CONTACT ARRANGEMENT		CONTACT BLOCKS	LEGEND PLATE MARKING
DIN RAIL MOUNT	PANEL MOUNT		IEC	NEMA		
HKH1BSD2K11SK8	HKH1BSP2K11SK8	3/4" NPT SS HUB		OFF ON	1 N.C. / 1 N.O.	OFF-ON
HKH1BSDAK11S	HKH1BSPAK11S	M20 CLEARANCE HOLE				
HKH 2-POSITION KEYED SELECTOR SWITCH SPRING RETURN, MOM. RIGHT, MAINT. LEFT						
CATALOG NUMBER		ENTRY SIZE	CONTACT ARRANGEMENT		CONTACT BLOCKS	LEGEND PLATE MARKING
DIN RAIL MOUNT	PANEL MOUNT		IEC	NEMA		
HKH1BSD2K210K8	HKH1BSP2K210K8	3/4" NPT SS HUB			1 N.C. / 1 N.O.	BLANK
HKH1BSDAK210	HKH1BSPAK210	M20 CLEARANCE HOLE				
HKH MAINTAINED 3-POSITION KEYED SELECTOR SWITCH INDEPENDENT CAM						
CATALOG NUMBER		ENTRY SIZE	CONTACT ARRANGEMENT		CONTACT BLOCKS	LEGEND PLATE MARKING
DIN RAIL MOUNT	PANEL MOUNT		IEC	NEMA		
HKH1BSD2K349K8	HKH1BSP2K349K8	3/4" NPT SS HUB		HAND OFF AUTO	2 N.O.	HAND-OFF-AUTO
HKH1BSDAK349	HKH1BSPAK349	M20 CLEARANCE HOLE				
HKH 3-POSITION KEYED SELECTOR SWITCH SPRING RETURN, MOM. LEFT & RIGHT, MAINT. CENTER						
CATALOG NUMBER		ENTRY SIZE	CONTACT ARRANGEMENT		CONTACT BLOCKS	LEGEND PLATE MARKING
DIN RAIL MOUNT	PANEL MOUNT		IEC	NEMA		
HKH1BSD2K440K8	HKH1BSP2K440K8	3/4" NPT SS HUB			2 N.O.	BLANK
HKH1BSDAK440	HKH1BSPAK440	M20 CLEARANCE HOLE				
HKH 3-POSITION KEYED SELECTOR SWITCH SPRING RETURN, MOM. RIGHT, MAINT. CENTER & LEFT						
CATALOG NUMBER		ENTRY SIZE	CONTACT ARRANGEMENT		CONTACT BLOCKS	LEGEND PLATE MARKING
DIN RAIL MOUNT	PANEL MOUNT		IEC	NEMA		
HKH1BSD2K540K8	HKH1BSP2K540K8	3/4" NPT SS HUB			2 N.O.	BLANK
HKH1BSDAK540	HKH1BSPAK540	M20 CLEARANCE HOLE				
HKH 3-POSITION KEYED SELECTOR SWITCH SPRING RETURN, MOM. LEFT, MAINT. CENTER & RIGHT						
CATALOG NUMBER		ENTRY SIZE	CONTACT ARRANGEMENT		CONTACT BLOCKS	LEGEND PLATE MARKING
DIN RAIL MOUNT	PANEL MOUNT		IEC	NEMA		
HKH1BSD2K640K8	HKH1BSP2K640K8	3/4" NPT SS HUB			2 N.O.	BLANK
HKH1BSDAK640	HKH1BSPAK640	M20 CLEARANCE HOLE				



STANDARD SIZE 1c STAINLESS STEEL CONFIGURATIONS



ATEX/IECEx Certified

CE 0518 Ex II 2 G Ex de IIC T6...T4 Gb
 0518 Ex II 2 D Ex tb IIC T6...T4 Db IP66
DEMKO 15 ATEX 1405X
 Ex de IIC T6...T4 Gb
 Ex tb IIC T85°C...T135°C Db IP66
 IECEx UL 15.0054X
 Ambient Range: -50°C ≤ Ta ≤ 60°C

cULus Certified

Class I, Zone 1, AEx de IIC T6...T4 Gb / Ex de IIC T6...T4 Gb X
 Zone 21, AEx tb IIC T85°C...T135°C Db IP66 / Ex tb IIC T85°C...T135°C Db IP66 X
 Class I, Division 2, Groups A, B, C, D
 Class II, Division 1, Groups E, F, G (Canada Only)
 Class II, Division 2, Groups E, F, G
 Class III
 UL50, 50E, 508, UL60079-0, -1, -7, -31
 Type 3, 4, 4X, 12, 13
 Ambient Range: -50°C ≤ Ta ≤ 60°C



STAINLESS ENCL. ONLY
 CLASS II, DIV. 1, GRPS. E, F, G



FEATURES-SPECIFICATIONS

HAZCON™

The control stations on this page are the most commonly used configurations, including combinations of pilot lights, push buttons, rotary selector switches and ammeters.

One entry hole listed is located at bottom.

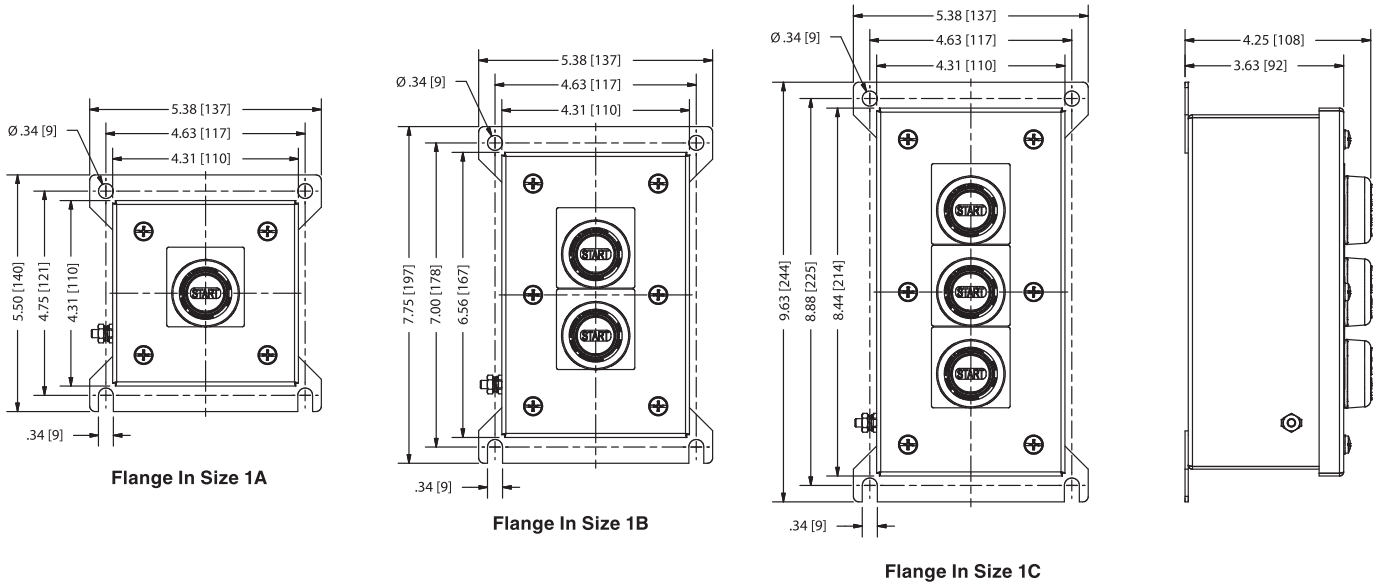
HKH RED PILOT LIGHT & TWO MOMENTARY PUSH BUTTONS								
CATALOG NUMBER①		ENTRY SIZE	CONTACT ARRANGEMENT		LAMP VOLTAGE	CONTACT BLOCKS	BUTTON COLOR	LEGEND PLATE MARKING
DIN RAIL MOUNT	PANEL MOUNT		IEC	NEMA				
HKHMOD000021	HKHMOD000022	3/4" NPT SS HUB			12V-254V AC/DC IEC EX	1 N.C.	RED STOP (I)	BLANK
HKHMOD000023	HKHMOD000024	M20 CLEARANCE HOLE			12V-250V AC/DC UL	1 N.O.	GREEN START (O)	
HKH THREE MOMENTARY PUSH BUTTONS								
CATALOG NUMBER①		ENTRY SIZE	CONTACT ARRANGEMENT		CONTACT BLOCKS	BUTTON COLOR	LEGEND PLATE MARKING	
DIN RAIL MOUNT	PANEL MOUNT		IEC	NEMA				
HKHMOD000025	HKHMOD000026	3/4" NPT SS HUB			1 N.O. / 1 N.C.	GREEN: START/(I)/BLANK	BLANK	
HKHMOD000027	HKHMOD000028	M20 CLEARANCE HOLE			1 N.O. / 1 N.C.	1 N.O. / 1 N.C.		RED: STOP/(O)/BLANK BLACK: BLANK
HKH RED PILOT LIGHT, MUSHROOM MAINTAINED P.B., DOUBLE MOMENTARY P.B.								
CATALOG NUMBER①		ENTRY SIZE	CONTACT ARRANGEMENT		LAMP VOLTAGE	BUTTON COLOR	LEGEND PLATE MARKING	
DIN RAIL MOUNT	PANEL MOUNT		IEC	NEMA				
HKHMOD000029 (PULL RELEASE)	HKHMOD000030 (PULL RELEASE)	3/4" NPT SS HUB			12V-254V AC/DC IEC EX	RED	BLANK	
HKHMOD000031 (TWIST RELEASE)	HKHMOD000032 (TWIST RELEASE)				12V-250V AC/DC UL	1 N.O. / 1 N.C.		GREEN: START/(I)/BLANK
HKHMOD000033 (PULL RELEASE)	HKHMOD000034 (PULL RELEASE)	M20 CLEARANCE HOLE			1 N.O. / 1 N.C.	RED: STOP/(O)/BLANK	EMERGENCY STOP	
HKHMOD000035 (TWIST RELEASE)	HKHMOD000036 (TWIST RELEASE)				1 N.O. / 1 N.C.	1 N.O. / 1 N.C.		
HKH 72MM AMMETER & 2 POSITION MAINT. SELECTOR SWITCH								
CATALOG NUMBER①②		ENTRY SIZE	CONTACT ARRANGEMENT		CONTACT BLOCKS	BUTTON COLOR	LEGEND PLATE MARKING	
DIN RAIL MOUNT	PANEL MOUNT		IEC	NEMA				
HKHMOD000037	HKHMOD000038	3/4" NPT SS HUB			1 N.C. / 1 N.O.	—	BLANK	
HKHMOD000039	HKHMOD000040	M20 CLEARANCE HOLE						

① Din Rail mount assemblies supplied in Flange In type enclosures. Panel mount assemblies supplied with Flange Out enclosures.

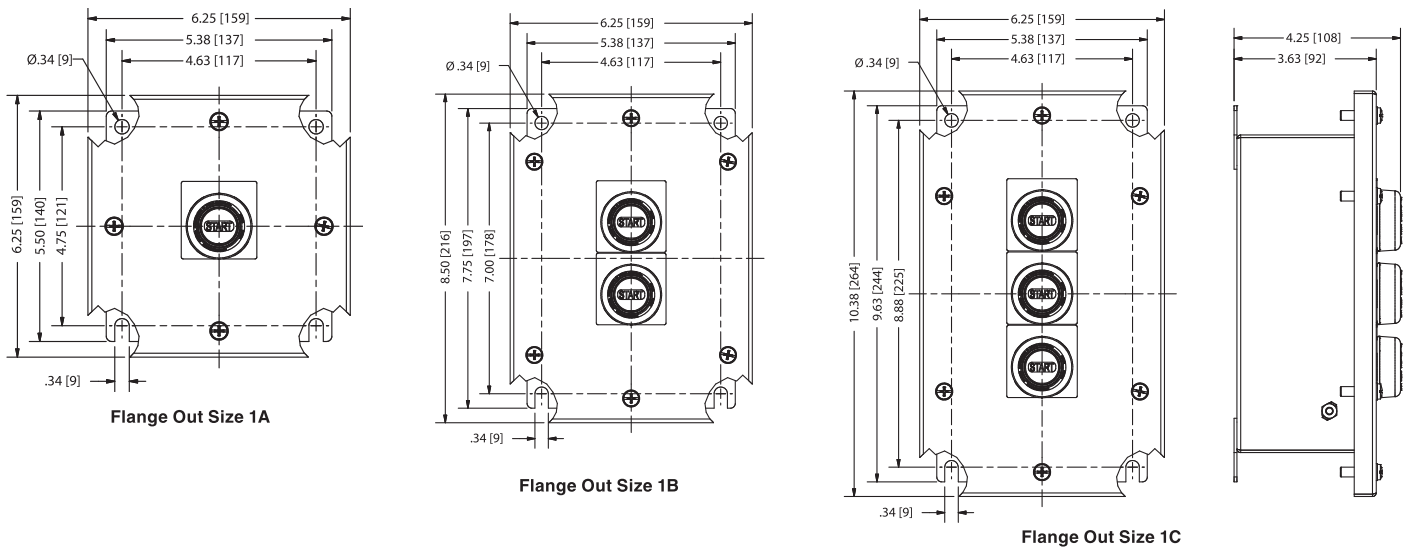
② IECEx/ATEX Only. Supplied with 72mm 1A Ammeter scale 0-5A and 25A OIL scale. For use with Current Transformer. Consult Factory for other scale ranges from page C36 and for Voltmeter options.



DIMENSIONAL DATA - STAINLESS STEEL SIZE 1 FLANGE IN



DIMENSIONAL DATA - STAINLESS STEEL SIZE 1 FLANGE OUT



Entry sizes available:

Clearance hole sizes for 1/2", 3/4" and 1" NPT

Clearance hole sizes for M20, M25 and M32

Drilled and tapped holes for M20, M25 and M32

CLEARANCE HOLE FOR NPT FITTING	LOGIC CODE
1/2" TOP FEED	7
1/2" BOTTOM FEED	1
1/2" FEED THROUGH	4
3/4" TOP FEED	8
3/4" BOTTOM FEED	2
3/4" FEED THROUGH	5
1" TOP FEED	9
1" BOTTOM FEED	3
1" FEED THROUGH	6

CLEARANCE HOLE FOR METRIC FITTING	LOGIC CODE
M20 TOP FEED	C
M20 BOTTOM FEED	A
M20 FEED THROUGH	B
2 X M20 TOP FEED	F
2 X M20 BOTTOM FEED	D
M25 TOP FEED	J
M25 BOTTOM FEED	G
M25 FEED THROUGH	H



SIZE 2a & 2c STAINLESS STEEL FLANGE IN



ATEX/IECEX Certified

CE 0518 Ex II 2 G Ex de IIC T6...T4 Gb
 0518 Ex II 2 D Ex tb IIIC T6...T4 Db IP66
DEMKO 15 ATEX 1405X
 Ex de IIC T6...T4 Gb
 Ex tb IIIC T85°C...T135°C Db IP66
IECEX UL 15.0054X
 Ambient Range: -50°C ≤ Ta ≤ 60°C

cULus Certified

Class I, Zone 1, AEx de IIC T6...T4 Gb / Ex de IIC T6...T4 Gb X
 Zone 21, AEx tb IIIC T85°C...T135°C Db IP66 / Ex tb IIIC T85°C...T135°C Db IP66 X
 Class I, Division 2, Groups A, B, C, D
 Class II, Division 1, Groups E, F, G (Canada Only)
 Class II, Division 2, Groups E, F, G
 Class III
UL50, 50E, 508, UL60079-0, -1, -7, -31
 Type 3, 4, 4X, 12, 13
 Ambient Range: -50°C ≤ Ta ≤ 60°C



STAINLESS ENCL. ONLY
 CLASS II, DIV. 1, GRPS. E, F, G

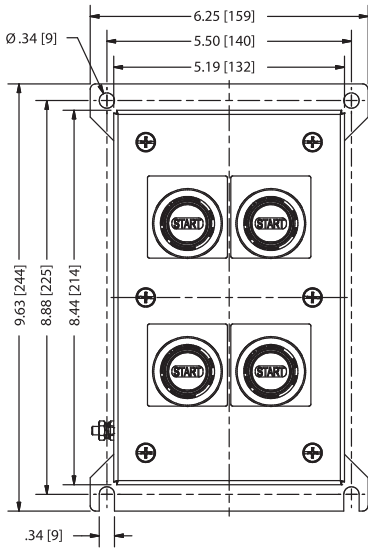


FEATURES-SPECIFICATIONS

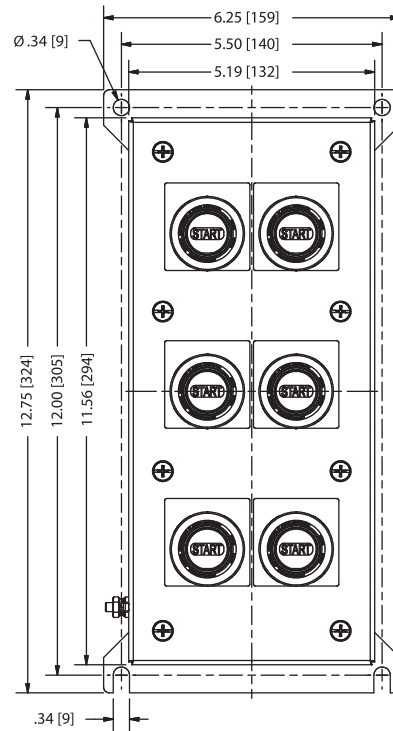
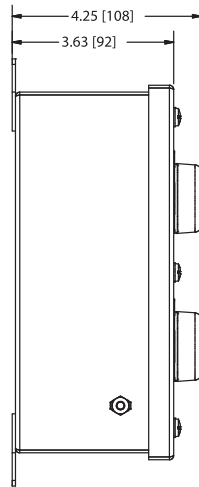
HAZCON™

Size 2a and 2c control stations can be factory ordered to include combinations of pilot lights, push buttons, rotary selector switches, ammeters and terminal blocks.

Entry holes can be located on all sides.



Size 2a



Size 2c

Entry sizes available:

Clearance hole sizes for 1/2", 3/4" and 1" NPT

Clearance hole sizes for M20, M25 and M32

Drilled and tapped holes for M20, M25 and M32

CLEARANCE HOLE FOR NPT FITTING	LOGIC CODE
1/2" TOP FEED	7
1/2" BOTTOM FEED	1
1/2" FEED THROUGH	4
3/4" TOP FEED	8
3/4" BOTTOM FEED	2
3/4" FEED THROUGH	5
1" TOP FEED	9
1" BOTTOM FEED	3
1" FEED THROUGH	6

CLEARANCE HOLE FOR METRIC FITTING	LOGIC CODE
M20 TOP FEED	C
M20 BOTTOM FEED	A
M20 FEED THROUGH	B
2 X M20 TOP FEED	F
2 X M20 BOTTOM FEED	D
M25 TOP FEED	J
M25 BOTTOM FEED	G
M25 FEED THROUGH	H
2 X M25 BOTTOM FEED	K



SIZE 2a & 2c STAINLESS STEEL FLANGE OUT



ATEX/IECEx Certified

CE 0518 Ex II 2 G Ex de IIC T6...T4 Gb
 CE 0518 Ex II 2 D Ex tb IIIC T6...T4 Db IP66
DEMKO 15 ATEX 1405X
 Ex de IIC T6...T4 Gb
 Ex tb IIIC T85°C...T135°C Db IP66
 IECEx UL 15.0054X
 Ambient Range: -50°C ≤ Ta ≤ 60°C

cULus Certified

Class I, Zone 1, AEx de IIC T6...T4 Gb / Ex de IIC T6...T4 Gb X
 Zone 21, AEx tb IIIC T85°C...T135°C Db IP66 / Ex tb IIIC T85°C...T135°C Db IP66 X
 Class I, Division 2, Groups A, B, C, D
 Class II, Division 1, Groups E, F, G (Canada Only)
 Class II, Division 2, Groups E, F, G
 Class III
 UL50, 50E, 508, UL60079-0, -1, -7, -31
 Type 3, 4, 4X, 12, 13
 Ambient Range: -50°C ≤ Ta ≤ 60°C



STAINLESS ENCL. ONLY
 CLASS II, DIV. 1, GRPS. E, F, G

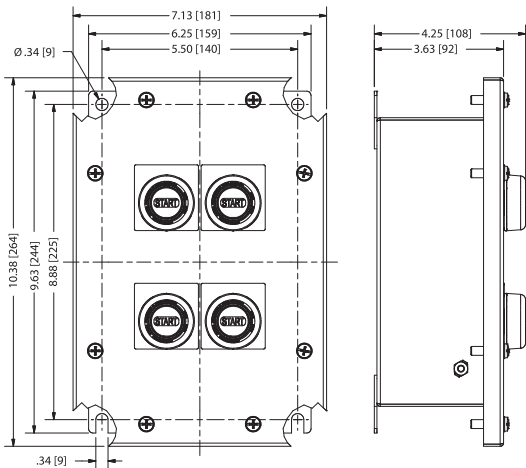


FEATURES-SPECIFICATIONS

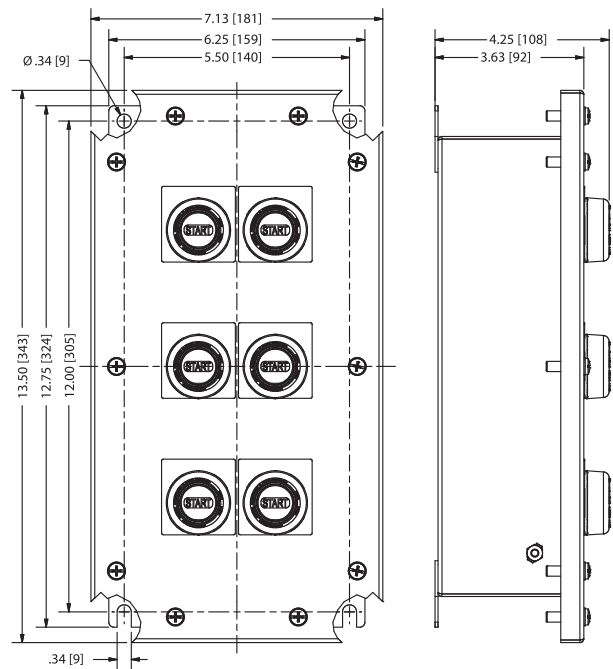
HAZCON™

Size 2a and 2c control stations can be factory ordered to include combinations of pilot lights, push buttons, rotary selector switches, ammeters and terminal blocks.

Entry holes can be located on all sides.



Size 2a



Size 2c

Entry sizes available:

Clearance hole sizes for 1/2", 3/4" and 1" NPT

Clearance hole sizes for M20, M25 and M32

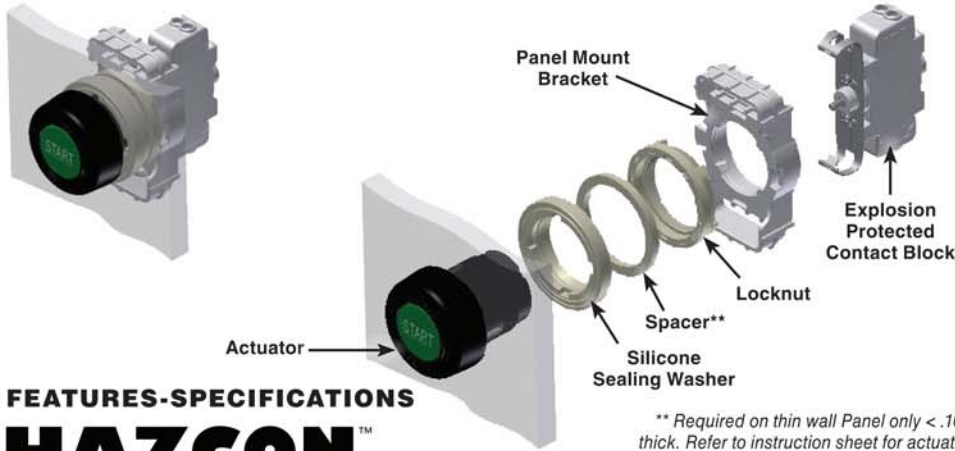
Drilled and tapped holes for M20, M25 and M32

CLEARANCE HOLE FOR NPT FITTING	LOGIC CODE
1/2" TOP FEED	7
1/2" BOTTOM FEED	1
1/2" FEED THROUGH	4
3/4" TOP FEED	8
3/4" BOTTOM FEED	2
3/4" FEED THROUGH	5
1" TOP FEED	9
1" BOTTOM FEED	3
1" FEED THROUGH	6

CLEARANCE HOLE FOR METRIC FITTING	LOGIC CODE
2 X M20 TOP FEED	F
2 X M20 BOTTOM FEED	D
2 X M20 FEED THROUGH	E
2 X M25 TOP FEED	M
2 X M25 BOTTOM FEED	K
2 X M25 FEED THROUGH	L
M32 TOP FEED	Q
M32 BOTTOM FEED	N
M32 FEED THROUGH	P



ACTUATOR ASSEMBLIES FOR PANEL MOUNT APPLICATIONS



ATEX/IECEX Certified

0518 Ⓢ II 2 G Ex e IIC Gb
 0518 Ⓢ II 2 D Ex tb IIC Db
 IP66
 -50°C ≤ Ta ≤ +60°C
 DEMKO 14 ATEX 1400U
 Ex e IIC Gb
 Ex tb IIC Db
 -50°C ≤ Ta ≤ +60°C
 IECEx UL 14.0104U

cULus Certified

Class I, Zone 1, AEx e IIC Gb / Ex e IIC Gb U
 Zone 21, AEx tb IIC Db / Ex tb IIC Db U
 Class I, Division 2, Groups A, B, C, D
 Class II, Div. 1, Groups E, F, G (Canada)
 Class II, Division 2, Groups E, F, G
 Class III
 -50°C ≤ Ta ≤ +60°C
 Type 3/4/4X/12/13 IP66



** Required on thin wall Panel only < .16" thick. Refer to instruction sheet for actuator

FEATURES-SPECIFICATIONS

HAZCON™

Complete actuator catalog numbers with contacts for mounting to your panel with cover thickness from 0.04" to 0.25".

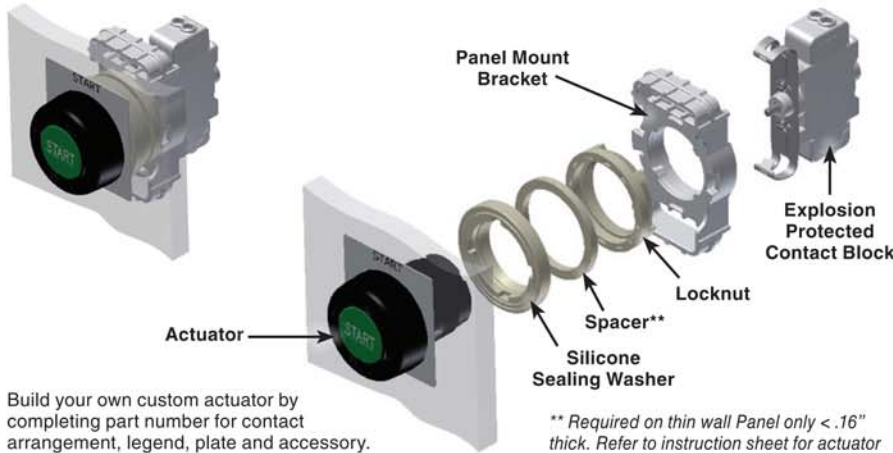
MOMENTARY START/STOP PUSH BUTTONS	
BASIC CATALOG NUMBERS	DESCRIPTION
HKHPBMSS1	MOMENTARY PUSH BUTTON WITH 1 N.O. & 1 N.C. CONTACT – INCLUDES GRN START, GRN (I), RED STOP & RED O, GREEN, RED & BLACK BLANK DISC 7 HKHPMBRKT
HKHPBMMTC1	MOMENTARY PUSH BUTTON, 3 CONTACTS
HKHPBILLMM1	MOMENTARY ILLUMINATED PUSH BUTTON
MOMENTARY MUSHROOM HEAD PUSH BUTTONS	
HKHPBMRR1	MOMENTARY MUSHROOM PB, RED WITH 1 N.O. & 1 N.C. CONTACT & HKHPMBRKT
HKHPBMMB1	MOMENTARY MUSHROOM PB, BLACK WITH 1 N.O. & 1 N.C. CONTACT & HKHPMBRKT
HKHPBMMG1	MOMENTARY MUSHROOM PB, GREEN WITH 1 N.O. & 1 N.C. CONTACT & HKHPMBRKT
DOUBLE MOMENTARY PUSH BUTTON	
HKHDBLPBMMGR1	DOUBLE MOMENTARY PUSH BUTTON, RED & GREEN BUTTONS WITH 1 N.O. & 1 N.C. & HKHPMBRKT
MAINTAINED MUSHROOM HEAD PUSH BUTTONS	
HKHPBPMTR1	MAINTAINED MUSHROOM PUSH/PULL PB, RED WITH 1 N.O. & 1 N.C. CONTACT & HKHPMBRKT
HKHPBPMTB1	MAINTAINED MUSHROOM PUSH/PULL PB, BLACK WITH 1 N.O. & 1 N.C. CONTACT & HKHPMBRKT
HKHPBPMTG1	MAINTAINED MUSHROOM PUSH/PULL PB, GREEN WITH 1 N.O. & 1 N.C. CONTACT & HKHPMBRKT
HKHPBTMTMR1	MAINTAINED MUSHROOM PB TWIST RELEASE, RED WITH 1 N.O. & 1 N.C. CONTACT & HKHPMBRKT
HKHPBKMTMRH1	MAINTAINED PUSH BUTTON KEY RELEASE, MUSHROOM RED HD, HORIZONTAL WITH 1 N.O. & 1 N.C. CONTACT & HKHPMBRKT
HKHPBKMTMRV1	MAINTAINED PUSH BUTTON KEY RELEASE, MUSHROOM RED HD, VERTICAL WITH 1 N.O. & 1 N.C. CONTACT & HKHPMBRKT
PILOT LIGHT LENS ASSEMBLY	
HKHPLRL	PILOT LIGHT RED LENS ASSEMBLY WITH 12-254V AC/DC LAMP MODULE
HKHPLGL	PILOT LIGHT GREEN LENS ASSEMBLY WITH 12-254V AC/DC LAMP MODULE
HKHPLAL	PILOT LIGHT AMBER LENS ASSEMBLY WITH 12-254V AC/DC LAMP MODULE
HKHPLCL	PILOT LIGHT CLEAR LENS ASSEMBLY WITH 12-254V AC/DC LAMP MODULE
HKHPLBL	PILOT LIGHT BLUE LENS ASSEMBLY WITH 12-254V AC/DC LAMP MODULE
2 POSITION SELECTOR SWITCHES	
HKH2PSMTH1	2 POSITION MAINTAINED CONTACT, HORIZONTAL WITH 1 N.O. & 1 N.C. CONTACT & HKHPMBRKT
HKH2PSMTV1	2 POSITION MAINTAINED CONTACT, VERTICAL WITH 1 N.O. & 1 N.C. CONTACT & HKHPMBRKT
HKH2PSMMRH1	2 POSITION MOMENTARY RIGHT CONTACT, HORIZONTAL WITH 1 N.O. & 1 N.C. CONTACT & HKHPMBRKT
HKH2PSMMRV1	2 POSITION MOMENTARY RIGHT CONTACT, VERTICAL WITH 1 N.O. & 1 N.C. CONTACT & HKHPMBRKT
HKH2PSKH1Ⓢ	2 POSITION KEYED, MAINT./MOM. RIGHT, HORIZONTAL WITH 1 N.O. & 1 N.C. CONTACT & HKHPMBRKT
HKH2PSKV1Ⓢ	2 POSITION KEYED MAINT./MOM. RIGHT, VERTICAL WITH 1 N.O. & 1 N.C. CONTACT & HKHPMBRKT
3 POSITION SELECTOR SWITCHES	
HKH3PSMTIH4	3 POS. MAINTAINED CONTACT INDEPENDENT CAM, HORIZONTAL WITH 2 N.O. CONTACTS & HKHPMBRKT
HKH3PSMTIV4	3 POS. MAINTAINED CONTACT INDEPENDENT CAM, VERTICAL WITH 2 N.O. CONTACTS & HKHPMBRKT
HKH3PSMMRH4	3 POS. MOM. RIGHT MAINT. LEFT/CNTR INDEPENDENT CAM, HORIZONTAL WITH 2 N.O. CONTACTS & HKHPMBRKT
HKH3PSMMRV4	3 POS. MOM. RIGHT MAINT. LEFT/CNTR INDEPENDENT CAM, VERTICAL WITH 2 N.O. CONTACTS & HKHPMBRKT
HKH3PSMMLH4	3 POS. MOM. LEFT, MAINT. RIGHT/CNTR INDEPENDENT CAM, HORIZONTAL WITH 2 N.O. CONTACTS & HKHPMBRKT
HKH3PSMMLV4	3 POS. MOM. LEFT, MAINT. CNTR/RIGHT INDEPENDENT CAM, VERTICAL WITH 2 N.O. CONTACTS & HKHPMBRKT
HKH3PSMMLRH4	3 POS. MOM. LEFT/RIGHT, MAINT. CNTR INDEPENDENT CAM, HORIZONTAL WITH 2 N.O. CONTACTS & HKHPMBRKT
HKH3PSMMLRV4	3 POS. MOM. LEFT/RIGHT, MAINT. CNTR INDEPENDENT CAM, VERTICAL WITH 2 N.O. CONTACTS & HKHPMBRKT
HKH3PSKIH4Ⓢ	3 POSITION KEYED MAINT./MOM. INDEPENDENT CAM, HORIZONTAL WITH 2 N.O. CONTACTS & HKHPMBRKT
HKH3PSKIV4Ⓢ	3 POSITION KEYED MAINT./MOM. INDEPENDENT CAM, VERTICAL WITH 2 N.O. CONTACTS & HKHPMBRKT

Ⓢ Key Rotary Selectors are not Type 13.



CONTROLS

ACTUATOR ASSEMBLIES FOR PANEL MOUNT APPLICATIONS MADE TO YOUR SPECIFICATIONS



Build your own custom actuator by completing part number for contact arrangement, legend, plate and accessory.

** Required on thin wall Panel only < .16" thick. Refer to instruction sheet for actuator

ATEX/IECEX Certified

- 0518 Ⓢ II 2 G Ex e IIC Gb
- 0518 Ⓢ II 2 D Ex tb IIIC Db
- IP66
- 50°C ≤ Ta ≤ +60°C
- DEMKO 14 ATEX 1400U
- Ex e IIC Gb
- Ex tb IIIC Db
- 50°C ≤ Ta ≤ +60°C
- IECEX UL 14.0104U

cULus Certified

- Class I, Zone 1, AEx e IIC Gb / Ex e IIC Gb U
- Zone 21, AEx tb IIIC Db / Ex tb IIIC Db U
- Class I, Division 2, Groups A, B, C, D
- Class II, Div. 1, Groups E, F, G (Canada)
- Class II, Division 2, Groups E, F, G
- Class III
- 50°C ≤ Ta ≤ +60°C
- Type 3/4/4X/12/13 IP66



FEATURES-SPECIFICATIONS

HAZCON™

To order complete with mounting bracket, contacts or pilot light module add suffix to end of catalog number for each;

CONTROL MODULE

- L – LED LAMP 3 – 1NC *6 – 2NO/1NC *9 – 3NC
- 1 – 1NO/1NC 4 – 2NO *7 – 1NO/2NC *10 – 1NO/1NC/LED
- 2 – 1NO 5 – 2NC *8 – 3NO *11 – 2NO/LED
- *12 – 2NC/LED

* Available only with operator HKHPBMMTC
 † Available only with operator HKHPBILLMM

LEGEND PLATE

- A – START
- B – STOP
- C – ON
- D – OFF
- E – EMERGENCY STOP
- F – PUSH TO TEST
- G – RAISE
- H – LOWER
- J – OPEN
- K – CLOSE
- L – FORWARD
- M – REVERSE
- N – RESET
- P – UP
- Q – DOWN
- R – ON-OFF
- S – OFF-ON
- T – UP-DOWN
- X – HAND-AUTO
- Y – OPEN-CLOSE
- Z – OFF-REMOTE
- 0 – BLANK
- 1 – SPECIFY CUSTOM MARKING
- 4 – RUN-OFF-JOG
- 5 – REV-OFF-FWD
- 7 – HAND-OFF-REM
- 9 – HAND-OFF-AUTO

ACCESSORY

- L1- Lockout SST Depressed Lockout, Push Button, Momentary
- L2- Lockout, Plastic Cover, Push Button, Mushroom, Selector
- L3- Lockout, SST Bar Lockout, Push Button, Depressed Mushroom
- L4- Lockout, SST Hinged, Push Button, Depressed Mushroom
- L6 – Hinged Stainless Steel Lockout for double momentary push button in depressed position
- L7 – Hinged Stainless Steel Lockout for 2 position rotary selector switch in left or right position
- L8 – Hinged Stainless Steel Lockout for 3 position rotary selector switch in left, center or right position

i.e. Momentary Push Button complete with Panel Mounting Bracket, control module for 1NO/1NC contact, "START" Legend Plate, and plastic Flip Cover Lockout: HKHPBMMSS1AL2

For red Pilot Light complete with Panel Mounting Bracket, LED Module, and "OFF" Legend Plate: HKHPLRLD

MOMENTARY START/STOP PUSH BUTTONS	
BASIC CATALOG NUMBERS	DESCRIPTION
HKHPBMSS()	MOMENTARY PB, W/ GREEN START, GREEN (I), RED STOP & RED (O), GREEN, RED & BLACK BLANK DISCS
HKHPBMMTC()	MOMENTARY PUSH BUTTON, 3 CONTACTS
HKHPBILLMM()	MOMENTARY ILLUMINATED PUSH BUTTON
MOMENTARY MUSHROOM HEAD PUSH BUTTONS	
HKHPBMMR()	MOMENTARY MUSHROOM PB, RED
HKHPBMMB()	MOMENTARY MUSHROOM PB, BLACK
HKHPBMMG()	MOMENTARY MUSHROOM PB, GREEN
DOUBLE MOMENTARY PUSH BUTTON	
HKHDBLPBMMGR()	DOUBLE MOMENTARY PB, GREEN & RED BUTTONS
MAINTAINED MUSHROOM HEAD PUSH BUTTONS	
HKHPBMTMR()	MAINTAINED MUSHROOM PUSH/PULL PB, RED
HKHPBMTMB()	MAINTAINED MUSHROOM PUSH/PULL PB, BLACK
HKHPBMTMG()	MAINTAINED MUSHROOM PUSH/PULL PB, GREEN
HKHPBTMTMR()	MAINTAINED MUSHROOM PB TWIST RELEASE, RED
HKHPBKMTMRH()Ⓢ	MAINTAINED PUSH BUTTON KEY RELEASE, MUSHROOM RED HD, HORIZONTAL
HKHPBKMTMRV()Ⓢ	MAINTAINED PUSH BUTTON KEY RELEASE, MUSHROOM RED HD, VERTICAL
PILOT LIGHT LENS ASSEMBLY	
HKHPLR()	PILOT LIGHT RED LENS ASSEMBLY
HKHPLG()	PILOT LIGHT GREEN LENS ASSEMBLY
HKHPLA()	PILOT LIGHT AMBER LENS ASSEMBLY
HKHPLC()	PILOT LIGHT CLEAR LENS ASSEMBLY
HKHPLB()	PILOT LIGHT BLUE LENS ASSEMBLY
2 POSITION SELECTOR SWITCHES	
HKH2PSMTH()	2 POSITION MAINTAINED CONTACT, HORIZONTAL
HKH2PSMTV()	2 POSITION MAINTAINED CONTACT, VERTICAL
HKH2PSMMRH()	2 POSITION MOMENTARY RIGHT CONTACT, HORIZONTAL
HKH2PSMMRV()	2 POSITION MOMENTARY RIGHT CONTACT, VERTICAL
HKH2PSKH()ⓈⓈ	2 POSITION KEYED, MAINT./MOM. RIGHT, HORIZONTAL
HKH2PSKV()ⓈⓈ	2 POSITION KEYED MAINT./MOM. RIGHT, VERTICAL
3 POSITION SELECTOR SWITCHES	
HKH3PSMTH()	3 POS. MAINTAINED CONTACT INDEPENDENT CAM, HORIZONTAL
HKH3PSMTIV()	3 POS. MAINTAINED CONTACT INDEPENDENT CAM, VERTICAL
HKH3PSMMRH()	3 POS. MOM. RIGHT MAINT. LEFT/CNTR INDEPENDENT CAM, HORIZONTAL
HKH3PSMMRV()	3 POS. MOM. RIGHT MAINT. LEFT/CNTR INDEPENDENT CAM, VERTICAL
HKH3PSMMLH()	3 POS. MOM. LEFT, MAINT. RIGHT/CNTR INDEPENDENT CAM, HORIZONTAL
HKH3PSMMLV()	3 POS. MOM. LEFT, MAINT. CNTR/RIGHT INDEPENDENT CAM, VERTICAL
HKH3PSMMLRH()	3 POS. MOM. LEFT/RIGHT, MAINT. CNTR INDEPENDENT CAM, HORIZONTAL
HKH3PSMMLRV()	3 POS. MOM. LEFT/RIGHT, MAINT. CNTR INDEPENDENT CAM, VERTICAL
HKH3PSKIH()ⓈⓈ	3 POSITION KEYED MAINT./MOM. INDEPENDENT CAM, HORIZONTAL
HKH3PSKIV()ⓈⓈ	3 POSITION KEYED MAINT./MOM. INDEPENDENT CAM, VERTICAL

Ⓢ Key Rotary Selectors are not Type 13.

Ⓢ All Keyed Actuators supplied with MS-1 key as standard. For different key add digit; 2, 3, 4, 5, or 6 after "H" or "V" in catalog number.



ACTUATOR PROPERTIES AND PANEL MOUNT INSTALLATION

ATEX/IECEx Certified

0518 Ⓢ II 2 G Ex e IIC Gb
 0518 Ⓢ II 2 D Ex tb IIIC Db
 IP66
 -50°C ≤ Ta ≤ 60°C
 DEMKO 14 ATEX 1400U
 Ex e IIC Gb
 Ex tb IIIC Db
 -50°C ≤ Ta ≤ +60°C
 IECEx UL 14.0104U

cULus Certified

Class I, Zone 1, AEx e IIC Gb / Ex e IIC Gb U
 Zone 21, AEx tb IIIC Db / Ex tb IIIC Db U
 Class I, Division 2, Groups A, B, C, D
 Class II, Div. 1, Groups E, F, G (Canada)
 Class II, Division 2, Groups E, F, G
 Class III, Division 1 (Canada)
 Class III
 -50°C ≤ Ta ≤ +60°C
 Type 3/4/4X/12/13 IP66



HKHPBMSS

Momentary Push Button will depress two Contact Blocks. Supplied with 7 colored inserts shown.



HKHPBMMTC

Momentary Push Button will depress three Contact Blocks. Supplied with 7 colored inserts.



HKHPBMMMR, HKHPBMMMG, HKHPBMMMB

Momentary Mushroom Push Button will depress two Contact Blocks. Available in Red, Green and Black

HKHPBPMTMR, HKHPBPMTMG, HKHPBPMTMB

Maintained Mushroom Push Button with Pull Release will depress two Contact Blocks. Available in Red, Green and Black.



HKH2PSMTH, HKH2PSMTV, HKH2PSMMRH, HKH2PSMMRV

2 Position Rotary Selector Switches for Maintained & Momentary action will depress two Contact Blocks.

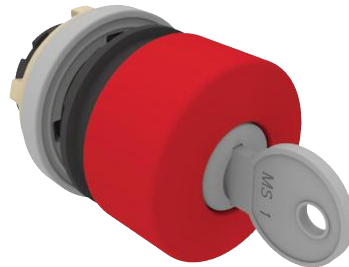
HKH3PSMTIH, HKH3PSMTIV, HKH3PSMMRH, HKH3PSMMRV, HKH3PSMMLH, HKH3PSMMLV, HKH3PSMMLRH, HKH3PSMMLRV

3 Position Rotary Selector Switches for Maintained & Momentary action with Independent Cams that will depress one Contact Block in each Left & Right Positions.



HKHPBILLMM

Momentary Illuminated Push Button with LED Lamp that will depress two Contact Blocks. Available with Red, Green, Amber, Clear and Blue transparent inserts.



HKHPBKMTMRH*, HKHPBKMTMRV*

Maintained Mushroom Push Button with Key Release will depress two Contact Blocks. Available in Red only.

* MS-1 key supplied as standard. Additional key numbers available by adding digit at end of catalog numbers. Key numbers available 2, 3, 4, 5, 6 (HKHPBKMTMRV4)



HKH2PSKH*, HKH2PSKV*

2 Position Key Rotary Selector Switches for Maintained & Momentary action will depress two Contact Blocks.

HKH3PSKIH*, HKH3PSKIV*

3 Position Key Rotary Selector Switches for Maintained & Momentary action with Independent Cams that will depress one Contact Block in each Left & Right Positions.

NOTE: Not rated Type 13



HKHPLR, HKHPLG, HKHPLA, HKHPLC, HKHPLB

Pilot Light Lens Assembly. Available in Red, Green, Amber, Clear and Blue



HKHPBTMTMR

Maintained Mushroom Push Button with Twist Release will depress two Contact Blocks. Available in Red only



HKHDBLPBMMGR

Double Momentary Push Button will depress one Contact Block on each button. Supplied with 7 colored inserts shown by HKHPBMSS.



CONTROLS

DIMENSIONAL DATA FOR INSTALLATION OF HKH PANEL MOUNTED ACTUATORS

FEATURES-SPECIFICATIONS

HAZCON™



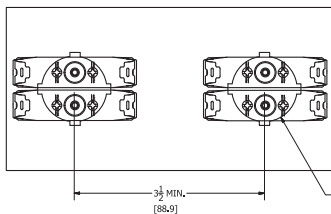
Figure 1

Orientation of rotary actuator part numbers ending in "V"
Keyway positioned at 12 o'clock

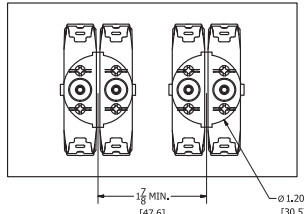


Figure 2

Orientation of rotary actuator part numbers ending in "H"
Keyway positioned at 3 o'clock



Minimum spacing for rotary actuator part numbers ending in "V"



Minimum spacing for rotary actuator part numbers ending in "H"

Note: Some Actuators are supplied with an "H" or a "V" at the end of the catalog number. These letters apply to the orientation of the din rail when used in applications with din rails. This feature allows for two different spacings when installed as panel mount. See details for "H" & "V" actuator spacing and contact block orientation.

When installing other actuators such as push buttons & pilot lights the keyway must also be positioned in the same location as the rotary actuators. See Fig. 1 and Fig. 2

For installation on Type 1, 3, 3R, 4/4X, 12 & 13 and IP66 Enclosures

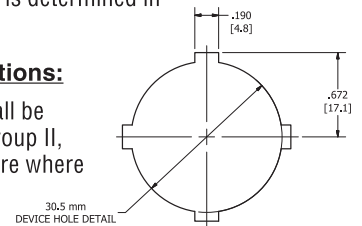


For US / CAN Applications:

Actuators and Pilot Light Lens Assembly shall be installed in a Class I, Zone 1, AEx e IIC / Ex e IIC increased safety enclosure where the suitability is determined in the end application.

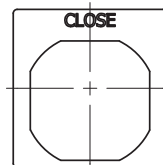
For ATEX / IECEx Applications:

Actuators and Lens Covers shall be installed in a Group I and/or Group II, 'Ex e' increased safety enclosure where the suitability is determined in the end application.

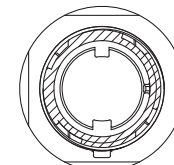


30.5mm Device Hole Detail
Important to maintain Ingress Protection

ACTUATOR LEGEND PLATES:



Legend Plate



Actuator Housing

HKH actuators will only accept Killark Legend Plates. To insure ingress protection and proper operation is maintained the four flat sides of the plate must match up to the four flat areas on the bottom side of the actuator housing. This must be done to allow the legend plate to float freely under the actuator housing.



HAZCON™ CONTROL PANELS

- SJIC-CS, SJICH-CS and USF-CS Control Stations supplied with screw type or cage clamp terminals.
- HKH HAZCON Panel Mount Actuators installed on door and wired to din rail type terminals on request.
- Available in Painted Carbon Steel, 304 & 316 Stainless Steel material in sizes up to 362410 in USF and 161406 in SJIC/SJICH.

Class I, Div. 2, Grps. A, B, C and D
Ex db eb Class I, Zone 1, AEx db eb IIC
T6...T4 Gb
CSA Encl. Type 4 or 4X, IP66
Ta= -50°C to +40°C (Temp Code T6) or
+55°C (Temp Code T5)
or +60°C (Temp Code T4)



Note: Refer to "Enclosures" Section for available sizes of USF and SJIC/SJICH Terminal Boxes. Consult Factory for Make to Order Control Stations.



ACTUATOR ACCESSORIES



HKHPBMMDHLO



HKHPBSSMFCLO



HKHPBMBLO



HKHPBMHLO



HKHDBLPBMMDHLO



HKH2PSSHLO



HKH3PSSHLO

FEATURES-SPECIFICATIONS

HAZCON™

Applications

L1 – Hinged Stainless Steel Lockout for standard momentary push button in depressed position

L2 – Plastic Flip Cover Lockout used for momentary push button actuators, selector switch actuators, and mushroom push button actuators

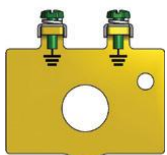
L3 – Bar on Chain Stainless Steel Lockout used for mushroom push buttons in depressed position

L4 – Hinged Stainless Steel Lockout for mushroom push button in depressed position

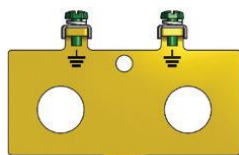
L6 – Hinged Stainless Steel Lockout for double momentary push button in depressed position

L7 – Hinged Stainless Steel Lockout for 2 position rotary selector switch in left or right position

L8 – Hinged Stainless Steel Lockout for 3 position rotary selector switch in left, center or right position



HKHGP11M20



HKHGP22M20



HKHANTOOL



HKHMRSRDYL



HKHPMBRKT (2 Modules)
HKHPMBRKTMM (3 Modules)

One panel mount bracket required with each actuator for panel mount applications. Additionally use contact blocks and pilot light modules ending in "P". HKHPMBRKTMM used only with HKHPBMMTC and HKHPBILLMM



HKHCP

ACCESSORIES

CATALOG NUMBER	DESCRIPTION
HKHPBSSMFCLO	MOM. PB, SELECTOR SWITCH, MUSHROOM PB, PLASTIC FLIP COVER LOCKOUT
HKHPBMMDHLO	PB DEPRESSED STD. MOMENTARY HINGED STAINLESS STEEL LOCKOUT
HKHPBMHLO	PB DEPRESSED MUSHROOM HINGED STAINLESS STEEL LOCKOUT
HKHPBMBLO	MUSHROOM BAR ON CHAIN STAINLESS STEEL LOCKOUT
HKHDBLPBMMDHLO	DOUBLE PB DEPRESSED MOMENTARY HINGED STAINLESS STEEL LOCKOUT
HKH2PSSHLO	2 POSITION ROTARY SELECTOR SWITCH HINGED STAINLESS STEEL LOCKOUT
HKH3PSSHLO	3 POSITION ROTARY SELECTOR SWITCH HINGED STAINLESS STEEL LOCKOUT

BRASS EARTH CONTINUITY PLATE (ECP)

CATALOG NUMBER	DESCRIPTION
HKHGP12M20	GROUND PLATE, BRASS SZ 1 ENCL. 2-M20
HKHGP11M20	GROUND PLATE, BRASS SZ 1 ENCL. 1-M20
HKHGP11M25	GROUND PLATE, BRASS SZ 1 ENCL. 1-M25
HKHGP11M32	GROUND PLATE, BRASS SZ 1 ENCL. 1-M32
HKHGP22M25	GROUND PLATE, BRASS SZ 2 ENCL. 2-M25
HKHGP22M20	GROUND PLATE, BRASS SZ 2 ENCL. 2-M20
HKHGP21M32	GROUND PLATE, BRASS SZ 2 ENCL. 1-M32

ACTUATOR NUT TOOL

HKHANTOOL	ACTUATOR NUT TOOL
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CONTACT BLOCK & PILOT LIGHT PANEL MOUNT BRACKET

HKHPMBRKT	CONTACT BLOCK & PILOT LIGHT PANEL MOUNT BRACKET
HKHPMBRKTMM	PANEL MOUNT BRACKET FOR 3 MODULES

COVER PLUG

HKHCP	COVER DEVICE PLUG
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MUSHROOM BUTTON SHROUDS

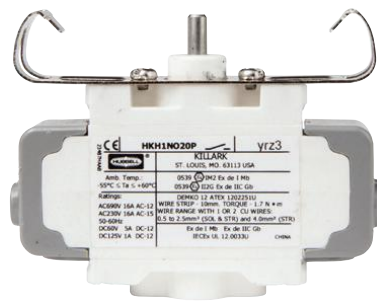
HKHMRSRDYL	YELLOW SHROUD (SPECIFY MARKING IF REQUIRED)
HKHMRSRDBK	BLACK SHROUD (SPECIFY MARKING IF REQUIRED)



FACTORY SEALED CONTACT BLOCK MODULES



HKH1NC20D



HKH1NO20P

ATEX/IECEX Certified

- 0518 I M 2 Ex de I Mb
- 0518 II 2 G Ex de IIC Gb
- Ambient Range: -55°C ≤ Ta ≤ 60°C
- DEMKO 12 ATEX 1202251U
- Ex de I Mb Ex de IIC Gb
- IECEX UL 12.0033U

cULus Certified

- Class I, Zone 1, AEx de IIC T4 / Ex de IIC T4 X
- Class I, Division 2, Groups A, B, C, D
- Ambient Range: -55°C ≤ Ta ≤ 60°C



Normally Closed Contact Identification:
All Gray marked: N.C./ (11&12)

Normally Open Contact Identification:
White center body with gray terminal covers marked: N.O./ (13&14)



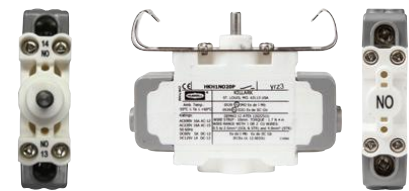
HKH1NC20D



HKH1NC20P



HKH1NO20D



HKH1NO20P

HAZCON™

FEATURES-SPECIFICATIONS

Applications

Standard controls station assemblies are supplied with electrical devices mounted to a din rail inside the box portion of the control station, identified with a "D" in the catalog number. i.e. HKH1AND2P11K8, containing contact blocks ending in "D". When panel or cover mounted version is desired one HKHPMBRKT bracket is required for each actuator to assemble contacts, no DIN Rail supplied. Bracket will mount one contact block in the center or two side by side. Contact block part numbers ending in "P" supplied. Complete control station catalog number to be HKH1ANP2P11K8.



SS Terminal Screw Head for use with the following screwdriver types:

- Slotted
- Phillips
- Robertson



Wire Range for 1 or 2 conductors as listed:

- 0.5 to 2.5mm² (SOL & STR)
- 4.0mm² (STR)
- #22 to #12 AWG (SOL & STR)
- #10 AWG (STR)

Contact Block Applications for US/CAN:

Contact block shall be installed in a Class I, Zone 1, AEx e II/Ex e IIC increased safety enclosure with a minimum IP54 rating or a Class I, Zone 1, AEx d IIC/Zone 21, Aex tb minimum IP64 rating, where the suitability is determined in the end application.

Contact Block Applications for ATEX/IECEX:

Contact block shall be installed in a Group I and/or Group II, 'Ex e' increased safety enclosure with a minimum IPS4 rating or an 'Ex d/ tb' flameproof/dust enclosure with a minimum IP64 rating, where the suitability is determined in the end application.

Contact Block Features:

- **UL Electrical Rating:** 690Vac, 20A, 50-60Hz, 60Vdc, 5A, 110Vdc, 2A, 255Vdc, 1.5A, 1/2 HP @120Vac, 1 HP@208/240/277Vac, A600/P600- Pilot Duty 350Vac- Tungsten Lamp.
- **Wire Allowances:** WIRE RANGE with 1 or 2 WIRES: #22 to #12 AWG (SOL & STR) and #10 AWG (STR).
- **IEC Electrical Ratings:** AC690V 16A AC-12, 50-60 Hz, AC230V 16A AC-15, 50-60Hz, DC60V 5A DC-12, DC125 1A DC-13.
- **Wire Allowances:** WIRE RANGE with 1 or 2 WIRES: 0.5 to 2.5mm (SOL & STR) and 4.0mm² (STR)
- Silver Alloy contacts with Gold Flashing.

CONTACT BLOCK	
CATALOG NUMBERS	DESCRIPTION
HKH1NO20D	N.O. CONTACT, 20A DIN RAIL MOUNT
HKH1NC20D	N.C. CONTACT, 20A DIN RAIL MOUNT
HKH1NO20P	N.O. CONTACT, 20A PANEL MOUNT
HKH1NC20P	N.C. CONTACT, 20A PANEL MOUNT



FACTORY SEALED PILOT LIGHT MODULES



HKHPLD



HKHPLP

ATEX/IECEx Certified

0518 I M 2 Ex de I Mb
 0518 II 2 G Ex de IIC Gb
 Ambient Range: -50°C ≤ Ta ≤ 60°C
 DEMKO 14 ATEX 1337U
 Ex de I Mb Ex de IIC Gb
 IECEx UL 14.0047U

cULus Certified

Class I, Zone 1, AEx de IIC T5 / Ex de IIC T5 X
 Class I, Division 2, Groups A, B, C, D
 Ambient Range: -50°C ≤ Ta ≤ 60°C



FEATURES-SPECIFICATIONS

HAZCON™

Applications

Standard control station assemblies are supplied with electrical devices mounted to din rail inside the box portion of the control station, identified with a "D" in the catalog number. i.e. HKH1AND2LRL0K8. Containing pilot light part number ending in "D". When panel or cover mounted version is desired one HKHPMBRKT bracket is required for each actuator to assemble pilot light, no DIN Rail supplied. The pilot light module will mount on the center of the bracket. Catalog number will change to HKH1ANP2LRL0K8. Pilot light module part number ending in "P".

Pilot Light Applications for US/CAN:

Pilot Light shall be installed in a Class I, Zone 1, AEx e IIC/Ex e IIC increased safety enclosure with a minimum IP54 rating or a Class I, Zone I, AEx d IIC/Zone 21, AEx tb IIIC/Ex d IIC/Ex tb IIIC flameproof/dust enclosure with a minimum IP64 rating, where the suitability is determined in the end application. **Electrical Rating:** 12-250Vac/Vdc, 50-60 Hz, 0.6 WATTS.

Pilot Light Applications for ATEX/IECEx:

Pilot Light shall be installed in a Group I and/or Group II, 'Ex e' increased safety enclosure with a minimum IP54 rating or an 'Ex d/tb' flameproof/dust enclosure with a minimum IP64 rating, where the suitability is determined in the end application. **Electrical Rating:** 12-254 Vac/Vdc, 50-60 Hz, 0.6 WATTS.

Wire Allowances:

WIRE RANGE with 1 or 2 WIRES: #22 to #12 AWG (SOL & STR) and #10 AWG (STR) 0.5 to 2.5mm (SOL & STR) and 4.0mm² (STR)

PILOT	
CATALOG NUMBERS	DESCRIPTION
HKHPLD	PILOT LIGHT MODULE DIN RAIL MOUNT
HKHPLP	PILOT LIGHT MODULE PANEL MOUNT

AMMETERS, 1A, 72MM



MEASURING TYPE	OVERLOAD SCALE	MEASURING RANGE
DIRECT MEASURING	2	0-1 / 2A 0-4 / 8A 0-5 / 10A 0-10 / 20A 0-15 / 30A
FOR CURRENT TRANSFORMER	5	0-1 / 5A 0-2.5 / 12.5A 0-5 / 25A 0-15 / 75A 0-25 / 125A 0-40 / 200A 0-50 / 250A 0-60 / 300A 0-75 / 375A 0-100 / 500A 0-150 / 750A 0-200 / 1000A 0-250 / 1250A 0-300 / 1500A 0-400 / 2000A 0-500 / 2500A 0-600 / 3000A



VOLTMETERS, 72MM



RANGE (AC)
0-25V
0-40V
0-150V
0-250V
0-500V



ATEX/IECEx Certified

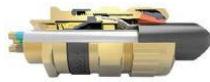
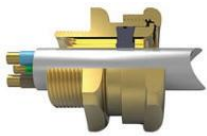
Ex e II
 IECEx CQM 08.0007U

II 2G Ex e II
 DNV-2008-OSL
 -ATEX-21659U
 -40°C ≤ Ta ≤ 60°C



CONTROLS

HUBS / CABLE GLANDS



FEATURES-SPECIFICATIONS

HAZCON™

Applications

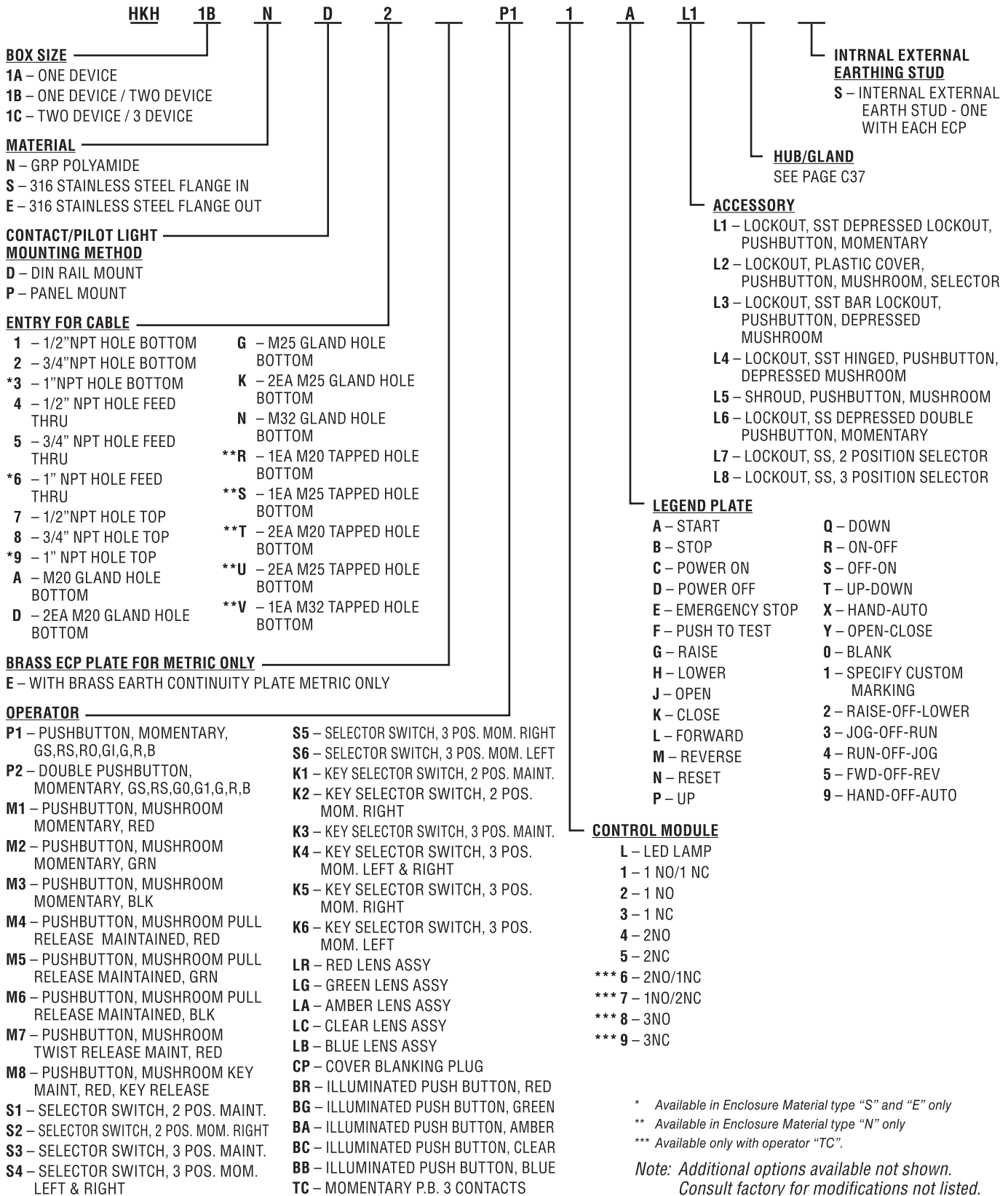
The **421 cable gland** provides a seal on the outer cable sheath and is intended for use on non-armoured elastomer and plastic insulated cables. The cable gland is dual certified Exd and Exe and is suitable for installation in Zone 1 (21) and Zone 2 (22) hazardous areas.

The **MC cable gland** is designed for use with jacketed interlocked, continuously corrugated and welded armor cable. Install where it is essential to provide positive grounding to the cable and for a Type 3, 4 connection.

HUBS/GLANDS	
CATALOG LOGIC NUMBER	DESCRIPTION
H1	421S SINGLE COMP. BRASS GLAND OS-M20
H2	421 SINGLE COMP. BRASS GLAND O-M20
H3	421N SINGLE COMP. BRASS GLAND A-M20
H4	421N SINGLE COMP. BRASS GLAND B-M25
H5	421N SINGLE COMP. BRASS GLAND OS-M20 NAL NICKEL PLATE
H6	421N SINGLE COMP. BRASS GLAND O-M20 NAL NICKEL PLATE
H7	421N SINGLE COMP. BRASS GLAND A-M20 NAL NICKEL PLATE
H8	421N SINGLE COMP. BRASS GLAND B-M25 NAL NICKEL PLATE
H9	421N SINGLE COMP. BRASS GLAND C-M32
HA	421N SINGLE COMP. SS GLAND OS-M20
HB	421N SINGLE COMP. SS GLAND O-M20
HC	421N SINGLE COMP. SS GLAND A-M20
HD	421N SINGLE COMP. SS GLAND B-M25
HE	421N SINGLE COMP. BRASS GLAND C-M32 NAL NICKEL PLATE
HF	421N SINGLE COMP. SS GLAND C-M32
J1	453R SINGLE COMP. BRASS GLAND OS-M20
J2	453R SINGLE COMP. BRASS GLAND O-M20
J3	453R SINGLE COMP. BRASS GLAND A-M20
J4	453R SINGLE COMP. BRASS GLAND B-M25
J5	453R SINGLE COMP. BRASS GLAND OS-M20 NAL NICKEL PLATE
J6	453R SINGLE COMP. BRASS GLAND O-M20 NAL NICKEL PLATE
J7	453R SINGLE COMP. BRASS GLAND A-M20 NAL NICKEL PLATE
J8	453R SINGLE COMP. BRASS GLAND B-M25 NAL NICKEL PLATE
J9	453R SINGLE COMP. BRASS GLAND C-M32
JA	453R SINGLE COMP. SS GLAND OS-M20
JB	453R SINGLE COMP. SS GLAND O-M20
JC	453R SINGLE COMP. SS GLAND A-M20
JD	453R SINGLE COMP. SS GLAND B-M25
JE	453R SINGLE COMP. BRASS GLAND C-M32 NAL NICKEL PLATE
JF	453R SINGLE COMP. SS GLAND C-M32
K1	MC1C JACKETED METAL CLAD CONNECTOR
K2	MC2 JACKETED METAL CLAD CONNECTOR
K3	MC3 JACKETED METAL CLAD CONNECTOR
K4	WH-1G ZINC 1/2" HUB
K5	WH-2G ZINC 3/4" HUB
K6	WH-3G ZINC 1" HUB
K7	WH-SS1G STAINLESS STEEL 1/2" HUB
K8	WH-2SSG STAINLESS STEEL 3/4" HUB
K9	WH-3SSG STAINLESS STEEL 1" HUB
KA	WH-1AG ALUM. 1/2"
KB	WH-2AG ALUM. 3/4"
KC	WH-3AG ALUM. 1" HUB
KD	NMHG1EX PVC COATED 1/2" HUB
KE	NMHG2EX PVC COATED 3/4" HUB
KF	NMHG3EX PVC COATED 1" HUB



CATALOG LOGIC





FACTORY SEALED CONTROLS - INTRODUCTION



Class I, Div. 1 & 2, Groups B*, C, D
 Class I, Zone 1 & 2, Groups IIB, IIA
 Class II, Div. 1 & 2, Groups E, F, G
 Class III
 NEMA 3, 7 (C,D) 9 (E,F,G)

Certified File 2493125

Contact Factory for other certification details

FEATURES-SPECIFICATIONS

SEAL-XM™

Applications

Seal-XM™ Factory Sealed push button stations, selector switches, pilot lights and tumbler switches are used to prevent the igniting of external hazardous atmospheres by the enclosed arcing devices in such areas as:

- Hazardous locations due to the presence of flammable gases or vapors, combustible dusts or easily ignitable fibers or flyings
- Installations at petroleum refineries, chemical and petrochemical plants and other processing or storage facilities where similar hazards exist
- Use in conjunction with magnetic starters or contactors for remote control of motors

Material & Groups

FXCS*-M Groups C, D Copper free aluminum cover & box
FXCS*-MB Groups B, C, D Copper free aluminum cover & box
FXCS*-MBI Groups B, C, D Copper free aluminum cover & ductile iron back box zinc electroplated
FXCS*-MI Groups C, D Copper free aluminum cover & ductile iron back box zinc electroplated

Stainless steel captive cover screws

Operating shafts stainless steel

* Group "B" (-MB & -MBI) versions need not be sealed within first 60" of conduit. Sealing fitting required beyond 60"



D2CU
Factory Sealed
Contact Block

CONTACT BLOCK CAT. NO. D2CU

USED ON:	DIAGRAM
FXCS*-M	
FXCS*-MB	
FXCS*-MBI	
FXCS*-MI	

Hazardous Rating:

Class I, Division 2, Groups A,B,C,D Class I, Zone 2, Groups IIB+H2, IIA, T6

Terminal Capacity:

22 thru 12 AWG [0.52-2.5mm²] copper, solid or stranded conductors. Tightening torque: 7 in-lbs. (tolerance +3.0/0.0) [-0.8Nm]

Contact Electrical Ratings:

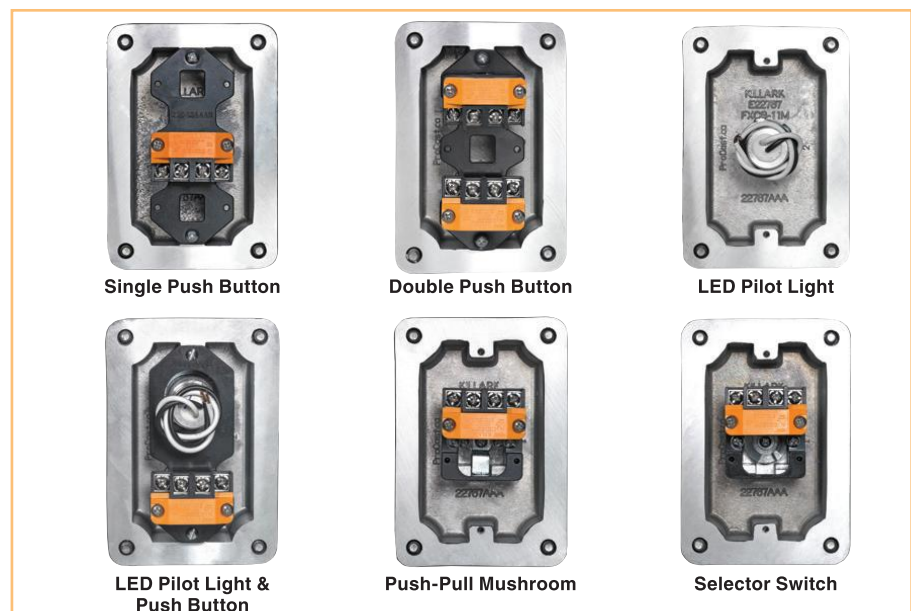
NEMA A600- 7200 VA (Make), 720 VA (Break), 10 Amps Cont. @600V AC (Thermal)
 NEMA Q300-69 VA (Make & Break), 2.5 Amps Cont. @250V DC (Thermal)

Pilot Light Electrical Ratings:

250 VAC max.

Features

- Incorporates Factory Sealed Universal contact blocks and GOB3 LED pilot light devices
- External sealing fittings typically not required, reducing installation time and cost
- No seal plate between the electrical device and back box allows direct wiring to contact terminals
- Nema 3 weatherproof
- Grounding boss supplied in the splice box
- Sold as complete units 1/2", 3/4" Dead End and thru feed. 1" hubs available on request
- Standard finish is a grey epoxy powder baked on for ultimate corrosion resistance
- More wiring room in back box





FACTORY SEALED CONTROLS - ORDERING INFORMATION 1



Single Push Button



Double Push Button



LED Pilot Light

Class I, Div. 1 & 2, Groups B*, C, D
 Class I, Zone 1 & 2, Groups IIB, IIA
 Class II, Div. 1 & 2, Groups E, F, G
 Class III
 NEMA 3, 7 (C,D) 9 (E,F,G)

Certified File 2493125

FEATURES-SPECIFICATIONS

SEAL-XM MOMENTARY CONTACT SINGLE PUSH BUTTON

CATALOG NUMBER		HUB SIZE	DIAGRAM	BUTTON COLOR	LEGEND PLATE MARKING ^②
BOX COVER ^①					
DEAD-END	FEED-THRU				
FXCS-1B1-M	FXCS-4B1-M	1/2"		GREEN	START
FXCS-2B1-M	FXCS-5B1-M	3/4"			
FXCS-1B2-M ^④	FXCS-4B2-M ^④	1/2"		RED	STOP
FXCS-2B2-M ^④	FXCS-5B2-M ^④	3/4"			
FXCS-1B3-M	FXCS-4B3-M	1/2"		BLACK	SPECIFY
FXCS-2B3-M	FXCS-5B3-M	3/4"			

SEAL-XM MOMENTARY CONTACT DOUBLE PUSH BUTTON

CATALOG NUMBER		HUB SIZE	DIAGRAM	BUTTON COLOR	LEGEND PLATE MARKING ^②
BOX & COVER ^①					
DEAD-END	FEED-THRU				
FXCS-1B4-M	FXCS-4B4-M	1/2"		GREEN/RED	START/STOP
FXCS-2B4-M	FXCS-5B4-M	3/4"			
FXCS-1B5-M	FXCS-4B5-M	1/2"		GREEN/GREEN	SPECIFY
FXCS-2B5-M	FXCS-5B5-M	3/4"			
FXCS-1B7-M	FXCS-4B7-M	1/2"		BLACK/BLACK	SPECIFY
FXCS-2B7-M	FXCS-5B7-M	3/4"			

SEAL-XM LED PILOT LIGHT

CATALOG NUMBER		HUB SIZE	DIAGRAM	VOLT ^③	LENS COLOR	LEGEND PLATE MARKING ^②
BOX & COVER ^①						
DEAD-END	FEED-THRU					
FXCS-1B24CL-M	FXCS-4B24CL-M	1/2"		120V	CLEAR	SPECIFY
FXCS-2B24CL-M	FXCS-5B24CL-M	3/4"				
FXCS-1B24GL-M	FXCS-4B24GL-M	1/2"		120V	GREEN	SPECIFY
FXCS-2B24GL-M	FXCS-5B24GL-M	3/4"				
FXCS-1B24RL-M	FXCS-4B24RL-M	1/2"		120V	RED	SPECIFY
FXCS-2B24RL-M	FXCS-5B24RL-M	3/4"				

① Replace -M with -MB for Group "B" Rating, -MI for Iron Back Box, -MBI for Group "B" and Iron Back Box.

② For other than standard legend plate markings refer to 'Custom Legend Plates' on page C59.

③ For other than standard 120V lamp, consult factory, or see page C59 to order lamp voltage desired to be changed in field.

④ For lockout on Stop Button, add "-LO" to end of catalog number. i.e. FXCS-1B2-M-LO

* Group "B" (-MB & -MBI) versions need not be sealed within first 60" of conduit. Sealing fittings required beyond 60".



FACTORY SEALED CONTROLS - ORDERING INFORMATION 2



Double LED
Pilot Light



Push Button
LED Pilot Light



Push/Pull
Mushroom

Class I, Div. 1 & 2, Groups B*, C, D
Class I, Zone 1 & 2, Groups IIB, IIA
Class II, Div. 1 & 2, Groups E, F, G
Class III
NEMA 3, 7 (C,D) 9 (E,F,G)

Certified File 2493125

FEATURES-SPECIFICATIONS

SEAL-XM DOUBLE LED PILOT LIGHT						
CATALOG NUMBER		HUB SIZE	DIAGRAM	LAMP VOLTS④	LENS COLOR③	LEGEND PLATE MARKING②
BOX & COVER①						
DEAD-END	FEED-THRU					
FXCS-1B30CL-M	FXCS-4B30CL-M	1/2"		120V	CLEAR	SPECIFY
FXCS-2B30CL-M	FXCS-5B30CL-M	3/4"				
FXCS-1B30GL-M	FXCS-4B30GL-M	1/2"		120V	GREEN	SPECIFY
FXCS-2B30GL-M	FXCS-5B30GL-M	3/4"				
FXCS-1B30RL-M	FXCS-4B30RL-M	1/2"		120V	RED	SPECIFY
FXCS-2B30RL-M	FXCS-5B30RL-M	3/4"				
FXCS-1B30RL-GL-M	FXCS-4B30RL-GL-M	1/2"		120V	RED/GREEN	SPECIFY
FXCS-2B30RL-GL-M	FXCS-5B30RL-GL-M	3/4"				

SEAL-XM MOMENTARY CONTACT PUSH BUTTON AND LED PILOT LIGHT								
CATALOG NUMBER		HUB SIZE	DIAGRAM	LAMP VOLTS④	BUTTON COLOR	LENS COLOR③	LEGEND PLATE MARKING②	
BOX & COVER①							BUTTON	LENS
DEAD-END	FEED-THRU							
FXCS-1B13-C-M	FXCS-4B13-C-M	1/2"		120V	RED	CLEAR	STOP	SPECIFY
FXCS-2B13-C-M	FXCS-5B13-C-M	3/4"						
FXCS-1B13-O-M	FXCS-4B13-O-M	1/2"		120V	GREEN	GREEN	START	SPECIFY
FXCS-2B13-O-M	FXCS-5B13-O-M	3/4"						
FXCS-1B13-U-M	FXCS-4B13-U-M	1/2"		120V	BLACK	RED	SPECIFY	SPECIFY
FXCS-2B13-U-M	FXCS-5B13-U-M	3/4"						

SEAL-XM MAINTAINED CONTACT PUSH/PULL MUSHROOM					
CATALOG NUMBER		HUB SIZE	DIAGRAM	BUTTON COLOR	LEGEND PLATE MARKING②
BOX & COVER①					
DEAD-END	FEED-THRU				
FXCS-1MMG3-M	FXCS-4MMG3-M	1/2"		GREEN	START
FXCS-2MMG3-M	FXCS-5MMG3-M	3/4"			
FXCS-1MMR3-M⑤	FXCS-4MMR3-M⑤	1/2"		RED	STOP
FXCS-2MMR3-M⑤	FXCS-5MMR3-M⑤	3/4"			
FXCS-1MMK3-M	FXCS-4MMK3-M	1/2"		BLACK	SPECIFY
FXCS-2MMK3-M	FXCS-5MMK3-M	3/4"			

① Replace -M with -MB for Group "B" Rating, -MI for Iron Back Box, -MBI for Group "B" and Iron Back Box.

② For other than standard legend plate markings refer to 'Custom Legend Plates' on page C59.

③ Lens colors other than listed may be supplied - consult factory for special order.

④ For other than standard 120V lamp, consult factory, or see page C59 to order lamp voltage desired to be changed in field.

⑤ For lockout on Stop Button, add "-LO" to end of catalog number. i.e. FXCS-1MMR3-M-LO

Note: Four nameplates supplied; EMERG STOP, START, STOP, BLANK.

Operation - when push button is depressed contacts will change state. Operator remains in depressed position until pulled out to normal position.

* Group "B" (-MB & -MBI) versions need not be sealed within first 60" of conduit. Sealing fittings required beyond 60".



FACTORY SEALED CONTROLS - ORDERING INFORMATION 3



Two Position Selector Switch



Three Position Selector Switch

Class I, Div. 1 & 2, Groups B*, C, D
 Class I, Zone 1 & 2, Groups IIB, IIA
 Class II, Div. 1 & 2, Groups E, F, G
 Class III
 NEMA 3, 7 (C,D) 9 (E,F,G)

Certified File 2493125

FEATURES-SPECIFICATIONS

SEAL-XM TWO POSITION SELECTOR SWITCH - MAINTAINED CONTACT				
CATALOG NUMBER		HUB SIZE	LEFT POSITION	RIGHT POSITION
BOX & COVER ^①				
DEAD-END	FEED-THRU			
FXCS-1S2A1-M	FXCS-4S2A1-M	1/2"		
FXCS-2S2A1-M	FXCS-5S2A1-M	3/4"		
FXCS-1S2A5-M	FXCS-4S2A5-M	1/2"		
FXCS-2S2A5-M	FXCS-5S2A5-M	3/4"		

SEAL-XM THREE POSITION SELECTOR SWITCH - MAINTAINED CONTACT					
CATALOG NUMBER		HUB SIZE	LEFT POSITION	CENTER POSITION	RIGHT POSITION
BOX & COVER ^①					
DEAD-END	FEED-THRU				
FXCS-1S3C4-M	FXCS-4S3C4-M	1/2"			
FXCS-2S3C4-M	FXCS-5S3C4-M	3/4"			
FXCS-1S3C5-M	FXCS-4S3C5-M	1/2"			
FXCS-2S3C5-M	FXCS-5S3C5-M	3/4"			

SEAL-XM TWO POSITION SELECTOR SWITCH - SPRING RETURN				
CATALOG NUMBER		HUB SIZE	LEFT POSITION	RIGHT POSITION
BOX & COVER ^①				
DEAD-END	FEED-THRU			
FXCS-1S2L3F-M	FXCS-4S2L3F-M	1/2"		
FXCS-2S2L3F-M	FXCS-5S2L3F-M	3/4"		

SELECTOR SWITCH OPERATION - SPRING RETURN TO LEFT FROM RIGHT - MAINTAINED IN LEFT.

SEAL-XM THREE POSITION SELECTOR SWITCH - SPRING RETURN					
CATALOG NUMBER		HUB SIZE	LEFT POSITION	CENTER POSITION	RIGHT POSITION
BOX & COVER ^①					
DEAD-END	FEED-THRU				
FXCS-1S3M6G-M	FXCS-4S3M6G-M	1/2"			
FXCS-2S3M6G-M	FXCS-5S3M6G-M	3/4"			

SPRING RETURN TO CENTER FROM LEFT AND RIGHT - MAINTAINED CENTER

FXCS-1S3L6G-M	FXCS-4S3L6G-M	1/2"			
FXCS-2S3L6G-M	FXCS-5S3L6G-M	3/4"			

SPRING RETURN TO CENTER FROM RIGHT - MAINTAINED CENTER AND LEFT

FXCS-1S3R6G-M	FXCS-4S3R6G-M	1/2"			
FXCS-2S3R6G-M	FXCS-5S3R6G-M	3/4"			

SPRING RETURN TO CENTER FROM LEFT - MAINTAINED CENTER AND RIGHT

① Replace -M with -MB for Group "B" Rating, -MI for Iron Back Box, -MBI for Group "B" and Iron Back Box.
 * Group "B" (-MB & -MBI) versions need not be sealed within first 60" of conduit. Sealing fittings required beyond 60".
 For other than standard marking, see page C59 and order separately or as modified products.
 STANDARD NAMEPLATE MARKINGS – 2 Positions – BLANK & OFF-ON – 3 Positon – BLANK or HAND-OFF-AUTO



FACTORY SEALED CONTROLS - ORDERING INFORMATION 4



Class I, Div. 1 & 2, Groups B*, C, D
 Class I, Zone 1 & 2, Groups IIB, IIA
 Class II, Div. 1 & 2, Groups E, F, G
 Class III
 NEMA 3, 7 (C,D) 9 (E,F,G)

Certified File 2493125

FEATURES-SPECIFICATIONS

Keyed Selector Switch

SEAL-XM TWO POSITION KEYED SELECTOR SWITCH - MAINTAINED CONTACT				
CATALOG NUMBER		HUB SIZE	LEFT POSITION	RIGHT POSITION
BOX & COVER ^①				
DEAD-END	FEED-THRU			
FXCS-1K2A1-M	FXCS-4K2A1-M	1/2"		
FXCS-2K2A1-M	FXCS-5K2A1-M	3/4"		
FXCS-1K2A5-M	FXCS-4K2A5-M	1/2"		
FXCS-2K2A5-M	FXCS-5K2A5-M	3/4"		

SEAL-XM THREE POSITION KEYED SELECTOR SWITCH - MAINTAINED CONTACT					
CATALOG NUMBER		HUB SIZE	LEFT POSITION	CENTER POSITION	RIGHT POSITION
BOX & COVER ^①					
DEAD-END	FEED-THRU				
FXCS-1K3C4-M	FXCS-4K3C4-M	1/2"			
FXCS-2K3C4-M	FXCS-5K3C4-M	3/4"			
FXCS-1K3C5-M	FXCS-4K3C5-M	1/2"			
FXCS-2K3C5-M	FXCS-5K3C5-M	3/4"			

SEAL-XM TWO POSITION KEYED SELECTOR SWITCH - SPRING RETURN				
CATALOG NUMBER		HUB SIZE	LEFT POSITION	RIGHT POSITION
BOX & COVER ^①				
DEAD-END	FEED-THRU			
FXCS-1K2L3F22D-M	FXCS-4K2L3F22D-M	1/2"		
FXCS-2K2L3F22D-M	FXCS-5K2L3F22D-M	3/4"		

SELECTOR SWITCH OPERATION - SPRING RETURN TO LEFT FROM RIGHT - MAINTAINED IN LEFT.

SEAL-XM THREE POSITION KEYED SELECTOR SWITCH - SPRING RETURN					
CATALOG NUMBER		HUB SIZE	LEFT POSITION	CENTER POSITION	RIGHT POSITION
BOX & COVER ^①					
DEAD-END	FEED-THRU				
FXCS-1K3L6G32D-M	FXCS-4K3L6G32D-M	1/2"			
FXCS-2K3L6G32D-M	FXCS-5K3L6G32D-M	3/4"			

SELECTOR SWITCH - OPERATION - SPRING RETURN TO CENTER FROM LEFT AND RIGHT - MAINTAINED IN CENTER

CATALOG NUMBER		HUB SIZE	LEFT POSITION	CENTER POSITION	RIGHT POSITION
BOX & COVER ^①					
DEAD-END	FEED-THRU				
FXCS-1K3R6G32D-M	FXCS-4K3R6G32D-M	1/2"			
FXCS-2K3R6G32D-M	FXCS-5K3R6G32D-M	3/4"			

SELECTOR SWITCH - OPERATION - SPRING RETURN TO CENTER FROM RIGHT - MAINTAINED CENTER AND LEFT

SELECTOR SWITCH - OPERATION - SPRING RETURN TO CENTER FROM LEFT - MAINTAINED CENTER AND RIGHT

① Replace -M with -MB for Group "B" Rating, -MI for Iron Back Box, -MBI for Group "B" and Iron Back Box.
 * Group "B" (-MB & -MBI) versions need not be sealed within first 60" of conduit. Sealing fittings required beyond 60". Randomly Keyed. For keyed alike Maintained Contact Switch add "A" to cat. No. ie. FXCS-1K2A1A-M. For keyed alike Spring Return Switch replace "D" with "A" in cat. No. ie. FXCS-1K2L3F22A-M
 For other than standard marking, see page C59 and order separately or as modified products.
 STANDARD NAMEPLATE MARKINGS – 2 Positions – BLANK & OFF-ON – 3 Positon – BLANK or HAND-OFF-AUTO



FACTORY SEALED CONTROLS



Class I, Div. 1 & 2, Groups C,D
 Class I, Zones 1 & 2, Groups IIB, IIA
 Class II, Div. 1 & 2, Groups E,F,G
 Class III
 NEMA 3, 7(C,D) 9(E,F,G)

LISTED - File E53360

Certified - File LR11714
 See files for details or call Killark.

FEATURES-SPECIFICATIONS

Applications

FXCS Series Factory Sealed push button stations, selector switches, pilot lights and tumbler switches are used to prevent the igniting of external hazardous atmospheres by the enclosed arcing devices in such areas as:

- Hazardous locations due to the presence of flammable gases or vapors, combustible dusts or easily ignitable fibers or flyings
- Installations at petroleum refineries, chemical and petrochemical plants and other processing or storage facilities where similar hazards exist
- Use in conjunction with magnetic starters or contactors for remote control of motors

Features

- Elimination of external sealing requirements
- Lower installation cost
- Nema 3 weatherproof
- Color coded wiring-more wiring space-easier field installation
- Stainless steel captive screws for cover assembly
- Lockout accessory available must be factory installed.

- Ground boss for grounding in the splice box
- Device bodies and covers are cast copper-free aluminum alloy
- Cast conduit hubs 1/2", 3/4" and 1" either dead end or feed through standard in both single and two gang assemblies
- Push button, selector switches and pilot light bodies are copper-free aluminum
- Operating shaft in both push buttons and selector switches are stainless steel
- Miniature and standard size push buttons. (Miniature 3/4" overall diameter, standard 1 3/8" overall diameter)

Factory Sealed devices eliminate the need for external sealing. The difference is the use of a sealing plate between the arcing device and the junction box. The sealing plate confines ignited gases, vapors, flames, or dust to the arcing device chamber, preventing them from traveling through the conduit system. Accurately ground flanges on both sides of the sealing plate provide flame-tight joints. Factory poured seals around the wiring pigtails insure safe sealing. (FXCS Series)

Electrical Rating

Push button stations, selector switches 600 VAC max. heavy duty.

Pilot Light Electrical Ratings:
 250 VAC max.

CONTACT BLOCK RATINGS – A600				
CURRENT	120 VAC	240 VAC	480 VAC	600 VAC
INRUSH	60	30	15	12
BREAKING	6	3	1.5	1.2
CARRYING	10	10	10	10

DC RATINGS (MAX. AMPS) – P600		
CURRENT	125 VDC	250 VDC
INRUSH	.55	.27
BREAKING	.55	.27
CARRYING	2.55	2.55

MODIFICATIONS	
SUFFIX NUMBER	DESCRIPTION
AL	PILOT LIGHT LENS-AMBER
CL	PILOT LIGHT LENS-CLEAR
GL	PILOT LIGHT LENS-GREEN
RL	PILOT LIGHT LENS-RED
MR	MUSHROOM HEAD-PUSH BUTTON (RED)
LO	PUSH BUTTON LOCKOUT
LOP	SELECTOR SWITCH-PADLOCK LOCKOUT

LED lamps available. See page C59.



FACTORY SEALED SPLICE BOXES / SEALING METHODS

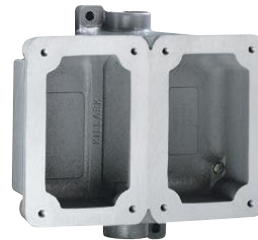


FXB-2
Dead End

FXB-5
Feed Thru



FXB-8
Double Gang Dead End



FXB-11
Double Gang Feed Thru

Class I, Div. 1 & 2, Groups C,D
Class I, Zones 1 & 2, Groups IIB, IIA
Class II, Div. I & 2, Groups E,F,G
Class III
NEMA 3, 7(C,D) 9(E,F,G)

LISTED - File E53360

Certified- File LR11714
See files for details or call Killark.

FEATURES-SPECIFICATIONS

Splice Boxes

The FXB Series of splice boxes are designed for use with the FXCS and FXS Series of cover sub-assemblies.

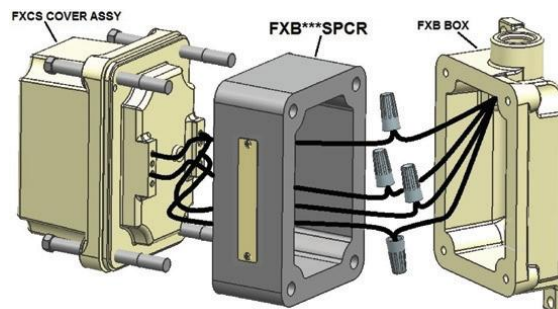
FXB BACK BOX SELECTION AND DIMENSIONS							
CATALOG NUMBER	DESCRIPTION	HUB SIZE	EXTERNAL			MOUNTING	
			LENGTH	WIDTH	DEPTH	VERTICAL	HORIZONTAL
FXB-1	SINGLE GANG/DEAD-END	1/2"	6-13/16"	3-11/16"	1-3/4"	6-3/16"	2-1/4"
FXB-2	SINGLE GANG/DEAD-END	3/4"	6-13/16"	3-11/16"	1-3/4"	6-3/16"	2-1/4"
FXB-3	SINGLE GANG/DEAD-END	1"	6-13/16"	3-11/16"	1-3/4"	6-3/16"	2-1/4"
FXB-4	SINGLE GANG/FEED-THRU	1/2"	6-13/16"	3-11/16"	1-3/4"	6-3/16"	2-1/4"
FXB-5	SINGLE GANG/FEED-THRU	3/4"	6-13/16"	3-11/16"	1-3/4"	6-3/16"	2-1/4"
FXB-6	SINGLE GANG/FEED-THRU	1"	6-13/16"	3-11/16"	1-3/4"	6-3/16"	2-1/4"
FXB-7	DOUBLE GANG/DEAD-END	1/2"	6-13/16"	7-17/32"	2	6-3/16"	2-1/4"
FXB-8	DOUBLE GANG/DEAD-END	3/4"	6-13/16"	7-17/32"	2	6-3/16"	2-1/4"
FXB-9	DOUBLE GANG/DEAD-END	1"	7	7-17/32"	2	6-3/16"	2-1/4"
FXB-10	DOUBLE GANG/FEED-THRU	1/2"	6-13/16"	7-17/32"	2	6-3/16"	2-1/4"
FXB-11	DOUBLE GANG/FEED-THRU	3/4"	6-13/16"	7-17/32"	2	6-3/16"	2-1/4"
FXB-12	DOUBLE GANG/FEED-THRU	1"	7	7-17/32"	2	6-3/16"	2-1/4"

FXB BLANK COVER	
CATALOG NUMBER	DESCRIPTION
FX-10	BLANK COVER FOR FXB



FXB SPACER ①	
CATALOG NUMBER	DESCRIPTION
FXB075SPCR	SPACER, 3/4" ADDITIONAL DEPTH
FXB10SPCR	SPACER, 1" ADDITIONAL DEPTH
FXB15SPCR	SPACER, 1 1/2" ADDITIONAL DEPTH
FXB20SPCR	SPACER, 2" ADDITIONAL DEPTH

① When using FXB spacers, application of hazardous area derates control station to Class I Div. 2, Class II, III Grps. C,D,E,F,G hazardous locations only





FACTORY SEALED COVER ASSEMBLIES



2 Gang Box and Two Cover Assemblies

Class I, Div. 1 & 2, Groups C,D
 Class I, Zones 1 & 2, Groups IIB, IIA
 Class II, Div. I & 2, Groups E, F, G
 Class III
 NEMA 3, 7(C,D) 9(E,F,G)

LISTED - File E53360 and/or E12379

Certified - File LR11714
 See files for details or call Killark.

FEATURES-SPECIFICATIONS

FXCS MOMENTARY CONTACT SINGLE PUSH BUTTON						
COVER WITH DEVICE	COMPLETE UNITS (BOX & COVER)		HUB SIZE	DIAGRAM	BUTTON COLOR	NAMEPLATE MARKING ^①
	DEAD-END	FEED-THRU				
FXCS-0B1	FXCS-1B1	FXCS-4B1	1/2"		GREEN	START
	FXCS-2B1	FXCS-5B1	3/4"			
FXCS-0B2	FXCS-1B2	FXCS-4B2	1/2"		RED	STOP
	FXCS-2B2	FXCS-5B2	3/4"			
FXCS-0B3	FXCS-1B3	FXCS-4B3	1/2"		BLACK	SPECIFY
	FXCS-2B3	FXCS-5B3	3/4"			

FXCS MOMENTARY CONTACT DOUBLE PUSH BUTTON						
COVER WITH DEVICE	COMPLETE UNITS (BOX & COVER)		HUB SIZE	DIAGRAM	BUTTON COLOR	NAMEPLATE MARKING ^①
	DEAD-END	FEED-THRU				
FXCS-0B4	FXCS-1B4	FXCS-4B4	1/2"		GREEN/RED	START/STOP
	FXCS-2B4	FXCS-5B4	3/4"			
FXCS-0B4U	FXCS-1B4-U	FXCS-4B4-U	1/2"		GREEN/RED	START/STOP
	FXCS-2B4-U	FXCS-5B4-U	3/4"			
FXCS-0B5	FXCS-1B5	FXCS-4B5	1/2"		GREEN/GREEN	SPECIFY
	FXCS-2B5	FXCS-5B5	3/4"			
FXCS-0B7	FXCS-1B7	FXCS-4B7	1/2"		BLACK/BLACK	SPECIFY
	FXCS-2B7	FXCS-5B7	3/4"			

FXCS PILOT LIGHT							
COVER WITH DEVICE	COMPLETE UNITS (BOX & COVER)		HUB SIZE	DIAGRAM	VOLT	LENS COLOR ^②	NAMEPLATE MARKING ^①
	DEAD-END	FEED-THRU					
FXCS-0B24CL	FXCS-1B24-CL	FXCS-4B24-CL	1/2"		120V	CLEAR	SPECIFY
	FXCS-2B24-CL	FXCS-5B24-CL	3/4"				
FXCS-0B24GL	FXCS-1B24-GL	FXCS-4B24-GL	1/2"		120V	GREEN	SPECIFY
	FXCS-2B24-GL	FXCS-5B24-GL	3/4"				
FXCS-0B24RL	FXCS-1B24-RL	FXCS-4B24-RL	1/2"		120V	RED	SPECIFY
	FXCS-2B24-RL	FXCS-5B24-RL	3/4"				

^① For other than standard marking, see page C59 and order separately or as modified products.

^② Lens colors other than listed may be specified by changing lens color suffix. See modifications page C44.

NOTE: Boxes and covers shipped separately.

* For control stations with 1" conduit openings or for double gang assemblies, order cover with device and box as separate components.



FACTORY SEALED CONTROL STATION COVER ASSEMBLIES



Pilot Light and 2 Mini P.B.
(Box and Cover)



Double Pilot Lights
(Box and Cover)



Maintained Push Button
(Box and Cover)

Class I, Div. 1 & 2, Groups C, D
Class I, Zones 1 & 2, Groups IIB, IIA
Class II, Div. 1 & 2, Groups E, F, G Class III
NEMA 3, 7 (C, D) 9 (E, F, G)

LISTED - File E53360 and /or E12379

Certified - File LR11714
See files for details or call Killark.

FEATURES-SPECIFICATIONS

FXCS DOUBLE PILOT LIGHTS							
COVER WITH DEVICE	COMPLETE UNITS (BOX & COVER)		HUB SIZE	DIAGRAM	LAMP VOLTS	LENS COLOR ^②	NAMEPLATE MARKING ^①
	DEAD-END	FEED-THRU					
FXCS-0B30CL	FXCS-1B30-CL	FXCS-4B30-CL	1/2"		120V	CLEAR	SPECIFY
	FXCS-2B30-CL	FXCS-5B30-CL	3/4"				
FXCS-0B30GL	FXCS-1B30-GL	FXCS-4B30-GL	1/2"		120V	GREEN	SPECIFY
	FXCS-2B30-GL	FXCS-5B30-GL	3/4"				
FXCS-0B30RL	FXCS-1B30-RL	FXCS-4B30-RL	1/2"		120V	RED	SPECIFY
	FXCS-2B30-RL	FXCS-5B30-RL	3/4"				
FXCS-0B30RL-GL	FXCS-1B30RL-GL	FXCS-4B30RL-GL	1/2"		120V	RED/GREEN	SPECIFY
	FXCS-2B30RL-GL	FXCS-5B30RL-GL	3/4"				

FXCS MOMENTARY CONTACT PUSH BUTTON AND PILOT LIGHT									
COVER WITH DEVICE	COMPLETE UNITS (BOX & COVER)		HUB SIZE	DIAGRAM	LAMP VOLTS	BUTTON COLOR	LENS COLOR ^②	NAMEPLATE MARKING ^①	
	DEAD-END	FEED-THRU						BUTTON	LENS
FXCS-0B13-C	FXCS-1B13-C	FXCS-4B13-C	1/2"		120V	RED	CLEAR	STOP	SPECIFY
	FXCS-2B13-C	FXCS-5B13-C	3/4"						
FXCS-0B13-0	FXCS-1B13-0	FXCS-4B13-0	1/2"		120V	GREEN	GREEN	START	SPECIFY
	FXCS-2B13-0	FXCS-5B13-0	3/4"						
FXCS-0B13-U	FXCS-1B13-U	FXCS-4B13-U	1/2"		120V	BLACK	RED	SPECIFY	SPECIFY
	FXCS-2B13-U	FXCS-5B13-U	3/4"						

FXCS MOMENTARY CONTACT 2 MINI PUSH BUTTON AND 1 PILOT LIGHT								
COVER WITH DEVICE	COMPLETE UNITS (BOX & COVER)		HUB SIZE	DIAGRAM	BUTTON COLOR	LENS COLOR ^②	NAMEPLATE MARKING ^①	
	DEAD-END	FEED-THRU					BUTTON	LENS
FXCS-0A15	FXCS-1A15	FXCS-4A15	1/2"		RED/GREEN	RED	STOP	START
	FXCS-2A15	FXCS-5A15	3/4"					

FXCS MAINTAINED CONTACT - PUSH/PULL MUSHROOM ^④				
BUTTON COLOR	CONTACT TYPE	COVER ASSEMBLY CAT. #	CATALOG # WITH LOCKOUT #	NAMEPLATE MARKING
GREEN	1NO/1NC	FXCS-OMMG3	FXCS-OMMR3-LOM	③
RED	1NO/1NC	FXCS-OMMR3		
BLACK	1NO/1NC	FXCS-OMMK3		

① For other than standard marking, see page C59 and order separately or as modified products.
 ② Lens colors other than listed may be specified by changing lens color suffix. See modifications page C44.
 ③ Three nameplates supplied (Start/Stop, Blank, Emergency Stop) with FXCS maintained push button.
 ④ Operation-when push button is depressed and contacts activated, operator will remain in depressed position until pulled out to normal position.
 NOTE: Boxes and covers shipped separately.
 * For control stations with 1" conduit opening or for double gang assemblies, order cover with device and box as separate components.



FACTORY SEALED COVER ASSEMBLIES



Selector Switch
(Box and Cover)



Keyed Selector Switch
(Box and Cover)

Class I, Div. 1 & 2, Groups C, D
Class I, Zones 1 & 2, Groups IIB, IIA
Class II, Div. I & 2, Groups E, F, G Class III
NEMA 3, 7 (C, D) 9 (E, F, G)

LISTED - File E53360 and/or E12379

Certified - File LR11714
See files for details or call Killark.

FEATURES-SPECIFICATIONS

FXCS TWO POSITION SELECTOR SWITCH – MAINTAINED CONTACT ^①										
CATALOG NUMBER							LEFT POSITION		RIGHT POSITION	
STANDARD COVER WITH DEVICE	HUB SIZE	STANDARD COMPLETE UNITS (BOX & COVER)		KEYED COVER WITH DEVICE	KEYED COMPLETE UNITS ^② (BOX & COVER)		LEFT CONTACT	RIGHT CONTACT	LEFT CONTACT	RIGHT CONTACT
		DEAD-END	FEED-THRU		DEAD-END	FEED-THRU				
FXCS-0S2A1	1/2"	FXCS-1S2A1	FXCS-4S2A1	FXCS-0K2A1	FXCS-1K2A1	FXCS-4K2A1				
FXCS-0S2A1	3/4"	FXCS-2S2A1	FXCS-5S2A1		FXCS-2K2A1	FXCS-5K2A1				
FXCS-0S2A5	1/2"	FXCS-1S2A5	FXCS-4S2A5	FXCS-0K2A5	FXCS-1K2A5	FXCS-4K2A5				
FXCS-0S2A5	3/4"	FXCS-2S2A5	FXCS-5S2A5		FXCS-2K2A5	FXCS-5K2A5				

FXCS THREE POSITION SELECTOR SWITCH – MAINTAINED CONTACT ^①												
CATALOG NUMBER							LEFT POSITION		CENTER POSITION		RIGHT POSITION	
STANDARD COVER WITH DEVICE	HUB SIZE	STANDARD COMPLETE UNITS (BOX & COVER)		KEYED COVER WITH DEVICE	KEYED COMPLETE UNITS ^② (BOX & COVER)		LEFT CONTACT	RIGHT CONTACT	LEFT CONTACT	RIGHT CONTACT	LEFT CONTACT	RIGHT CONTACT
		DEAD-END	FEED-THRU		DEAD-END	FEED-THRU						
FXCS-0S3C4	1/2"	FXCS-1S3C4	FXCS-4S3C4	FXCS-0K3C4	FXCS-1K3C4	FXCS-4K3C4						
FXCS-0S3C4	3/4"	FXCS-2S3C4	FXCS-5S3C4		FXCS-2K3C4	FXCS-5K3C4						
FXCS-0S3C5	1/2"	FXCS-1S3C5	FXCS-4S3C5	FXCS-0K3C5	FXCS-1K3C5	FXCS-4K3C5						
FXCS-0S3C5	3/4"	FXCS-2S2A5	FXCS-5S3C5		FXCS-2K3C5	FXCS-5K3C5						

FXCS TWO POSITION SELECTOR SWITCH – SPRING RETURNED – 1 N.O./1 N.C. ^①										
CATALOG NUMBER							LEFT POSITION		RIGHT POSITION	
STANDARD COVER WITH DEVICE	HUB SIZE	STANDARD COMPLETE UNITS (BOX & COVER)		KEYED COVER WITH DEVICE	KEYED COMPLETE UNITS ^② (BOX & COVER)		LEFT CONTACT	RIGHT CONTACT	LEFT CONTACT	RIGHT CONTACT
		DEAD-END	FEED-THRU		DEAD-END	FEED-THRU				
FXCS-0S2L3F	1/2"	FXCS-1S2L3F	FXCS-4S2L3F	FXCS-0K2L3F22D	FXCS-1K2L3F22D	FXCS-4K2L3F22D				
FXCS-0S2L3F	3/4"	FXCS-2S2L3F	FXCS-5S2L3F		FXCS-2K2L3F22D	FXCS-5K2L3F22D				

TYPE OPERATION – Spring return to left from right – Maintained in left – 1 N.O. Contact – 1 N.C. Contact

FXCS THREE POSITION SELECTOR SWITCH – SPRING RETURNED – 2 N.O. ^①												
CATALOG NUMBER							LEFT POSITION		CENTER POSITION		RIGHT POSITION	
STANDARD COVER WITH DEVICE	HUB SIZE	STANDARD COMPLETE UNITS (BOX & COVER)		KEYED COVER WITH DEVICE	KEYED COMPLETE UNITS ^② (BOX & COVER)		LEFT CONTACT	RIGHT CONTACT	LEFT CONTACT	RIGHT CONTACT	LEFT CONTACT	RIGHT CONTACT
		DEAD-END	FEED-THRU		DEAD-END	FEED-THRU						
FXCS-0S3M6G	1/2"	FXCS-1S3M6G	FXCS-4S3M6G	FXCS-0K3M6G32D	FXCS-1K3M6G32D	FXCS-4K3M6G32D						
FXCS-0S3M6G	3/4"	FXCS-2S3M6G	FXCS-5S3M6G		FXCS-2K3M6G32D	FXCS-5K3M6G32D						
FXCS-0S3L6G	1/2"	FXCS-1S3L6G	FXCS-4S3L6G	FXCS-0K3L6G32D	FXCS-1K3L6G32D	FXCS-4K3L6G32D						
FXCS-0S3L6G	3/4"	FXCS-2S3L6G	FXCS-5S3L6G		FXCS-2K3L6G32D	FXCS-5K3L6G32D						
FXCS-0S3R6G	1/2"	FXCS-1S3R6G	FXCS-4S3R6G	FXCS-0K3R6G32D	FXCS-1K3R6G32D	FXCS-4K3R6G32D						
FXCS-0S3R6G	3/4"	FXCS-2S3R6G	FXCS-5S3R6G		FXCS-2K3R6G32D	FXCS-5K3R6G32D						

TYPE OPERATION – Spring return to center from left or right – Maintained in center – 2 N.O. Contacts

TYPE OPERATION – Spring return to center from right – Maintained center and left 2 N.O. Contacts

TYPE OPERATION – Spring return to center from left – Maintained center and right 2 N.O. Contacts

① For other than standard marking, see page C59 and order separately or as modified products.
STANDARD NAMEPLATE MARKINGS – 2 Position – BLANK or OFF-ON – 3 Position – BLANK or HAND-OFF-AUTO.
② Key operated selector switches are randomly keyed with keys removable in all positions. For keyed alike or key removable in other than all positions contact factory.
For control stations with 1" conduit opening or for double gang assemblies, order cover with device and box as separate components.



FACTORY SEALED TUMBLER SWITCHES AND GROUND FAULT INTERRUPTER



Tumbler Switch Complete Unit (Box and Cover)



Ground Fault Interrupter Complete Unit (Box and Cover)



For GFI Protection with Receptacle, See page PR20

Class I, Div. 1 & 2, Groups C, D
 Class I, Zones 1 & 2, Groups IIB, IIA
 Class II, Div. 1 & 2, Groups E, F, G
 Class III
 NEMA 3, 7 (C, D) 9 (E, F, G)

FEATURES-SPECIFICATIONS

Applications

FXS Tumbler Switches are suitable for applications where making, breaking or changing connections in an electrical circuit is required and where conditions of load do not exceed the switch ratings.

LISTED - File E53360 and/or Ffile E10501

Certified - File LR11712
 See files for details or call Killark.

Applications

FXS Ground Fault Interrupters are designed to interrupt a circuit when a ground fault is detected on equipment which may be handled by personnel in hazardous locations.

Features

- Test and Reset push buttons are provided on cover assembly. Unit should be tested monthly
- Includes new GFI to meet latest UL943 GFCI standards revisions
- Exterior gasket provides NEMA 3 weatherproof protection
- Ground boss for grounding in the splice box
- Color coded wiring
- Captive cover bolts are made from stainless steel

Electrical Rating

GFI units are rated at 20A, 120 VAC, 60HZ. Class A.

4-6 milliamp trip setting

Trip Time-UL Curve

LISTED - File E80595

Certified - File LR61895
 See files for details or call Killark.

FXS TUMBLER SWITCHES					
CATALOG NUMBER			HUB SIZE	SWITCH STYLE	SWITCH RATING 120/277 VAC, 1Ø
COMPLETE UNIT					
COVER WITH SWITCH	(BOX, COVER AND SWITCH)				
	DEAD-END	FEED-THRU			
FXS-1C	FXS-11C	FXS-41C	1/2"	1-POLE	20 AⓈ
	FXS-21C	FXS-51C	3/4"		
FXS-2C	FXS-12C	FXS-42C	1/2"	2-POLE	20 AⓈ
	FXS-22C	FXS-52C	3/4"		
FXS-8C	FXS-18C	FXS-48C	1/2"	3-POLE	Ⓢ
	FXS-28C	FXS-58C	3/4"		
FXS-3C	FXS-13C	FXS-43C	1/2"	3-WAY/ SPDT (NO OFF)	20 AⓈ
	FXS-23C	FXS-53C	3/4"		
FXS-5C	FXS-15C	FXS-45C	1/2"	SPDT (CENTER OFF)	20 AⓈ
	FXS-25C	FXS-55C	3/4"		
FXS-6C	FXS-16C	FXS-46C	1/2"	DPDT (NO OFF)	20 AⓈ
	FXS-26C	FXS-56C	3/4"		
FXS-1D	FXS-11D	FXS-41D	1/2"	1-POLE	30 AⓈ
	FXS-21D	FXS-51D	3/4"		
FXS-2D	FXS-12D	FXS-42D	1/2"	2-POLE	30 AⓈ
	FXS-22D	FXS-52D	3/4"		
FXS-4C	—	—	—	4-WAY	20 AⓈ

Ⓢ Rated 15 amperes, 240/480 VAC., 3Ø; 3HP-240 VAC., 5 HP-480 VAC.

Ⓢ Horsepower rated 1 HP at 120 VAC, 2 HP at 240 VAC.

FXS GROUND FAULT INTERRUPTER†				
CATALOG NUMBER			HUB SIZE	
COMPLETE UNIT	COVER ASSEMBLY	BACK BOX*		
FXS-GFI-1020	FXS-GFI03	FXB-1	DEAD END	1/2"
FXS-GFI-2020	FXS-GFI03	FXB-2		3/4"
FXS-GFI-3020	FXS-GFI03	FXB-3		1"
FXS-GFI-1120	FXS-GFI03	FXB-4	FEED THRU	1/2"
FXS-GFI-2120	FXS-GFI03	FXB-5		3/4"
FXS-GFI-3120	FXS-GFI03	FXB-6		1"

For control stations with 1" conduit opening or for double gang assemblies, order cover with device and box as separate components.

* Boxes and covers shipped separately.

† See page DE25 for additional ground fault control stations.

FXS GROUND FAULT INTERRUPTER WITH LED LAMP	
CATALOG NUMBER FOR COVER ASSEMBLY	FXS-GFI03PL

* Order FXB back box as separate item.



CONTROL STATIONS EXTERNAL SEALING REQUIRED



Class I, Div. 1 & 2, Groups C, D
 Class I, Zones 1 & 2, Groups IIB, IIA
 Class II, Div. 1 & 2, Groups E, F, G
 Class III
 NEMA 7 (C, D) 9 (E, F, G)

LISTED - File E53360

Certified - File LR11714, LR11712
 See files for details or call Killark.

FEATURES-SPECIFICATIONS

Applications

- Hazardous locations due to the presence of flammable gases or vapors, combustible dusts or easily ignitable fiber or flyings
- Installations at petroleum refineries, chemical and petrochemical plants and other processing or storage facilities where similar hazards exist
- Use in conjunction with magnetic starters or contactors for remote control of motors

Features

- Device bodies and covers are cast copperfree Aluminum alloy and provide a wide assortment for custom assemblies
- Cast conduit hubs 1/2", 3/4" and 1" either dead end or feed thru standard in both single and two gang, SWB-1 thru SWB-12 device bodies
- SWB-13 thru SWB-38 are designed for custom drilled and tapped conduit openings on all four sides and the back
- Ground flange joint between bolted cover and box provide required flame path
- Push button, selector switches and pilot light operator bodies are copper-free aluminum
- Operating shaft in both push buttons and selector switches are stainless steel
- Open space between gangs for easy wiring from one cover to another

- Miniature and standard size push buttons. (Miniature 3/4" overall diameter, standard 1-3/8" overall diameter.)
- Contact blocks are rated heavy duty, 600 VAC max
- Internal ground screw

Electrical Rating

Push button stations, selector switches heavy duty 600 VAC max.
 Pilot lights 250 VAC max.

XCS Special Assemblies

To order XCS cover assemblies for use with multi-gang or 1" hub type SWB Series splice boxes, simply order as follows:

- Example: **XCS-0B1** – Cover Assembly
SWB-6 – Splice box with 1" feed thru hubs
- Example: **XCS-0B1** – Cover Assembly
XCS-0B24-RL – Cover Assembly
SWB-12 – Double gang splice box

NOTE: Splice boxes and cover assemblies are packaged in separate cartons.

MODIFICATIONS	
CATALOG SUFFIX	DESCRIPTION
AL	Pilot light lens-amber
CL	Pilot light lens-clear
GL	Pilot light lens-green
RL	Pilot light lens-red
T2	ⓈPilot light transformer – 220/110VAC
T4	ⓈPilot light transformer – 440/110VAC
MR	Mushroom head push button (red)
LO	Push button lockoutⓈ
LOP	Selector switch padlock-lockout
SU1	Stainless steel cover screws

Ⓢ One transformer required for each pilot light. Deep device bodies required for all except single pilot light units when transformers are used.

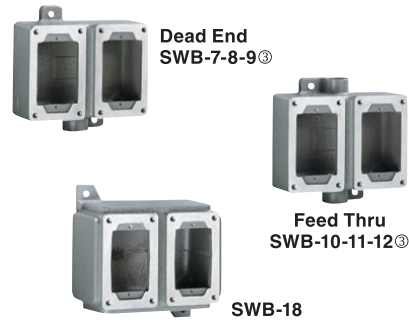
Ⓢ Push button lockout must be factory installed. LED lamps available. See page C59.

CONTACT BLOCK RATINGS – A600				
CURRENT	120 VAC	240 VAC	480 VAC	600 VAC
INRUSH	60	30	15	12
BREAKING	6	3	1.5	1.2
CARRYING	10	10	10	10

DC RATINGS (MAX. AMPS) – P600		
CURRENT	125 VAC	250 VAC
INRUSH	55	.27
BREAKING	55	.27
CARRYING	2.55	2.55



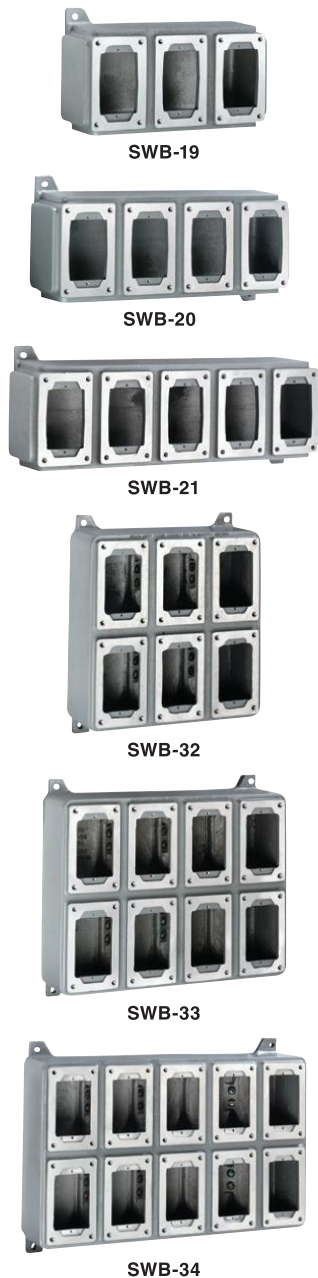
DEVICE BODIES FOR USE WITH XCS / XS / XST COVER ASSEMBLIES



Class I, Div. 1 & 2, Groups C, D
 Class I, Zones 1 & 2, Groups IIB, IIA
 Class II, Div. 1 & 2, Groups E, F, G
 Class III
 NEMA 7 (C, D) 9 (E, F, G)

UL LISTED - File E53360
 SP Certified - LR11712
 See files for details or call Killark.

FEATURES-SPECIFICATIONS



SWB DEVICE BODIES AND DIMENSIONS						
CATALOG NUMBER	HUB SIZE	EXTERNAL			MOUNTING	
		LENGTH	WIDTH	DEPTH	VERTICAL	HORIZONTAL
SWB-1	1/2"	5-7/8"(149)	3"(76)	2-1/4"(57)	5-3/8"(137)	2-3/8"(60)
SWB-2	3/4"	5-7/8"(149)	3"(76)	2-1/4"(57)	5-3/8"(137)	2-3/8"(60)
SWB-3	1"	5-7/8"(149)	3"(76)	2-1/4"(57)	5-3/8"(137)	2-3/8"(60)
SWB-4	1/2"	5-7/8"(149)	3"(76)	2-1/4"(57)	5-3/8"(137)	2-3/8"(60)
SWB-5	3/4"	5-7/8"(149)	3"(76)	2-1/4"(57)	5-3/8"(137)	2-3/8"(60)
SWB-6	1"	5-7/8"(149)	3"(76)	2-1/4"(57)	5-3/8"(137)	2-3/8"(60)
SWB-7	1/2"	5-7/8"(149)	6-1/2"(165)	2-1/4"(57)	5-3/8"(137)	2-1/2"(64)
SWB-8	3/4"	5-7/8"(149)	6-1/2"(165)	2-1/4"(57)	5-3/8"(137)	2-1/2"(64)
SWB-9	1"	5-7/8"(149)	6-1/2"(165)	2-1/4"(57)	5-3/8"(137)	2-1/2"(64)
SWB-10	1/2"	5-7/8"(149)	6-1/2"(165)	2-1/4"(57)	5-3/8"(137)	2-1/2"(64)
SWB-11	3/4"	5-7/8"(149)	6-1/2"(165)	2-1/4"(57)	5-3/8"(137)	2-1/2"(64)
SWB-12	1"	5-7/8"(149)	6-1/2"(165)	2-1/4"(57)	5-3/8"(137)	2-1/2"(64)
SWB-13	①	5-1/4"(133)	3-5/8"(92)	2-1/2"(64)	6-1/8"(156)	2-3/8"(60)
SWB-14	②	5-1/4"(133)	3-5/8"(92)	3-5/16"(84)	6-1/8"(156)	2-3/8"(60)
SWB-17	①	10-3/8"(264)	3-5/8"(92)	2-1/2"(64)	11-3/8"(289)	2-1/8"(54)
SWB-18	②	5-1/4"(133)	7-1/8"(181)	3-5/16"(84)	6"(152)	5-3/4"(146)
SWB-19	②	5-1/4"(133)	10-5/8"(270)	3-5/16"(84)	6"(152)	9-3/16"(233)
SWB-20	②	5-1/4"(133)	14-1/8"(359)	3-5/16"(84)	6"(152)	12-11/16"(322)
SWB-21	②	5-1/4"(133)	17-5/8"(448)	3-5/16"(84)	6"(152)	16-3/16"(411)
SWB-32	②	12"(305)	10-5/8"(270)	3-5/16"(84)	11-1/8"(283)	9-3/16"(233)
SWB-33	②	10-3/8"(264)	14-1/8"(359)	3-5/16"(84)	11-3/16"(284)	12-3/4"(324)
SWB-34	②	12"(305)	17-3/4"(451)	3-5/16"(84)	11-5/16"(287)	16-1/4"(413)
SWB-38	②	17-1/8"(435)	17-3/4"(451)	3-5/16"(84)	11-5/16"(287)	16-1/4"(413)
SWB-42	3/4"	5-1/4"(133)	3-5/8"(92)	3-5/16"(84)	6-1/8"(156)	2-3/8"(60)
SWB-45	3/4"	5-1/4"(133)	3-5/8"(92)	3-5/16"(84)	6-1/8"(156)	2-3/8"(60)
SWB-48	1/2" ②	5-1/4"(133)	3-5/8"(92)	3-5/16"(84)	6-1/8"(156)	2-3/8"(60)
SWB-49	3/4" ②	5-1/4"(133)	3-5/8"(92)	3-5/16"(84)	6-1/8"(156)	2-3/8"(60)

- ① Maximum size drilled and tapped opening 1" – Shallow device bodies.
- ② Maximum size drilled and tapped opening 1-1/2" – Deep device bodies.
- ③ SWB-1 thru SWB-12 Boxes have cast in conduit hubs. Additional conduit openings can not be included. Use SWB-13-14 or 18 for custom conduit requirements. See following page for custom conduit information. SWB-13 through SWB-38 boxes are blank without conduit openings and can be factory or field installed. See following page for custom conduit information.

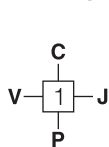


SWB-42
 (3/4" Dead End)
 SWB-45
 (3/4" Feed Thru)
 SWB-48
 (Two 1/2" on Bottom)
 SWB-49
 (Two 3/4" on Bottom)

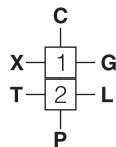


CONDUIT OPENING DATA

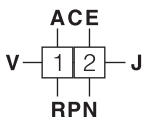
Conduit Opening Location Charts



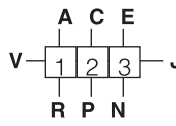
SWB-13-14



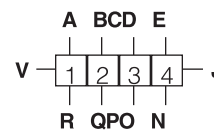
SWB-17



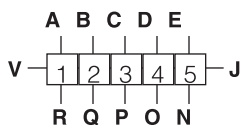
SWB-18



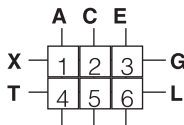
SWB-19



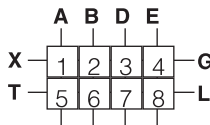
SWB-20



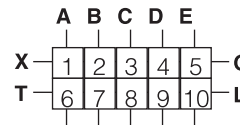
SWB-21



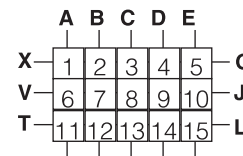
SWB-32



SWB-33



SWB-34



SWB-38

FEATURES-SPECIFICATIONS

To specify conduit openings select the letter on these sketches which indicates the position desired. All conduit openings will be evenly spaced and located in the area indicated on the location chart. When they are to be more accurately located, submit a sketch with spacing dimensions. Specific conduit openings must be located dimensionally from box centerlines to conduit centerlines and from outside back surface of box to conduit centerline.

Ordering Instructions:

- (1) Select the letter on location chart which indicates conduit opening position desired.
- (2) Select symbol number from chart which indicates conduit opening type and size.
- (3) Combine the conduit location letter, size and type number, and add as a suffix to SWB box catalog number.

Example: **SWB-18-C1-J1-P1-V1**

CONDUIT SIZE	SYMBOL NUMBERS	
	DRILLED AND TAPPED	UNIONNM
1/2"	1	11
3/4"	2	12
1"	3	13
1-1/4"	4	14
1-1/2"	5	15

MINIMUM HUB CENTERS FOR DRILLED AND TAPPED AND UNION HUBS

SIZE	FORM	1/2"	3/4"	1"	1-1/4"	1-1/2"
1/2"	①MIN	1-3/16"(46)	—	—	—	—
1/2"	②PRE	1-3/8"(35)	—	—	—	—
1/2"	③GU	1-5/8"(41)	—	—	—	—
3/4"	①MIN	1-3/8"(35)	1-1/2"(38)	—	—	—
3/4"	②PRE	1-1/2"(38)	1-5/8"(41)	—	—	—
3/4"	③GU	1-3/4"(44)	1-13/16"(46)	—	—	—
1"	①MIN	1-1/2"(38)	1-3/4"(44)	1-13/16"(46)	—	—
1"	②PRE	1-3/4"(44)	1-7/8"(48)	2"(51)	—	—
1"	③GU	1-7/8"(48)	2"(51)	2-1/8"(54)	—	—
1-1/4"	①MIN	1-11/16"(43)	1-15/16"(49)	2-1/16"(52)	2-5/16"(59)	—
1-1/4"	②PRE	1-15/16"(49)	2-1/16"(52)	2-1/4"(57)	2-1/2"(64)	—
1-1/4"	③GU	2-1/16"(52)	2-1/4"(57)	2-5/16"(59)	2-1/2"(64)	—
1-1/2"	①MIN	1-15/16"(49)	2-1/16"(52)	2-3/16"(56)	2-1/2"(64)	2-5/8"(67)
1-1/2"	②PRE	2-1/8"(54)	2-1/4"(57)	2-3/8"(60)	2-5/8"(67)	2-3/4"(70)
1-1/2"	③GU	2-3/16"(56)	2-9/32"(58)	7/16"(11)	2-5/8"(67)	2-3/4"(70)
LOCKNUT BUSHING CONDUIT		1-1/8"(29)	1-3/8"(35)	1-11/16"(43)	2-3/16"(56)	2-7/16"(62)
LOCKNUT BUSHING CONDUIT		1"(25)	1-1/4"(32)	1-1/2"(38)	1-7/8"(48)	2-1/8"(54)
LOCKNUT BUSHING CONDUIT		7/8"(22)	1-1/16"(27)	1-3/8"(35)	1-11/16"(43)	1-15/16"(49)

① Minimum spacing required to provide clearance over locknuts and bushings.

② Preferred – more liberal spacings between centers of conduits to be used whenever possible.

③ GU – spacing required for GU Series unions.

④ Union hubs are supplied by using a drilled and tapped opening with GUM Series Union.

† Consult factory for special or additional conduit sizes, locations, and combinations required but not illustrated.



COVER ASSEMBLIES • CONTROL STATIONS



Single Push Button (Box and Cover)



Double Push Button (Box and Cover)



Three Mini-Push Button (Box and Cover)



Push-Pull Mushroom Maintained Push Button (Box and Cover)

Class I, Div. 1 & 2, Groups C, D
 Class I, Zones 1 & 2, Groups IIB, IIA
 Class II, Div. 1 & 2, Groups E, F, G
 Class III
 NEMA 7 (C, D) 9 (E, F, G)

UL LISTED - File E53360

CS Certified - File LR11714
 See files for details or call Killark.

FEATURES-SPECIFICATIONS

XCS MOMENTARY CONTACT SINGLE PUSH BUTTON						
COVER WITH DEVICE	CATALOG NUMBER		HUB SIZE	DIAGRAM	BUTTON COLOR ^②	NAMEPLATE MARKING ^①
	COMPLETE UNITS (BOX & COVER)					
	DEAD-END	FEED-THRU				
XCS-0B1	XCS-1B1	XCS-4B1	1/2"		GREEN	START
	XCS-2B1	XCS-5B1	3/4"			
XCS-0B2	XCS-1B2	XCS-4B2	1/2"		RED	STOP
	XCS-2B2	XCS-5B2	3/4"			
XCS-0B3	XCS-1B3	XCS-4B3	1/2"		BLACK	SPECIFY
	XCS-2B3	XCS-5B3	3/4"			

XCS MOMENTARY CONTACT DOUBLE PUSH BUTTON						
COVER WITH DEVICE	CATALOG NUMBER		HUB SIZE	DIAGRAM	BUTTON COLOR ^②	NAMEPLATE MARKETING ^①
	COMPLETE UNITS (BOX & COVER)					
	DEAD-END	FEED-THRU				
XCS-0B4	XCS-1B4	XCS-4B4	1/2"		GREEN-RED	START/STOP
	XCS-2B4	XCS-5B4	3/4"			
XCS-0B4-U	XCS-1B4-U	XCS-4B4-U	1/2"		GREEN-RED	START/STOP
	XCS-2B4-U	XCS-5B4-U	3/4"			
XCS-0B5	XCS-1B5	XCS-4B5	1/2"		GREEN-GREEN	START/START
	XCS-2B5	XCS-5B5	3/4"			
XCS-0B7	XCS-1B7	XCS-4B7	1/2"		BLACK-BLACK	SPECIFY
	XCS-2B7	XCS-5B7	3/4"			

XCS MOMENTARY CONTACT THREE MINI-PUSH BUTTON						
COVER WITH DEVICE	CATALOG NUMBER		HUB SIZE	DIAGRAM	BUTTON COLOR ^②	NAMEPLATE MARKETING ^①
	COMPLETE UNITS (BOX & COVER)					
	DEAD-END	FEED-THRU				
XCS-0A8	XCS-1A8	XCS-4A8	1/2"		GREEN-RED	START/STOP
	XCS-2A8	XCS-5A8	3/4"			
XCS-0A9	XCS-1A9	XCS-4A9	1/2"		BLACK	SPECIFY
	XCS-2A9	XCS-5A9	3/4"			

① For other than standard marking, see page C59 and order separately or as modified products.

② Lens colors other than listed may be specified by changing lens color suffix. See modifications, page C50.

For control stations with 1" conduit openings or for multi-gang assemblies, order cover with devices and box as separate components.

XCS MAINTAINED CONTACT PUSH PULL MUSHROOM PUSH BUTTON ^④			
CATALOG NUMBER (COVER WITH DEVICE)	DIAGRAM	BUTTON COLOR	NAMEPLATE MARKING
XCS-0MMG3		GREEN	③
XCS-0MMR3		RED	
XCS-0MMK3		BLACK	

③ Three nameplates supplied (Start/Stop, Blank, Emergency Stop) with XCS maintained push button.

④ Operation - when push button is depressed and contact activated, operator will remain in depressed position until pulled out in normal position.



COVER ASSEMBLIES • CONTROL STATIONS



Pilot Light
(Box and Cover)



Double
Pilot Light
(Box and Cover)



Pilot Light
Push Button
(Box and Cover)



Pilot Light
Two Mini Push Buttons
(Box and Cover)

Class I, Div. 1 & 2, Groups C, D
Class I, Zones 1 & 2, Groups IIB, IIA
Class II, Div. 1 & 2, Groups E, F, G
Class III
NEMA 7 (C, D) 9 (E, F, G)

UL LISTED - File E53360

SP Certified - File LR11714

See files for details or call Killark.

FEATURES-SPECIFICATIONS

XCS PILOT LIGHT ^③							
COVER WITH DEVICE	CATALOG NUMBER		HUB SIZE	DIAGRAM	LAMP VOLTS	LENS COLOR ^②	NAMEPLATE MARKING ^①
	COMPLETE UNITS (BOX & COVER)						
	DEAD-END	FEED-THRU					
XCS-0B24-CL	XCS-1B24-CL	XCS-4B24-CL	1/2"		120V	CLEAR	SPECIFY
	XCS-2B24-CL	XCS-5B24-CL	3/4"				
XCS-0B24-GL	XCS-1B24-GL	XCS-4B24-GL	1/2"		120V	GREEN	SPECIFY
	XCS-2B24-GL	XCS-5B24-GL	3/4"				
XCS-0B24-RL	XCS-1B24-RL	XCS-4B24-RL	1/2"		120V	RED	SPECIFY
	XCS-2B24-RL	XCS-5B24-RL	3/4"				

XCS DOUBLE PILOT LIGHT ^④							
COVER WITH DEVICE	CATALOG NUMBER		HUB SIZE	DIAGRAM	LAMP VOLTS	LENS COLOR ^②	NAMEPLATE MARKING ^①
	COMPLETE UNITS (BOX & COVER)						
	DEAD-END	FEED-THRU					
XCS-0B30-CL	XCS-1B30-CL	XCS-4B30-CL	1/2"		120V	CLEAR	SPECIFY
	XCS-2B30-CL	XCS-5B30-CL	3/4"				
XCS-0B30-GL	XCS-1B30-GL	XCS-4B30-GL	1/2"		120V	GREEN	SPECIFY
	XCS-2B30-GL	XCS-5B30-GL	3/4"				
XCS-0B30-RL	XCS-1B30-RL	XCS-4B30-RL	1/2"		120V	RED	SPECIFY
	XCS-2B30-RL	XCS-5B30-RL	3/4"				
XCS-0B30RL-GL	XCS-1B30RL-GL	XCS-4B30RL-GL	1/2"		120V	RED/GREEN	SPECIFY
	XCS-2B30RL-GL	XCS-5B30RL-GL	3/4"				

XCS MOMENTARY CONTACT PUSH BUTTON AND PILOT LIGHT ^④								
COVER WITH DEVICE	CATALOG NUMBER		HUB SIZE	DIAGRAM	BUTTON COLOR	LENS COLOR ^②	NAMEPLATE MARKING ^①	
	COMPLETE UNITS (BOX & COVER)						BUTTON	LENS
	DEAD-END	FEED-THRU						
XCS-0B13-C	XCS-1B13-C	XCS-4B13-C	1/2"		RED	RED	STOP	SPECIFY
	XCS-2B13-C	XCS-5B13-C	3/4"					
XCS-0B13-0	XCS-1B13-0	XCS-4B13-0	1/2"		GREEN	RED	START	SPECIFY
	XCS-2B13-0	XCS-5B13-0	3/4"					
XCS-0B13-U	XCS-1B13-U	XCS-4B13-U	1/2"		BLACK	RED	SPECIFY	SPECIFY
	XCS-2B13-U	XCS-5B13-U	3/4"					

XCS MOMENTARY CONTACT TWO MINI PUSH BUTTONS AND PILOT LIGHT ^④								
COVER WITH DEVICE	CATALOG NUMBER		HUB SIZE	DIAGRAM	BUTTON COLOR	LENS COLOR ^②	NAMEPLATE MARKING ^①	
	COMPLETE UNITS (BOX & COVER)						BUTTON	LENS
	DEAD-END	FEED-THRU						
XCS-0A15	XCS-1A15	XCS-4A15	1/2"		RED	RED	STOP	SPECIFY
	XCS-2A15	XCS-5A15	3/4"					

① For other than standard marking, see page C59 and order separately or as modified products.
 ② Lens color suffix listed in modifications, page C50. Unless different lens colors are specified by proper suffix catalog number, red lens will be provided.
 ③ Pilot light transformers also listed in modifications. Add suffix to cover assembly catalog number.

④ Pilot light transformers will not fit in these assemblies. When transformer is desired, use SWB-14, indicating conduit openings required from chart on page C52 of this section. See page C50 for required transformer suffix. One transformer required for each lamp. For control stations with 1" conduit openings or for multi-gang assemblies, order cover and box as separate components.



COVER ASSEMBLIES • CONTROL STATIONS



Selector Switch



Key Operated

Class I, Div. 1 & 2, Groups C, D
 Class I, Zones 1 & 2, Groups IIB, IIA
 Class II, Div. 1 & 2, Groups E, F, G
 Class III
 NEMA 7 (C, D) 9 (E, F, G)

UL LISTED - File E53360

CS Certified - File LR11714

See files for details or call Killark.

FEATURES-SPECIFICATIONS

XCS TWO POSITION SELECTOR SWITCH (MAINTAINED)*								
CATALOG NUMBER			HUB SIZE	TWO POSITION DIAGRAM				NAMEPLATE MARKING [Ⓢ]
COVER WITH DEVICE	COMPLETE UNITS (BOX & COVER)			LEFT POSITION		RIGHT POSITION		
	DEAD-END	FEED-THRU	LEFT BLOCKS	RIGHT BLOCKS	LEFT BLOCKS	RIGHT BLOCKS		
XCS-0S2A1	XCS-1S2A1	XCS-4S2A1	1/2"					OFF/ON
	XCS-2S2A1	XCS-5S2A1	3/4"					
XCS-0S2A5	XCS-42S2A5	XCS-45S2A5	3/4"					OFF/ON

XCS THREE POSITION SELECTOR SWITCH (MAINTAINED)*										
CATALOG NUMBER			HUB SIZE	THREE POSITION DIAGRAM						NAMEPLATE MARKING
COVER WITH DEVICE	COMPLETE UNITS (BOX & COVER)			LEFT POSITION		CENTER POSITION		RIGHT POSITION		
	DEAD-END	FEED-THRU	LEFT BLOCKS	RIGHT BLOCKS	LEFT BLOCKS	RIGHT BLOCKS	LEFT BLOCKS	RIGHT BLOCKS		
XCS-0S3C4	XCS-1S3C4	XCS-4S3C4	1/2"							HOA
	XCS-2S3C4	XCS-5S3C4	3/4"							
XCS-0S3C5	XCS-42S3C5	XCS-45S3C5	3/4"							HOA

Ⓢ For other than standard marking, see page C59 and order separately or as modified products.

For control stations with 1" conduit openings or for multi-gang assemblies, order cover with devices and box as separate components.

XCS TWO POSITION KEY OPERATED SELECTOR SWITCH (MAINTAINED)*								
CATALOG NUMBER			HUB SIZE	TWO POSITION DIAGRAM				NAMEPLATE MARKING [Ⓢ]
COVER WITH DEVICE	COMPLETE UNITS (BOX & COVER)			LEFT POSITION		RIGHT POSITION		
	DEAD-END	FEED-THRU	LEFT BLOCKS	RIGHT BLOCKS	LEFT BLOCKS	RIGHT BLOCKS		
XCS-0K2A1	XCS-1K2A1	XCS-4K2A1	1/2"					OFF/ON
	XCS-2K2A1	XCS-5K2A1	3/4"					
XCS-0K2A5	XCS-42K2A5	XCS-45K2A5	3/4"					OFF/ON

XCS THREE POSITION KEY OPERATED SELECTOR SWITCH (MAINTAINED)*										
CATALOG NUMBER			HUB SIZE	THREE POSITION DIAGRAM						NAMEPLATE MARKING
COVER WITH DEVICE	COMPLETE UNITS (BOX & COVER)			LEFT POSITION		CENTER POSITION		RIGHT POSITION		
	DEAD-END	FEED-THRU	LEFT BLOCKS	RIGHT BLOCKS	LEFT BLOCKS	RIGHT BLOCKS	LEFT BLOCKS	RIGHT BLOCKS		
XCS-0K3C4	XCS-1K3C4	XCS-4K3C4	1/2"							HOA
	XCS-2K3C4	XCS-5K3C4	3/4"							
XCS-0K3C5	XCS-42K3C5	XCS-45K3C5	3/4"							HOA

Ⓢ For other than standard marking, see page C59 and order separately or as modified products.
 For control stations with 1" conduit openings or for multi-gang assemblies, order cover with devices and box as separate components.

* Key removal in all positions for 2 & 3 position key operated selectors. Consult factory for variations.
 Keyed sub-assemblies are supplied with random keys. For like keys, add "A" to end of catalog number. i.e. XCS-0K3C4A



COVER ASSEMBLIES • CONTROL STATIONS



Selector Switch

Class I, Div. 1 & 2, Groups C, D
 Class I, Zones 1 & 2, Groups IIB, IIA
 Class II, Div. 1 & 2, Groups E, F, G
 Class III
 NEMA 7 (C, D) 9 (E, F, G)

LISTED - File E53360

Certified - File LR11714
 See files for details or call Killark.

FEATURES-SPECIFICATIONS

XCS SPRING RETURN SELECTOR SWITCH – TWO POSITION SPRING RETURN TO LEFT							
CATALOG NUMBER			HUB SIZE	TWO POSITION DIAGRAM – 1N.O./1N.C.			
COVER WITH DEVICE ^①	COMPLETE UNITS (BOX & COVER)			LEFT POSITION		RIGHT POSITION	
	DEAD-END	FEED-THRU		LEFT BLOCK	RIGHT BLOCK	LEFT BLOCK	RIGHT BLOCK
XCS-0S2L3F	XCS-42S2L3F	XCS-45S2L3F	3/4"				

XCS SPRING RETURN SELECTOR SWITCH – THREE POSITION SPRING RETURN TO CENTER FROM RIGHT AND LEFT									
CATALOG NUMBER			HUB SIZE	THREE POSITION DIAGRAM – 2 N.O.					
COVER WITH DEVICE ^①	COMPLETE UNITS (BOX & COVER)			LEFT POSITION		CENTER POSITION		RIGHT POSITION	
	DEAD-END	FEED-THRU		LEFT BLOCK	RIGHT BLOCK	LEFT BLOCK	RIGHT BLOCK	LEFT BLOCK	RIGHT BLOCK
XCS-0S3M6G	XCS-42S3M6G	XCS-45S3M6G	3/4"						

XCS SPRING RETURN SELECTOR SWITCH – THREE POSITION SPRING RETURN TO CENTER FROM RIGHT, MAINTAIN IN LEFT									
CATALOG NUMBER			HUB SIZE	THREE POSITION DIAGRAM – 2 N.O.					
COVER WITH DEVICE ^①	COMPLETE UNITS (BOX & COVER)			LEFT POSITION		CENTER POSITION		RIGHT POSITION	
	DEAD-END	FEED-THRU		LEFT BLOCK	RIGHT BLOCK	LEFT BLOCK	RIGHT BLOCK	LEFT BLOCK	RIGHT BLOCK
XCS-0S3L6G	XCS-42S3L6G	XCS-45S3L6G	3/4"						

XCS SPRING RETURN SELECTOR SWITCH – THREE POSITION SPRING RETURN TO CENTER FROM LEFT, MAINTAIN IN RIGHT									
CATALOG NUMBER			HUB SIZE	THREE POSITION DIAGRAM – 2 N.O.					
COVER WITH DEVICE ^①	COMPLETE UNITS (BOX & COVER)			LEFT POSITION		CENTER POSITION		RIGHT POSITION	
	DEAD-END	FEED-THRU		LEFT BLOCK	RIGHT BLOCK	LEFT BLOCK	RIGHT BLOCK	LEFT BLOCK	RIGHT BLOCK
XCS-0S3R6G	XCS-42S3R6G	XCS-45S3R6G	3/4"						

^① All spring return assemblies must be installed on deep style box SWB-14 or SWB-18 through SWB-49.
 For control stations with 1" conduit openings or for multi-gang assemblies, order cover with devices and box as separate components.



COVER ASSEMBLIES • CONTROL STATIONS



Key Operated

Class I, Div. 1 & 2, Groups C, D
 Class I, Zones 1 & 2, Groups IIB, IIA
 Class II, Div. 1 & 2, Groups E, F, G
 Class III
 NEMA 7 (C, D) 9 (E, F, G)

UL LISTED - File E53360

CS Certified - File LR11714

See files for details or call Killark.

FEATURES-SPECIFICATIONS

XCS KEY OPERATED SPRING RETURN SELECTOR SWITCH ① – TWO POSITION SPRING RETURN TO LEFT									
CATALOG NUMBER			HUB SIZE	TWO POSITION DIAGRAM – 1 N.O./1 N.C.					
COVER WITH DEVICE ②	COMPLETE UNITS (BOX & COVER)			LEFT POSITION		RIGHT POSITION		RIGHT POSITION	
	DEAD-END	FEED-THRU		LEFT BLOCK	RIGHT BLOCK	LEFT BLOCK	RIGHT BLOCK	LEFT BLOCK	RIGHT BLOCK
XCS-0K2L3F22D	XCS-42K2L3F22D	XCS-45K2L3F22D	3/4"						

XCS KEY OPERATED SPRING RETURN SELECTOR SWITCH ① – THREE POSITION SPRING RETURN TO CENTER FROM RIGHT AND LEFT									
CATALOG NUMBER			HUB SIZE	THREE POSITION DIAGRAM – 2 N.O.					
COVER WITH DEVICE ②	COMPLETE UNITS (BOX & COVER)			LEFT POSITION		CENTER POSITION		RIGHT POSITION	
	DEAD-END	FEED-THRU		LEFT BLOCK	RIGHT BLOCK	LEFT BLOCK	RIGHT BLOCK	LEFT BLOCK	RIGHT BLOCK
XCS-0K3M6G32D	XCS-42K3M6G32D	XCS-45K3M6G32D	3/4"						

XCS KEY OPERATED SPRING RETURN SELECTOR SWITCH ① – THREE POSITION SPRING RETURN TO CENTER FROM RIGHT, MAINTAIN IN LEFT									
CATALOG NUMBER			HUB SIZE	THREE POSITION DIAGRAM – 2 N.O.					
COVER WITH DEVICE ②	COMPLETE UNITS (BOX & COVER)			LEFT POSITION		CENTER POSITION		RIGHT POSITION	
	DEAD-END	FEED-THRU		LEFT BLOCK	RIGHT BLOCK	LEFT BLOCK	RIGHT BLOCK	LEFT BLOCK	RIGHT BLOCK
XCS-0K3L6G32D	XCS-42K3L6G32D	XCS-45K3L6G32D	3/4"						

XCS KEY OPERATED SPRING RETURN SELECTOR SWITCH ① – THREE POSITION SPRING RETURN TO CENTER FROM LEFT, MAINTAIN IN RIGHT									
CATALOG NUMBER			HUB SIZE	THREE POSITION DIAGRAM – 2 N.O.					
COVER WITH DEVICE ②	COMPLETE UNITS (BOX & COVER)			LEFT POSITION		CENTER POSITION		RIGHT POSITION	
	DEAD-END	FEED-THRU		LEFT BLOCK	RIGHT BLOCK	LEFT BLOCK	RIGHT BLOCK	LEFT BLOCK	RIGHT BLOCK
XCS-0K3R6G32D	XCS-42K3R6G32D	XCS-45K3R6G32D	3/4"						

① All key operators are furnished keyed different. If keyed alike is required substitute letter "A" for "D" at end of catalog number. Keys are removable in left position for 2 position selectors and in center position for 3 position selectors. For key removable in all positions change "22" in 2 position to "20" and "32" in 3 position to "30".

② All spring return assemblies must be installed on deep style box SWB-14 or SWB-18 through SWB-49. For control stations with 1" conduit openings or for multi-gang assemblies, order cover with devices and box as separate components.



BLANK ACCESSORIES / REPLACEMENT PARTS



X-10
Blank Cover



KIT-69



KIT-78



KIT-64

X BLANK AND SPECIAL COVERS	
CAT. NO.	DESCRIPTION
X-10	Blank cover for SWB
X-60	Cover with (1) 3/4" NPSM Hole ^①
X-64	Cover with (2) 3/4" NPSM Holes ^{① ②}

XS REPLACEMENT SWITCH ONLY	
CAT. NO.	DESCRIPTION
KIT-264	Replacement switch for XS-1C
KIT-266	Replacement switch for XS-2C
KIT-263	Replacement switch for XS-6C
KIT-265	Replacement switch for XS-8C

REPLACEMENT XCS COVER INTERIORS SUPPLIED WITH MOUNTING HARDWARE	
KIT-62	INTERIOR DEVICE XCS-0A8
KIT-63	INTERIOR DEVICE XCS-0A9
KIT-64	INTERIOR DEVICE XCS-0A15
KIT-66	INTERIOR DEVICE XCS-0B1
KIT-67	INTERIOR DEVICE XCS-0B2
KIT-68	INTERIOR DEVICE XCS-0B3
KIT-69	INTERIOR DEVICE XCS-0B4
KIT-70	INTERIOR DEVICE XCS-0B5
KIT-72	INTERIOR DEVICE XCS-0B7
KIT-73	INTERIOR DEVICE XCS-0B13-C
KIT-74	INTERIOR DEVICE XCS-0B13-O
KIT-75	INTERIOR DEVICE XCS-0B13-U
KIT-76	INTERIOR DEVICE XCS-0B24*
KIT-78	INTERIOR DEVICE XCS-0B30*

Kits supplied with contacts and lamp sockets mounted to strap for installation on SWB back box. All lamps are incandescent 120V.

- ① For "G" series short operators.
- ② When X-64 cover is used, one operator must be a pilot light due to electrical clearances.



Standard Lockout



Miniature Lockout



Selector Lockout



Dust/Weather Cap



GOM Lockout

ACCESSORIES					
PUSH BUTTON LOCKOUT ^①	SELECTOR LOCKOUT ^①	CATALOG NUMBER			DESCRIPTION
		DUST/WEATHER CAP			
		RED	GREEN	BLACK	
XLOB	G0567-LOK	XDBR	XDBG	XDBB	Standard operator
XLOA	—	—	—	—	Miniature operator

① Must be factory installed

CATALOG NUMBER GOMLOCK ^②
LOCKOUT FOR MAINTAINED PUSH BUTTON COVERS
XCS-OMMR3
FXCS-OMMR3, FXCS - *MMR3-M

② May be installed in field.

XCS REPLACEMENT COVER SCREWS	
CATALOG NUMBER	DESCRIPTION
00891896	4 Cover Screws
00891898	4 Cover Screws and 2 Strap Screws



ACCESSORIES / REPLACEMENT PARTS

CUSTOM LEGEND PLATES (MOUNTING SCREWS INCLUDED)		
CATALOG NUMBER & DESCRIPTION		
PB & PL LEGEND PLATES	2 POS. SEL. SWT. LEGEND PLATES	3 POS. SEL. SWT. LEGEND PLATES
XCSNP-ON	XCSNP-ON-OFF	XCSNP-HAND-OFF-AUT
XCSNP-OFF	XCSNP-OFF-ON	XCSNP-AUT-OFF-HAND
XCSNP-START	XCSNP-OFF-REMOTE	XCSNP-HAND-OFF-REM
XCSNP-STOP	XCSNP-START-STOP	XCSNP-STP-RUN-STRT
XCSNP-ESTOP	XCSNP-UP-DOWN	XCSNP-FWD-OFF-REV
XCSNP-UP	XCSNP-RAISE-LOWER	XCSNP-REV-OFF-FWD
XCSNP-DOWN	XCSNP-HIGH-LOW	XCSNP-RUN-OFF-JOG
XCSNP-FAST	XCSNP-SLOW-FAST	XCSNP-JOG-OFF-RUN
XCSNP-SLOW	XCSNP-START-JOG	XCSNP-SLOW-OFF-FST
XCSNP-IN	XCSNP-RUN-JOG	XCSNP-LOW-OFF-HIGH
XCSNP-OUT	XCSNP-JOG-RUN	XCSNP-RAS-OFF-LOWR
XCSNP-RAISE	XCSNP-FWD-REV	XCSNP-LOCL-OFF-REM
XCSNP-LOWER	XCSNP-HAND-AUTO	XCSNP-1-OFF-2
XCSNP-HIGH	XCSNP-AUTO-HAND	XCSNP-UP-OFF-DOWN
XCSNP-LOW	XCSNP-MANUAL-AUTO	XCSNP-BLANK-3P*
XCSNP-OPEN	XCSNP-SLOW-FAST	
XCSNP-CLOSE	XCSNP-OPEN-CLOSE	
XCSNP-FORWARD	XCSNP-BLANK-2P*	
XCSNP-REVERSE		
XCSNP-READY		
XCSNP-RUN		
XCSNP-RESET		
XCSNP-JOG		
XCSNP-INCH		
XCSNP-TEST		
XCSNP-POWER-ON		
XCSNP-JOG-FORWARD		
XCSNP-JOG-REVERSE		
XCSNP-MOTOR-RUN		
XCSNP-MOTOR-STOP		
XCSNP-PUSH-TO-TEST		
XCSNP-BLANK*		





Drilling Instructions
(if holes not existing)
Drill #44(.086 Dia)
x 3/16 deep. Do not break
through cover.
Install with thread cutting
screws supplied.

* For special markings order blank legend plate and specify marking.

XCS-FXCS LAMPS			
CAT. NO.	LAMP TYPE	VOLTS AC/DC	COLOR
YOSY24MB	FILAMENT	24	CLEAR
YOSY120MB	FILAMENT	120	CLEAR



Incandescent Filament Lamp

PILOT LIGHT LED LAMPS		
CATALOG NUMBER	VOLTS	COLOR
GOLED-A110	110 VAC/DC	AMBER
GOLED-B110	110 VAC/DC	BLUE
GOLED-G110	110 VAC/DC	GREEN
GOLED-R110	110 VAC/DC	RED
GOLED-W110	110 VAC/DC	WHITE
GOLED-A24	24 VAC/DC	AMBER
GOLED-B24	24 VAC/DC	BLUE
GOLED-G24	24 VAC/DC	GREEN
GOLED-R24	24 VAC/DC	RED
GOLED-W24	24 VAC/DC	WHITE
GOLED-A240	220/240 VAC	AMBER
GOLED-B240	220/240 VAC	BLUE
GOLED-G240	220/240 VAC	GREEN
GOLED-R240	220/240 VAC	RED
GOLED-W240	220/240 VAC	WHITE



LED Lamps



Color Code →

Finger Safe Contact Block with Gold Flashing as Standard

GO STANDARD CONTACT BLOCKS*		
CATALOG NUMBER	DESCRIPTION	COLOR CODE
GO-8673-BJK	1 N.O.	WHITE
GO-8673-BJJ	1 N.C.	RED
GO-8673-BJH	1 N.O. EARLY MAKE	GREEN
GO-8673-BJE	1 N.C. LATE BREAK	YELLOW
GO-8673-BJKJ	1 N.O./1 N.C.	BLACK

* 600VAC Max., 10 Amps, A600/P600
Dimensions: 1.63"L x 1.06"W x 1"Deep

New series finger safe contact blocks can be stacked on to older series "E" type blocks. However "E" type contact blocks cannot be stacked on to finger safe blocks.



TUMBLER SWITCH



XS-3C



Complete Unit When Assembled

Class I, Div. 1 & 2, Groups C, D
 Class I, Zones 1 & 2, Groups IIB, IIA
 Class II, Div. 1 & 2, Groups E, F, G
 Class III
 NEMA 7 (C, D) 9 (E, F, G)

UL LISTED - FILE E53360

SP Certified - File LR11712

FM APPROVED File OP7A5.AE
 See files for details or call Killark.

FEATURES-SPECIFICATIONS

Applications

Used where making, breaking, or changing connections in an electric circuit are required.

Features

XS and XST Series are front lever rotary operated switch assemblies with standard provisions for padlocking in either "ON" or "OFF" position. The lever is connected to a threaded stainless steel shaft which passes through the cover.

XS TUMBLER SWITCH						
CATALOG NUMBER					SWITCH STYLE	SWITCH RATING 120/277 VAC, 1Ø
COVER		HUB SIZE	COMPLETE UNITS (BOX, COVER AND SWITCH)			
WITH DEVICE	WITHOUT DEVICE		DEAD-END	FEED-THRU		
XS-1C	XNS-1C	1/2"	XS-11C	XS-41C	1-POLE	20Aⓐ
		3/4"	XS-21C	XS-51C		
XS-2C	XNS-2C	1/2"	XS-12C	XS-42C	2-POLE	20Aⓐ
		3/4"	XS-22C	XS-52C		
XS-8C	XNS-8C	1/2"	XS-18C	XS-48C	3-POLE	ⓑ
		3/4"	XS-28C	XS-58C		
XS-3C	XNS-3C	1/2"	XS-13C	XS-43C	3-WAY/SPDT No center off	20Aⓐ
		3/4"	XS-23C	XS-53C		
XS-5C	XNS-5C	1/2"	XS-15C	XS-45C	SPDT Center off	20Aⓐ
		3/4"	XS-25C	XS-55C		
XS-6C	XNS-6C	1/2"	XS-16C	XS-46C	DPDT No center off	20Aⓐ
		3/4"	XS-26C	XS-56C		
XS-7C	XNS-7C	1/2"	XS-17C	XS-47C	DPDT Center off	20Aⓐ
		3/4"	XS-27C	XS-57C		
XS-1D	XNS-1D	1/2"	XS-11D	XS-41D	1-POLE	30Aⓐ
		3/4"	XS-21D	XS-51D		
XS-2D	XNS-2D	1/2"	XS-12D	XS-42D	2-POLE	30Aⓐ
		3/4"	XS-22D	XS-52D		
XS-4C	—	—	—	—	4-WAY	20Aⓐ

ⓐ Rated 15 amperes, 240/480 VAC., 3Ø: 3HP-240 VAC., 5 HP-480 VAC.

ⓑ Horsepower rated 1 HP at 120VAC, 2 HP at 240VAC.

SP Certified - File LR11712

XS TUMBLER SWITCH				
HUB SIZE	CATALOG NUMBER		SWITCH STYLE	SWITCH RATING 347 VAC, 1Ø
	COMPLETE UNITS (BOX, COVER AND SWITCH)			
	DEAD-END	FEED-THRU		
3/4"	XST15-21C	XST15-51C	1-POLE	15A
1"	XST15-31C	XST15-61C		
3/4"	XST20-21C	XST20-51C	1-POLE	20A
1"	XST20-31C	XST20-61C		
3/4"	XST15-23C	XST15-53C	3-WAY/SPDT NO CENTER OFF	15A
1"	XST15-33C	XST15-63C		
3/4"	XST20-23C	XST20-53C	3-WAY/SPDT NO COVER OFF	20A
1"	XST20-33C	XST20-63C		



FIRE ALARM STATIONS



XAL Pull Ring



XAS Break Glass

Class I, Div. 1 & 2, Groups C, D
 Class I, Zones 1 & 2, Groups IIB, IIA
 Class II, Div. 1 & 2, Groups E, F, G
 Class III
 NEMA 7 (C, D) 9 (E, F, G)

FEATURES-SPECIFICATIONS

Applications

- Hazardous areas due to the presence of flammable gases or vapors, combustible dusts or easily ignitable fibers or flyings
- Installation at petroleum refineries, chemical and petrochemical plants, storage areas, and other processing facilities where hazardous substances are handled or stored
- Areas where emergency control of fire alarm or signal circuits is required

Features

- Enclosure is made of copper free aluminum alloy
- Conduit openings are 3/4" NPT feed through
- Red, textured powder epoxy paint finish is standard on box and cover and provides high visibility for alarm station
- XAL-458 has (2) normally open and (2) normally closed contacts.
- Bilingual nameplates included per CSA requirement
- Internal ground screw is standard

REPLACEMENT PARTS	
CATALOG NUMBER	DESCRIPTION
YOKK15214	XAS REPL. GLASS
KIT-232	XAS REP. HAMMER & CHAIN

Operation

XAL: The alarm station is activated by lifting the front cover and pulling down ring. This quick, easy to use two-step process prevents unintentional operation.

XAS: Breaking glass with hammer provided activates alarm. Reset by replacing glass.

XAL Series:

- UL LISTED - File E50498
- ULC Listed - CE69
- SPR Certified - File LR31085
- Listed - California State Fire Marshall #7150-1439:100

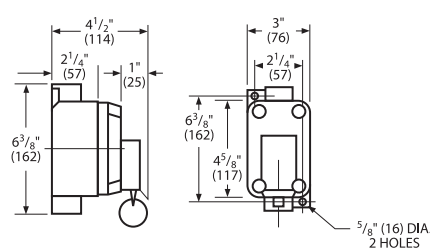
XAS Series:

- UL LISTED - File E50498
- SPR Certified - File LR31085 See files for details or call Killark.

XAL FIRE ALARM STATION		
CATALOG NUMBER	OPERATION TYPE	CONTACT BLOCKS
XAL-53	PULL RING	(1) NO/NC
XAL-458	PULL RING	(2) NO/NC
XAS-53	BREAK GLASS	(1) NO/NC

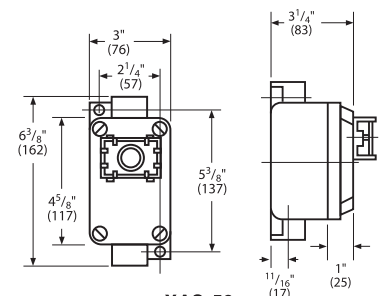
CONTACT BLOCK RATING								
AC						DC		
VOLTS	MAKE AMPERES	VA	BREAK AMPERES	VA	CONTINUOUS CARRYING AMPERES	VOLTS	MAKE BREAK	CONTINUOUS CARRYING AMPERES
120	60	7200	6	720	10	125	1.1	5.0
240	30	7200	3	720	10	250	0.55	5.0
480	15	7200	1.5	720	10	600	0.2	5.0
600	12	7200	1.2	720	10	—	—	—

Dimensions



XAL-53

Note: On XAL-458 the overall depth is 5-9/16"



XAS-53



CUSTOM CONTROL PANEL OPERATORS INTRODUCTION



Class I, Div. 1 & 2, Groups B, C, D
 Class I, Zones 1 & 2, Groups IIB, IIA
 Class II, Div. 1 & 2, Groups E, F, G
 Class III
 NEMA 3, 4, 4X, 7 (B, C, D) 9 (E, F, G)

See Area Classification Chart below

FEATURES-SPECIFICATIONS

Applications

G Series custom control panel operators are designed for use in hazardous locations when installed in suitable enclosures such as B7E EXB, SWB and GCS Series boxes and B7, Y7 Starter Enclosures.

Features

- Operators are all aluminum except for certain movable parts which are stainless steel, all other parts such as screws are either stainless steel or plated steel
- Threaded bodies are all 3/4"-14 NPSM thread
- Control stations can be grouped into a single assembly thus reducing installation time and cost
- Junction boxes may be used to mount operators along with glass lens for viewing internally mounted meters. Additional relays, timers, terminal blocks, or other equipment may also be internally mounted to provide a single centralized control unit.
- Custom operators other than standard assemblies listed may be ordered by proper catalog number from custom operator ordering system pages C72 & C73

Electrical Rating

Push button stations, selector switches Heavy duty 600 VAC max.

Pilot lights 250 VAC max.

Dimensions

See Dimensional information for G Series operators on page C74.

Recommended Operator Selection

Short Style

SWB/GCS Enclosures. Assemblies with wall thickness up to 1/2" thick.

Long Style

All B7E Enclosures. EXB (see page E36) enclosures with cover thickness up to 1-1/2" thick.

Extended Style

EXB larger size enclosures (see page E36) with cover thickness up to 2-1/2" thick.

Killark long and extended push buttons, selector switches, reset and potentiometer operators are CENELEC/ATEX EExd IIB+H2 when installed in series EXB*CEN and GR*CEN enclosures.

For pilot lights and illuminated push buttons in CENELEC/ATEX applications see page C65.

CONTACT BLOCK RATINGS – A600/P600						
CURRENT	120 VAC	240 VAC	480 VAC	600 VAC	125 VDC	250 VDC
INRUSH	60	30	15	12	.55	.27
BREAKING	6	3	1.5	1.2	.55	.27
CARRYING	10	10	10	10	2.55	2.55

Note: Contact blocks can be stacked four deep maximum.

AREA CLASSIFICATION CHART FOR OPERATORS					
G01④	G017②	G030②	G057②	GOL2④	GOL38③
G02④	G018②	G034②	G058②	GOL3④	GOL39③
G05④	G019②	G035② G036③	G059②	GOL4④	GOL113③
G06④	G021②	G037③	G0113③	GOL5④	GOL114③
G07④	G022②	G038③	G0114③	GOL6④	GOLRST④
G08③	G023②	G039③	G0133②	GOL7④ GOL8③	GOM1⑤
G010④	G025②	G040①	G0134②	GOL14④	GOR11④
G014④	G026②	G050②	G0B3④	GOL15④	GORST④
G015④	G027②	G051②	G0B4④	GOL36③	G011388②
G016②	G028②	G056②	GOL1④	GOL37④	G011372②

① Class II Div. 1 & 2 Group EFG NEMA 9EFG

② Class I Div. 1 & 2 Group CD, Class II Div. 1 & 2 Group EFG, Class III NEMA 7CD, 9EFG

③ Class I Div. 1 & 2 Group BCD, Class II Div. 1 & 2 Group EFG, Class III NEMA 3, 4, 7BCD, 9EFG

④ Class I Div. 1 & 2 Group BCD, Class II Div. 1 & 2 Group EFG, Class III NEMA 3, 4, 4X, 7BCD, 9EFG

⑤ Class I Div. 1 & 2 Group CD, Class II Div. 1 & 2 Group EFG, Class III NEMA 3, 4, 7CD, 9EFG



PUSH BUTTONS



Push Button Green



Push Button Red



Mushroom Push Button



Double Push Button

Class I, Div. 1 & 2, Groups B, C, D^④
 Class I, Zones 1 & 2, Groups IIB, IIA
 Class II, Div. 1 & 2, Groups E, F, G
 Class III
 NEMA 3, 4, 4X, 7 (B, C, D) 9 (E, F, G)

See Area Classification Chart
 page C62 for Details

LISTED - File E12379

Certified - File LR11714
 See files for details or call Killark.

FEATURES-SPECIFICATIONS

G SINGLE PUSH BUTTON (MOMENTARY CONTACT)						
CATALOG NUMBER ^①			COLOR	CONTACT TYPE ^③	NAMEPLATE MARKING ^②	
SHORT ^④	LONG	EXTENDED				
G021-GZ1B	G01-GX1B N34	GOL1G1	GREEN		START OR STOP	
G021-KZ1C	G01-KX1C N34	GOL1K1	BLACK		RESET OR BLANK	
G021-RZ2B	G01-RX2B N34	GOL1R2	RED		START OR STOP	
G021-KZ2C	G01-KX2C N34	GOL1K2	BLACK		RESET OR BLANK	
G021-GZ3C	G01-GX3C N34	GOL1G3	GREEN		RESET OR BLANK	
G021-RZ3C	G01-RX3C N34	GOL1R3	RED		RESET OR BLANK	
G021-KZ3C	G01-KX3C N34	GOL1K3	BLACK		RESET OR BLANK	
G021-GZ0C	G01-GX0C N34	GOL1G	GREEN		RESET OR BLANK	
G021-RZ0C	G01-RX0C N34	GOL1R	RED	NONE	RESET OR BLANK	
G021-KZ0C	G01-KX0C N34	GOL1K	BLACK	NONE	RESET OR BLANK	

G SINGLE PUSH BUTTON (MAINTAINED CONTACT) MUSHROOM HEAD PUSH – PULL OPERATION						
GOM21-GM3C	GOM1-GM3C N34	GOML1G3	GREEN		BLANK	
GOM21-RM3C	GOM1-RM3C N34	GOML1R3	RED		BLANK	
GOM21-KM3C	GOM1-KM3C N34	GOML1K3	BLACK		BLANK	
GOM21-GM0C	GOM1-GM0C N34	GOML1G	GREEN	NONE	BLANK	
GOM21-RM0C	GOM1-RM0C N34	GOML1R	RED		BLANK	
GOM21-KM0C	GOM1-KM0C N34	GOML1K	BLACK		BLANK	

G DOUBLE PUSH BUTTON (MOMENTARY CONTACT)						
G022-GR12D	G02-GR12D N34	GOL2GR12	GREEN/RED		START/STOP OR BLANK	
G022-KK12D	G02-KK12D N34	GOL2KK12	BLACK/BLACK		START/STOP OR BLANK	
G022-GR33D	G02-GR33D N34	GOL2GR33	GREEN/RED		START/STOP OR BLANK	
G022-KK33D	G02-KK33D N34	GOL2KK33	BLACK/BLACK		START/STOP OR BLANK	
G022-GR00D	G02-GR00D N34	GOL2GR	GREEN/RED	NONE	START/STOP OR BLANK	
G022-KK00D	G02-KK00D N34	GOL2KK	BLACK/BLACK		START/STOP OR BLANK	

G DOUBLE PUSH BUTTON (MAINTAINED CONTACT) ^⑤						
—	GOR11-GR6D N34	—	GREEN/RED		START/STOP OR BLANK	
—	GOR11-GR7D N34	—	GREEN/RED		START/STOP OR BLANK	
—	GOR11-GR8D N34	—	GREEN/RED		START/STOP OR BLANK	
—	GOR11-GR0D N34	—	GREEN/RED	NONE	START/STOP OR BLANK	

① Refer to catalog page C62 to select proper operator for enclosure, pages C70 & C71 for accessories, page C62 for complete details on Area Classification of operators, page C74 for Dimensional information.

② Nameplates are double sided.

③ Contact Blocks are shown in their normal position.

④ Short style operators are suitable for Class I Group C & D, Class II Group E,F,G only.

⑤ When pressed, the green button will remain in a depressed position. Pressing red button releases green from the depressed position.



KILLARK

PILOT LIGHTS



Pilot Light



Illuminated Button

Class I, Div. 1 & 2, Groups B, C, D^④
 Class I, Zones 1 & 2, Groups IIB, IIA
 Class II, Div. 1 & 2, Groups E, F, G
 Class III
 NEMA 3, 4, 4X, 7 (B, C, D) 9 (E, F, G)

See Area Classification Chart
 page C62 for Details

LISTED - File E12379

Certified - File LR11714
 See files for details or call Killark.

FEATURES-SPECIFICATIONS

G PILOT LIGHTS					
CATALOG NUMBER ^①			COLOR	CONTACT TYPE ^③	NAMEPLATE MARKING ^②
SHORT ^④	LONG	EXTENDED			
G023-A23C	GOB3-A23C N34	GOL3A	AMBER	 110-120 VOLTS FULL VOLTS	BLANK
G023-B23C	GOB3-B23C N34	GOL3B	BLUE		BLANK
G023-C23C	GOB3-C23C N34	GOL3C	CLEAR		BLANK
G023-F23C	GOB3-F23C N34	GOL3F	FROSTED		BLANK
G023-G23C	GOB3-G23C N34	GOL3G	GREEN		BLANK
G023-R23C	GOB3-R23C N34	GOL3R	RED		BLANK

G PILOT LIGHTS WITH LED 110 VOLT LAMPS					
—	GOB3-A23C N34 LED	GOL3A LED	AMBER	 110-120 VOLTS FULL VOLTS (LED)	BLANK
—	GOB3-G23C N34 LED	GOL3G LED	GREEN		BLANK
—	GOB3-R23C N34 LED	GOL3R LED	RED		BLANK

G ILLUMINATED BUTTON OR PUSH TO TEST PILOT LIGHT					
—	GOB4-A233C N34	GOL4A3	AMBER	 110-120 VOLTS FULL VOLTS	BLANK
—	GOB4-B233C N34	GOL4B3	BLUE		BLANK
—	GOB4-C233C N34	GOL4C3	CLEAR		BLANK
—	GOB4-F233C N34	GOL4F3	FROSTED	 110-120 VOLTS FULL VOLTS (LED)	BLANK
—	GOB4-G233C N34	GOL4G3	GREEN		BLANK
—	GOB4-R233C N34	GOL4R3	RED		BLANK
—	GOB4-A230C N34	GOL4A	AMBER	 110-120 VOLTS NO CONTACT BLOCKS	BLANK
—	GOB4-B230C N34	GOL4B	BLUE		BLANK
—	GOB4-C230C N34	GOL4C	CLEAR		BLANK
—	GOB4-F230C N34	GOL4F	FROSTED		BLANK
—	GOB4-G230C N34	GOL4G	GREEN		BLANK
—	GOB4-R230C N34	GOL4R	RED		BLANK

G ILLUMINATED BUTTON OR PUSH TO TEST PILOT LIGHT WITH LED 110 VOLT LAMPS					
—	GOB4-A233C N34 LED	GOL4A3 LED	AMBER	 110-120 VOLTS FULL VOLTS (LED)	BLANK
—	GOB4-G233C N34 LED	GOL4G3 LED	GREEN		BLANK
—	GOB4-R233C N34 LED	GOL4R3 LED	RED		BLANK
—	GOB4-A230C N34 LED	GOL4A LED	AMBER	 110-120 VOLTS (LED) NO CONTACT BLOCKS	BLANK
—	GOB4-G230C N34 LED	GOL4G LED	GREEN		BLANK
—	GOB4-R230C N34 LED	GOL4R LED	RED		BLANK

① Refer to catalog page C62 to select proper operator for enclosure, pages C70 & C71 for accessories, page C62 for complete details on Area Classification of operators, page C74 for Dimensional information.

② Nameplates are double sided.

③ Contact Blocks are shown in their normal position.

④ Short style operators are suitable for Class I Group C & D, Class II Group E, F, G and cULus only.



PILOT LIGHTS FOR ATEX / CENELEC APPLICATIONS



Pilot Light ATEX



Illuminated Push Button ATEX

Class I, Div. 1 & 2, Groups B, C, D
 Class I, Zones 1 & 2, Groups IIB+H₂, IIA
 Class II, Div. 1 & 2, Groups E, F, G
 Class III
 NEMA 3, 4, 4X, 7 (B, C, D) 9 (E, F, G)
 ATEX-EEExd IIB + H2

- File E12379

Certified - File LR11714

PTB No. 03ATEX 1203 U

FEATURES-SPECIFICATIONS

G PILOT LIGHTS					
CATALOG NUMBER ^①		COLOR	CONTACT TYPE ^③	NAME PLATE MARKING ^②	
LONG	EXTENDED				
GOB3-A23C N34CN	GOL3ACN	AMBER	110-120 VOLTS FULL VOLTS	BLANK	
GOB3-B23C N34CN	GOL3BCN	BLUE		BLANK	
GOB3-C23C N34CN	GOL3CCN	CLEAR		BLANK	
GOB3-F23C N34CN	GOL3FCN	FROSTED		BLANK	
GOB3-G23C N34CN	GOL3GCN	GREEN		BLANK	
GOB3-R23C N34CN	GOL3RCN	RED		BLANK	
G PILOT LIGHTS WITH LED 110 VOLT LAMPS					
GOB3-A23C N34LEDCN	GOL3ALEDCN	AMBER	110-120 VOLTS FULL VOLTS (LED)	BLANK	
GOB3-G23C N34LEDCN	GOL3GLEDCN	GREEN		BLANK	
GOB3-R23C N34LEDCN	GOL3RLEDCN	RED		BLANK	
G ILLUMINATED PUSH BUTTON OR PUSH TO TEST PILOT LIGHT					
GOB4-A233CN34CN	GOL4A3CN	AMBER	110-120 VOLTS FULL VOLTS	BLANK	
GOB4-B233CN34CN	GOL4B3CN	BLUE		BLANK	
GOB4-C233CN34CN	GOL4C3CN	CLEAR		BLANK	
GOB4-F233CN34CN	GOL4F3CN	FROSTED		BLANK	
GOB4-G233CN34CN	GOL4G3CN	GREEN		BLANK	
GOB4-R233CN34CN	GOL4R3CN	RED		BLANK	
GOB4-A230CN34CN	GOL4A0CN	AMBER	110-120 VOLTS NO CONTACT BLOCKS	BLANK	
GOB4-B230CN34CN	GOL4B0CN	BLUE		BLANK	
GOB4-C230CN34CN	GOL4C0CN	CLEAR		BLANK	
GOB4-F230CN34CN	GOL4F0CN	FROSTED		BLANK	
GOB4-G230CN34CN	GOL4G0CN	GREEN		BLANK	
GOB4-R230CN34CN	GOL4R0CN	RED		BLANK	
G ILLUMINATED PUSH BUTTON OR PUSH TO TEST PILOT LIGHT WITH LED 110 VOLT LAMPS					
GOB4-A233CN34LEDCN	GOL4A3LEDCN	AMBER		110-120 VOLTS FULL VOLTS (LED)	BLANK
GOB4-G233CN34LEDCN	GOL4G3LEDCN	GREEN			BLANK
GOB4-R233CN34LEDCN	GOL4R3LEDCN	RED			BLANK
GOB4-A230CN34LEDCN	GOL4A0LEDCN	AMBER	110-120 VOLTS (LED) NO CONTACT BLOCKS	BLANK	
GOB4-G230CN34LEDCN	GOL4G0LEDCN	GREEN		BLANK	
GOB4-R230CN34LEDCN	GOL4R0LEDCN	RED		BLANK	

① Refer to catalog page C62 to select proper operator for enclosure, pages C70 & C71 for accessories, page C62 for complete details on Area Classification of operators, page C74 for Dimensional information.
 ② Nameplates are double sided.
 ③ Contact Blocks are shown in their normal position.

NOTE: British standards BSEN50014 and EN50018 have special marking and relamping demands that require modifications to the standard Killark Pilot Lights. Pilots lights and illuminated push buttons on this page must be used for enclosures that are modified to meet ATEX/CENELEC.



SELECTOR SWITCHES



Selector Switch

Class I, Div. 1 & 2, Groups B, C, D^④
 Class I, Zones 1 & 2, Groups IIB, IIA
 Class II, Div. 1 & 2, Groups E, F, G
 Class III
 NEMA 3, 4, 4X, 7 (B, C, D) 9 (E, F, G)

See Area Classification Chart
 page C62 for Details

LISTED - File E12379

Certified - File LR11714
 See files for details or call Killark.

FEATURES-SPECIFICATIONS

G SELECTOR SWITCH MAINTAINED CONTACT												
CATALOG NUMBER ^①			CONTACT ARRANGEMENT ^③	TYPE OF OPERATION ^②								
SHORT ^④	LONG	EXTENDED										
G025-2A3F	G05-2A3F N34	G0L52A3	<table border="0"> <tr> <td>LEFT</td> <td>RIGHT</td> </tr> <tr> <td></td> <td></td> </tr> </table>	LEFT	RIGHT			TWO POSITION				
LEFT	RIGHT											
G025-3C3G	G05-3C3G N34	G0L53C3	<table border="0"> <tr> <td>LEFT</td> <td>CENTER</td> <td>RIGHT</td> </tr> <tr> <td></td> <td></td> <td></td> </tr> </table>	LEFT	CENTER	RIGHT				THREE POSITION		
LEFT	CENTER	RIGHT										
G025-4H8H	G05-4H8H N34	G0L54H8	<table border="0"> <tr> <td>1</td> <td>2</td> <td>3</td> <td>4</td> </tr> <tr> <td></td> <td></td> <td></td> <td></td> </tr> </table>	1	2	3	4					FOUR POSITION
1	2	3	4									

G SELECTOR SWITCH MAINTAINED CONTACT WITHOUT CONTACTS				
G025-2A0F	G05-2A0F N34	G0L52A	NONE	TWO POSITION
G025-3C0G	G05-3C0G N34	G0L53C	NONE	THREE POSITION
G025-4H0H	G05-4H0H N34	G0L54H	NONE	FOUR POSITION

G SELECTOR SWITCH SPRING RETURN										
G026-3F	G06-3F N34	G0L63	<table border="0"> <tr> <td>LEFT</td> <td>RIGHT</td> </tr> <tr> <td></td> <td></td> </tr> </table>	LEFT	RIGHT			TWO POSITION SPRING RETURN TO LEFT 1 N.O./1 N.C		
LEFT	RIGHT									
G027-6G	G07-6G N34	G0L76	<table border="0"> <tr> <td>LEFT</td> <td>CENTER</td> <td>RIGHT</td> </tr> <tr> <td></td> <td></td> <td></td> </tr> </table>	LEFT	CENTER	RIGHT				THREE POSITION SPRING RETURN TO CENTER FROM RIGHT OR LEFT 2 N.O.
LEFT	CENTER	RIGHT								
G034-6G	G014-6G N34	G0L146	<table border="0"> <tr> <td>LEFT</td> <td>CENTER</td> <td>RIGHT</td> </tr> <tr> <td></td> <td></td> <td></td> </tr> </table>	LEFT	CENTER	RIGHT				THREE POSITION SPRING RETURN TO CENTER FROM RIGHT, MAINTAIN IN LEFT 2 N.O.
LEFT	CENTER	RIGHT								
G035-6G	G015-6G N34	G0L156	<table border="0"> <tr> <td>LEFT</td> <td>CENTER</td> <td>RIGHT</td> </tr> <tr> <td></td> <td></td> <td></td> </tr> </table>	LEFT	CENTER	RIGHT				THREE POSITION SPRING RETURN TO CENTER FROM LEFT, MAINTAIN IN RIGHT 2 N.O.
LEFT	CENTER	RIGHT								

G SELECTOR SWITCH SPRING RETURN WITHOUT CONTACTS				
G026-0F	G06-0F N34	G0L6	NONE	TWO POSITION SPRING RETURN TO LEFT
G027-0G	G07-0G N34	G0L7	NONE	THREE POSITION SPRING RETURN TO CENTER FROM RIGHT OR LEFT
G034-0G	G014-0G N34	G0L14	NONE	THREE POSITION SPRING RETURN TO CENTER FROM RIGHT, MAINTAIN IN LEFT
G035-0G	G015-0G N34	G0L15	NONE	THREE POSITION SPRING RETURN TO CENTER FROM LEFT, MAINTAIN IN RIGHT

^① Refer to catalog page C62 to select proper operator for enclosure, C70 & C71 for Accessories, C62 for complete details on Area Classification of operators, C74 for Dimensional Information, C72 for Special Contact Configurations.

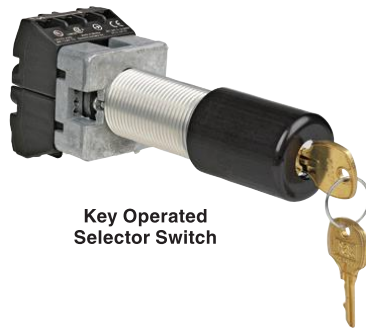
^② Nameplates are Double sided. 2 position marked OFF-ON and Blank on other side. 3 position marked HAND-OFF-AUTO and Blank on other side. 4 position is Blank.

^③ Contact Blocks are shown in their normal position.

^④ Short style operators are suitable for Class I Group C & D, Class II Group E, F, G only.



KEYED SELECTOR SWITCHES



Key Operated Selector Switch

Class I, Div. 1 & 2, Groups B, C, D®
 Class I, Zones 1 & 2, Groups IIB, IIA
 Class II, Div. 1 & 2, Groups E, F, G
 Class III
 NEMA 3, 4, 4X, 7 (B, C, D) 9 (E, F, G)

See Area Classification Chart page C62 for Details

LISTED - File E12379

Certified - File LR11714
 See files for details or call Killark.

FEATURES-SPECIFICATIONS

G KEY SELECTOR SWITCH MAINTAINED CONTACT ^④										
CATALOG NUMBER ^①			CONTACT ARRANGEMENT ^③	TYPE OF OPERATION ^{②⑤}						
SHORT ^⑥	LONG	EXTENDED								
G028-2A3F22D	G08-2A3F22D N34	G0L82A322D	<table border="0"> <tr> <td>LEFT</td> <td>RIGHT</td> </tr> <tr> <td></td> <td></td> </tr> </table>	LEFT	RIGHT			TWO POSITION		
LEFT	RIGHT									
G028-3C3G32D	G08-3C3G32D N34	G0L83C332D	<table border="0"> <tr> <td>LEFT</td> <td>CENTER</td> <td>RIGHT</td> </tr> <tr> <td></td> <td></td> <td></td> </tr> </table>	LEFT	CENTER	RIGHT				THREE POSITION
LEFT	CENTER	RIGHT								

G KEY SELECTOR SWITCH MAINTAINED CONTACT WITHOUT CONTACTS ^④				
G028-2A0F22D	G08-2A0F22D N34	G0L82A022D	NONE	TWO POSITION
G028-3C0G32D	G08-3C0G32D N34	G0L83C032D	NONE	THREE POSITION

G KEY SELECTOR SWITCH SPRING RETURN ^④										
G056-2L3F22D	G036-2L3F22D N34	G0L36L322D	<table border="0"> <tr> <td>LEFT</td> <td>RIGHT</td> </tr> <tr> <td></td> <td></td> </tr> </table>	LEFT	RIGHT			TWO POSITION SPRING RETURN TO LEFT 1 N.O./1 N.C.		
LEFT	RIGHT									
G057-3C6G32D	G037-3C6G32D N34	G0L37C632D	<table border="0"> <tr> <td>LEFT</td> <td>CENTER</td> <td>RIGHT</td> </tr> <tr> <td></td> <td></td> <td></td> </tr> </table>	LEFT	CENTER	RIGHT				THREE POSITION SPRING RETURN TO CENTER FROM RIGHT OR LEFT 2 N.O.
LEFT	CENTER	RIGHT								
G058-3L6G32D	G038-3L6G32D N34	G0L38L632D	<table border="0"> <tr> <td>LEFT</td> <td>CENTER</td> <td>RIGHT</td> </tr> <tr> <td></td> <td></td> <td></td> </tr> </table>	LEFT	CENTER	RIGHT				THREE POSITION SPRING RETURN TO CENTER FROM RIGHT, MAINTAIN IN LEFT 2 N.O.
LEFT	CENTER	RIGHT								
G059-3R6G32D	G039-3R6G32D N34	G0L39R632D	<table border="0"> <tr> <td>LEFT</td> <td>CENTER</td> <td>RIGHT</td> </tr> <tr> <td></td> <td></td> <td></td> </tr> </table>	LEFT	CENTER	RIGHT				THREE POSITION SPRING RETURN TO CENTER FROM LEFT, MAINTAIN IN RIGHT 2 N.O.
LEFT	CENTER	RIGHT								

G KEY SELECTOR SWITCH SPRING RETURN WITHOUT CONTACTS ^④				
G056-2L0F22D	G036-2L0F22D N34	G0L36L022D	NONE	TWO POSITION SPRING RETURN TO LEFT
G057-3C0G32D	G037-3C0G32D N34	G0L37C032D	NONE	THREE POSITION SPRING RETURN TO CENTER FROM RIGHT OR LEFT
G058-3L0G32D	G038-3L0G32D N34	G0L38L032D	NONE	THREE POSITION SPRING RETURN TO CENTER FROM RIGHT, MAINTAIN IN LEFT
G059-3R0G32D	G039-3R0G32D N34	G0L39R032D	NONE	THREE POSITION SPRING RETURN TO CENTER FROM LEFT, MAINTAIN IN RIGHT

- ① Refer to catalog page C62 to select proper operator for enclosure, pages C70 & C71 for Accessories, page C62 for complete details on Area Classification of operators, page C74 for Dimensional Information, page C72 for Special Contact Configurations.
- ② Nameplates are Double sided. 2 position marked OFF-ON and Blank on other side. 3 position marked HAND-OFF-AUTO and Blank on other side. 4 position is Blank.
- ③ Contact Blocks are shown in their normal position.
- ④ All Key Operators are furnished Keyed Different If Keyed Alike is required substitute letter "A" for letter "D" in catalog number.
- ⑤ Keys are removable in Left position on 2 position selectors and in Center position on 3 position selectors. For key removal in ALL positions change "22" in 2 position to "20" and "32" in 3 position to "30".
- ⑥ Short style operators are suitable for Class I Group C & D, Class II Group E, F, G only.



SPECIALTY OPERATORS



Snap Switch



Multi Turn



Single Turn

Potentiometer and Rheostat
(electrical device not included)



Rotary or Motor Shaft



Capillary Seal



Reset

Class I, Div. 1 & 2, Groups B, C, D^④
Class I, Zones 1 & 2, Groups IIB, IIA
Class II, Div. 1 & 2, Groups E, F, G
Class III
NEMA 3, 4, 4X, 7 (B, C, D) 9 (E, F, G)

See Area Classification Chart
page C62 for Details



Certified - File LR11714
See files for details or call Killark.

FEATURES-SPECIFICATIONS

G SNAP SWITCH OPERATOR					
CATALOG NUMBER ^①		TYPE SWITCH	RATINGS		NAMEPLATE MARKING ^②
SHORT ^④	LONG		125 VAC	250 VAC	
GO30-31F	GO10-31F N34	SPST	10 AMP	5 AMP	OFF/ON OR BLANK
GO30-33F	GO10-33F N34	SPDT (3-WAY)	10 AMP	10 AMP	OFF/ON OR BLANK

(UL File E10501)

G ROTARY OR MOTOR SHAFT OPERATOR			
CATALOG NUMBER ^①	SHAFT DIAMETER	TYPE	DESCRIPTION ^①
GO-16 ^⑤	1/4"	MALE-FEMALE	Rotary or motor shaft operator used to transfer rotary motion through wall of explosion proof enclosure.
GO-18 ^⑤	3/8"		
GO-17 ^⑤	1/4"	MALE-MALE	
GO-19 ^⑤	3/8"		
GO-51	1/2"		

G POTENTIOMETERS AND RHEOSTATS OPERATOR				
CATALOG NUMBER ^①			TYPE	DESCRIPTION ^①
SHORT ^④	LONG	EXTENDED		
GO133	GO113 N34	GOL113	SINGLE TURN	Control operator for use with potentiometers or rheostats having a 1/4" diameter by 7/8" long shaft. NOT SUPPLIED
GO134	GO114 N34	GOL114	TWENTY TURN	

(UL File E150827)

G CAPILLARY SEALS			
CATALOG NUMBER ^①	CAPILLARY SIZE	TYPE	DESCRIPTION ^①
GO-11388-078 ^⑤	0.078± .002 DIA.	ACCEPTS CAPILLARY WITH MAX. BULB DIA. OF 9/16".	Use where a mechanical means for passing a thermostat or similar capillary tube through the wall of a hazardous location enclosure.
GO-11372-093 ^⑤	0.093± .002 DIA.		

G RESET OPERATOR				
CATALOG NUMBER ^①			NAMEPLATE ^②	TYPE OPERATION ^①
SHORT ^④	LONG	EXTENDED		
GO40-KX2C	GO-RST	GOLRST	RESET OR BLANK	Black plunger type reset operator, supplied with a 6" long fiber extension which can be removed or cut to desired length.

(UL File E150827)

^① Refer to catalog page C62 to select proper operator for enclosure, pages C70 & C71 for Accessories, page C62 for complete details on Area Classification of operators, page C74 for Dimensional Information.

^② Nameplates are double sided.

^③ GO40 series reset button is suitable for Class II E, F, and G locations only.

^④ Short style operators are suitable for Class I Group C & D, Class II Group E, F, G only.

^⑤ These devices are not UL or CSA approved.



OPERATOR BODIES



Style 1 - GCS-16



Style 2 - GCS-163



Style 3 - SWBC-16

Class I, Div. 1 & 2, Groups C, D
 Class I, Zones 1 & 2, Groups IIB, IIA
 Class II, Div. 1 & 2, Groups E, F, G
 Class III
 NEMA 7 (C, D) 9 (E, F, G)
 SWBC Series:

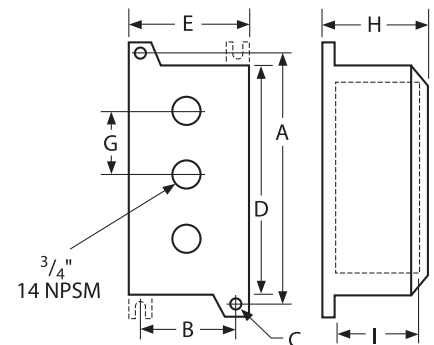
UL LISTED - File E10514

SP Certified - File LR11716
 See files for details or call Killark.

FEATURES-SPECIFICATIONS

GCS STYLE 1 – WITH DRILLED AND TAPPED OPERATOR HOLES IN COVER ①											
CATALOG	NO. OF OPERATOR HOLES	CONSISTS OF		DIMENSIONS							
		BOX	COVER	A	B	C	D	E	G	H	I
GCS-13	1	SWB-13	X-60	6-1/8" (156)	2-3/8" (60)	5/16" (8)	5-3/16" (148)	3-5/8" (92)	—	3-1/2" (89)	2-9/16" (65)
GCS-14	1	SWB-14	X-60	6-1/8" (156)	2-3/8" (60)	5/16" (8)	5-1/4" (133)	3-5/8" (92)	—	4-5/16" (110)	3-3/8" (86)
GCS-15	2	SWB-15	X-61	7-3/8" (187)	3-1/8" (79)	5/16" (8)	6-1/2" (165)	4" (102)	1" (25)	4-1/4" (108)	3-1/4" (82)
GCS-16	3	SWB-16	X-62	9-3/8" (238)	3-3/16" (81)	5/16" (8)	8-1/2" (216)	4" (108)	2" (51)	4-1/4" (105)	3-1/4" (82)
GCS-83	4	SWB-83 [Ⓞ]	X-84	13" (330)	3-1/4" (82)	3/8" (10)	11-7/8" (302)	4-3/8" (111)	1-1/4" (32)	4-3/16" (106)	3-1/4" (82)
GCS-85	5	SWB-83 [Ⓞ]	X-85	13" (330)	3-1/4" (82)	3/8" (10)	11-7/8" (302)	4-3/8" (111)	2" (51)	4-3/16" (106)	3-3/16" (81)

Dimensions



Notes: Use short style operators for cover devices and long style operators for back of box mounted devices when panel mounting. Style 2 only. Style 2 control stations with holes in back of box are typically used for panel mounting where additional length of long style operators is required.

GCS STYLE 2 – WITH DRILLED AND TAPPED OPERATOR HOLES IN BACK OF BOX ①											
CATALOG	NO. OF OPERATOR HOLES	BOX	COVER	A	B	C	D	E	G	H	I
GCS-131	1	SWB-13	X-10	6-1/8" (156)	2-3/8" (60)	5/16" (8)	5-3/16" (148)	3-5/8" (92)	—	3-1/2" (89)	2-9/16" (65)
GCS-141	1	SWB-14	X-10	6-1/8" (156)	2-3/8" (60)	5/16" (8)	5-1/4" (133)	3-5/8" (92)	—	4-5/16" (110)	3-3/8" (86)
GCS-152	2	SWB-15	X-11	7-3/8" (187)	3-1/8" (79)	5/16" (8)	6-1/2" (165)	4" (102)	1" (25)	4-1/4" (108)	3-1/4" (82)
GCS-163	3	SWB-16	X-12	9-3/8" (238)	3-3/16" (81)	5/16" (8)	8-1/2" (216)	4" (102)	2" (51)	4-1/4" (108)	3-1/4" (82)
GCS-834	4	SWB-83 [Ⓞ]	X-83	13" (330)	3-1/4" (82)	3/8" (10)	11-7/8" (302)	4-3/8" (111)	1-1/4" (32)	4-3/16" (106)	3-1/4" (82)
GCS-835	5	SWB-83 [Ⓞ]	X-83	13" (330)	3-1/4" (82)	3/8" (10)	11-7/8" (302)	4-3/8" (111)	2" (51)	4-3/16" (106)	3-3/16" (81)

SWB STYLE 3 – BLANK BOX AND COVER – NO OPERATOR HOLES ①											
CATALOG	NO. OF OPERATOR HOLES	BOX	COVER	A	B	C	D	E	G	H	I
SWBC-13	NONE	SWB-13	X-10	6-1/8" (156)	2-3/8" (60)	5/16" (8)	5-3/16" (148)	3-5/8" (92)	—	3-1/2" (89)	2-9/16" (65)
SWBC-14	NONE	SWB-14	X-10	6-1/8" (156)	2-3/8" (60)	5/16" (8)	5-1/4" (133)	3-5/8" (92)	—	4-5/16" (110)	3-3/8" (86)
SWBC-15	NONE	SWB-15	X-11	7-3/8" (187)	3-1/8" (79)	5/16" (8)	6-1/2" (165)	4" (102)	—	4-1/4" (108)	3-1/4" (82)
SWBC-16	NONE	SWB-16	X-12	9-3/8" (238)	3-3/16" (81)	5/16" (8)	8-1/2" (216)	4" (111)	—	4-1/4" (108)	3-1/4" (82)
SWBC-83	NONE	SWB-83 [Ⓞ]	X-83	13" (330)	3-1/4" (82)	3/8" (10)	11-7/8" (302)	4-3/8" (111)	—	4-3/16" (106)	3-3/16" (81)

① All GCS and SWBC Series are cataloged without conduit openings. Specify conduit size and location when ordering.

② GCS-83, GCS-834, and GCS-85, GCS-835 are provided with four mounting lugs.



ACCESSORIES / REPLACEMENT PARTS



Rubber Boot



Hole Plug



Trim Locknut Spacer



Transformer GO-8670



Push Button Lockout GO-8665



Push Button Lockout GO-10502

ACCESSORIES		
CATALOG NUMBER	USED ON OPERATOR TYPE	DESCRIPTION
GO-8176-1	GO1, GO21, GOL1	Protective rubber boot (Black)
GO-8176-2	GO1, GO21, GOL1	Protective rubber boot (Red)
GO-8176-3	GO1, GO21, GOL1	Protective rubber boot (Green)
GO-8177	3/4" NPSM	Hole plug
GO-8222	1/4" Thick, Used as external spacer.	Trim locknut spacer
GO-8670-32	GO23, GOB3, GOL3	Transformer 220V-110V
GO-8670-34	GO23, GOB3, GOL3	Transformer 440V-110V
GO-8671-42	GOB4, GOL4	Transformer 220V-110V
GO-8671-44	GOB4, GOL4	Transformer 440V-110V
GO-8665	GO2, GO22, GOL2, GOR11	Push button lockout
GO-10502	GO1, GO21, GOL1	Push button lockout
GO567-LOK	GO & GOL5-6-7-14-15-26-27-34-35	Selector switch lockout
GO-RL	For use with GO's	Sealing lockout
GO-9824	GO40, GO-RST, GOLRST	Reset plate
B7PLR220	GO23, GOB3, GOL3, GOB4, GOL4	Resistor kit 220V-110V
B7PLR440	GO23, GOB3, GOL3, GOB4, GOL4	Resistor kit 440V-110V
B7PLR550	GO23, GOB3, GOL3, GOB4, GOL4	Resistor kit 550V-110V
KIT-GOTB	GOB3, GOL3, GOB4, GOL4	Terminal Block, 2 Point



Selector Switch Lockout



Reset Plate



Sealing Locknut GO-RL



2 Pt. Terminal Block KIT-GOTB

REPLACEMENT LENS GUARD ASSEMBLIES - "GO" PILOT LIGHTS		
CATALOG NUMBER		LENS COLOR
GOL3/GOB3/GO23 SERIES	GOL4/GOB4 SERIES	
GO15726-A	KIT-354	AMBER
GO15726-B	KIT-355	BLUE
GO15726-C	KIT-356	CLEAR
GO15726-F	KIT-357	FROSTED
GO15726-G	KIT-358	GREEN
GO15726-R	KIT-359	RED



Lens Guard Assembly

REPLACEMENT BLANK NAMEPLATES - "GO" OPERATORS	
CATALOG NUMBER	DESCRIPTION
YOKK-9484-2	PUSH BUTTON PILOT LIGHTS
YOKK-10291	DOUBLE PUSH BUTTON
YOKK-10286	2 POSITION SELECTOR SWITCH
YOKK-10287	3 POSITION SELECTOR SWITCH
YOKK-10285	4 POSITION SELECTOR SWITCH



"GO" Legend Plate



CONTROLS

ACCESSORIES / REPLACEMENT PARTS



GOMLOCK



Standard Mushroom
Momentary &
Maintained



Jumbo Mushroom
Momentary

ACCESSORIES		
CATALOG NUMBER	FOR USE ON OPERATOR TYPE	DESCRIPTION
GOMLOCK	GOM1-GOM21-GOML-G01-G021-GOL1	LOCK OUT FOR STANDARD SIZE MOMENTARY & MAINTAINED HEAD
GOMSTG	G01-G021-GOL1	STANDARD SIZE MOMENTARY MUSHROOM HEAD (GREEN)
GOMSTR	G01-G021-GOL1	STANDARD SIZE MOMENTARY MUSHROOM HEAD (RED)
GOMSTK	G01-G021-GOL1	STANDARD SIZE MOMENTARY MUSHROOM HEAD (BLACK)
GOMJUR	G01-G021-GOL1	JUMBO SIZE MOMENTARY MUSHROOM HEAD (RED)
KIT-GOMR	GOM1-GOM21	STANDARD SIZE MAINTAINED MUSHROOM HEAD (RED)
KIT-GOMG	GOML-G01	STANDARD SIZE MAINTAINED MUSHROOM HEAD (GREEN)
KIT-GOMK	G021-GOL1	STANDARD SIZE MAINTAINED MUSHROOM HEAD (BLACK)

Dimensions — Standard Mushroom — 1-1/2" Diameter Jumbo Mushroom — 2-1/4" Diameter

Replacement Parts



Slide Base
G023



Bayonet Base
GOL3/GOL4
GOB3/GOB4



LED Lamp for
GOB3/GOL3 - GOB4/GOL4

PILOT LIGHT LAMPS				
CATALOG NUMBER	VOLTS	WATTS	AMPS	STYLE
GO-8668-120	120	3	0.025	G023
GO-8668-24	24	1.7	0.073	
YOSY120MB	120	3	0.025	GOB3/GOL3
YOSY24MB	24	1.7	0.073	GOB4/GOL4

PILOT LIGHT LED LAMPS		
CATALOG NUMBER	VOLTS	COLOR
GOLED-A110	110 VAC/DC	AMBER
GOLED-B110	110 VAC/DC	BLUE
GOLED-G110	110 VAC/DC	GREEN
GOLED-R110	110 VAC/DC	RED
GOLED-W110	110 VAC/DC	WHITE
GOLED-A24	24 VAC/DC	AMBER
GOLED-B24	24 VAC/DC	BLUE
GOLED-G24	24 VAC/DC	GREEN
GOLED-R24	24 VAC/DC	RED
GOLED-W24	24 VAC/DC	WHITE
GOLED-A240Ⓢ	220/240 VAC	AMBER
GOLED-B240Ⓢ	220/240 VAC	BLUE
GOLED-G240Ⓢ	220/240 VAC	GREEN
GOLED-R240Ⓢ	220/240 VAC	RED
GOLED-W240Ⓢ	220/240 VAC	WHITE

Ⓢ Not for use with ATEX operators.



Color Code

Finger Safe with Gold Flashing as Standard

GO STANDARD CONTACT BLOCKS*		
CATALOG NUMBER	DESCRIPTION	COLOR CODE
GO-8673-BJK	1 N.O.	WHITE
GO-8673-BJJ	1 N.C.	RED
GO-8673-BJH	1 N.O. EARLY MAKE	GREEN
GO-8673-BJE	1 N.C. LATE BREAK	YELLOW
GO-8673-BJKJ	1 N.O./1 N.C.	BLACK

* 600VAC Max., 10 Amps, A600/IP600
Dimensions: 1.63"L x 1.06"W x 1"Deep

New series finger safe contact blocks can be stacked on to older series "E" type blocks. However "E" type contact blocks cannot be stacked on to finger safe blocks.



CUSTOM OPERATOR ORDERING SYSTEM

Example: G01 — RX 2 B N34
 FORM **COLOR** **CONTACTS** **NAMEPLATE** **CONSTANT**
 SINGLE PUSH BUTTON **(RED)** **(1 N.C.)** **(STOP)**
 LONG STYLE

NOTE: For faster delivery on custom operators order push buttons and selector switches without contact blocks and order contacts as a separate item.

FEATURES-SPECIFICATIONS

1. Select operator form and style (short, long or extended).
2. Using the catalog numbering system below, insert the proper letter or number symbol as shown in appropriate charts on page C73, write the complete catalog number.
3. Spaces in catalog numbering system which have symbol already filled in cannot be changed.
4. Order accessories as separate item from pages C70 & C71.
5. Add "N34" suffix to the end of all long style operators with the following prefix; G01, G02, G0B3, G0B4, G05, G06, G07, G08, G010, G011, G014, G015, G036, G037, G038, G039.

CATALOG SERIES	COLOR	VOLTAGE	POSITION	CAM	CONTACTS	NAMEPLATE	KEY LOCK	KEY TYPE	DESCRIPTION
G01 & G021 GOL1	CHART 1				CHART 4	CHART 8			SINGLE PUSH BUTTON: (MOMENTARY CONTACT)
GOM1	CHART 1				CHART 4	CHART 8			SINGLE PUSH BUTTON: (MAINTAINED CONTACT)
G02 & G022 GOL2	CHART 2				CHART 4	CHART 8			DOUBLE PUSH BUTTON: (MOMENTARY CONTACT)
GOR11	CHART 2				CHART 4	CHART 8			DOUBLE PUSH BUTTON: (MAINTAINED CONTACT)
G0B3 & G023 GOL3	CHART 3	CHART 6				CHART 8			PILOT LIGHT
G0B4 GOL4	CHART 3	CHART 6			CHART 4	CHART 8			ILLUMINATED PUSH BUTTON
G05 & G025 GOL5			CHART 5	CHART 7	CHART 4	CHART 8			SELECTOR SWITCH (MAINTAINED CONTACT)
G06 & G026 GOL6					CHART 4	CHART 8			SELECTOR SWITCH (2 POSITION, SPRING RETURN TO LEFT)
G07 & G027 GOL7					CHART 4	CHART 8			SELECTOR SWITCH (3 POSITION, RETURN TO CENTER FROM CENTER)
G014 & G034 GOL14					CHART 4	CHART 8			SELECTOR SWITCH (3 POSITION, RETURN TO CENTER FROM RIGHT)
G015 & G035 GOL15					CHART 4	CHART 8			SELECTOR SWITCH (3 POSITION, RETURN TO CENTER FROM LEFT)
G08 & G028 GOL8			CHART 5	CHART 7	CHART 4	CHART 8	CHART 9	CHART 10	KEY SELECTOR SWITCH (MAINTAINED CONTACT)
G036 & G056 GOL36					CHART 4	CHART 8	CHART 9	CHART 10	KEY SELECTOR SWITCH (2 POSITION, SPRING RETURN TO LEFT)
G037 & G057 GOL37					CHART 4	CHART 8	CHART 9	CHART 10	KEY SELECTOR SWITCH (3 POSITION, SPRING RETURN TO CENTER)
G038 & G058 GOL38					CHART 4	CHART 8	CHART 9	CHART 10	KEY SELECTOR SWITCH (3 POSITION, RETURN TO CENTER FROM RIGHT)
G039 & G059 GOL39					CHART 4	CHART 8	CHART 9	CHART 10	KEY SELECTOR SWITCH (3 POSITION, RETURN TO CENTER FROM LEFT)



G SYMBOLS FOR ORDERING CUSTOM OPERATORS

CHART 1 – SINGLE BUTTON				
G01 SYMBOL	G021 SYMBOL	G0L1 SYMBOL	G0M1 SYMBOL	COLOR
KX	KZ	K	KM	BLACK
RX	RZ	R	RM	RED
GX	GZ	G	GM	GREEN

CHART 2 – DOUBLE BUTTON	
SYMBOL	COLOR
KK	BLACK/BLACK
GG	GREEN/GREEN
RR	RED/RED
RG	RED/GREEN
KR	BLACK/RED
KG	BLACK/GREEN

CHART 3 – PILOT LIGHT LENS	
SYMBOL	COLOR
A	AMBER
B	BLUE
C	CLEAR
F	FROSTED
G	GREEN
R	RED

CHART 4 – CONTACT BLOCKS	
SYMBOL	ARRANGEMENT
1	ONE N.O. BLOCK
2	ONE N.C. BLOCK
3	ONE UNIVERSAL (ONE N.O. AND ONE N.C.)
4	ONE DELAYED BREAK N.C. BLOCK
5	ONE EARLY MAKE N.O. BLOCK
6	TWO N.O. BLOCKS
7	TWO N.C. BLOCKS
8	TWO UNIVERSAL (TWO N.O. AND TWO N.C.)
0	OMIT CONTACT BLOCK

CHART 5 – SELECTOR SWITCHES	
SYMBOL	NO. OF POSITIONS
2	TWO
3	THREE

CHART 6 – PILOT LIGHT LAMPS		
G023 SYMBOL	GOB3/GOB4 SYMBOL	VOLTAGE
23	23	120
4	4	24
40	40	240

CHART 7A – SELECTOR SWITCH CAMS								
CAM AND CONTACT SELECTION TABLE FOR 2 AND 3 POSITION SELECTOR OPERATOR								
		LEFT POSITION	CENTER POSITION		RIGHT POSITION			
SYMBOL	CONTACTS BLOCKS	LEFT/TOP BLOCKS	RIGHT/BOT BLOCKS	LEFT/TOP BLOCKS	RIGHT/BOT BLOCKS	LEFT/TOP BLOCKS	RIGHT/BOT BLOCKS	
A	NC	X	X			0	0	
	NO	0	0			X	X	
B	NC	X	0	X	X	0	X	
	NO	0	X	0	0	X	0	
C	NC	X	X	0	0	0	0	
	NO	0	0	0	0	X	X	
D	NC	0	0	X	X	0	0	
	NO	0	0	0	0	X	X	
G	NC	X	0	0	X	0	0	
	NO	0	0	0	0	X	X	

Note: Spring return operators are supplied with special fixed cam. Changes cannot be made for cam substitution.

CHART 7B	
CAM	PART NUMBER
A	0106775B
B	11586ABAB
C	11587ABAB
D	11588ABAB
G	11590ABAB

CHART 8 – NAMEPLATES ^①			
SYMBOL	NAMEPLATE MARKINGS		G SERIES FORMS THAT NAMEPLATE CAN BE USED ON
	FRONT	BACK	
A	OMIT NAMEPLATE	OMIT NAMEPLATE	ALL
B	START	STOP	G01, 21, 23, 20, 40, GOB3
C	BLANK	RESET	G01, 21, 23, 20, 40, GOB3, GOB4
E	BLANK	ON	GOR4
F	BLANK-BLANK	OFF-ON	G05, 25, 6, 26, 8, 28, 10, 30, 36, 56
G	BLANK-BLANK-BLANK	HAND-OFF-AUTO	G05, 25, 7, 27, 8, 28, 10, 30, 14, 34
H	BLANK-BLANK-BLANK-BLANK	START-STOP	G05, 25, 10, 30

^① Symbol not required on extended length GOL part number.

CHART 9 – KEY LOCK	
SYMBOL	TYPE
22	2 POSITION KEY REMOVE LEFT
20	2 POSITION KEY REMOVE BOTH
32	3 POSITION KEY REMOVE CENTER
30	3 POSITION KEY REMOVE ALL

CHART 10 - KEY STYLE	
SYMBOL	TYPE
D	KEYS DIFFERENT
A	KEYS ALIKE

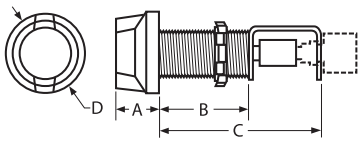


DIMENSIONS

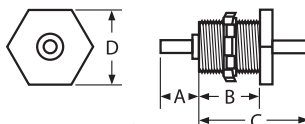
G DIMENSIONS					
SERIES	FIGURE	A	B	C	D
G01	1	15/16"(24)	1-3/4"(44)	3-7/16"(87)	1-1/4"(32)
G02	3	13/16"(21)	2"(51)	3-3/4"(95)	—
GOB3	4	1-1/8"(29)	2"(51)	2-3/4"(70)	1-9/16"(40)
GOB4	5	2-3/8"(60)	2-1/4"(57)	4"(101)	1-13/16"(46)
G05	9	1-5/16"(33)	1-3/4"(44)	3-7/16"(87)	1-1/4"(32)
G06,G07,G014,G015	9	1-5/16"(33)	1-3/4"(44)	3-13/16"(97)	1-1/4"(32)
G08	10	2-9/16"(65)	1-3/4"(44)	3-1/2"(89)	1-1/4"(32)
G010	11	1-5/16"(33)	1-3/4"(44)	4"(101)	1-1/4"(32)
G016,G018	7	1-1/4"(32)	1"(25)	13/16"(21)	1-1/2"(38)
G017,G019	7	13/16"(21)	1"(25)	13/16"(21)	1-1/2"(38)
G021	1	15/16"(24)	3/4"(19)	2-7/16"(62)	1-1/4"(32)
G022	3	13/16"(21)	1"(25)	2-3/4"(70)	—
G023	4	1-1/8"(29)	1"(25)	1-3/4"(44)	1-9/16"(40)
G025	9	1-5/16"(33)	3/4"(19)	2-7/16"(62)	1-1/4"(32)
G026,G027,G034,G035	9	1-5/16"(33)	3/4"(19)	2-13/16"(71)	1-1/4"(32)
G030	11	1-5/16"(33)	3/4"(19)	3"(76)	1-1/4"(32)
G036,G037,G038,G039	10	2-9/16"(65)	1-3/4"(44)	3-7/8"(98)	1-1/4"(32)
G040	2	15/16"(24)	11/16"(17)	1"(25)	1-1/4"(32)
G050	7	1-1/2"(38)	2"(51)	6-5/16"(160)	2-5/16"(59)
G051	7	2-1/4"(57)	1-5/8"(41)	5-9/16"(141)	1"(25)
G056,G057,G058,G059	10	2-9/16"(65)	3/4"(19)	2-7/8"(73)	1-1/4"(32)
G0113,G0114	6	1"(25)	2"(51)	3-5/8"(67)	1-13/16"(46)
G0133,G0134	6	1"(25)	1"(25)	2-5/8"(67)	1-13/16"(46)
GO-11388-078	8	1-5/16"(33)	3/4"(19)	N/A	1-1/2"(38)
GO-11372-093	8	1-5/16"(33)	3/4"(19)	N/A	1-1/2"(38)
GOR11	3	13/16"(21)	2"(51)	4-1/8"(105)	—
GO-RST	2	15/16"(24)	2-5/16"(59)	2-3/8"(+6")(60)	1-1/4"(32)
GOM1	1	1-7/8"(48)	1-7/16"(37)	4"(101)	1-5/8"(41)
EXTENDED LENGTH OPERATORS:					
GOL1	1	15/16"(24)	2-3/4"(70)	4-7/16"(113)	1-1/4"(32)
GOL2	3	13/16"(21)	2-3/4"(70)	4-1/2"(114)	—
GOL3	4	1-1/8"(29)	2-3/4"(70)	3-3/8"(86)	1-9/16"(40)
GOL4	5	2-3/8"(60)	2-3/4"(70)	4-5/8"(117)	1-13/16"(46)
GOL5	9	1-5/16"(33)	2-3/4"(70)	4-7/16"(113)	1-1/4"(32)
GOL6,GOL7,GOL14,GOL15	9	1-5/16"(33)	2-3/4"(70)	4-13/16"(122)	1-1/4"(32)
GOL8	10	1-9/16"(40)	2-3/4"(70)	4-1/2"(114)	1-1/4"(32)
GOL36,GOL37,GOL38,GOL39	10	1-9/16"(40)	2-3/4"(70)	4-7/8"(124)	1-1/4"(32)
GOL113,GOL114	6	1"(25)	3"(76)	4-5/8"(117)	1-13/16"(46)
GOLRST	2	15/16"(24)	2-3/4"(70)	3"(+6")(76)	1-1/4"(32)

NOTE: All operators are for installation into a 3/4"-14 NPSM opening except GO50 which is for 1-1/4"-11-1/2 NPSM and GO-11388-078 + GO-11372-093 which are for use in a 3/4"-14 NPT opening.

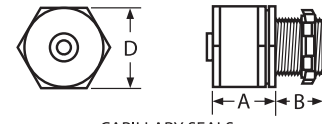
Special Operators



MULTI POSITION
FIGURE 6

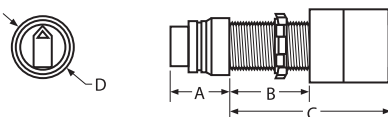


ROTARY
FIGURE 7

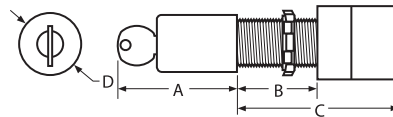


CAPILLARY SEALS
FIGURE 8

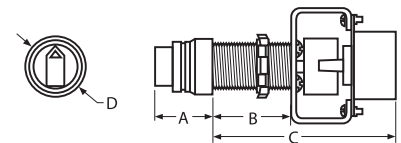
Selector Switches



2, 3, OR 4 POSITION
FIGURE 9

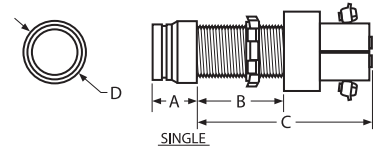


KEY OPERATED
FIGURE 10

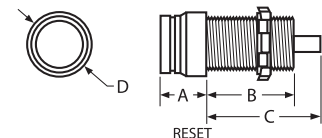


DESPARD SNAP
FIGURE 11

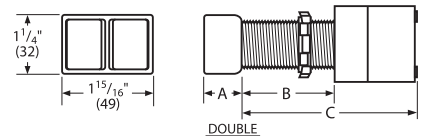
Push Buttons



SINGLE
FIGURE 1

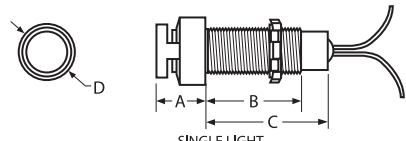


RESET
FIGURE 2

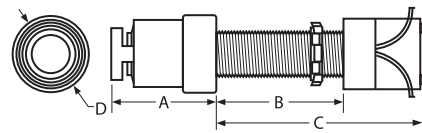


DOUBLE
FIGURE 3

Pilot Lights



SINGLE LIGHT
FIGURE 4



ILLUMINATED PUSHBUTTON
FIGURE 5



DISTRIBUTION SYSTEMS FOR GLOBAL APPLICATIONS



Hinges & gasketing standard



Reinforced corners fewer cover bolts

BUS MAX. AMPS	SUPPLY VOLTAGE	RANGE OF WIRING	CATALOG NUMBER		RANGE OF WIRING	RANGE OF WIRING	RANGE OF WIRING
			DIR	DIR			
2	120	1-2	1	1	1	1	1
3	120	1-3	2	2	2	2	2
4	120	1-4	3	3	3	3	3
5	120	1-5	4	4	4	4	4
6	120	1-6	5	5	5	5	5
7	120	1-7	6	6	6	6	6
8	120	1-8	7	7	7	7	7
9	120	1-9	8	8	8	8	8
10	120	1-10	9	9	9	9	9
11	120	1-11	10	10	10	10	10
12	120	1-12	11	11	11	11	11
13	120	1-13	12	12	12	12	12
14	120	1-14	13	13	13	13	13
15	120	1-15	14	14	14	14	14
16	120	1-16	15	15	15	15	15
17	120	1-17	16	16	16	16	16
18	120	1-18	17	17	17	17	17
19	120	1-19	18	18	18	18	18
20	120	1-20	19	19	19	19	19
21	120	1-21	20	20	20	20	20
22	120	1-22	21	21	21	21	21
23	120	1-23	22	22	22	22	22
24	120	1-24	23	23	23	23	23

Weatherproof Circuit Card



Recessed flange notch



Painted Steel Terminal Housing or Stainless Steel for NEMA 4X option



Terminals in connection box for load circuits



Multiple Bottom Entries



External grounding provision and removable mounting feet



DISTRIBUTION EQUIPMENT INDEX



XEC Series
Circuit Breakers.....2



XEDS Series
Disconnect Switches
3 Pole/Non-Fusible.....8



B7C Series
Prism Circuit Breakers3-6



B7NFD Series
Compact Non-Fused
Disconnect Switches.....9



DEDS Series
Disconnect Switches
3 Pole/Non-Fusible.....7



EXB-NFD, EXB-FDS Series
Disconnect Switches
3 Pole Non-Fusible & Fusible.....10-11



B7L Series
Lighting Panelboards12-13, 15-16



DISTRIBUTION

DISTRIBUTION EQUIPMENT INDEX



B7P Series
Power Panelboards12, 14, 15-16



GFCS Series
Ground Fault Control Station 25



D2L/D2PC Series
Factory Sealed Panelboards17-21



SWITCHRACK ASSEMBLIES 26



EXBLI/EXBSPI Series
IEC Circuit Breaker Panelboards 22-23



GCBB Series
Circuit Breaker Load Centers24



CIRCUIT BREAKER ENCLOSURES



Class I, Div. 1 & 2, Groups C,D
 Class I, Zones 1 & 2, Groups IIB, IIA
 Class II, Div. 1 & 2, Groups E, F, G
 Class III
 NEMA 7 (C, D) 9 (E, F, G)

LISTED Listed - File E30962

Certified - File LR18179

See files for details or call Killark.

FEATURES-SPECIFICATIONS

Applications

- Hazardous areas due to the presence of flammable gases or vapors, combustible dusts, or easily ignitable fibers or flyings
- Installations at petroleum refineries, chemical and petrochemical plants, storage areas, and other processing facilities where hazardous substances are handled or stored
- Provides overcurrent and short circuit protection of service entrance, feeder or branch circuits, lighting, heating, appliance and motor circuits

Features

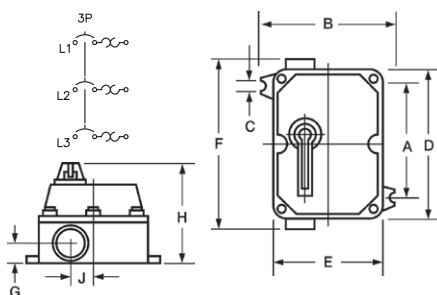
- Rectangular bolted cover design provides for attractive, compact, uniform installations
- Two cast conduit hubs; one top and one bottom
- Internal circuit breaker handle mechanism is a sliding plate type mounted to the cover
- External handle is vault type with standard provisions for locking in "OFF" position with up to three padlocks
- Provisions for locking in "ON" position available as factory modification (add suffix SU40 to catalog number)
- Circuit breaker is trip free of handle mechanism
- Locking in the "ON" position does not prevent the circuit breaker from opening under short circuit or overload conditions

Material Specifications

- Enclosure and external circuit breaker handle is cast copper-free aluminum alloy (less than 4/10 of 1%)
- Cover bolts are stainless steel

XEC CIRCUIT BREAKERS					
CATALOG NUMBER					TRIP AMPS
EHD FRAME			FDB FRAME		
1-POLE 277 VAC 125 VDC	2-POLE 240/480 VAC 250 VDC	3-POLE 240/480 VAC —	2-POLE 600 VAC 250 VDC	3-POLE 600 VAC	
XECD-154A1	XECD-154A2	XECE-154A3	XECE-156A2	XECE-156A3	15
XECD-204A1	XECD-204A2	XECE-204A3	XECE-206A2	XECE-206A3	20
XECD-304A1	XECD-304A2	XECE-304A3	XECE-306A2	XECE-306A3	30
XECD-404A1	XECD-404A2	XECE-404A3	XECE-406A2	XECE-406A3	40
XECF-504A1	XECF-504A2	XECF-504A3	XECF-506A2	XECF-506A3	50
XECF-604A1	XECF-604A2	XECF-604A3	XECF-606A2	XECF-606A3	60
XECF-704A1	XECF-704A2	XECF-704A3	XECF-706A2	XECF-706A3	70
XECF-804A1	XECF-804A2	XECF-804A3	XECF-806A2	XECF-806A3	80
XECF-904A1	XECF-904A2	XECF-904A3	XECF-906A2	XECF-906A3	90
XECF-1004A1	XECF-1004A2	XECF-1004A3	XECF-1006A2	XECF-1006A3	100
ENCLOSURE ONLY					
XECD-4A	XECD-4A	XECE-6A	XECE-6A	XECE-6A	For 40 Amp or less
XECF-6A	XECF-6A	XECF-6A	XECF-6A	XECF-6A	For 50-100 Amp

Dimensions



NOTE: Space for additional drill & tap conduit opening
 1" for XECD-4A
 1-1/4" for XECE-6A
 2" for XECF-6A
 Also is location for SU3 drain and breather when requested.

MODIFICATIONS	
SUFFIX NUMBER	DESCRIPTION
SU3	Drain and breather
SU40	Lock "ON"

NOTE: Only Cutler-Hammer Series "C" breakers fit this series. See B7C series on page DE3-6 for other brands.

ELECTRICAL RATINGS INTERRUPTING CAPACITY			
FRAME	VOLTS	AMPS SYMMETRICAL	AMPS D.C.
EHD 15-100 AMPS	240 VAC	18,000	—
	277 VAC	14,000	—
	480 VAC	14,000	—
	250 VDC	—	10,000
FDB 15-150 AMPS	240 VAC	18,000	—
	480 VAC	14,000	—
	600 VAC	14,000	—
	250 VDC	—	10,000

XEC DIMENSIONS											
CATALOG NUMBER	HUB SIZE	A	B	C	D	E	F	G	H	J	EST. ENCL. WT. LBS (KG)
XECD-4A	1"	8-3/8" (213)	7-7/16" (189)	13/16" (21)	10-1/4" (260)	6" (152)	11-7/8" (302)	1-3/8" (35)	6-7/8" (175)	1-1/2" (38)	10.50 (4.76)
XECE-6A	1-1/4"	8-3/8" (213)	8-3/4" (222)	13/16" (21)	10-1/4" (260)	7-3/8" (187)	11-7/8" (302)	1-3/8" (35)	6-7/8" (175)	2" (51)	16.15 (7.32)
XECF-6A	2"	10-7/8" (276)	9-1/8" (232)	13/16" (21)	13-7/8" (352)	7-3/4" (197)	16" (406)	1-3/4" (44)	7" (178)	2" (51)	20.00 (9.07)

NOTE: A & B dimensions are for mounting.



CIRCUIT BREAKER ENCLOSURES



FEATURES-SPECIFICATIONS



Applications

- Locations such as petroleum refineries, chemical and petroleum plants with indoor and outdoor processes
- Motor control and circuit protection in locations made hazardous due to the presence of flammable gases or vapors, combustible dust, or easily ignitable fibers and flyings, and areas which are subject to corrosion, weather and dampness
- To provide overcurrent and short circuit protection of service entrance, feeder or branch circuits, lighting, heating, appliance and motor circuits
- To provide line disconnect means

Features

- Copper-free, cast aluminum construction (less than 4/10 of 1%).
- High strength, lighter in weight, corrosion resistant.
- Hinged Cover is standard.
- More Wiring Room – Meets the latest NEC/CEC wire bending requirements for circuit breaker enclosures.

- Ductile Mounting Lugs – Lugs are made of ductile aluminum alloy to adjust to irregular mounting surfaces without damage to enclosure.
- Universal Mounting Pan – Sheet aluminum pan is pre-drilled to facilitate easy field installation of major circuit breaker brands. Provisions for grounding supplied as standard.
- Conduit Openings Supplied – Standard conduit openings include power conduit top and bottom and a plugged opening suitable for field installation of drain and breather. Special conduit openings can be supplied at factory, or can be field installed.
- Breaker Handle – Provisions for lock “ON” or “OFF” positions with up to three padlocks. Spring loaded to prevent damage of breaker toggle and provides positive handle alignment. “O” ring on shaft to prevent water seeping into enclosure.
- Recessed Flange Notches – Flanges are notched to allow for easier cover opening with prying instrument without flange damage.

Class I, Div. 1 & 2, Groups B, C, D
Class I, Zones 1 & 2, Groups IIB+H₂, IIA
Class II, Div. 1 & 2, Groups E, F, G
Class III, Div. 1 & 2
NEMA 3, 4, 4x, 7 (B, C, D), 9 (E, F, G)

UL #UL1203-Explosion Proof and Dust-Ignition-Proof Electrical Equipment For Use In Hazardous (Classified) Locations. File #E83969

SP #C22.2 NO. 30-M1986-Explosion Proof Enclosures For Use In Class I Hazardous Locations. File #LR11714

- Gasketed Flange – Nitrile (BUNA-N) “O” ring gasket is located inside cover bolt circle to prevent water seeping into enclosure.
- Quick Release, Captivated Cover – Bolts of 316 Grade Stainless Steel Triple lead bolts require only 3-1/2 turns to disengage.

Material/Finish

- Enclosure: Copper-free, cast aluminum (less than 4/10 of 1%)
- Aluminum lacquer paint finish is standard, with special epoxy finish available. See page DE6
- Cover Bolts: 316 grade stainless steel
- Mounting Pan: Sheet aluminum
- Handle Mechanism: Cast aluminum with stainless steel shaft and hardware.
- Hinges: Aluminum with stainless steel hardware.



B7C SERIES



DISTRIBUTION EQUIPMENT



FEATURES-SPECIFICATIONS

B7C CIRCUIT BREAKER ENCLOSURES				
ENCLOSURE ONLY CATALOG NUMBER	WILL ACCEPT THE FOLLOWING CIRCUIT BREAKERS:			
	MANUFACTURER	FRAME SIZE	CIRCUIT BREAKER TYPE	MAX. AMP
B7CA	EATON/CUTLER HAMMER/WESTINGHOUSE	F	EHD, FDB, FD, HFD, FDC	100
	GENERAL ELECTRIC	E	TEB, TED, THED, TEL	100
	ITE - SIEMENS	ED	ED2, ED4, ED6, HED4, HED6	90
	SCHNIEDER/SQUARE D	H	HDL, HGL, HJL, FAL, FHL, FCL	100
	ABB	T1	T1N, T1S, T1H	100
B7CB	EATON/CUTLER HAMMER/WESTINGHOUSE	F	FDB, FD, HFD, FDC	150
	GENERAL ELECTRIC	E	TEB, TED, THED, TEL	150
	ITE - SIEMENS	ED	ED2, ED4, ED6, HED4, HED6	90
	SCHNIEDER/SQUARE D	H	HDL, HGL, HJL, FAL, FHL, FCL	150
	ABB	T1	T1N, T1S, T1H	150
B7CC	EATON/CUTLER HAMMER/WESTINGHOUSE	J	JD, JDB, JDC, HJD	250
	GENERAL ELECTRIC	F	TFJ, TFK, THFK, TFL	225
	SCHNIEDER/SQUARE D	J	JDL, JGL, JJL	250
	ITE - SIEMENS	FD	FXD6, FD6, HFD6, CFD6	250
	ABB	T3/T4	T3N, T3S, T3H, T4N, T4S, T4H	225/250
B7CD	EATON/CUTLER HAMMER/WESTINGHOUSE	K	DK, KDB, KD, HKD, KDC	400
	GENERAL ELECTRIC	J	TJJ, TJK, THJK	400
	ITE - SIEMENS	JD	JXD2, JXD6, JD6, HJD6, HHJD6, CJD6	400
	SCHNIEDER/SQUARE D	L	LDL, LGL	400
	ABB	T5	T5N, T5S, T5H	400
B7CE	EATON/CUTLER HAMMER/WESTINGHOUSE	L	LDB, LD, HLD, LDC	600
	GENERAL ELECTRIC	J	TJK, THJK	600
	ITE - SIEMENS	L	LXD6, LD6, HLD6, HHLD6, CLD6	600
	SCHNIEDER/SQUARE D	L	LDL, LGL	600
	ABB	T6	T6N, T6S, T6H	600
B7CF	EATON/CUTLER HAMMER/WESTINGHOUSE	N	ND, HND, NDC	1200
	GENERAL ELECTRIC	K	TKM, THKM	1200
	ITE - SIEMENS	MD/ND	MD, MXD, HMXD, HMD, CMD	800/1200
	SCHNIEDER/SQUARE D	P	PDL, PGL	1200
	ABB	T7	T7N, T7S, T7H	1200

NOTE: Enclosure includes mounting pan which is pre-drilled to accept circuit breakers illustrated above.

Mounting screw hardware for circuit breaker is not supplied with enclosure and must be furnished by supplier of circuit breaker.

*New generation Square 'D' circuit breakers G Frame, H Frame, J Frame, K Frame are not direct replacements for FAL, KAL, or MAG GUARD.



CIRCUIT BREAKER ENCLOSURES

B7C ENCLOSURE WITH CIRCUIT BREAKER INSTALLED										
BREAKER AMP TRIP	MAX. VOLTAGE	CATALOG NUMBER			CATALOG NUMBER			CATALOG NUMBER		
		CUTLER-HAMMER/EATON BREAKERS			SCHNIEDER/SQUARE D BREAKERS			ABB		
		FRAME	2 POLE	3 POLE	FRAME	2 POLE	3 POLE	FRAME	3 POLE	4 POLE
15	480	EHD	B7CA-WEHD-42015	B7CA-WEHD-43015	HDL	B7CA-SHDL-42015	B7CA-SHDL-43015	T1N	B7CA-AT1N-43015	B7CA-AT1N-44015
15	600	FDB	B7CA-WFDB-62015	B7CA-WFDB-63015	HDL	B7CA-SHDL-62015	B7CA-SHDL-63015	T1N	B7CA-AT1N-63015	B7CA-AT1N-64015
20	480	EHD	B7CA-WEHD-42020	B7CA-WEHD-43020	HDL	B7CA-SHDL-42020	B7CA-SHDL-43020	T1N	B7CA-AT1N-43020	B7CA-AT1N-44020
20	600	FDB	B7CA-WFDB-62020	B7CA-WFDB-63020	HDL	B7CA-SHDL-62020	B7CA-SHDL-63020	T1N	B7CA-AT1N-63020	B7CA-AT1N-64020
25	480	EHD	B7CA-WEHD-42025	B7CA-WEHD-43025	HDL	B7CA-SHDL-42025	B7CA-SHDL-43025	T1N	B7CA-AT1N-43025	B7CA-AT1N-44025
25	600	FDB	B7CA-WFDB-62025	B7CA-WFDB-63025	HDL	B7CA-SHDL-62025	B7CA-SHDL-63025	T1N	B7CA-AT1N-63025	B7CA-AT1N-64025
30	480	EHD	B7CA-WEHD-42030	B7CA-WEHD-43030	HDL	B7CA-SHDL-42030	B7CA-SHDL-43030	T1N	B7CA-AT1N-43030	B7CA-AT1N-44030
30	600	FDB	B7CA-WFDB-62030	B7CA-WFDB-63030	HDL	B7CA-SHDL-62030	B7CA-SHDL-63030	T1N	B7CA-AT1N-63030	B7CA-AT1N-64030
35	480	EHD	B7CA-WEHD-42035	B7CA-WEHD-43035	HDL	B7CA-SHDL-42035	B7CA-SHDL-43035	T1N	B7CA-AT1N-43035	B7CA-AT1N-44035
35	600	FDB	B7CA-WFDB-62035	B7CA-WFDB-63035	HDL	B7CA-SHDL-62035	B7CA-SHDL-63035	T1N	B7CA-AT1N-63035	B7CA-AT1N-64035
40	480	EHD	B7CA-WEHD-42040	B7CA-WEHD-43040	HDL	B7CA-SHDL-42040	B7CA-SHDL-43040	T1N	B7CA-AT1N-43040	B7CA-AT1N-44040
40	600	FDB	B7CA-WFDB-62040	B7CA-WFDB-63040	HDL	B7CA-SHDL-62040	B7CA-SHDL-63040	T1N	B7CA-AT1N-63040	B7CA-AT1N-64040
50	480	EHD	B7CA-WEHD-42050	B7CA-WEHD-43050	HDL	B7CA-SHDL-42050	B7CA-SHDL-43050	T1N	B7CA-AT1N-43050	B7CA-AT1N-44050
50	600	FDB	B7CA-WFDB-62050	B7CA-WFDB-63050	HDL	B7CA-SHDL-62050	B7CA-SHDL-63050	T1N	B7CA-AT1N-63050	B7CA-AT1N-64050
60	480	EHD	B7CA-WEHD-42060	B7CA-WEHD-43060	HDL	B7CA-SHDL-42060	B7CA-SHDL-43060	T1N	B7CA-AT1N-43060	B7CA-AT1N-44060
60	600	FDB	B7CA-WFDB-62060	B7CA-WFDB-63060	HDL	B7CA-SHDL-62060	B7CA-SHDL-63060	T1N	B7CA-AT1N-63060	B7CA-AT1N-64060
70	480	EHD	B7CA-WEHD-42070	B7CA-WEHD-43070	HDL	B7CA-SHDL-42070	B7CA-SHDL-43070	T1N	B7CA-AT1N-43070	B7CA-AT1N-44070
70	600	FDB	B7CA-WFDB-62070	B7CA-WFDB-63070	HDL	B7CA-SHDL-62070	B7CA-SHDL-63070	T1N	B7CA-AT1N-63070	B7CA-AT1N-64070
80	480	EHD	B7CA-WEHD-42080	B7CA-WEHD-43080	HDL	B7CA-SHDL-42080	B7CA-SHDL-43080	T1N	B7CA-AT1N-43080	B7CA-AT1N-44080
80	600	FDB	B7CA-WFDB-62080	B7CA-WFDB-63080	HDL	B7CA-SHDL-62080	B7CA-SHDL-63080	T1N	B7CA-AT1N-63080	B7CA-AT1N-64080
90	480	EHD	B7CA-WEHD-42090	B7CA-WEHD-43090	HDL	B7CA-SHDL-42090	B7CA-SHDL-43090	T1N	B7CA-AT1N-43090	B7CA-AT1N-44090
90	600	FDB	B7CA-WFDB-62090	B7CA-WFDB-63090	HDL	B7CA-SHDL-62090	B7CA-SHDL-63090	T1N	B7CA-AT1N-63090	B7CA-AT1N-64090
100	480	EHD	B7CA-WEHD-42100	B7CA-WEHD-43100	HDL	B7CA-SHDL-42100	B7CA-SHDL-43100	T1N	B7CA-AT1N-43100	B7CA-AT1N-44100
100	600	FDB	B7CA-WFDB-62100	B7CA-WFDB-63100	HDL	B7CA-SHDL-62100	B7CA-SHDL-63100	T1N	B7CA-AT1N-63100	B7CA-AT1N-64100
125	600	FDB	B7CB-WFDB-62125	B7CB-WFDB-63125	HDL	B7CB-SHDL-62125	B7CB-SHDL-63125	T3N	B7CB-AT3N-63125	B7CB-AT3N-64125
125	600	JDB	B7CC-WJDB-62125	B7CC-WJDB-63125						
150	600	FDB	B7CB-WFDB-62150	B7CB-WFDB-63150	HDL	B7CB-SHDL-62150	B7CB-SHDL-63150			
150	600	JDB	B7CC-WJDB-62150	B7CC-WJDB-63150	JDL	B7CC-SJDL-62150	B7CC-SJDL-63150	T3N	B7CC-AT3N-63150	B7CC-AT3N-64150
175	600	JDB	B7CC-WJDB-62175	B7CC-WJDB-63175	JDL	B7CC-SJDL-62175	B7CC-SJDL-63175	T3N	B7CC-AT3N-63175	B7CC-AT3N-64175
200	600	JDB	B7CC-WJDB-62200	B7CC-WJDB-63200	JDL	B7CC-SJDL-62200	B7CC-SJDL-63200	T3N	B7CC-AT3N-63200	B7CC-AT3N-64200
225	600	JDB	B7CC-WJDB-62225	B7CC-WJDB-63225	JDL	B7CC-SJDL-62225	B7CC-SJDL-63225	T3N	B7CC-AT3N-63225	B7CC-AT3N-64225
250	600	JDB	B7CC-WJDB-62250	B7CC-WJDB-63250	JDL	B7CC-SJDL-62250	B7CC-SJDL-63250			
250	600	KD	B7CD-WKD-62250	B7CD-WKD-63250	LDL	B7CD-SJDL-62250	B7CD-SJDL-63250	T4N	B7CD-AT4N-63250	B7CD-AT4N-64250
300	600	KD	B7CD-WKD-62300	B7CD-WKD-63300				T5N	B7CD-AT5N-63300	B7CD-AT5N-64300
350	600	KD	B7CD-WKD-62350	B7CD-WKD-63350						
400	600	KD	B7CD-WKD-62400	B7CD-WKD-63400	LDL	B7CD-SLDL-62400	B7CD-SLDL-63400	T5N	B7CD-AT5N-63400	B7CD-AT5N-64400
400	600	LD	B7CE-WLD-62400	B7CE-WLD-63400						
500	600	LD	B7CE-WLD-62500	B7CE-WLD-63500						
600	600	LD	B7CE-WLD-62600	B7CE-WLD-63600	LDL	B7CE-SLDL-62600	B7CE-SLDL-63600			
600	600	ND	B7CF-WND-62600	B7CF-WND-63600				T6N	B7CF-AT6N-63600	B7CF-AT6N-64600
700	600	ND	B7CF-WND-62700	B7CF-WND-63700						
800	600	ND	B7CF-WND-62800	B7CF-WND-63800				T6N	B7CF-AT6N-63800	B7CF-AT6N-64800
1000	600	ND	B7CF-WND-621000	B7CF-WND-631000				T7N	B7CF-AT7N-631000	B7CF-AT7N-641000
1200	600	ND	B7CF-WND-621200	B7CF-WND-631200	PDL	B7CF-SPDL-621200	B7CF-SPDL-631200	T7N	B7CF-AT7N-631200	B7CF-AT7N-641200

NOTE: See page DE6 for dimensional information and circuit breaker interrupting information.
For high interrupting breaker - consult factory.



CIRCUIT BREAKER ENCLOSURES

TECHNICAL DATA INTERRUPTING CAPACITY RATINGS (SYMMETRICAL AMPERES)				
BREAKER FRAME	VOLTS AC			VOLTS DC
	240	480	600	250
CUTLER-HAMMER/ EATON				
EHD	18,000	14,000	—	10,000
FDB	18,000	14,000	14,000	10,000
JDB	65,000	25,000	18,000	10,000
KD	65,000	35,000	25,000	10,000
LD	65,000	35,000	25,000	22,000
ND	65,000	50,000	25,000	—
SQUARE D				
HDL	25,000	18,000	14,000	10,000
JDL	42,000	25,000	22,000	10,000
LDL	25,000	18,000	14,000	10,000
LGL	65,000	35,000	18,000	—
PDL	42,000	50,000	50,000	14,000
ABB				
T1N	50,000	22,000	10,000	25,000
T3N	50,000	25,000	10,000	25,000
T4N	65,000	25,000	18,000	25,000
T5N	65,000	25,000	18,000	25,000
T6N	65,000	35,000	20,000	35,000
T7N	65,000	50,000	25,000	NA

Consult factory for requirements on higher interrupting rated breakers.

NOTE: Modifications to Internal Circuit Breaker such as Shunt Trip, Auxiliary Switches, Alarm Switch and Undervoltage Release Mechanism are available and should be ordered by description.

Dimensions

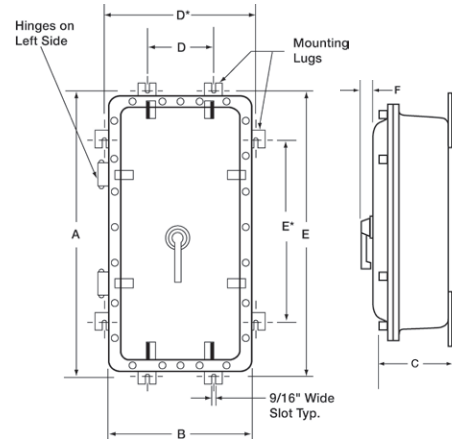


Figure 1

Dimensions

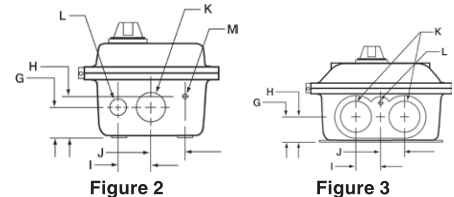
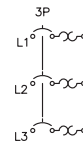


Figure 2

Figure 3

ACCESSORIES / OPTIONS	
CATALOG NUMBER	DESCRIPTION
SU-3B-4X	Drain/Breather NEMA 4X/7 B,C,D
SU-10B-4X	Drain NEMA 4X/7 B,C,D
SU-11B-4X	Breather NEMA 4X/7 B,C,D
B7CGRND	Grounding lug kit
B7C-SN1	Solid neutral 150 AMP
B7C-SN2	Solid neutral 250 AMP
B7C-SN3	Solid neutral 600 AMP
B7C-SN4	Solid neutral 1200 AMP
B7SF	Special epoxy finish
B7SPNPT	Change standard conduit openings

NOTE: Modifications to Internal Circuit Breaker such as Shunt Trip, Auxiliary Switches, Alarm Switch and Undervoltage Release Mechanism are available and should be ordered by description.



B7C DIMENSIONS																		
CATALOG NUMBER	USE FIGURES	DIMENSIONS											CONDUIT OPENINGS TOP & BTM. (NPT)			EST. ENCL. WT. LBS (KG)		
		A	B	C	D	D*	E	E*	F	G	H	I	J	K	L		M	
B7CA	1, 2	18" (457)	11" (279)	9-1/8" (232)	3-5/8" (92)	N/A	16-3/8" (416)	N/A	1-3/4" (44)	2-15/16" (76)	3-11/16" (94)	2-3/8" (60)	2-1/8" (54)	1-1/2"	3/4"	1/2"	46 (20.86)	
B7CB	1, 2	26-1/4" (667)	12-1/2" (318)	10-3/4" (273)	5" (127)	N/A	24-5/8" (625)	N/A	1-3/4" (44)	4-5/16" (110)	5-3/4" (146)	2-3/4" (70)	2-1/2" (64)	2"	1"	1/2"	80 (36.28)	
B7CC	1, 2	34-1/4" (870)	16-1/2" (419)	11-1/2" (292)	9" (229)	N/A	32-5/8" (829)	N/A	1-3/4" (44)	4-11/16" (119)	6-1/4" (159)	4" (102)	3-3/4" (95)	3"	1"	1/2"	155 (70.30)	
B7CD	1, 2	34-1/4" (870)	16-1/2" (419)	11-1/2" (292)	9" (229)	N/A	32-5/8" (829)	N/A	2-5/8" (67)	4-11/16" (119)	6-1/4" (159)	4" (102)	3-3/4" (95)	3"	1"	1/2"	155 (70.30)	
B7CE	1, 3	45-3/8" (1153)	17-1/2" (445)	9-5/8" (244)	N/A	15-1/4" (387)	N/A	33" (838)	2-5/8" (67)	3-3/16" (838)	4-1/2" (114)	2-3/4" (70)	2-3/4" (70)	3"	1/2"	N/A	215 (97.52)	
B7CF	1, 3	62-1/4" (1581)	20-1/4" (514)	15" (381)	N/A	18-1/2" (470)	N/A	43-1/2" (1105)	2-5/8" (67)	5-3/8" (137)	7-3/8" (187)	3-1/2" (89)	3-1/2" (89)	4"	1/2"	N/A	540 (244.93)	



DISCONNECT SWITCHES • POLE / NON-FUSIBLE



Class II, Div. 1 & 2, Groups E, F, G
Class III
NEMA 3R, 4, 9 (E, F, G)

Listed - File E53290
 Certified - File LR11714
See files for details or call Killark.

FEATURES-SPECIFICATIONS

Applications

- Hazardous areas due to the presence of combustible dusts or easily ignitable fibers or flyings
- Use in damp or wet locations. Either indoor or outdoor installations
- Installations such as feedmills, grain elevators, coal handling facilities, certain chemical, fertilizer and food processing industries where either hazardous or non-hazardous dusts are handled or stored
- Use in accordance with the NEC/CEC where a horsepower rated quick make-quick break disconnect means for a motor and its controller is permitted

Features

(30-60-100 Amp Housing Styles)

- Bolted and gasketed cabinet type construction insures the exclusion of conductive or combustible dusts from entering the assembly. Enclosure and external handle is copper-free aluminum alloy (less than 4/10 of 1%)
- Cover bolts are stainless steel
- External handle is vault type with standard provisions for locking in the "OFF" position with up to three padlocks
- Provisions for locking in "ON" position available as factory modification. (Add suffix SU40 to catalog number)
- Cutler-Hammer Type-DS Switches
- Two cast conduit hubs; one top and one bottom
- Internal disconnect handle mechanism is a sliding plate mounted to the cover

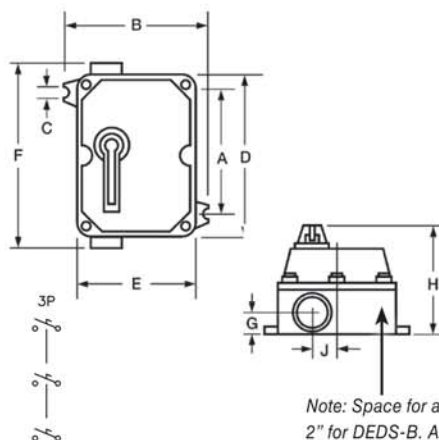
DEDS DISCONNECT SWITCHES				
CATALOG NUMBER				SWITCH RATING
ENCLOSURE WITH SWITCH	ENCLOSURE WITH SWITCH AND AUXILIARY CONTACTS	ENCLOSURE WITH SWITCH AND TWO AUXILIARY CONTACTS	ENCLOSURE ONLY (WITHOUT SWITCH OR AUXILIARY CONTACTS)	
DEDS-30	DEDS-30A	DEDS-30AA	DEDS-A	30 AMP
DEDS-60	DEDS-60A	DEDS-60AA	DEDS-B	60 AMP
DEDS-100	DEDS-100A	DEDS-100AA	DEDS-B	100 AMP

Auxiliary Switch Kits are available for separate control circuit applications. Each auxiliary switch has one normally open and one normally closed contact. Each switch includes three soldered, identified leads.
Rated 15 amps at 250 volts maximum.

DEDS ELECTRICAL RATINGS					
SWITCH AMPERES	MAXIMUM HORSEPOWER-THREE PHASE-3-POLE				
	120 VAC	240 VAC	480 VAC	600 VAC	250 VDC
30	5	10	20	25	7-1/2
60	10	20	40	60	15
100	15	30	75	75	25

DEDS DIMENSIONS											
ENCLOSURE CATALOG NUMBER	CONDUIT SIZE	A	B	C	D	E	F	G	H	J	EST. ENCL. WT. LBS (KG)
DEDS-A	1-1/4"	8-3/8" (213)	8-13/16" (224)	7/16" (11)	10-1/4" (260)	7-3/8" (187)	12-1/8" (308)	1-3/8" (35)	6-7/8" (175)	2" (51)	14.50 (6.57)
DEDS-B	2"	10-7/8" (276)	9-1/8" (232)	7/16" (11)	13-7/8" (252)	7-3/4" (197)	15-3/8" (391)	1-3/4" (44)	6-7/8" (175)	2" (51)	19.50 (8.84)

Dimensions



Note: Space for additional drill & top conduit opening. 1-1/4" for DEDS-A. 2" for DEDS-B. Also is location for SU3 drain and breather when required.

MODIFICATIONS	
SUFFIX NUMBER	DESCRIPTION
SU3 ^①	Drain and breather
SU17	100 Amp solid neutral
SU40	Lock "on" for handle
KIT-251	100 Amp ground lug

^① SU3 voids NEMA 4 ratings



DISCONNECT SWITCHES 3 POLE / NON-FUSIBLE



XEDS-30

Class I, Div. 1 & 2, Groups C, D
 Class I, Zones 1 & 2, Groups IIB, IIA
 Class II, Div. 1 & 2, Groups E, F, G
 Class III
 NEMA 7 (C, D) 9 (E, F, G)

UL LISTED Listed - File E53290

SF Certified - File LR1171
 See files for details or call Killark.

FEATURES-SPECIFICATIONS

Applications

- Hazardous areas due to the presence of flammable gases or vapors, combustible dusts or easily ignitable fibers or flyings
- Use in accordance with the NEC/CEC where a horsepower rated quick makequick break disconnect means for a motor and its controller is permitted

30-60-100 Amp Housing

- External handle is vault type with standard provisions for locking in "OFF" position with up to three padlocks
- Provisions for locking in "ON" position available as factory modification (add suffix SU40 to catalog number)
- Enclosure and external handle is cast copper-free aluminum alloy (less than 4/10 of 1%)
- Cover bolts are stainless steel
- Cutler-Hammer Type-DS Switches

30-60-100 Amp Housing

- Two cast conduit hubs; one top and one bottom
- Internal disconnect handle mechanism is a sliding plate mounted to the cover

XEDS DISCONNECT SWITCHES				
CATALOG NUMBER				
ENCLOSURE WITH SWITCH	ENCLOSURE WITH SWITCH AND AUXILIARY CONTACTS	ENCLOSURE WITH SWITCH AND TWO AUXILIARY CONTACTS	ENCLOSURE ONLY (WITHOUT SWITCH OR AUXILIARY CONTACTS)	SWITCH RATING
XEDS-30	XEDS-30A	XEDS-30AA	XEDS-A	30
XEDS-60	XEDS-60A	XEDS-60AA	XEDS-B	60
XEDS-100 [Ⓢ]	XEDS-100A [Ⓢ]	XEDS-100AA [Ⓢ]	XEDS-B [Ⓢ]	100

MODIFICATIONS	
SUFFIX NUMBER	DESCRIPTION
SU3	Drain and breather
SU17	100 Amp solid neutral
SU18	225 Amp solid neutral
SU40	Lock "on" for handle
KIT-251	100 Amp ground lug

Auxiliary switch kits are available for separate control circuit applications. Each auxiliary switch has one normally open and one normally closed contact. Each switch includes three soldered, identified leads. Rated 15 amps at 250 volts maximum.

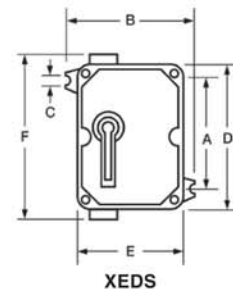
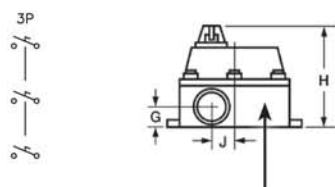
[Ⓢ] Due to wire gutter space, this unit must be wired with incoming (line) connection through the top hub and outgoing (load) connection to the bottom hub.

XEDS ELECTRICAL RATINGS					
SWITCH AMPERES	MAXIMUM HORSEPOWER – THREE PHASE – 3-POLE				
	120 VAC	240 VAC	480 VAC	600 VAC	250 VDC
30	5	10	20	25	7-1/2
60	10	20	40	60	15
100	15	30	75	75	25

XEDS DIMENSIONS											
CATALOG NUMBER	HUB SIZE	A	B	C	D	E	F	G	H	J	EST. ENCL. WT. LBS (KG)
XEDS-A	1-1/4"	8-3/8" (213)	8-3/4" (222)	7/16" (11)	10-1/4" (260)	7-3/8" (187)	11-7/8" (302)	1-3/8" (35)	6-7/8" (175)	2" (51)	11.0 (4.98)
XEDS-B	2"	10-7/8" (276)	9-1/8" (232)	7/16" (11)	13-7/8" (352)	7-3/4" (197)	16" (406)	1-3/4" (44)	7" (178)	2" (51)	17.0 (7.71)

NOTE: A & B dimensions are for mounting.

Dimensions



NOTE: Space for additional drill & tap conduit opening
 1-1/4" for XEDS-30
 2" for XEDS-60+100
 Also is location for SU3 drain and breather when requested.



COMPACT NON-FUSED DISCONNECT SWITCHES



B7NFD1



B7NFD2

Class I, Div. 1 & 2, Groups B, C, D
 Class I, Zones 1 & 2, Groups IIB+ H₂, IIA
 Class II, Div. 1 & 2, Groups E, F, G ①
 Class III
 NEMA 3, 4, 4X, 7 (B, C, D) 9 (E, F, G)

Certified - File LR11714

FEATURES-SPECIFICATIONS

Applications

The PRISM® B7 Series of non-fused disconnect switches are used:

- In locations made hazardous due to the presence of flammable gasses or vapors or ignitable dusts, fibers and flyings.
- Outdoors or indoors in damp, wet and dirty locations, or in areas where frequent washdowns, heavy rain or water spray routinely occurs.
- Use as motor circuit disconnect.

PRISM® enclosures universal design accommodates the following manufacturers switches as standard:

- Advance Controls 14046 Series
- Allen-Bradley 194E Series (B7NFD1 only)
- ABB OT Series
- Cutler-Hammer R9 Series
- Sprecher + Schuh LA7 Series
- Ferraz Shawmut LBS Series

Advance Controls © Advance Controls Inc.
 Allen-Bradley © Rockwell Automation
 ABB © The ABB Group
 Cutler-Hammer © Eaton Corporation
 Sprecher + Schuh © Sprecher + Schuh

Features

- Compact size enclosures provide application flexibility with cost savings over industry standard sizes
- Fewer cover bolts reduces installation and maintenance time
- Gasketed flange with O-ring located in side bolt circle to seal out moisture
- Rotary handle style operating mechanism with lockout provision as standard
- Removable ductile mounting lugs adjust to irregular mounting surfaces
- Bodies have top and bottom drilled and tapped conduit entrances for power connection, with custom openings available
- ABB UL98 certified switch supplied for 30-100 Amp units

Standard Materials /Finish

- Enclosures: Copper-free aluminum (less than 4/10 of 1% copper content)
- Cover Bolts: 316 Stainless Steel
- O-ring Gasket: Silicone

- Finish: Grey Powder Polyester painted exterior, electrostatically applied.
- Electrical rating: 600VAC, 30 - 100 Amp

ADAPTER KIT

- Required for Allen-Bradley and Sprecher + Schuh disconnects Order separately B7KIT - NRW

MODIFICATIONS	
SUFFIX NUMBER	DESCRIPTION
KIT-251	100 amp ground lug
SU-2	SU-2 Hinge-9 Installed
SU-3B-4X	Drain/Breather NEMA 4X/7 B,C,D
SU-10B-4X	Drain NEMA 4X/7 B,C,D
SU-11B-4X	Breather NEMA 4X/7 B,C,D
SU9	Special paint finish
A*	1 NC+1NO Auxiliary
B7SPNPT	Change std. conduit size and location
SU14	Fungus proofing of enclosures

* NOTE: Only one auxiliary contact (Form C) will fit.

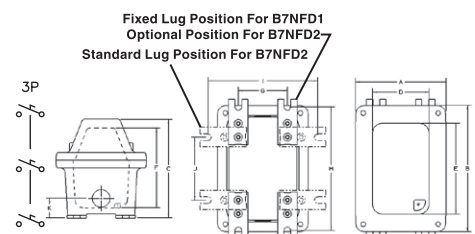
COMPACT NON-FUSED DISCONNECT SWITCHES

CATALOG NUMBER		SWITCH RATING IEC/NEC		SINGLE PHASE HP		THREE PHASE HP				TERMINAL LUG SIZE (MM/AWG)	WEIGHT (KG/LBS)
ENCLOSURE ONLY	W/ABB SWITCH	AMPS	PHASE	120 VAC	230 VAC	208 VAC	230 VAC	480 VAC	600 VAC		
UL508 & IEC - Suitable for use in equipment or machinery as motor controllers & motor disconnect and are horsepower and ampere rated.											
B7NFD1	B7NFD16A	16/20	3	1	2	3	5	10	10	.75 - 10mm / #18 - 8 AWG	4.98 / 11
B7NFD1	B7NFD25A	25/30	3	1.5	3	7.5	7.5	15	20	.75 - 10mm / #18 - 8 AWG	4.98 / 11
B7NFD1	B7NFD32A	32/40	3	2	5	10	10	20	25	.75 - 10mm / #18 - 8 AWG	4.98 / 11
B7NFD1	B7NFD63A	63/60	3	2	5	15	15	30	30	1.5 - 35mm / #14 - 2 AWG	4.98 / 11
B7NFD2	B7NFD80A	80/80	3	2	5	20	20	40	40	1.5 - 35mm / #14 - 2 AWG	10.53 / 23.2
UL 98 & IEC - Suitable for use as motor disconnects or industrial control panel disconnects on service entrance equipment, panelboards, switchboards, industrial control equipment, motor control centers, etc. and are horsepower rated and ampere rated.											
B7NFD1	B7NFD13A	40/30	3	2	5	10	10	20	30	2.5 - 25mm / #14 - 4 AWG	4.98 / 11
B7NFD2	B7NFD26A	63/60	3	3	7.5	20	20	40	40	2.5 - 25mm / #14 - 4 AWG	10.53 / 23.2
B7NFD2	B7NFD21A	100/100	3	5	15	25	30	50	50	10 - 70mm / #8 - 2/0 AWG	10.53 / 23.2

** Use MN. 75°C wire

DIMENSIONS

ENCLOSURE	OUTSIDE BOX DIMENSIONS (INCH/MM)			NOMINAL INSIDE BOX (INCH/MM)			MOUNTING DIMENSION (INCH/MM)				
	A	B	C	D	E	F	G	H	I	J	K
B7NFD1	5.75 (145)	8.0625 (205)	6.3125 (160)	3.625 (92)	5.8125 (148)	5.0625 (129)	3.125 (79)	8.125 (206)	NA	NA	1.25 (32)
B7NFD2	8.125 (206)	13.0625 (332)	7.8125 (198)	4.25 (108)	9.1875 (233)	6.3125 (160)	2.50 (64)	11.375 (289)	6.375 (162)	7.50 (191)	1.8125 (46)





EXB-NFD, EXB-FDS SERIES



DISCONNECT SWITCHES • 3 POLE / NON-FUSIBLE & FUSIBLE



- UL** #UL886 - Outlet Boxes and Fittings for use in Hazardous (Classified) Locations. File #E10514 cer
 - UL** #UL698 & #UL1203 - Explosion Proof and Dust Ignition Proof Electrical Equipment. Files #E83969 & E12379
 - SB** #C22.2 No. 30-M1986 - Explosion Proof Enclosure for use in Class I Hazardous Locations. File #LR11716
- CENELEC II 2 GD
 PTB 07 ATEX 1025U (Empty Housing)
 PTB 07 ATEX 1024x (Enclosure with Controls)
 IEC Ex 07.0022U
 IEC Ex 07.0023

ATEX / IEC Ex Certified

- Class I, Div. 1 & 2, Groups B[Ⓢ], C, D
- Class I, Zones 1 & 2, Groups IIB+ H₂, IIA
- Class II, Div. 1 & 2, Groups E, F, G
- Class III, Div. 1 & 2 ENCL TYPE 3, 4, 4X
- NEMA 3, 4, 4X[Ⓢ], 7 (B, C, D), 9 (E, F, G)
- CENELEC/ATEX/IEC Ex
- Ex d IIB + H₂ T5 or T6
- Ex tD A21 IP66
- Tamb ≤ + 60°C



FEATURES-SPECIFICATIONS

Applications

EXP-NFD and EXB-FDS Series hinged cover disconnect switches are used:

- In locations made hazardous due to the presence of flammable gasses or vapors or ignitable dusts, fibers and flyings.
- Outdoors or indoors in damp, wet and dirty locations, or in areas where frequent washdowns, heavy rain or water spray routinely occurs.
- Use as motor circuit disconnect and to provide short circuit protection (fused version) of lighting and power circuits.

Features

- Copper-free aluminum construction, high strength, lighter in weight and corrosion resistant.
- Fewer cover bolts (no corner bolts required) reduces installation and maintenance time. Cover bolts are stainless steel.
- Gasketed flange with O-ring located in side bolt circle to seal out moisture.
- Stainless steel hinges are standard.
- Switch operating handle of copperfree aluminum can be padlocked, with up to 3 locks, in either the "ON" or "OFF" position.
- Ductile mounting lugs adjust to irregular mounting surfaces.
- Bodies have top and bottom drilled and tapped conduit entrances for power and drain/breather.
- **Global applications (ATEX) Enclosures are available for global applications with "CEN" suffix. Assemblies that are modified to CENELEC/ATEX standards maintain their North American certifications**

EXB-NFD NON FUSED DISCONNECT SWITCHES						
CATALOG NUMBER	SWITCH RATING	TYPE	CONDUITS TOP/ BOT.	WIRE SIZE	EST. ENCL. WT (LBS)	KG
EXB-NFD-0303P	30	3 Pole	(1) 1-1/2" (1) 1/2"	#14-4	40.0	(18.14)
EXB-NFD-0306P	30	6 Pole	(2) 2" (1) 1/2"	#14-4	41.0	(18.59)
EXB-NFD-0303PDT	30	3P Double Throw	(2) 2" (1) 1/2"	#14-4	41.0	(18.59)
EXB-NFD-0603P	60	3 Pole	(1) 2" (1) 1/2"	#14-4	40.0	(18.14)
EXB-NFD-0606P	60	6 Pole	(2) 2" (1) 1/2"	#14-4	42.0	(19.05)
EXB-NFD-0603PDT	60	3P Double Throw	(2) 2" (1) 1/2"	#14-4	41.0	(18.59)
EXB-NFD-1003P	100	3 Pole	(1) 2" (1) 1/2"	#8- 1/0	48.0	(21.77)
EXB-NFD-1006P	100	6 Pole	(2) 2" (1) 1/2"	#8-1/0	50.0	(22.67)
EXB-NFD-1003PDT	100	3P Double Throw	(2) 2" (1) 1/2"	#8-1/0	48.0	(21.77)
EXB-NFD-2003P	200	3 Pole	(1) 3" (1) 1/2"	#4-300MCM	170.0	(77.11)
EXB-NFD-4003P	400	3 Pole (2)	(2) 3" (1) 1/2"	#2-600MCM	241.0	(109.31)

EXB-FDS FUSED DISCONNECT SWITCHES (Type J Fuses)					
CATALOG NUMBER	SWITCH RATING	TYPE	CONDUITS TOP/ BOT.	WIRE SIZE	EST. ENCL. WT. LBS (KG)
EXB-FDS-0303P	30	3 Pole	(1) 2" (1) 1/2"	#14-4	40.0 (18.14)
EXB-FDS-0603P	60	3 Pole	(1) 2" (1) 1/2"	#14-4	82.0 (37.18)
EXB-FDS-1003P	100	3 Pole	(1) 2" (1) 1/2"	#14-2/0	130.0 (58.96)
EXB-FDS-2003P	200	3 Pole	(1) 3" (1) 1/2"	#4-300MCM	170.0 (77.11)
EXB-FDS-4003P	400	3 Pole	(2) 3" (1) 1/2"	#2-600MCM	425.0 (192.77)

- **ABB** Switches are used on all 30 to 400 Ampere assemblies.
- For Horsepower Ratings and Dimensions, see page DE11.
- Disconnect Switches suitable for type 'J' fuses only.

Standard Materials/Finish

- Enclosures: Copper-free aluminum (less than 4/10 of 1% copper content)
- Hinges and Cover Bolts: Stainless steel
- Aluminum lacquer paint finish

Electrical Rating Ranges

- 600 VAC
- 30, 60, 100, 200 and 400 Amp

Consult Factory for special conduit layouts

MODIFICATIONS	
SUFFIX NUMBER	DESCRIPTION
KIT-251	100 amp ground lug
KIT-252	225 amp ground lug
SU-3B-4X	Drain/Breather NEMA 4X/7 B,C,D
SU-10B-4X	Drain NEMA 4X/7 B,C,D
SU-11B-4X	Breather NEMA 4X/7 B,C,D
SU9	Special Paint Finish
4P	4th pole 30, 60, 100A - 3 pole only*
A	1 NC+1NO Auxiliary
AA	2 NC+2NO Auxiliary
CEN	ATEX/IEC Ex d
SN2	Solid Neutral

DISTRIBUTION

EXB-NFD, EXB-FDS SERIES

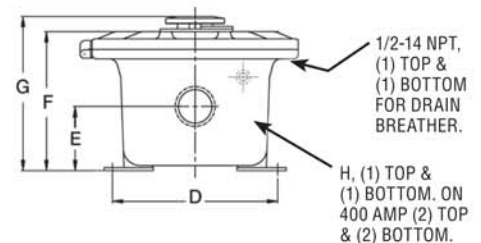
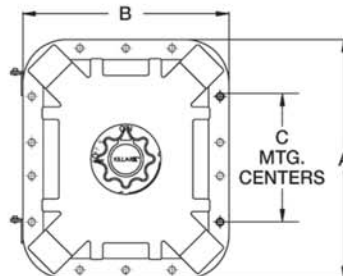
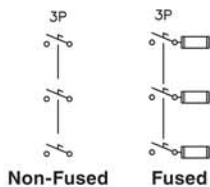


EXB-NFD ELECTRICAL RATINGS													
SWITCH AMPERES	MAXIMUM KW / HORSEPOWER SINGLE PHASE			MAXIMUM KW / HORSEPOWER - 3 PHASE									
	UL508 & IEC	120 VAC	200 VAC	240 VAC	200 VAC	208 VAC	220 VAC	240 VAC	400 VAC	415 VAC	480 VAC	500 VAC	600 VAC
16	1 HP	2 HP	2 HP	3 HP	3 HP	3 KW	5 HP	7.5 KW	7.5 KW	10 HP	7.5 KW	10 HP	7.5 KW
25	1.5 HP	3 HP	3 HP	7.5 HP	7.5 HP	4 KW	7.5 HP	9 KW	9 KW	15 HP	9 KW	20 HP	9 KW
32	2 HP	5 HP	5 HP	10 HP	10 HP	5.5 KW	10 HP	11 KW	11 KW	20 HP	11 KW	25 HP	11 KW
63	2 HP	5 HP	5 HP	15 HP	15 HP	11 KW	15 HP	22 KW	22 KW	30 HP	22 KW	30 HP	11 KW
80	2 HP	5 HP	5 HP	20 HP	20 HP	22 KW	20 HP	37 KW	37 KW	40 HP	37 KW	40 HP	18.5 KW
UL98 & IEC	120 VAC	200 VAC	240 VAC	200 VAC	208 VAC	220 VAC	240 VAC	400 VAC	415 VAC	480 VAC	500 VAC	600 VAC	690 VAC
30	2 HP	5 HP	5 HP	10 HP	10 HP	7.5 KW	7.5 HP	15 KW	15 KW	15 HP	15 KW	20 HP	15 KW
60	3 HP	5 HP	7.5 HP	20 HP	20 HP	11 KW	20 HP	18.5 KW	18.5 KW	40 HP	18.5 KW	40 HP	15 KW
100	5 HP	15 HP	15 HP	25 HP	25 HP	22 KW	30 HP	37 KW	37 KW	50 HP	37 KW	50 HP	37 KW
200	NA	NA	NA	NA	NA	75 KW	75 HP	132 KW	132 KW	150 HP	170 KW	200 HP	240 KW
400	NA	NA	NA	NA	NA	110 KW	125 HP	220 KW	220 KW	250 HP	280 KW	350 HP	355 KW

EXB-FDS ELECTRICAL RATINGS													
SWITCH AMPERES	MAXIMUM HORSEPOWER - THREE PHASE-3 POLE			MAXIMUM KW / HORSEPOWER - 3 PHASE									
	UL98 & IEC	120 VAC	200 VAC	240 VAC	200 VAC	208 VAC	220 VAC	240 VAC	400 VAC	415 VAC	480 VAC	500 VAC	600 VAC
30	2 HP	3 HP	5 HP	5 HP	7.5 HP	7.5 KW	7.5 HP	15 KW	15 KW	15 HP	15 KW	20 HP	25 KW
60	3 HP	5 HP	10 HP	15 HP	15 HP	11 KW	15 HP	30 KW	30 KW	30 HP	30 KW	50 HP	60 KW
100	5 HP	10 HP	15 HP	25 HP	25 HP	22 KW	30 HP	90 KW	90 KW	60 HP	37 KW	75 HP	130 KW
200	NA	NA	NA	50 HP	50 HP	75 KW	60 HP	90 KW	90 KW	125 HP	170 KW	150 HP	200 KW
400	NA	NA	NA	100 HP	100 HP	110 KW	125 HP	230 KW	230 KW	250 HP	230 KW	350 HP	400 KW

EXB-NFD DIMENSIONS													
AMP RATING	BASIC ENCLOSURE	A	B	C	D	E	F	G	NEC STANDARD CONDUIT OUTLETS		IEC STANDARD CONDUIT OUTLETS		
									TOP	BOTTOM	TOP	BOTTOM	
16/20	EXB-664 N34 SU1	10.32 (262)	10.32 (262)	6.09 (155)	4.00 (102)	2.75 (70)	6.50 (165)	6.50 (165)	1" NPT	1" NPT	M25	M25	
25/30	EXB-664 N34 SU1	10.32 (262)	10.32 (262)	6.09 (155)	4.00 (102)	2.75 (70)	6.50 (165)	6.50 (165)	1" NPT	1" NPT	M25	M25	
32/40	EXB-664 N34 SU1	10.32 (262)	10.32 (262)	6.09 (155)	4.00 (102)	2.75 (70)	6.50 (165)	6.50 (165)	1" NPT	1" NPT	M25	M25	
63/60	EXB-664 N34 SU1	10.32 (262)	10.32 (262)	6.09 (155)	4.00 (102)	2.75 (70)	6.50 (165)	6.50 (165)	1 1/2" NPT	1 1/2" NPT	M40	M40	
80/80	EXB-886 N34 SU1	12.3125 (313)	12.3125 (313)	8.00 (203)	9.875 (251)	3.8125 (97)	8.125 (206)	9.4375 (240)	2" NPT	2" NPT	M50	M50	
16/30/60	EXB-886 N34 SU1	12.3125 (313)	12.3125 (313)	8.00 (203)	9.875 (251)	3.8125 (97)	8.125 (206)	9.4375 (240)	1 1/2" NPT	1 1/2" NPT	M40	M40	
100	EXB-8106 N34 SU1	14.3125 (364)	12.3125 (313)	8.00 (203)	9.875 (251)	3.875 (98)	8.3125 (211)	8.625 (219)	2" NPT	2" NPT	M50	M50	
200	EXB-12248 N34 SU1	28.375 (721)	16.375 (416)	18.875 (479)	15.9375 (405)	5.375 (137)	11.9375 (303)	12.625 (321)	3" NPT	3" NPT	M63	M63	
400	EXB-12368 N34 SU1	41.25 (1048)	17.25 (438)	31.00 (787)	15.00 (381)	5.1875 (131)	11.375 (289)	12.6875 (322)	(2) 3" NPT	(2) 3" NPT	(2) M63	(2) M63	

EXB-FDS DIMENSIONS													
AMP RATING	BASIC ENCLOSURE	A	B	C	D	E	F	G	NEC STANDARD CONDUIT OUTLETS		IEC STANDARD CONDUIT OUTLETS		
									TOP	BOTTOM	TOP	BOTTOM	
30	EXB-8106 N34 SU1	14.3125 (364)	12.3125 (313)	8.00 (203)	9.875 (251)	3.875 (98)	8.9375 (227)	9.625 (244)	2" NPT	2" NPT	M40	M40	
60	EXB-10106 N34 SU1	15.25 (387)	15.25 (387)	14.9375 (379)	12.9375 (329)	5.062 (129)	10.9375 (278)	12.25 (311)	2" NPT	2" NPT	M40	M40	
100	EXB-12188 N34 SU1	22.375 (568)	16.375 (416)	12.875 (327)	14.9375 (379)	5.375 (137)	11.0625 (281)	12.375 (314)	2" NPT	2" NPT	M50	M50	
200	EXB-12248 N34 SU1	28.375 (721)	16.375 (416)	18.875 (479)	14.9375 (379)	5.375 (137)	11.9375 (303)	13.375 (340)	3" NPT	3" NPT	M63	M63	
400	EXB-18368 N34 SU1	40.375 (1026)	22.375 (568)	31.50 (800)	21.25 (546)	14.375 (365)	14.375 (365)	16.50 (419)	(2) 3" NPT	(2) 3" NPT	(2) M63	(2) M63	





CIRCUIT BREAKER PANELBOARDS



Class I, Div. 1 & 2, Groups B, C, D
 Class I, Zones 1 & 2, Groups IIB+H₂, IIA
 Class II, Div. 1 & 2, Groups E, F, G
 Class III, Div. 1 & 2
 NEMA 3, 4, 4x, 7 (B, C, D) 9 (E, F, G)



Classified – File E83969

See files for details or call Killark.



Certified – File LR 11713 for B7L

FEATURES-SPECIFICATIONS



Applications

- Hazardous locations due to the presence of flammable gases or vapors, combustible dust or easily ignitable fibers and flyings, and areas subject to corrosion, weather and dampness
- Petroleum refineries, chemical and petrochemical plants with indoor and outdoor processes
- Applications requiring overcurrent and short circuit protection of lighting, appliances, heating and motor circuits

Features

- NEMA 4, 4x rated for protection from hose directed water and corrosion
- Standard electrical components: B7L-Cutler-Hammer Quicklag Breakers B7P-Cutler-Hammer Series C Breakers
- B7L and B7P furnished with copper buss
- Main lugs. Mechanical solderless type, approved for CU or AL conductors
- Solid Neutral standard. Single phase 3 wire. Three phase 4 wire
- Copper ground bar standard
- Main and branch breaker handles can be padlocked in “ON” or “OFF” position
- Top feed panel standard with bottom feed optional
- Hinged cover, installed as standard
- Quick release, captivated coverbolts of 316 stainless steel

Standard Materials

- Enclosure: Copper-free aluminum (less than 4/10 of 1%)
- Main Breaker Handle: Copper-free aluminum
- Cover bolts: 316 grade stainless steel
- Flange Gasket “O” Ring: Buna-N Nitrile
- Branch Breaker Operators: Valox Thermoplastic Polyester handle molded onto 316 stainless steel shaft with neoprene “O” ring
- Hinges: Copper-free aluminum with stainless steel pin and hardware
- Mounting Lugs: 1/4” thick aluminum

Panel Selection Factors

Basic information required when specifying panelboards is as follows:

- Environment
- Service (Voltage/Frequency/Phase)
- Interrupting capacity
- AMP Rating of Main (Lugs only or Breaker)
- Branch Breaker (Type/Number of Poles/ Amperage)

Ordering Information

Specifying and ordering a complete panelboard assembly requires the selection of three components. (1) **Basic Panel** (2) **Branch Breaker** and (3) **Options** (if required). This method of cataloging permits a wide variety and maximizes circuit flexibility in our panelboard offering. Components supplied in each of these selections include:

- 1) **Basic Panelboard Enclosures** (page DE12)
 - Explosion-proof enclosure consisting of box and cover
 - Cover predrilled and plugged for maximum number of branch breaker handles (handles not supplied)

- Box supplied with conduit openings
- Main circuit breaker and external handle (when specified)

Panelboard internal chassis with buss bars but less branch circuit breakers

2) **Branch Circuit Breakers** (page DE15)

- Internal circuit breaker
- External handle mechanism with internal tripping mechanism
- Test pushbutton for GFI (when ordered)
- Lockout shield with on-off-trip-reset identification

3) **Options – Accessories** (page DE15)

Ordering Example

Specification is for a 3 phase 120/208 volt panel with 100 Amp main lugs complete with (4) single pole 20 Amp (2) double pole 20 Amp and (1) three pole 30 Amp branch breakers.

Branch Breaker Total =

- (4) 1 Pole = 4 Poles Total
- (2) 2 Pole = 4 Poles Total
- (1) 3 Pole = 3 Poles Total

Total 11 Branch Poles

Specification/Ordering Example

B7L20 - 312 - ML100 (Basic panelboard enclosure) with:

- (4) B7BLA1020 (1 Pole 20 Amp Branch)
- (2) B7BLA2020 (2 Pole 20 Amp Branch)
- (1) B7BLB3030 (3 Pole 30 Amp Branch)

Catalog Logic

See page DE16 for panelboard catalog number logic for basic enclosures.



LIGHTING PANELBOARDS

Classified – File E83969
See files for details or call Killark.
 Certified – File LR 11713

Class I, Div. 1 & 2, Groups B, C, D
Class I, Zones 1 & 2, Groups IIB+H₂, IIA
Class II, Div. 1 & 2, Groups E, F, G
Class III, Div. 1 & 2
NEMA 3, 4, 4x, 7 (B, C, D) 9 (E, F, G)

Cutler-Hammer type BA circuit breaker 1 - 2 or 3 pole.

Catalog numbers on this page are for the basic panelboard enclosure only with a panel interior chassis containing main lugs or main breaker as illustrated.

Internal branch breakers and external handles are NOT included in the basic enclosure catalog number and must be ordered as separate items.

Branch circuit loads

The interior panel chassis supplied in B7L panel is limited to a maximum of 140 amperes at any one connection point. Breakers of 50 thru 100 amps must be installed opposite breakers of smaller amperage so as not to exceed the 140 ampere limitation.

B7L PANEL WITHOUT MAIN BREAKER (MAIN LUGS ONLY) LESS BRANCH BREAKERS						
ELECTRICAL RATING	MAIN LUG RATING	NUMBER OF BRANCH POLES	CATALOG NUMBER BASIC ENCLOSURE AND CHASSIS	ENCLOSURE BOX SIZE	MAIN WIRE RANGE	LBS
Single phase 3 wire with solid neutral 120/240 VAC	100	12	B7L20 - 112 - ML100	A	E	140
	100	18	B7L29 - 118 - ML100	B	G	190
	225	18	B7L29 - 118 - ML225	B	F	190
	100	24	B7L29 - 124 - ML100	B	G	190
	225	24	B7L41 - 124 - ML225	C	F	250
	100	30	B7L41 - 130 - ML100	C	G	250
	225	30	B7L41 - 130 - ML225	C	F	250
	225	36	B7L41 - 136 - ML225	C	F	250
Three phase 4 wire with solid neutral 120/208 VAC	100	12	B7L20 - 312 - ML100	A	E	140
	100	18	B7L29 - 318 - ML100	B	G	190
	225	18	B7L29 - 318 - ML225	B	F	190
	100	24	B7L29 - 324 - ML100	B	G	190
	225	24	B7L41 - 324 - ML225	C	F	250
	100	30	B7L41 - 330 - ML100	C	G	250
	225	30	B7L41 - 330 - ML225	C	F	250
	225	36	B7L41 - 336 - ML225	C	F	250
	225	42	B7L41 - 342 - ML225	C	F	250

CIRCUIT BREAKER RATINGS			
TYPE	NO. OF POLES	VOLT	AMPERES SYMMETRICAL
BABⓄ	1	120	10,000 AIC
BABⓄ	2	120/240	10,000 AIC
BABⓄ	3	240	10,000 AIC
BABSWNⓄ	1	120/240	10,000 AIC
BABSWNⓄ	2	120/240	10,000 AIC
QBGF	1	120	10,000 AIC
QBGF	2	120/240	10,000 AIC
QBGFEP	1	120	10,000 AIC
QBGFEP	2	120/240	10,000 AIC
BAB*DⓄ	1	120	10,000 AIC
BAB*DⓄ	2	120/240	10,000 AIC

① Type BAB also rated for 80V DC at 5,000 AIC.
② Type BAB* D designed for HID lighting applications.

B7L PANEL WITH MAIN BREAKER LESS BRANCH BREAKERS							
ELECTRICAL RATING	MAIN BREAKER FRAME	MAIN BREAKER AND RATING	NUMBER OF BRANCH POLES	CATALOG NUMBER BASIC ENCLOSURE AND CHASSIS	ENCLOSURE BOX SIZE	MAIN WIRE RANGE	LBS
Single phase 3 wire with solid neutral 120/240 VAC	EHD	100	12	B7L29 - 112 - MBE100	B	H	190
	EHD	100	18	B7L41 - 118 - MBE100	C	H	250
	EHD	100	24	B7L41 - 124 - MBE100	C	H	250
	ED	225	24	B7L41 - 124 - MBC225	C	I	250
	EHD	100	30	B7L41 - 130 - MBE100	C	H	250
	ED	225	30	B7L41 - 130 - MBC225	C	I	250
	ED	225	36	B7L50 - 136 - MBC225	D	I	300
	ED	225	42	B7L50 - 142 - MBC225	D	I	300
Three phase 4 wire with solid neutral 120/208 VAC	EHD	100	12	B7L29 - 312 - MBE100	B	H	190
	EHD	100	18	B7L41 - 318 - MBE100	C	H	250
	EHD	100	24	B7L41 - 324 - MBE100	C	H	250
	ED	225	24	B7L41 - 324 - MBC225	C	I	250
	EHD	100	30	B7L41 - 330 - MBE100	C	H	250
	ED	225	30	B7L41 - 330 - MBC225	C	I	250
	ED	225	36	B7L50 - 336 - MBC225	D	I	300
	ED	225	42	B7L50 - 342 - MBC225	D	I	300

B7L PANEL WITH BACK FEED MAIN BREAKER LESS BRANCH BREAKERS							
ELECTRICAL RATING	MAIN BREAKER FRAME	MAIN BREAKER AND RATING	NUMBER OF BRANCH POLES	CATALOG NUMBER BASIC ENCLOSURE AND CHASSIS	ENCLOSURE BOX SIZE	MAIN WIRE RANGE	LBS
Single phase 3 wire with solid neutral 120/240 VAC	BAB	100	12	B7L29 - 112 - MBB100	B	J	190
	BAB	100	18	B7L29 - 118 - MBB100	B	J	190
	BAB	100	24	B7L41 - 124 - MBB100	C	J	250
	BAB	100	30	B7L41 - 130 - MBB100	C	J	250
Three phase 4 wire with solid neutral 120/208 VAC	BAB	100	12	B7L29 - 312 - MBB100	B	J	190
	BAB	100	18	B7L29 - 318 - MBB100	B	J	190
	BAB	100	24	B7L41 - 324 - MBB100	C	J	250
	BAB	100	30	B7L41 - 330 - MBB100	C	J	250

NOTE: Main breaker panel includes main breaker and its price in basic enclosure part number. Refer to page DE15 for branch breaker ordering information.



B7P SERIES



POWER PANELBOARDS



Class I, Div. 1 & 2, Groups B, C, D
 Class I, Zones 1 & 2, Groups IIB+H₂, IIA
 Class II, Div. 1 & 2, Groups E, F, G
 Class III, Div. 1 & 2
 NEMA 3, 4, 4x, 7 (B, C, D) 9 (E, F, G)



Classified – File E83969
 See files for details or call Killark.

FEATURES-SPECIFICATIONS

Cutler-Hammer Series “C” Circuit Breakers 1-2 or 3 pole.

Catalog numbers on this page are for the basic panelboard enclosure only with a panel interior chassis containing main lugs or main breaker as illustrated. **Internal branch breakers and external handles are NOT included in the basic enclosure catalog number and must be ordered as separate items.**

B7P CIRCUIT BREAKER RATINGS									
TYPE	NUMBER OF POLES	MAXIMUM VOLTS		AMPERES SYMMETRICAL					
		AC	DC	240AC	277AC	480AC	600AC	125DC	250DC
EHD	1	277	125	—	14000	—	—	10000	—
EHD	2&3	480	250	18000	—	14000	—	—	10000
FDB	2&3	600	250	18000	—	14000	14000	—	10000
HFD	2&3	600	250	—	65000	65000	25000	10000	22000

B7P PANEL WITHOUT MAIN BREAKER (MAIN LUGS ONLY) LESS BRANCH BREAKERS							
ELECTRICAL RATING	MAIN LUG RATING	NUMBER OF BRANCH POLES	CATALOG NUMBER ENCLOSURE AND CHASSIS	ENCLOSURE BOX SIZE	MAIN WIRE RANGE	LBS	KG
3 Phase 4 Wire with solid neutral up to 600 VAC	100	6	B7P20 - 306 - ML100	A	K	160	(73)
	100	12	B7P29 - 312 - ML100	B	K	210	(95)
	225	12	B7P29 - 312 - ML225	B	L	210	(95)
	225	18	B7P41 - 318 - ML225	C	L	270	(122)
	100	21	B7P41 - 321 - ML100	C	K	270	(122)
	225	27	B7P50 - 327 - ML225	D	M	320	(145)

B7P PANEL WITH MAIN BREAKER LESS BRANCH BREAKERS									
ELECTRICAL RATING	MAIN BREAKER			NUMBER OF BRANCH POLES	CATALOG NUMBER ENCLOSURE AND CHASSIS	ENCLOSURE BOX SIZE	MAIN WIRE RANGE	LBS	KG
	MAX. VOLTS	AMPS	FRAME						
3 Phase 4 Wire with Solid Neutral Up to 600 VAC	480	100	EHD	6	B7P29 - 306 - MBE100	B	K	216	(98)
	600	100	FDB	6	B7P29 - 306 - MBF100	B	K	216	(98)
	600	225	JDB	12	B7P41 - 312 - MBJ225	C	L	282	(128)
	480	100	EHD	15	B7P41 - 315 - MBE100	C	K	276	(125)
	600	100	FDB	15	B7P41 - 315 - MBF100	C	K	276	(125)
	600	225	JDB	18	B7P50 - 318 - MBJ225	D	L	332	(151)
	480	100	EHD	21	B7P50 - 321 - MBE100	D	N	326	(148)
	600	100	FDB	21	B7P50 - 321 - MBF100	D	N	326	(148)

PANEL WITH BACK FEED MAIN BREAKER LESS BRANCH BREAKERS									
ELECTRICAL RATING	MAIN BREAKER			NUMBER OF BRANCH POLES	CATALOG NUMBER ENCLOSURE AND CHASSIS	ENCLOSURE BOX SIZE	MAIN WIRE RANGE	LBS	KG
	MAX. VOLTS	AMPS	FRAME						
3 Phase 4 Wire with solid neutral up to 600 VAC	480	100	EHD	9	B7P29 - 309 - MBE100	B	K	216	(98)
	600	100	FDB	9	B7P29 - 309 - MBF100	B	K	216	(98)
	480	100	EHD	18	B7P41 - 318 - MBE100	C	K	276	(125)
	600	100	FDB	18	B7P41 - 318 - MBF100	C	K	276	(125)
	480	100	EHD	24	B7P50 - 324 - MBE100	D	K	326	(148)
	600	100	FDB	24	B7P50 - 324 - MBF100	D	K	326	(148)

NOTE: Main breaker panel includes main breaker and its price in basic enclosure part number. Refer to page DE15 for branch breaker ordering information. See page DE16 for enclosure dimensions.

DISTRIBUTION



B7L/B7P SERIES

BRANCH BREAKERS ACCESSORIES / OPTIONS

BRANCH CIRCUIT BREAKERS								
NUMBER OF POLES PER BREAKER	TRIP AMP RATING	B7L SERIES LIGHTING PANEL					B7P SERIES POWER PANEL	
		BAB FRAME STANDARD	BAB FRAME HID HIGH INTENSITY DISCHARGE	BAB FRAME SWITCH NEUTRAL	QBGF GROUND FAULT 5MA	QBGEF EQUIPMENT PROTECTION 30MA	EHD FRAME 480 VAC MAX.	FDB FRAME 600 VAC MAX.
(1) Single Phase 120 Volt	SPACE	B7BLA1000	B7BLD1000	—	B7BLC1000	B7BLE1000	B7BPK1000	—
	15	B7BLA1015	B7BLD1015	—	B7BLC1015	B7BLE1015	B7BPK1015	—
	20	B7BLA1020	B7BLD1020	—	B7BLC1020	B7BLE1020	B7BPK1020	—
	30	B7BLA1030	B7BLD1030	—	B7BLC1030	B7BLE1030	B7BPK1030	—
	40	B7BLA1040	B7BLD1040	—	B7BLC1040	B7BLE1040	B7BPK1040	—
	50	B7BLA1050	B7BLD1050	—	—	—	B7BPK1050	—
	60	B7BLA1060	B7BLD1060	—	—	—	B7BPK1060	—
	70	B7BLA1070	—	—	—	—	B7BPK1070	—
	90	—	—	—	—	—	B7BPK1090	—
	100	B7BLA1100	—	—	—	—	B7BPK1100	—
(2) Double Pole 120/240 Volt	SPACE	B7BLA2000	B7BLD2000	B7BLF2000	B7BLC2000	B7BLE2000	B7BPK2000	B7BPL2000
	15	B7BLA2015	B7BLD2015	B7BLF2015	B7BLC2015	B7BLE2015	B7BPK2015	B7BPL2015
	20	B7BLA2020	B7BLD2020	B7BLF2020	B7BLC2020	B7BLE2020	B7BPK2020	B7BPL2020
	30	B7BLA2030	B7BLD2030	B7BLF2030	B7BLC2030	B7BLE2030	B7BPK2030	B7BPL2030
	40	B7BLA2040	B7BLD2040	—	B7BLC2040	B7BLE2040	B7BPK2040	B7BPL2040
	50	B7BLA2050	B7BLD2050	—	B7BLC2050	B7BLE2050	B7BPK2050	B7BPL2050
	60	B7BLA2060	B7BLD2060	—	—	—	B7BPK2060	B7BPL2060
	70	B7BLA2070	—	—	—	—	B7BPK2070	B7BPL2070
	90	B7BLA2090	—	—	—	—	B7BPK2090	B7BPL2090
	100	B7BLA2100	—	—	—	—	B7BPK2100	B7BPL2100
(3) Three Pole 120/240 Volt	SPACE	B7BLB3000	—	B7BLF3000	—	—	B7BPK3000	B7BPL3000
	15	B7BLB3015	—	B7BLF3015	—	—	B7BPK3015	B7BPL3015
	20	B7BLB3020	—	B7BLF3020	—	—	B7BPK3020	B7BPL3020
	30	B7BLB3030	—	B7BLF3030	—	—	B7BPK3030	B7BPL3030
	40	B7BLB3040	—	—	—	—	B7BPK3040	B7BPL3040
	50	B7BLB3050	—	—	—	—	B7BPK3050	B7BPL3050
	60	B7BLB3060	—	—	—	—	B7BPK3060	B7BPL3060
	70	B7BLB3070	—	—	—	—	B7BPK3070	B7BPL3070
	90	B7BLB3090	—	—	—	—	B7BPK3090	B7BPL3090
	100	B7BLB3100	—	—	—	—	B7BPK3100	B7BPL3100
	110	—	—	—	—	—	—	B7BPL3110
	125	—	—	—	—	—	—	B7BPL3125
150	—	—	—	—	—	—	B7BPL3150	

MODIFICATIONS	
CATALOG NUMBER	DESCRIPTION
SU-3B-4X	Drain/Breather NEMA 4X/7 B,C,D
SU-10B-4X	Drain NEMA 4X/7 B,C,D
SU-11B-4X	Breather NEMA 4X/7 B,C,D
KIT-251	Grounding kit, 100 AMP
KIT-252	Grounding kit, 225 AMP
B7SF	Special baked epoxy finish
B7EYEBOLT	Eye bolts for ease of installation [Ⓛ]
B7ML225	Change 100 amp buss to 225 amp B7P series
B7MLBTM	Main lugs at bottom
B7SPNPT	Change standard conduit size and location
B7GSN	Kit to ground neutral bar

Branch Breaker Notes:

- 1) B7L panels are factory drilled for maximum number of single pole branch breaker handles and B7P for maximum number of 3 pole branch breaker handles as standard.
- 2) Part numbers illustrated above include external handle, trip mechanism, locking tab and internal breaker. Refer to page DE12 for complete ordering information and examples.
- 3) Space = External handle, shaft and trip mechanism installed to allow for future installation of breaker.
- 4) Ground Fault & Equipment protection breakers include external pushbutton for each breaker to test ground fault sensing circuit and the mechanical operation of breaker.
- 5) Switch Neutral Breaker note. A two pole breaker has one pole for breaking from main buss and one pole that breaks neutral. Three pole breaker consists of two poles for breaking from main buss and one pole that breaks neutral.

* To be ordered as separate item with notation on order for assembly into enclosure.

[Ⓛ] Lifting eyebolts are installed in two conduit openings located in top of box and are to be removed after installation.

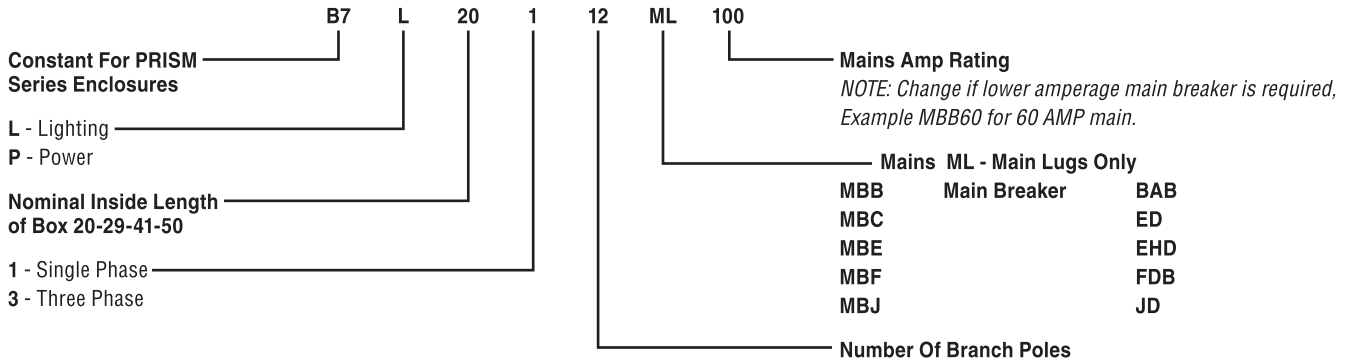


B7L/B7P SERIES



CATALOG LOGIC / WIRING / DATA DIMENSIONS

Catalog Logic – for basic Panelboard Enclosures



WIRE SIZES

E	F	G	H	I	J	K	L	M	N
#12-#1	#6-250MCM	#12-1/0	#14-1/0	2/0-250MCM	#14-#1	#6-2/0	#6-4/0	#2-4/0	#2-2/0

Wiring Diagrams B7L Series

(Note: B7P Series are single column)

**Main Lug Only
Three Phase 4-Wire
Solid Neutral
120/208 VAC**

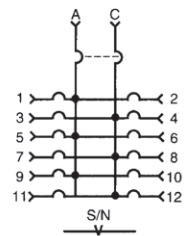
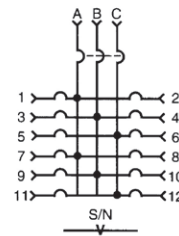
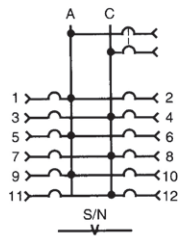
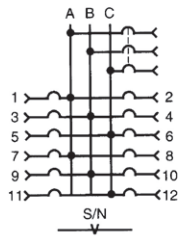
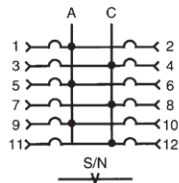
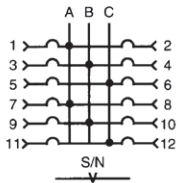
**Main Lug Only
Single Phase 3-Wire
Solid Neutral
120/240 VAC**

**Back Feed
Main Breaker
Three Phase 4-Wire
Solid Neutral
120/208 VAC**

**Back Feed
Main Breaker
Single Phase 3-Wire
Solid Neutral
120/240 VAC**

**Vertical
Main Breaker
Three Phase 4-Wire
Solid Neutral
120/208 VAC**

**Vertical
Main Breaker
Single Phase 3-Wire
Solid Neutral
120/240 VAC**

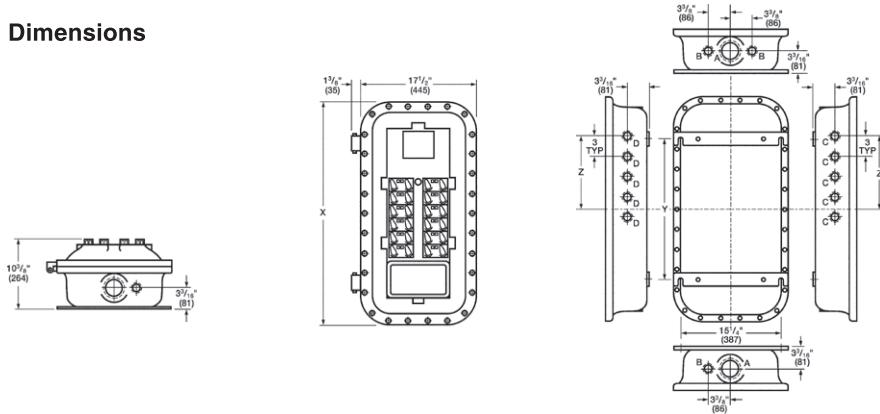


DIMENSIONS

ENCLOSURE BOX SIZE		X	Y	CONDUIT SIZE		Z	CONDUIT QUANTITY			
LETTER	BASE BOX NUMBER ①			A	B, C, D		A	B	C	D
A	MXB-13207	24-3/4"(629)	13"(330)	2"	1"	6-7/8"(175)	2	3	3	4
B	MXB-13297	33-3/8"(848)	21"(533)	2-1/2"	1"	10-7/8"(276)	2	3	4	5
C	MXB-13417	45-3/8"(1153)	33"(838)	3"	1"	16-7/8"(429)	2	3	5	6
D	MXB-13507	54-3/8"(1381)	42"(1067)	3"	1"	21-3/8"(543)	2	3	6	7

① See pages DE13 and DE14 for complete enclosure ordering information.

Dimensions





FACTORY SEALED CIRCUIT BREAKER PANELBOARDS



Class I, Div. 2, Groups B, C, D
 Class I, Zone 2, Groups IIB+H₂, IIA
 Class II, Div. 2, Groups F, G
 Class III, Div. 1 & 2
 NEMA, CSA Type 3, 4 (4X Optional)



Classified – File E83969

Certified – File LR11713

FEATURES-SPECIFICATIONS**Applications**

- Hazardous areas due to the potential of explosive gas atmospheres, combustible dusts or easily ignited fibers or flyings and areas subjected to corrosive or harsh chemicals, weather or dampness
- Petroleum refineries, chemical or petrochemical facilities with indoor or outdoor processes
- Applications requiring overcurrent and short circuit protection of lighting, appliances heating or motor circuits

Features

- Factory Seal between breaker enclosure and termination box eliminates the need for external sealing
- Gasketed covers assure NEMA/CSA Type 4, 4X rated protection for hosedown and corrosion
- Standard Electrical Components: D2L–Cutler-Hammer QC Breakers D2CP–Cutler-Hammer GHC & GCH Breakers
- Main distribution block, branch terminal block, neutral and ground bar are located in termination enclosure
- Main Lugs. Mechanical solderless type, approved for CU or AL conductors
- Solid neutral standard. Single phase, 3 wire or three phase 4 wire
- Main and branch circuit breaker handles can be padlocked in “on” or “off” position

- Top or bottom feed panels available
- Breaker chamber hinged cover with quick release – captivated bolts
- Termination enclosure has hinged cover with quick release latch for easy opening
- Termination enclosure supplied without conduit openings for easy field punching of incoming and outgoing entries
- Line and load side of breakers in breaker chamber are factory wired to terminal blocks in termination enclosure and sealed at the factory
- Breaker enclosure is drilled and plugged for maximum number of circuits to permit field addition of unused branch spaces

Panel Selection Factors

- Basic information required when specifying panelboards is as follows:
- Service Requirements – Voltage, phases and frequency
- Interrupting capacity
- Amperage Rating of Main (Lugs only or Breaker)
- Branch Breaker Requirements
 - » Type
 - » Number
 - » Poles
 - » Amperage
 - » GFCI Requirements

Ordering Information

Specifying and ordering a complete panelboard assembly requires the selection of three components

1. Basic Panel
2. Branch Breakers
3. Modifications if Required

This method of cataloguing permits a wide variety and maximizes circuit flexibility in the Killark panelboard series.

Standard Materials

- Breaker Enclosure: Copper-free cast aluminum (less than 4/10 of 1%)
- Terminal enclosure: Steel powder coated. (Optional stainless steel for 4X ratings)
- Cover bolts: Type 316 stainless steel

MODIFICATIONS

SUFFIX NUMBER	DESCRIPTION
SU-3B-4X	Drain/Breather NEMA 4X/7 B,C,D
SU-10B-4X	Drain NEMA 4X/7 B,C,D
SU-11B-4X	Breather NEMA 4X/7 B,C,D
D2SF	Powder paint on breaker box
D2MLBTM	Invert with terminal box located on bottom
D2STST	Substitute with stainless steel termination box
B7GSN	Kit to ground neutral bar



D2L SERIES



FACTORY SEALED CIRCUIT BREAKER PANELBOARDS



Class I, Div. 2, Groups B, C, D
 Class I, Zone 2, Groups IIB+H₂, IIA
 Class II, Div. 2, Groups F, G
 Class III, Div. 1 & 2
 NEMA, CSA Type 3, 4 (4X Optional)

Classified – File E83969
 Certified – File LR11713

FEATURES-SPECIFICATIONS

Catalog Numbers on this page are for the basic Termination Enclosure with distribution, neutral, ground bar and terminal blocks plus a Breaker Enclosure with internal pan. Enclosures are connected together with factory poured sealing chambers and mounted on aluminum frame for wall mounting.

External breaker handles and internal branch breakers are not included and must be ordered as separate items for factory installation. (See page DE20)

D2L PANELBOARDS WITHOUT MAIN BREAKER (MAIN LUGS ONLY) LESS BRANCH BREAKERS

ELECTRICAL RATING	NUMBER OF BRANCH POLES	MAIN LUG RATING AMPS	CATALOG NUMBER BASIC ENCLOSURES	MAIN WIRE RANGE	PANEL SIZE
Single Phase 3 Wire with Solid Neutral 120/240 VAC	12	100	D2L-112-ML100	M	A
	24	225	D2L-124-ML225	N	B
	36	225	D2L-136-ML225	N	C
	42	225	D2L-142-ML225	P	D
Three Phase 4 Wire with Solid Neutral 120/208 VAC	12	100	D2L-312-ML100	M	A
	24	225	D2L-324-ML225	N	B
	36	225	D2L-336-ML225	N	C
	42	225	D2L-342-ML225	P	D

**D2L CIRCUIT BREAKER RATINGS
 CUTLER-HAMMER TYPE QC CIRCUIT
 BREAKERS**

TYPE	POLES	VOLTS	AMPERES SYMMETRICAL
QC	1	120	10,000 AIC
	2	120/240	
	3	240	
QCSWN	1	120/240	10,000 AIC
	2	120/240	
QCGF	1	120	10,000 AIC
	2	120/240	
QCGFEP	1	120	10,000 AIC
	2	120/240	
QC*D	1	120	10,000 AIC
QC*D	2	120/240	

D2L PANELBOARDS WITH MAIN BREAKER LESS BRANCH BREAKERS

ELECTRICAL RATING	NUMBER OF BRANCH POLES	MAIN BREAKER		CATALOG NUMBER BASIC ENCLOSURES	MAIN WIRE RANGE	PANEL SIZE
		AMPS	FRAME			
Single Phase 3 Wire with Solid Neutral 120/240 VAC	10	100	QC	D2L-110-MBQ100	M	A
	22	100	QC	D2L-122-MBQ100	N	B
	34	100	QC	D2L-134-MBQ100	N	C
	42	225	ED	D2L-142-MBED225	N	D
Three Phase 4 Wire with Solid Neutral 120/208 VAC	9	100	QC	D2L-309-MBQ100	M	A
	21	100	QC	D2L-321-MBQ100	N	B
	33	100	QC	D2L-333-MBQ100	N	C
	42	225	ED	D2L-342-MBED225	N	D

} Back Fed
 } Back Fed

NOTE: To substitute a lower amperage main breaker change last three digits of catalog number to desired amperage.

Example: For a 50 amp main breaker part number = D2L-309-MBQ050

See page DE20 for Branch Breaker Selection

See page DE21 for Dimensions, Wire Range Chart and Wiring Diagrams.

Panels are constructed with Terminal Box on Top for Top Feed.

If Bottom Feed is required order modification D2MLBTM for inverted panel with Terminal Box on Bottom.

DISTRIBUTION

D2PC SERIES



FACTORY SEALED LIGHTING / POWER PANELBOARDS



Class I, Div. 2, Groups B, C, D
 Class I, Zone 2, Groups IIB+H₂, IIA
 Class II, Div. 2, Groups F, G
 Class III, Div. 1 & 2
 NEMA, CSA Type 3, 4 (4X Optional)



Classified – File E83969

Certified – File LR11713

FEATURES-SPECIFICATIONS

Catalog Numbers on this page are for the basic Termination Enclosure with distribution, neutral, ground bar and terminal blocks plus a Breaker Enclosure with internal pan. Enclosures are connected together with factory poured sealing chambers and mounted on aluminum frame for wall mounting.

External breaker handles and internal branch breakers are not included and must be ordered as separate items for factory installation. (See page DE20)

CUTLER-HAMMER CIRCUIT BREAKER RATINGS FOR D2PC PANEL									
TYPE	NUMBER OF POLES	MAXIMUM VOLTS		AMPERES SYMMETRICAL					
		AC	DC	277 VAC	347 VAC	277/480 VAC	347/600 VAC	125 VDC	250 VDC
GHC	1	277	125	14,000		—	—	14,000	—
	2 & 3	277/480Y	250	14,000		14,000	—	—	14,000
GCH	1	347	125	—	10,000	—	—	14,000	—
	2 & 3	347/600Y	250	—	—	—	10,000	—	14,000

NOTE: GCH Breakers are CSA only.

PANELBOARDS WITHOUT MAIN BREAKER (MAIN LUGS ONLY) LESS BRANCH BREAKERS					
ELECTRICAL RATING	NUMBER OF BRANCH POLES	MAIN LUG RATING AMPS	CATALOG NUMBER BASIC ENCLOSURES	MAIN WIRE RANGE	PANEL SIZE
Three Phase 4 Wire with Solid Neutral up to 480Y/277 VAC 600Y/347 VAC	12	100	D2PC-312-ML100	M	E
	24	225	D2PC-324-ML225	N	F
	36	225	D2PC-336-ML225	N	G
	42	225	D2PC-342-ML225	P	H

PANELBOARDS WITH MAIN BREAKER LESS BRANCH BREAKERS							
ELECTRICAL RATING	NUMBER OF BRANCH POLES	MAIN BREAKER			CATALOG NUMBER BASIC ENCLOSURES	MAIN WIRE RANGE	PANEL SIZE
		MAX VOLTS	AMPS	FRAME			
Three Phase 4 Wire with Solid Neutral 480Y/277 VAC 600Y/347 VAC	9	480Y/277	100	GHC	D2PC-309-MBGH100	M	E
	9	600Y/347	100	GCH	D2PC-309-MBGC100	M	E
	21	480Y/277	100	GHC	D2PC-321-MBGH100	N	F
	21	600Y/347	100	GCH	D2PC-321-MBGC100	N	F
	33	480Y/277	100	GHC	D2PC-333-MBGH100	N	G
	33	600Y/347	100	GCH	D2PC-333-MBGC100	N	G
	42	600Y/347	225	JDB	D2PC-342-MBJ225	N	H

Note special wiring conditions: GHC 480Y/277 circuit breakers are not suitable for 3 phase Delta (480)
 GCH 600Y/347 circuit breakers are not suitable for 3 phase Delta (600)
 GCH Rating is for CSA only not UL.

NOTE: To substitute a lower amperage main breaker change last three digits of catalog number to desired amperage.

Example: For a 50 amp main breaker part number = D2PC-309-MBGH050

See page DE20 for Branch Breaker Selection

See page DE21 for Dimensions, Wire Range Chart and Wiring Diagrams.

Panels are constructed with Terminal Box on Top for Top Feed.

If Bottom Feed is required order modification D2MLBTM for inverted panel with Terminal Box on Bottom.



600/480V Factory Sealed Power Panels available up to 42 circuits (MLO) as shown. Consult factory for ordering information.



D2L/D2PC SERIES



FACTORY SEALED CIRCUIT BREAKER PANELBOARDS



Class I, Div. 2, Groups B, C, D
 Class I, Zone 2, Groups IIB+H₂, IIA
 Class II, Div. 2, Groups F, G
 Class III, Div. 1 & 2
 NEMA, CSA Type 3, 4 (4X Optional)

Classified – File E83969
 Certified – File LR11713

FEATURES-SPECIFICATIONS

BRANCH CIRCUIT BREAKER SELECTION FOR D2L & D2PC FACTORY SEALED PANELBOARDS

NUMBER OF POLES PER BREAKER	TRIP AMP RATING	CATALOG NUMBER							
		D2L SERIES LIGHTING PANEL					D2PC SERIES POWER PANEL		
		QC FRAME STANDARD	QC FRAME HID HIGH INTENSITY DISCHARGE	QC FRAME SWITCHED NEUTRAL	QCFG GROUND FAULT 5 MA	QCGFEP EQUIPMENT PROTECTION 30 MA	GHC FRAME 277/480Y VAC MAX	GHCHID FRAME 277/480Y HIGH INTENSITY DISCHARGE	GCH FRAME 347/600Y VAC MAX
(1) Single Pole	Space [⊙]	D2BLA1000	D2BLD1000	—	D2BLC1000	D2BLE1000	D2BGHC1000	D2BGHCD1000	D2BGCH1000
	15	D2BLA1015	D2BLD1015	—	D2BLC1015	D2BLE1015	D2BGHC1015	D2BGHCD1015	D2BGCH1015
	20	D2BLA1020	D2BLD1020	—	D2BLC1020	D2BLE1020	D2BGHC1020	D2BGHCD1020	D2BGCH1020
	30	D2BLA1030	D2BLD1030	—	D2BLC1030	D2BLE1030	D2BGHC1030	—	D2BGCH1030
	40	D2BLA1040	D2BLD1040	—	D2BLC1040	D2BLE1040	D2BGHC1040	—	D2BGCH1040
	50	D2BLA1050	D2BLD1050	—	—	D2BLE1050	D2BGHC1050	—	D2BGCH1050
	60	D2BLA1060	D2BLD1060	—	—	—	D2BGHC1060	—	D2BGCH1060
	70	D2BLA1070	—	—	—	—	D2BGHC1070	—	D2BGCH1070
	90	D2BLA1090	—	—	—	—	D2BGHC1090	—	D2BGCH1090
100	D2BLA1100	—	—	—	—	D2BGHC1100	—	D2BGCH1100	
(2) Double Pole	Space [⊙]	D2BLA2000	D2BLD2000	D2BLF2000	D2BLC2000	D2BLE2000	D2BGHC2000	—	D2BGCH2000
	15	D2BLA2015	D2BLD2015	D2BLF2015	D2BLC2015	D2BLE2015	D2BGHC2015	—	D2BGCH2015
	20	D2BLA2020	D2BLD2020	D2BLF2020	D2BLC2020	D2BLE2020	D2BGHC2020	—	D2BGCH2020
	30	D2BLA2030	D2BLD2030	D2BLF2030	D2BLC2030	D2BLE2030	D2BGHC2030	—	D2BGCH2030
	40	D2BLA2040	D2BLD2040	—	D2BLC2040	D2BLE2040	D2BGHC2040	—	D2BGCH2040
	50	D2BLA2050	D2BLD2050	—	D2BLC2050	D2BLE2050	D2BGHC2050	—	D2BGCH2050
	60	D2BLA2060	D2BLD2060	—	—	—	D2BGHC2060	—	D2BGCH2060
	70	D2BLA2070	—	—	—	—	D2BGHC2070	—	D2BGCH2070
	90	D2BLA2090	—	—	—	—	D2BGHC2090	—	D2BGCH2090
100	D2BLA2100	—	—	—	—	D2BGHC2100	—	D2BGCH2100	
(3) Three Pole	Space [⊙]	D2BLA3000	—	D2BLF3000	—	—	D2BGHC3000	—	D2BGCH3000
	15	D2BLA3015	—	D2BLF3015	—	—	D2BGHC3015	—	D2BGCH3015
	20	D2BLA3020	—	D2BLF3020	—	—	D2BGHC3020	—	D2BGCH3020
	30	D2BLA3030	—	D2BLF3030	—	—	D2BGHC3030	—	D2BGCH3030
	40	D2BLA3040	—	—	—	—	D2BGHC3040	—	D2BGCH3040
	50	D2BLA3050	—	—	—	—	D2BGHC3050	—	D2BGCH3050
	60	D2BLA3060	—	—	—	—	D2BGHC3060	—	D2BGCH3060
	70	D2BLA3070	—	—	—	—	D2BGHC3070	—	D2BGCH3070
	90	D2BLA3090	—	—	—	—	D2BGHC3090	—	D2BGCH3090
100	D2BLA3100	—	—	—	—	D2BGHC3100	—	D2BGCH3100	

NOTES:

- Above part numbers include external handle, trip mechanism, locking tab and internal branch circuit breaker.
 - Refer to page DE17 for complete ordering information and examples.
 - Refer to pages DE18 and DE19 for maximum voltage and ratings of circuit breakers.
 - Space = External handle, trip mechanism installed to allow for future installations of breakers.
 - Ground Fault and Equipment protection breakers include external button for test purpose.
 - 15 and 20 ampere, 1 pole GHCHID are SWD rated.
- © Handle only.

DISTRIBUTION



D2L/D2PC SERIES

FACTORY SEALED CIRCUIT BREAKER PANELBOARDS



Class I, Div. 2, Groups B, C, D
Class I, Zone 2, Groups IIB+H₂, IIA
Class II, Div. 2, Groups F, G
Class III, Div. 1 & 2
NEMA, CSA Type 3, 4 (4X Optional)

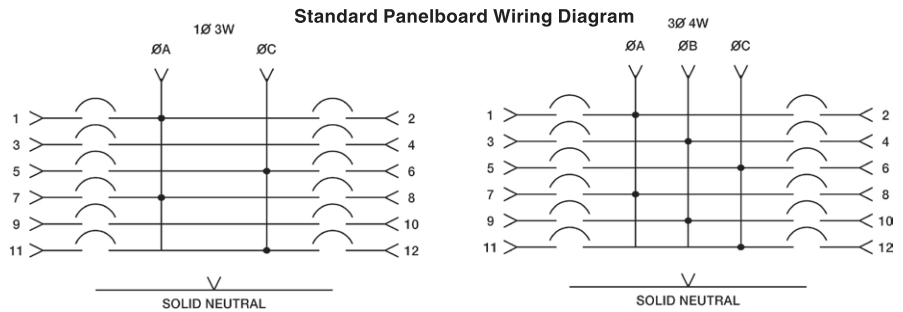


Classified – File E83969

Certified – File LR11713

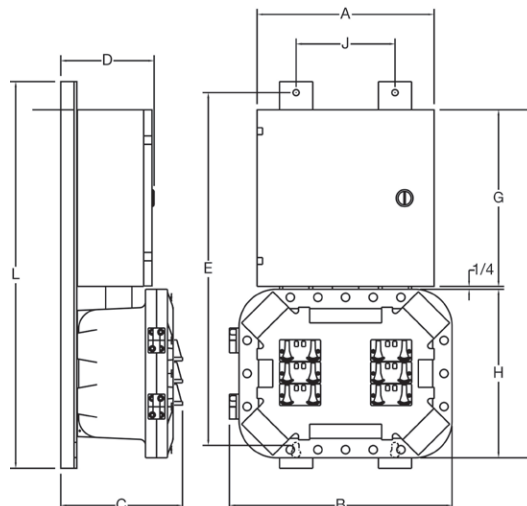
FEATURES-SPECIFICATIONS

WIRE RANGE CHART	
REFERENCE LETTER	MAIN WIRE RANGE
M	2/0-#14AWG
N	350MCM-#6AWG
P	400MCM-#6AWG



DIMENSIONS FOR PANELS WITH STANDARD STEEL PAINTED TERMINAL ENCLOSURES											
PANEL SIZE	MAX. CIRCUITS	A	B	C	D	E	F	G	H	J	L
A	12	16" (406)	20-1/8" (511)	11" (279)	8-7/16" (214)	33-27/32" (860)	31-1/2" (800)	16" (406)	15-1/4" (387)	8-15/16" (227)	35-3/8" (899)
B	24	20" (508)	21-1/4" (565)	11-7/32" (285)	10-7/16" (265)	46-31/32" (1193)	44-5/8" (1133)	24" (610)	20-3/8" (518)	10-15/16" (278)	48-1/2" (1232)
C	36	20" (508)	22-1/8" (587)	14-1/16" (357)	10-7/16" (265)	55-27/32" (1418)	53-1/2" (1359)	24" (610)	29-1/4" (743)	11-3/8" (289)	57-3/8" (1457)
D	42	24" (610)	23-3/16" (589)	14-3/8" (365)	10-7/16" (265)	67" (1702)	64-5/8" (1641)	24" (610)	40-3/8" (1026)	13-1/4" (337)	68-17/32" (1741)
E	12	16" (406)	23-1/4" (591)	11-21/32" (296)	8-7/16" (214)	35" (889)	32-5/8" (829)	16" (406)	16-3/8" (416)	12-7/8" (327)	36-1/2" (927)
F	24	20" (508)	24-1/8" (613)	12-1/16" (306)	10-7/16" (265)	49-27/32" (1241)	47-1/2" (1207)	24" (610)	23-1/4" (591)	13-3/8" (340)	51-3/8" (1305)
G	36	20" (508)	23-3/16" (589)	13-25/32" (350)	10-7/16" (265)	54-31/32" (1396)	52-5/8" (1337)	24" (610)	28-3/8" (721)	13" (330)	56-1/2" (1435)
H	42	24" (610)	23-3/16" (589)	14-3/8" (365)	10-7/16" (265)	67" (1702)	64-5/8" (1641)	24" (610)	40-3/8" (1026)	13-1/4" (337)	68-17/32" (1741)

DIMENSION CHANGE FOR PANELS WITH ALTERNATE TERMINAL ENCLOSURES		
PANEL SIZE	D2 STAINLESS STEEL OPTION	
	A	G
A	20 (508)	16 (406)
B	20 (508)	24 (610)
C	20 (508)	24 (610)
D	24 (610)	24 (610)
E	20 (508)	16 (406)
F	20 (508)	24 (610)
G	20 (508)	24 (610)
H	24 (610)	24 (610)





IEC/NEC CIRCUIT BREAKER PANELBOARDS



ATEX Certified

- #UL886 – Outlet Boxes and Fittings for use in Hazardous (Classified) Locations. File E10514
- #UL698 & #UL1203 – Explosion Proof and Dust Ignition Proof Electrical Equipment. Files #E83969 & E12379
- #C22.2 No. 30-M1986 – Explosion Proof Enclosure for use in Class I Hazardous Locations. File #LR11716

Class I, Div. 1 & 2, Groups B[Ⓛ],C,D
Class I, Zones 1 & 2, Groups IIB+H₂, IIA
Class II, Div. 1 & 2, Groups E,F,G
Class III, Div. 1 & 2
NEMA 3, 4, 4X, 7(B,C,D), 9(E,F,G)
CENELEC/ATEX/IEC - Ex
Ex d IIB + H2 T5 or T6
Ex tD A21 IP66
Ta < +60° C

CENELEC II 2 GD

PTB 07 ATEX 1025U (Empty Housing)
 PTB 07 ATEX 1024x (Enclosures w/Controls)
 IEC Ex 07.0022U
 IEC Ex 07.0023



FEATURES-SPECIFICATIONS

Introduction

New from Killark are IEC rated panelboards with type UL 489 series miniature circuit breakers (MCB) and bus bar system.

For the world wide market, the breakers carry UL, CSA, IEC, CE and many other agency approvals and certifications.

Available as 6, 12, 18, 24, 36, 54 or 72 circuits with main breaker 6, 12, 18, 36, 54, 72 or 90 main lug only.

Consult factory for specific needs.

Applications

- Locations made hazardous due to the presence of flammable gases or vapors, combustible dust, or easily ignitable fibers and flyings, and areas which are subject to corrosion, weather and dampness
- Petroleum Refineries, Chemical and Petrochemical plants with indoor and outdoor processes
- **Global applications (ATEX) Enclosures are available for global applications with “CEN” suffix. Assemblies that are modified to CENELEC/ATEX standards maintain their North American certifications**



w/main breaker



w/o main breaker

Features

- Copper-Free Cast Aluminum Construction. High strength, lighter in weight, corrosion resistant
- Fewer Cover Bolts. Computer-aided design lessens the number of cover bolts by eliminating corner bolts. Reduces installation and maintenance time
- Gasketed covers assure NEMA/CSA Type 4, 4X rated protection for hosedown and corrosion
- Main distribution block, branch terminal block, neutral and ground bar are located in termination enclosure
- Main Lugs. Mechanical solderless type, approved for CU or AL conductors
- Solid neutral standard. Single phase, 3 wire or three phase 4 wire
- Main and branch circuit breaker handles can be padlocked in “on” or “off” position

Panel Selection Factors

- Basic information required when specifying panelboards is as follows:
- Service Requirements – Voltage, phases and frequency
- Interrupting capacity
- Amperage Rating of Main (Lugs only or Breaker)
- Branch Breaker Requirements
 - » Type
 - » Number
 - » Poles
 - » Amperage
 - » RDC Requirements

Catalog Logic

See page DE23 for panelboard catalog number logic for basic enclosures.

SUFFIX NUMBER	DESCRIPTION
SU-3B-4X	Drain & Breather installed, NEMA 4X/7 BCD
SU-10B-4X	Drain installed, NEMA 4X/7 BCD
SU-11B-4X	Breather installed NEMA 4X/7 BCD
SU-3ATEX	Drain & Breather installed ATEX Group B
EB	Eyebolt, Qty of 2
TP	Toe Plate (recommended for larger panels)
GS150	150 Amp Ground Strap
SU1	Stainless steel external hardware NEMA 4X
SU9PEEEX	Grey powder polyester outer surface
SU9PEIO	Grey powder polyester in & out surface
SU9PESEX	Specify color outer surface (RAL number)
SU14	Fungus proofing inner surface
SU93	Do not paint

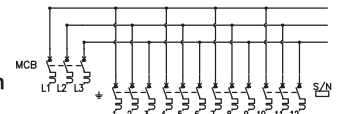
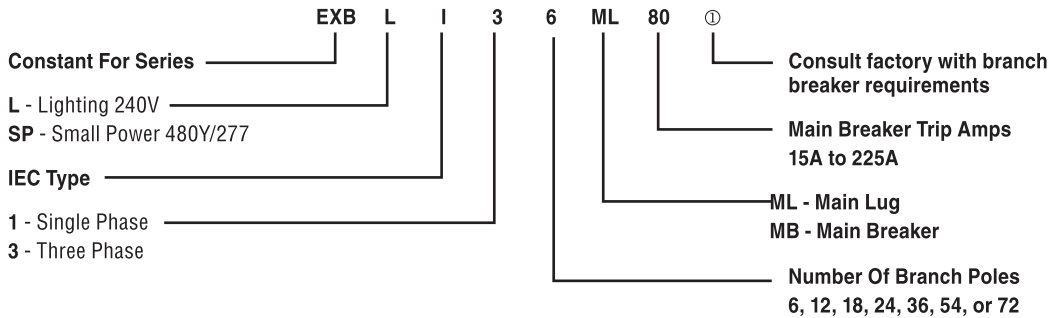
[Ⓛ] Conduits must be sealed within 18" for Group B applications.



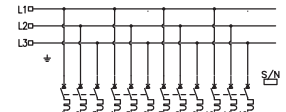
EXBLI/EXBSPi SERIES

IEC CIRCUIT BREAKER PANELBOARDS

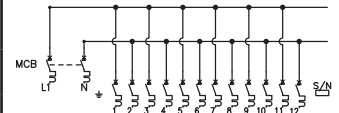
Catalog Logic – for basic IEC Panelboard Enclosures



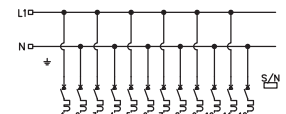
Three Phase Main Circuit Breaker



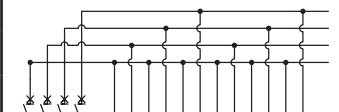
Three Phase Main Lug Only



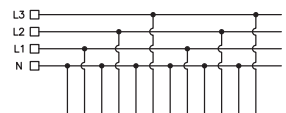
Single Phase Main Circuit Breaker



Single Phase Main Lug Only



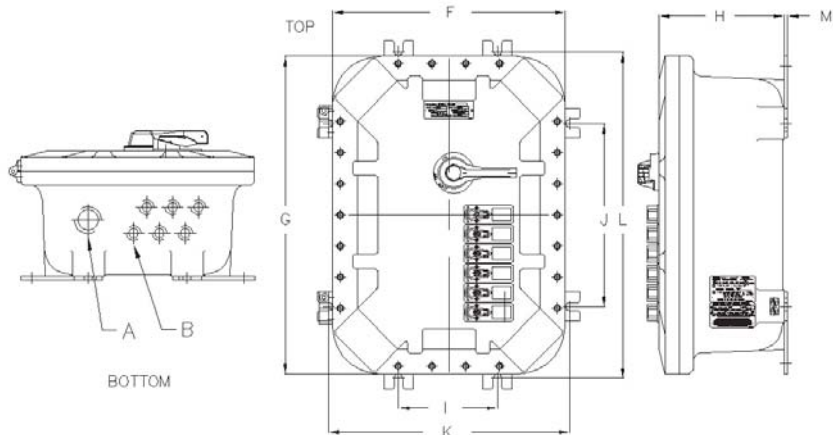
Three Phase w/ Switched Neutral 4 Pole Main Circuit Breaker



Three Phase w/ Switched Neutral Main Lug Only

EXB DIMENSIONS MAIN BREAKER														
CATALOG NUMBER	# OF CIRCUITS W/MAIN BREAKER	STD CONDUITS AT BOTTOM (NPT)		QTY B		EXTERNAL DIMENSION (NI)			MOUNTING DIMENSIONS (INCHES)					LBS (KG)
		A	B	B	RH SIDE	F	G	H	I	J	K	L	M	
EXB-12126 N34	6	1-1/2"	3/4"	3	—	16.38 (416)	13.38 (340)	8.69 (221)	6.94 (176)	6.94 (176)	14.94 (379)	14.94 (379)	0.25 (6)	112 (50.80)
EXB-14146 N34	12	1-1/2"	3/4"	6	—	19.25 (489)	19.25 (489)	9.40 (239)	9.00 (229)	9.00 (229)	17.00 (432)	17.00 (432)	0.25 (6)	160 (72.57)
EXB-16166 N34	18	1-1/2"	3/4"	9	—	20.38 (518)	20.38 (518)	9.19 (233)	10.94 (278)	10.94 (278)	18.94 (481)	18.94 (481)	0.25 (6)	195 (88.45)
EXB-18186 N34	24	1-1/2"	3/4"	12	—	23.25 (591)	23.25 (591)	10 (254)	13.38 (340)	13.38 (340)	21.38 (543)	21.38 (543)	0.25 (6)	256 (116.12)
EXB-18248 N34	36	1-1/2"	3/4"	18	—	22.38 (568)	28.38 (721)	11.75 (298)	13 (330)	19 (483)	21 (533)	27 (686)	0.25 (6)	290 (131.54)
EXB-18368 N34	54	2-1/2"	3/4"	20	7	22.38 (568)	40.38 (1026)	12.38 (314)	13.25 (337)	31.5 (800)	21 (533)	39.5 (1003)	0.25 (6)	440 (199.58)
EXB-24368 N34	72	2-1/2"	3/4"	30	6	29.25 (743)	41.25 (1048)	12.4 (315)	19.56 (497)	31.56 (802)	27.56 (700)	39.56 (1005)	0.25 (6)	560 (254.01)

EXB DIMENSIONS MAIN LUG ONLY														
CATALOG NUMBER	# OF CIRCUITS MAIN LUG ONLY	STD CONDUITS AT BOTTOM (NPT)		QTY B		EXTERNAL DIMENSION (NI)			MOUNTING DIMENSIONS (INCHES)					LBS (KG)
		A	B	B	RH SIDE	F	G	H	I	J	K	L	M	
EXB-8106 N34	6	1-1/2"	3/4"	3	—	12.32 (313)	14.32 (364)	8.32 (211)	N/A	8.00 (203)	9.88 (251)	N/A	0.25 (6)	112 (50.80)
EXB-8126 N34	12	1-1/2"	3/4"	6	—	13.25 (337)	17.25 (438)	8.70 (221)	3.82 (97)	7.82 (199)	10.38 (264)	14.38 (365)	0.25 (6)	160 (72.57)
EXB-12186 N34	18	1-1/2"	3/4"	9	—	16.38 (416)	22.38 (568)	9.06 (230)	6.94 (176)	12.88 (327)	14.94 (379)	20.88 (530)	0.25 (6)	195 (88.45)
EXB-12186 N34	24	1-1/2"	3/4"	12	—	16.38 (416)	22.38 (568)	9.06 (230)	6.94 (176)	12.88 (327)	14.94 (379)	20.88 (530)	0.25 (6)	256 (116.12)
EXB-18186 N34	36	1-1/2"	3/4"	16	2	23.25 (591)	23.25 (591)	10 (254)	13.38 (340)	13.38 (340)	21.38 (543)	21.38 (543)	0.25 (6)	290 (131.54)
EXB-18368 N34	54	2-1/2"	3/4"	20	7	22.38 (568)	40.38 (1026)	12.38 (314)	13.25 (337)	31.5 (800)	21 (533)	39.5 (1003)	0.25 (6)	440 (199.58)
EXB-24368 N34	72	2-1/2"	3/4"	18	18	29.25 (743)	41.25 (1048)	12.4 (315)	19.56 (497)	31.56 (802)	27.56 (700)	39.56 (1005)	0.25 (6)	560 (254.01)





CIRCUIT BREAKER LOAD CENTERS



Class I, Div. 1 & 2, Groups B, C, D
 Class I, Zones 1 & 2, Groups IIB+H₂, IIA
 Class II, Div. 1 & 2, Groups E, F, G
 Class III
 NEMA 3R, 7 (B, C, D) 9 (E, F, G)

Listed - File E83969
 See files for details or call Killark.

FEATURES-SPECIFICATIONS

Applications

- Indoor or outdoor hazardous areas where flammable gases or vapors, combustible dusts, or easily ignitable fibers or flyings may be present
- Provides overcurrent and short circuit protection of branch lighting, heating and appliance circuits

Features

- Compact rectangular enclosure with threaded cover allows easy access
- GCBB/2GCBB provided with two 3/4"-14 NPT drilled and tapped conduit openings, one top and one bottom
- 3GCBB provided with three 3/4"-14 NPT drilled and tapped conduit openings, one top and two bottom
- 4GCBB provided with four 3/4"-14 NPT drilled and tapped conduit openings, two top and two bottom
- Cutler-Hammer Type QC Quicklag Circuit Breakers (These Assemblies include the Breakers as indicated)
- Push pull handle mechanism operates circuit breakers
- Handle mechanism supplied as standard with "Lockout" in off position
- Enclosures are made from copperfree cast aluminum alloy (less than 4/10 of 1%)
- Special combinations of breaker amperage are available, consult factory for details

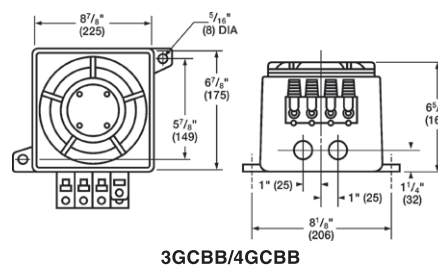
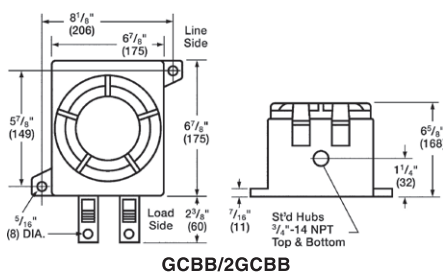
GCBB 15/40A TRIP QUICKLAG						
CATALOG NUMBER				TRIP AMPS	LBS	KG
ONE 1-POLE 120 VOLTS AC	ONE 2-POLE 120/240 VOLTS AC	ONE 3-POLE 240 VOLTS AC	TWO 1-POLE 120/240 VOLTS AC			
GCBB-15Q1	GCBB-15Q2	GCBB-15Q3	2GCBB-15Q1	15	12	(5.44)
GCBB-20Q1	GCBB-20Q2	GCBB-20Q3	2GCBB-20Q1	20	12	(5.44)
GCBB-30Q1	GCBB-30Q2	GCBB-30Q3	2GCBB-30Q1	30	12	(5.44)
GCBB-40Q1	GCBB-40Q2	GCBB-40Q3	2GCBB-40Q1	40	12	(5.44)
GCBB-1Q	GCBB-2Q	GCBB-2Q	2GCBB-1Q	Enclosure only	11	(4.99)

GCBB 15/40A TRIP QUICKLAG						
CATALOG NUMBER				TRIP AMPS	LBS	KG
THREE 1-POLE 120 VOLTS AC	FOUR 1-POLE 120 VOLTS AC	TWO 2-POLE 120/240 VOLTS AC	ONE 1-POLE ONE 3-POLE 120/240 VOLTS AC			
3GCBB-15Q1	4GCBB-15Q1	2GCBB-15Q2	2GCBB-15Q13	15	12	(5.44)
3GCBB-20Q1	4GCBB-20Q1	2GCBB-20Q2	2GCBB-20Q13	20	12	(5.44)
3GCBB-30Q1	4GCBB-30Q1	2GCBB-30Q2	2GCBB-30Q13	30	12	(5.44)
3GCBB-40Q1	4GCBB-40Q1	2GCBB-40Q2	2GCBB-40Q13	40	12	(5.44)
3GCBB-1Q	4GCBB-1Q	2GCBB-2Q	2GCBB-13Q	Enclosure only	11	(4.99)

MODIFICATIONS	
SUFFIX NO.	DESCRIPTION
SU3	Drain and breather (NEMA 7, CD)
SU3B	Drain and breather installed (NEMA 7, BCD)
KIT-251	150 amp ground lug
KIT-252	250 amp ground lug
SU17	Solid neutral

INTERRUPTING RATINGS			
FRAME SIZE	VOLTAGE	AMPS ASYMMETRICAL	AMPS SYMMETRICAL
QC	120/240 VAC	10,000	10,000
QC	240 VAC	10,000	10,000
QC	24/48 DC	5,000	5,000
QC	62/80 DC	3,800	3,800

Dimensions



DISTRIBUTION

GFCS SERIES



GROUND FAULT CONTROL STATION (FACTORY SEALED)



Class I, Div. 1 & 2, Groups B, C, D
Class I, Zones 1 & 2, Groups IIB+H₂, IIA
Class II, Div. 1 & 2, Groups E, F, G
Class III, Div. 1 & 2
NEMA 3, 7 (B, C, D) 9 (E, F, G)

Listed - File E83969

Certified - File LR061895-2

FEATURES-SPECIFICATIONS

Applications

GFCS Series of Ground Fault Control Stations are used for the additional safety of personnel, and for equipment protection in remote areas.

Features

- Factory Sealed Ground Fault Chamber. (Assemblies in Group B areas must be sealed within 6" of enclosure. Other area classifications do not require the use of seals)
- 1" NPT top and bottom conduit openings
- External Push-to-Test Button and Pilot Light for monitoring
- On-Off-Trip-Reset External Handle can be locked in On-Off positions
- 5ma Ground Fault Circuit Breaker for People Protection. 30ma Ground Fault circuit Breaker for Equipment Protection and heat tracing circuits
- Electrical Rating-120 VAC (single pole) 120/240 VAC (two pole) (10,000 AIC)

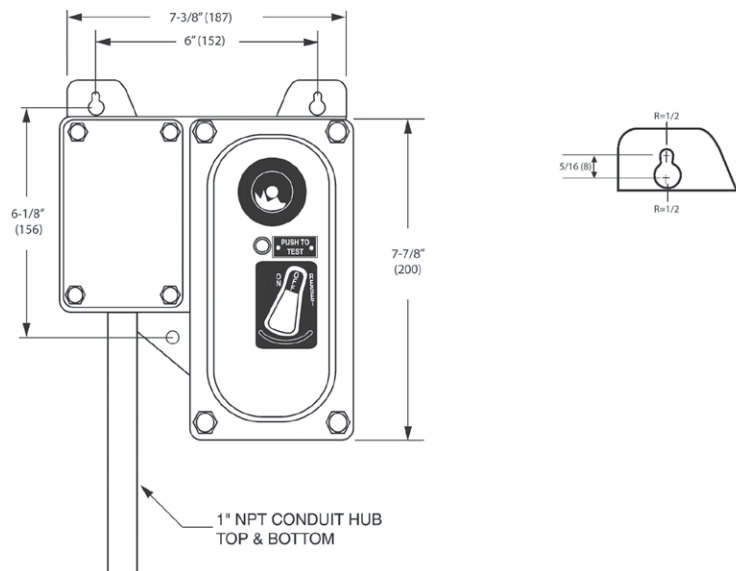
Material/Finish

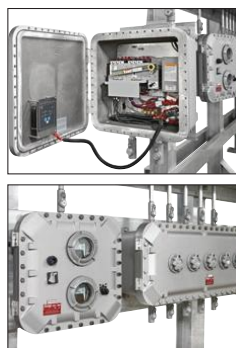
- Enclosure: Copper-free cast aluminum (less than 4/10 of 1%)
- External Hardware: Stainless Steel
- Standard Finish: Electrostatically applied gray powder epoxy polyester finish

GFSC GROUND FAULT CONTROL STATION					
CATALOG NUMBER	NUMBER OF POLES	MILLIAMP TRIP	BREAKER AMPERAGE	LBS	KG
GFCS05151	1	5	15	13	5.89
GFCS05201	1	5	20	13	5.89
GFCS05301	1	5	30	13	5.89
GFCS30151	1	30	15	13	5.89
GFCS30201	1	30	20	13	5.89
GFCS30301	1	30	30	13	5.89
GFCS05152	2 [Ⓢ]	5	15	13	5.89
GFCS05202	2 [Ⓢ]	5	20	13	5.89
GFCS05302	2 [Ⓢ]	5	30	13	5.89
GFCS30152	2 [Ⓢ]	30	15	13	5.89
GFCS30202	2 [Ⓢ]	30	20	13	5.89
GFCS30302	2 [Ⓢ]	30	30	13	5.89

[Ⓢ] 2P Units are for 120/240V or 120/208Y Grounded Power Supply Systems ONLY. Do NOT use with Delta supply systems

Dimensions





Class I, Div. 1 & 2, Groups B, C, D
 Class I, Zones 1 & 2, Groups IIB+H₂, IIA
 Class II, Div. 1 & 2, Groups E, F, G
 Class III, Div. 1 & 2
 NEMA 3, 4X, 7 (B, C, D) 9 (E, F, G)

Compliances

- All wiring is in accordance with current NEC requirements
- Each enclosure carries at minimum one of the following



Optional Components

- Circuit breakers
- Automatic Transfer Switch
- Motor Starters
- Contractors
- Junction Boxes
- Control Stations
- Meter/Instrument Enclosures
- Ground Detection
- Panelboards
- Welding and Convenience Receptacles
- Photo Cells
- Light Fixtures
- Transformers
- Space Heaters

FEATURES-SPECIFICATIONS

Applications

- Totally wired motor control center
- Hazardous locations due to the presence of flammable gases or vapors, combustible dust or easily ignitable fibers and flyings, and areas subject to corrosion, weather and dampness
- Petroleum refineries, chemical and petrochemical plants with indoor and outdoor processes
- Applications requiring overcurrent and short circuit protection of lighting, appliances, heating and motor circuits

Features

- NEMA 3, 4X (optional) rated for protection from hose directed water and corrosion
- Completely assembled and wired for customer connections to load side of starters and breakers
- Single sided or double sided assemblies per customer specification
- Killark components supplied include series EXB, B7C, B70, D2L, B7L, GR, HKB, D2P, B7P, EZ, VM, EM, ENY, EYS and others

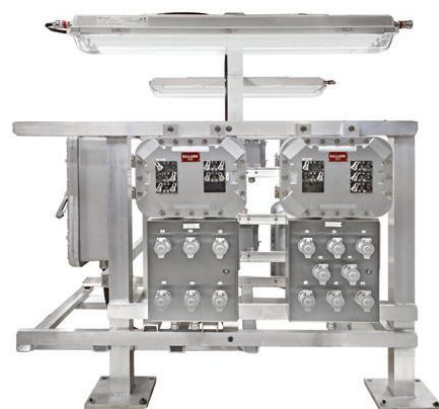
Standard Materials

- Enclosures: Copper-free aluminum (less than 4/10 of 1%)
- Bus Enclosure (when supplied) is painted steel or stainless steel
- Frame: Steel (Hot Dipped Galvanized) or Aluminum. All welded construction
- Bus Bars: Copper, bare or insulated

Ordering Information

- Supply one line diagram or bill of material and Killark will do the rest. Assembly drawing and wiring diagram will be supplied for customer approval.

Basic Data Required	
Class _____ Div. _____	GRPS. _____
NEMA Ratings for BUS _____	
Incoming Voltage _____	
Incoming Amperage _____	
Wire: 3w/GND _____	4w/GND _____
Framing: Single Side _____	
Double Side _____	
Material: Steel HD/galv. _____	
Aluminum _____	
Canopy: Yes _____	No _____



Self Sufficient Power Supply

Provides a mix of 120/240V and 480VAC receptacles and includes panel boards and one main shut off. May be supplied with trailer as mobile unit or used at a permanent location.





ENCLOSURES INDEX



USF/SJIC(H)
Junction Boxes.....3-11



DB Series
Junction Boxes..... 12-13



USF/SJIC(H)
Terminal Boxes..... 14-30



GE Series
With Terminal.....31



HK Series
ATEX Terminal Boxes 32



GEB Series
Terminal Boxes.....33-35



EXB Series
Junction Boxes.....36-39



B7E Series
Junction Boxes..... 40-41



B7E Series
Junction Boxes.....42



GL/GLXR Series
Round & Rectangular Lenses44-45



KB Series
Drains and Breathers,
Flame Arrestors.....46-47



EXH Series
Circuit Breaker Handle47



TWBE Series
Terminal Blocks..... 48



GR Series
Threaded Enclosures.....49-53



HK/2HK Series
Instrument/Device Enclosures.....54-57

Conduit Opening Data..... 58



ENCLOSURES FOR HARSH & HAZARDOUS ENVIRONMENTS



SJIC & SJICH Series



USF Series



GR Series



EXB Series



GEB Series



ENCLOSURES

USF ENCLOSURES ONLY

TECHNE-TERM



USF Series

cCSAus / ATEX / IEC Ex Certified

Ex tb / AEx tb Zone 21 IIIC

T80°C/T100°C/T130°C Db

Enclosure Type 3, 4 & 4X IP66

Report No. 15.70013872



0518 Ex II 2 G D

Ex e IIC Gb

Ex tb IIIC Db IP66

Service temperature -50°C to +135°C

IECEx SIR 14.0053U

SIRA 14ATEX3156U



FEATURES-SPECIFICATIONS

Applications

Panel builders and intergraders building equipment for use in hazardous, corrosive, wet, hose down, dust, dirty, for both hot and cold industrial applications

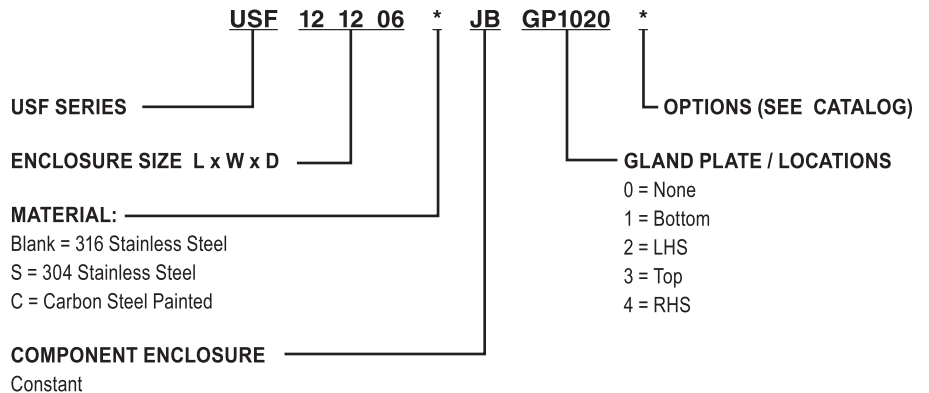
- Pulp & Paper Mills
- Breweries
- Electrical Power Plants
- Refineries
- Petrochemical Plants
- Chemical Plants
- Wastewater Treatment
- Grain Facilities
- Marine, Docks, Ports
- Coal Handling
- Off Shore Platforms
- Pumping Stations
- Textile manufacturing
- Food Processing

- External slope top flange directs water, melting ice & snow and dust build up away from the opening side of the door.
- Continuous robot welded seams for a hose down tight seal.
- Concealed hinges with removable hinge pins.
- Doors are interchangeable and easily removable.
- Ground/earthing studs in both cover and through wall of the box.
- Quarter turn 316 stainless steel latch
- One piece high temperature closed cell

silicone gasket. With superior recovery and re-sealing properties.

- Sturdy 14 gauge box construction helps prevent bending or permanent deflection of the walls when field installing openings.
- Bi-directional removal mounting lugs for the widest flexibility during installations.
- Openings for glands or conduits factory or field installed—option for gland plates.

USF Enclosures Features—38 Sizes





USF SLOPE FLANGE ENCLOSURE



CATALOG NUMBER	HEIGHT IN. (MM)	WIDTH	DEPTH	"E"	"F"	"G"	"H"	"A" GLAND PLATE	"B" GLAND PLATE	"C" GLAND PLATE	WEIGHT LBS (KG)
USF121206-JB	12 (305)	12 (305)	6 (153)	10.69 (272)	10.69 (272)	13.63 (346)	13.63 (346)	4.06 (103)	9.38 (238)	9.63 (245)	14 (6.3)
USF161206-JB	16 (407)	12 (305)	6 (153)	10.69 (272)	14.69 (373)	13.63 (346)	17.63 (448)	4.06 (103)	13.38 (340)	9.63 (245)	20 (9.1)
USF161208-JB	16 (407)	12 (305)	8 (203)	10.69 (272)	14.69 (373)	13.63 (346)	17.63 (448)	6.06 (154)	13.38 (340)	9.63 (245)	22 (10)
USF161210-JB	16 (407)	12 (305)	10 (254)	10.69 (272)	14.69 (373)	13.63 (346)	17.63 (448)	8.06 (205)	13.38 (340)	9.63 (245)	24 (10.9)
USF161606-JB	16 (407)	16 (407)	6 (153)	14.69 (373)	14.69 (373)	17.63 (448)	17.63 (448)	4.06 (103)	13.38 (340)	13.38 (340)	26 (11.8)
USF161608-JB	16 (407)	16 (407)	8 (203)	14.69 (373)	14.69 (373)	17.63 (448)	17.63 (448)	6.06 (154)	13.38 (340)	13.38 (340)	27 (12.2)
USF161610-JB	16 (407)	16 (407)	10 (254)	14.69 (373)	14.69 (373)	17.63 (448)	17.63 (448)	8.06 (205)	13.38 (340)	13.38 (340)	29 (13.2)
USF201606-JB	20 (508)	16 (407)	6 (153)	18.69 (475)	14.69 (373)	21.63 (549)	17.63 (448)	4.06 (103)	17.38 (441)	13.38 (340)	29 (13.2)
USF201608-JB	20 (508)	16 (407)	8 (203)	14.69 (373)	18.69 (475)	17.63 (448)	21.63 (549)	6.06 (154)	17.38 (441)	13.38 (340)	31 (14)
USF201610-JB	20 (508)	16 (407)	10 (254)	14.69 (373)	18.69 (475)	17.63 (448)	21.63 (549)	8.06 (205)	17.38 (441)	13.38 (340)	32 (14.5)
USF202006-JB	20 (508)	20 (508)	6 (153)	14.69 (373)	18.69 (475)	17.63 (448)	21.63 (549)	4.06 (103)	17.38 (441)	17.38 (441)	35 (15.9)
USF202008-JB	20 (508)	20 (508)	8 (203)	18.69 (475)	18.69 (475)	21.63 (549)	21.63 (549)	6.06 (154)	17.38 (441)	17.38 (441)	37 (16.8)
USF202010-JB	20 (508)	20 (508)	10 (254)	18.69 (475)	18.69 (475)	21.63 (549)	21.63 (549)	8.06 (205)	17.38 (441)	17.38 (441)	39 (17.7)
USF202012-JB	20 (508)	20 (508)	12 (305)	18.69 (475)	18.69 (475)	21.63 (549)	21.63 (549)	10.06 (255)	17.38 (441)	17.38 (441)	44 (20)
USF241606-JB	24 (610)	16 (407)	6 (153)	14.69 (373)	22.69 (576)	17.63 (448)	25.63 (651)	4.06 (103)	21.38 (543)	13.38 (340)	35 (15.9)
USF241608-JB	24 (610)	16 (407)	8 (203)	18.69 (475)	18.69 (475)	21.63 (549)	21.63 (549)	6.06 (154)	21.38 (543)	13.38 (340)	36 (16.3)
USF241610-JB	24 (610)	16 (407)	10 (254)	14.69 (373)	22.69 (576)	17.63 (448)	25.63 (651)	8.06 (205)	21.38 (543)	13.38 (340)	38 (17.2)
USF242006-JB	24 (610)	20 (508)	6 (153)	14.69 (373)	22.69 (576)	17.63 (448)	25.63 (651)	4.06 (103)	21.38 (543)	17.38 (441)	42 (19)
USF242008-JB	24 (610)	20 (508)	8 (203)	18.69 (475)	22.69 (576)	21.63 (549)	25.63 (651)	6.06 (154)	21.38 (543)	17.38 (441)	43 (19.5)
USF242010-JB	24 (610)	20 (508)	10 (254)	18.69 (475)	22.69 (576)	21.63 (549)	25.63 (651)	8.06 (205)	21.38 (543)	17.38 (441)	44 (20)
USF242012-JB	24 (610)	20 (508)	12 (305)	18.69 (475)	22.69 (576)	21.63 (549)	25.63 (651)	10.06 (255)	21.38 (543)	17.38 (441)	46 (20.9)
USF242406-JB	24 (610)	24 (610)	6 (153)	18.69 (475)	22.69 (576)	21.63 (549)	25.63 (651)	4.06 (103)	21.38 (543)	21.38 (543)	49 (22.2)
USF242408-JB	24 (610)	24 (610)	8 (203)	22.69 (576)	22.69 (576)	25.63 (651)	25.63 (651)	6.06 (154)	21.38 (543)	21.38 (543)	53 (24)
USF242410-JB	24 (610)	24 (610)	10 (254)	22.69 (576)	22.69 (576)	25.63 (651)	25.63 (651)	8.06 (205)	21.38 (543)	21.38 (543)	58 (26.3)
USF242412-JB	24 (610)	24 (610)	12 (305)	22.69 (576)	22.69 (576)	25.63 (651)	25.63 (651)	10.06 (255)	21.38 (543)	21.38 (543)	62 (28.1)
USF242416-JB	24 (610)	24 (610)	16 (407)	22.69 (576)	22.69 (576)	25.63 (651)	25.63 (651)	14.06 (357)	21.38 (543)	21.38 (543)	71 (32.2)
USF242420-JB	24 (610)	24 (610)	20 (508)	22.69 (576)	22.69 (576)	25.63 (651)	25.63 (651)	18.06 (458)	21.38 (543)	21.38 (543)	78 (35.4)
USF302008-JB	30 (762)	20 (508)	8 (203)	22.69 (576)	22.69 (576)	25.63 (651)	25.63 (651)	6.06 (154)	26.00 (660)	17.38 (441)	59 (26.8)
USF302010-JB	30 (762)	20 (508)	10 (254)	18.69 (475)	28.69 (729)	21.63 (549)	31.63 (803)	8.06 (205)	26.00 (660)	17.38 (441)	61 (27.7)
USF302408-JB	30 (762)	24 (610)	8 (203)	18.69 (475)	28.69 (729)	21.63 (549)	31.63 (803)	6.06 (154)	26.00 (660)	21.38 (543)	56 (25.4)
USF302410-JB	30 (762)	24 (610)	10 (254)	22.69 (576)	28.69 (729)	25.63 (651)	31.63 (803)	8.06 (205)	26.00 (660)	21.38 (543)	63 (28.6)
USF302412-JB	30 (762)	24 (610)	12 (305)	22.69 (576)	28.69 (729)	25.63 (651)	31.63 (803)	10.06 (255)	26.00 (660)	21.38 (543)	64 (29)
USF302420-JB	30 (762)	24 (610)	20 (508)	22.69 (576)	28.69 (729)	25.63 (651)	31.63 (803)	18.06 (458)	26.00 (660)	21.38 (543)	99 (45)
USF303008-JB	30 (762)	30 (762)	8 (203)	22.69 (576)	28.69 (729)	25.63 (651)	31.63 (803)	6.06 (154)	26.00 (660)	26.00 (660)	68 (30.8)
USF303010-JB	30 (762)	30 (762)	10 (254)	28.69 (729)	28.69 (729)	31.63 (803)	31.63 (803)	8.06 (205)	26.00 (660)	26.00 (660)	72 (32.7)
USF303012-JB	30 (762)	30 (762)	12 (305)	28.69 (729)	28.69 (729)	31.63 (803)	31.63 (803)	10.06 (255)	26.00 (660)	26.00 (660)	89 (40.4)
USF362408-JB	36 (915)	24 (610)	8 (203)	34.69 (881)	28.69 (729)	37.63 (956)	31.63 (803)	6.06 (154)	33.00 (838)	21.38 (543)	66 (30)
USF362410-JB	36 (915)	24 (610)	10 (254)	9.79 (249)	35.20 (894)	8.15 (207)	27.63 (702)	8.06 (205)	33.00 (838)	21.38 (543)	70 (31.8)

All dimension in. (mm)

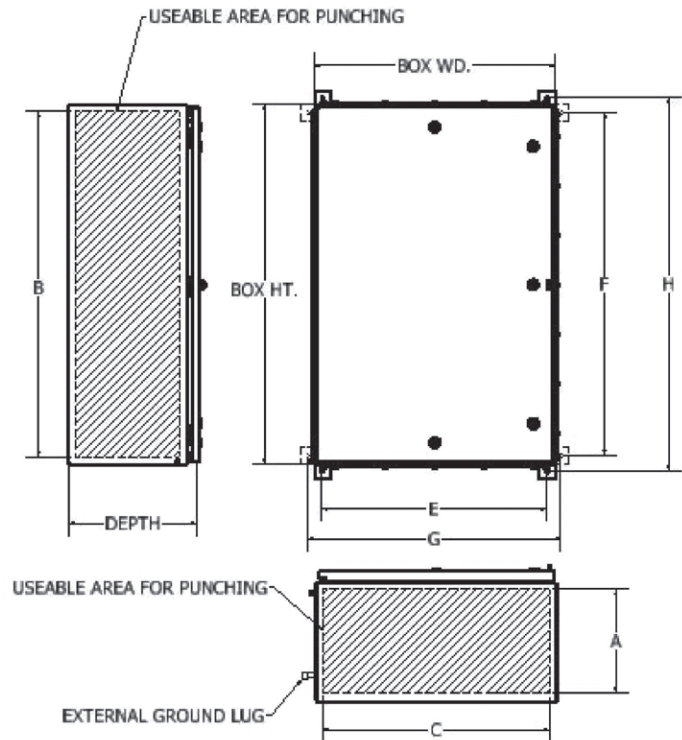


USF SLOPE FLANGE ENCLOSURE



CATALOG NUMBER	"A" BLANK WALL AREA	"B" BLANK WALL AREA	"C" BLANK WALL AREA	(W) MAX. POWER
USF121206-JB	5.74 (146)	10.93 (277)	10.93 (277)	15.0
USF161206-JB	5.74 (146)	14.93 (379)	10.93 (277)	17.0
USF161208-JB	7.74 (196)	14.93 (379)	10.93 (277)	20.6
USF161210-JB	9.74 (247)	14.93 (379)	10.93 (277)	23.5
USF161606-JB	5.74 (146)	14.93 (379)	14.93 (379)	19.0
USF161608-JB	7.74 (196)	14.93 (379)	14.93 (379)	20.0
USF161610-JB	9.74 (247)	14.93 (379)	14.93 (379)	25.0
USF201606-JB	5.74 (146)	18.93 (480)	14.93 (379)	21.0
USF201608-JB	7.74 (196)	18.93 (480)	14.93 (379)	23.0
USF201610-JB	9.74 (247)	18.93 (480)	14.93 (379)	26.0
USF202006-JB	5.74 (146)	18.93 (480)	18.93 (480)	24.3
USF202008-JB	7.74 (196)	18.93 (480)	18.93 (480)	26.0
USF202010-JB	9.74 (247)	18.93 (480)	18.93 (480)	30.0
USF202012-JB	11.74 (298)	18.93 (480)	18.93 (480)	36.0
USF241606-JB	5.74 (146)	22.93 (582)	14.93 (379)	35.0
USF241608-JB	7.74 (196)	22.93 (582)	14.93 (379)	36.0
USF241610-JB	9.74 (247)	22.93 (582)	14.93 (379)	31.0
USF242006-JB	5.74 (146)	22.93 (582)	18.93 (480)	24.5
USF242008-JB	7.74 (196)	22.93 (582)	18.93 (480)	31.5
USF242010-JB	9.74 (247)	22.93 (582)	18.93 (480)	33.6
USF242012-JB	11.74 (298)	22.93 (582)	18.93 (480)	36.0
USF242406-JB	5.74 (146)	22.93 (582)	22.93 (582)	25.8
USF242408-JB	7.74 (196)	22.93 (582)	22.93 (582)	34.0
USF242410-JB	9.74 (247)	22.93 (582)	22.93 (582)	34.0
USF242412-JB	11.74 (298)	22.93 (582)	22.93 (582)	38.0
USF242416-JB	15.74 (400)	22.93 (582)	22.93 (582)	42.0
USF242420-JB	19.74 (501)	22.93 (582)	22.93 (582)	57.3
USF302008-JB	7.74 (196)	28.93 (735)	18.93 (480)	36.5
USF302010-JB	9.74 (247)	28.93 (735)	18.93 (480)	36.0
USF302408-JB	7.74 (196)	28.93 (735)	22.93 (582)	39.0
USF302410-JB	9.74 (247)	28.93 (735)	22.93 (582)	38.0
USF302412-JB	11.74 (298)	28.93 (735)	22.93 (582)	40.0
USF302420-JB	19.74 (501)	28.93 (735)	22.93 (582)	57.3
USF303008-JB	7.74 (196)	28.93 (735)	28.93 (735)	43.0
USF303010-JB	9.74 (247)	28.93 (735)	28.93 (735)	40.0
USF303012-JB	11.74 (298)	28.93 (735)	28.93 (735)	46.0
USF362408-JB	7.74 (196)	34.93 (887)	22.93 (582)	44.0
USF362410-JB	9.74 (247)	34.93 (887)	22.93 (582)	40.0

All dimension in. (mm)



USF MAXIMUM CONDUIT / GLAND OPENINGS					
W/O GLAND PLATE			W/ GLAND PLATE		
BOX DEPTH	MAX NPT	MAX METRIC	BOX DEPTH	MAX NPT	MAX METRIC
6	3-1/2"	M100	6	2-1/2"	M75
8	4"	M100	8	4"	M100
10	4"	M100	10	4"	M100
12	4"	M100	12	4"	M100
16	4"	M100	16	4"	M100
20	4"	M100	20	4"	M100

See enclosure modification page for conduit / gland holes sizes and spacing.



USF SLOPE FLANGE ENCLOSURES

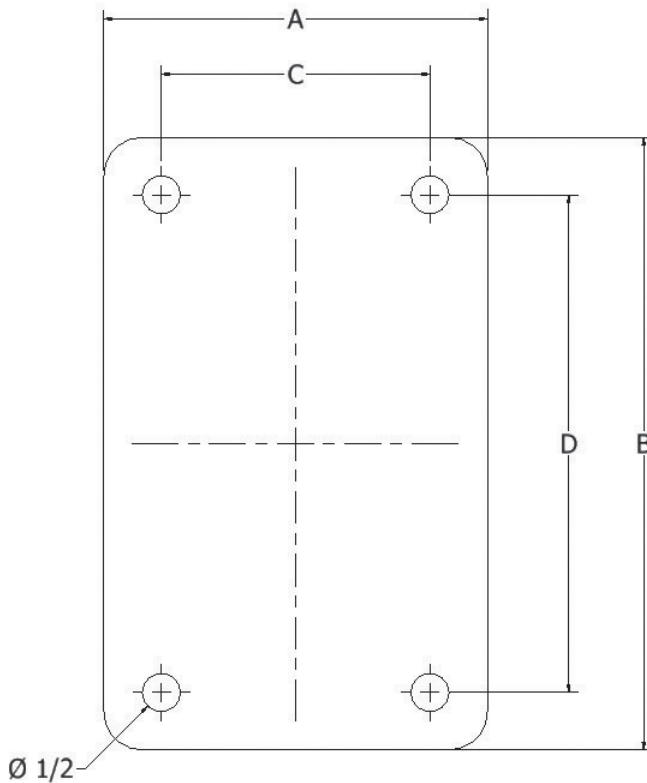


USF SERIES INTERNAL MOUNTING PAN					
CATALOG NO.	A	B	C	D	THICKNESS
USF1212P	9.00 (229)	9.00 (229)	7.25 (184)	7.25 (184)	.13 (3.3)
USF1612P	9.00 (229)	13.00 (330)	7.25 (184)	11.25 (286)	.13 (3.3)
USF1616P	13.00 (330)	13.00 (330)	11.25 (286)	11.25 (286)	.13 (3.3)
USF2016P	13.00 (330)	17.00 (432)	11.25 (286)	15.25 (387)	.13 (3.3)
USF2020P	17.00 (432)	17.00 (432)	15.25 (387)	15.25 (387)	.13 (3.3)
USF2416P	13.00 (330)	21.00 (533)	11.25 (286)	19.25 (489)	.13 (3.3)
USF2420P	17.00 (432)	21.00 (533)	15.25 (387)	19.25 (489)	.13 (3.3)
USF2424P	21.00 (533)	21.00 (533)	19.25 (489)	19.25 (489)	.13 (3.3)
USF3020P	17.00 (432)	25.63 (651)	15.25 (387)	23.88 (606)	.13 (3.3)
USF3024P	21.00 (533)	25.63 (651)	19.25 (489)	23.88 (606)	.13 (3.3)
USF3030P	25.63 (651)	25.63 (651)	23.88 (606)	23.88 (606)	.13 (3.3)
USF3624P	21.00 (533)	32.63 (829)	19.25 (489)	30.88 (784)	.19 (4.8)

Internal mounting pans are made from high strength aluminum alloy. The aluminum alloy is corrosion resistance and can be drilled and tapped in the field for ease of installation of components.

Pans come standard with mounting hardware.

All dimension in. (mm)



SUFFIX NUMBER	DESCRIPTION
KIT-251	100 amp ground lug
KIT-252	225 amp ground lug
SU3-KDE	Class I Div. 2 Grps A, B, C & D, Type 4X, Ex e IIC Zone 1 IP 66 Drain & breather installed.
SU10-KDE	Class I Div. 2 Grps A, B, C & D, Type 4X, Ex e IIC Zone 1 IP 66 Drain only installed.
DC	Document Wallet (enclosures 10 x 10 and larger only)
SU9	Special paint finish
SU14	Fungus proofing of enclosures

See enclosure modification page for conduit / gland hole sizes and spacing.

ENCLOSURES

SJIC SERIES



SJIC ENCLOSURES ONLY • SCREW COVER

TECHNE-TERM[®]



SJIC Series

cCSAus / ATEX / IEC Ex Certified

Ex tb / AEx tb Zone 21 IIIC
T80°C/T100°C/T130°C Db

Enclosure Type 3, 4 & 4X IP66

Report No. 15.70013872

IECEX SIR 14.0053U

SIRA 14ATEX3156U

0518 II 2 G D

Ex e IIC Gb

Ex tb IIIC Db IP66

Service temperature -50°C to +135°C



FEATURES-SPECIFICATIONS

Applications

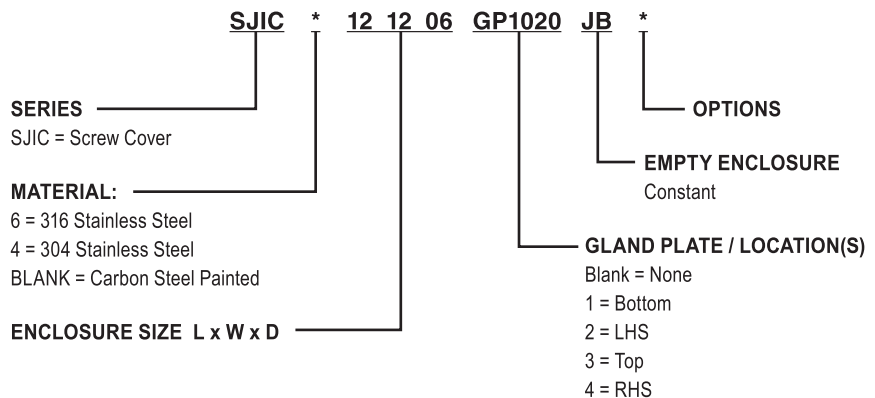
Panel builders and intergraders building equipment for use in hazardous, corrosive, wet, hose down, dust, dirty, for both hot and cold industrial applications.

- Pulp & Paper Mills
- Breweries
- Electrical Power Plants
- Refineries
- Petrochemical Plants
- Chemical Plants
- Wastewater Treatment
- Grain Facilities
- Marine, Docks, Ports
- Coal Handling
- Off Shore Platforms
- Pumping Stations
- Textile manufacturing
- Food Processing

- Screw covers 316 stainless steel
- Continuous robot welded seams for a hose down tight seal.
- SJIC doors are interchangeable and easily removable.
- Ground/earthing studs in both cover and through wall of the box.
- One piece high temperature closed cell silicone gasket. With superior recovery and re-sealing properties.

- Sturdy 14 gauge box construction helps prevent bending or permanent deflection of the walls when installing openings.
- Welded one piece mounting flanges top and bottom for strength.
- Openings for glands or conduit

SJIC Enclosures Features—15 Sizes

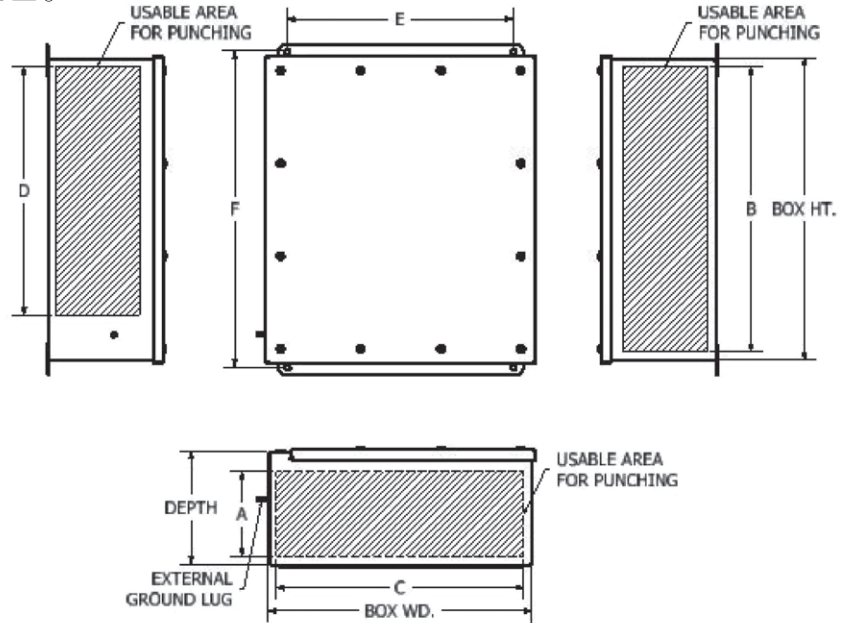




SJIC ENCLOSURES ONLY

TECHNE-TERM

SUFFIX NUMBER	DESCRIPTION
KIT-251	100 amp ground lug
KIT-252	225 amp ground lug
SU3-KDE	Class I Div. 2 Grps A, B, C & D, Type 4X. Ex e IIC Zone 1 IP 66 Drain & breather installed.
SU10-KDE	Class I Div. 2 Grps A, B, C & D, Type 4X. Ex e IIC Zone 1 IP 66 Drain only installed.
DC	Document Wallet (enclosures 10 x 10 and larger only)
SU9	Special paint finish
SU14	Fungus proofing of enclosures

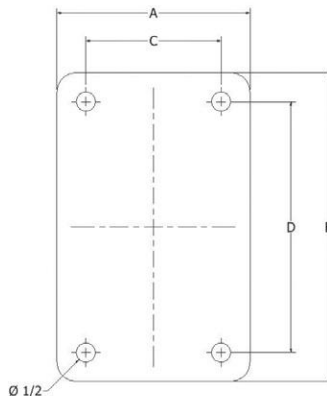


See enclosure modification page for conduit / gland hole sizes and spacing.

CATALOG NUMBER	HEIGHT IN. (MM)	WIDTH	DEPTH	"E"	"F"	"A" BLANK WALL	"B" BLANK WALL	"C" BLANK WALL	"D" BLANK WALL	(W) MAX. POWER	WEIGHT LBS (KG)
SJIC6040404-JB	4 (102)	4 (102)	4 (102)	2.00 (51)	4.75 (121)	2.47(63)	3.13 (79)	3.13 (79)	1.19 (30)	4.1	2.83 (1.3)
SJIC6060404-JB	6 (152)	4 (102)	4 (102)	2.00 (51)	6.75 (171)	2.47(63)	5.13 (130)	3.13 (79)	3.19 (81)	5.2	3.6 (1.6)
SJIC6060604-JB	6 (152)	6 (152)	4 (102)	4.00 (102)	6.75 (171)	2.47(63)	5.13 (130)	5.13 (130)	3.19 (81)	6.1	4.9 (2.2)
SJIC6060606-JB	6 (152)	6 (152)	6 (152)	4.00 (102)	6.75 (171)	4.47 (114)	5.13 (130)	5.13 (130)	3.19 (81)	8.4	5.9 (2.7)
SJIC6080606-JB	8 (203)	6 (152)	6 (152)	4.00 (102)	8.75 (222)	4.47 (114)	7.13 (181)	7.13 (181)	5.19 (132)	10.5	7.5 (3.4)
SJIC6080804-JB	8 (203)	8 (203)	4 (102)	6.00 (152)	8.75 (222)	2.47(63)	7.13 (181)	7.13 (181)	5.19 (132)	8.4	7.9 (3.6)
SJIC6080806-JB	8 (203)	8 (203)	6 (152)	6.00 (152)	8.75 (222)	4.47 (114)	7.13 (181)	7.13 (181)	5.19 (132)	11.4	8.33 (3.8)
SJIC6100804-JB	10 (254)	8 (203)	4 (102)	6.00 (152)	10.75 (273)	2.47(63)	9.13 (232)	7.13 (181)	7.19 (183)	8.4	9.5 (4.4)
SJIC6100806-JB	10 (254)	8 (203)	6 (152)	6.00 (152)	10.75 (273)	4.47 (114)	9.13 (232)	7.13 (181)	7.19 (183)	12.2	10 (4.5)
SJIC6101006-JB	10 (254)	10 (254)	6 (152)	8.00 (203)	10.75 (273)	4.47 (114)	9.13 (232)	9.13 (232)	7.19 (183)	13	11 (5)
SJIC6121005-JB	12 (305)	10 (254)	5 (127)	8.00 (203)	12.75 (324)	3.47 (88)	11.13 (283)	9.13 (232)	9.19 (233)	8.4	12 (5.4)
SJIC6121006-JB	12 (305)	10 (254)	6 (152)	8.00 (203)	12.75 (324)	4.47 (114)	11.13 (283)	9.13 (232)	9.19 (233)	14	13 (5.9)
SJIC6121206-JB	12 (305)	12 (305)	6 (152)	10.00 (254)	12.75 (324)	4.47 (114)	11.13 (283)	11.13 (283)	9.19 (233)	15	15 (6.8)
SJIC6141206-JB	14 (356)	12 (305)	6 (152)	10.00 (254)	14.75 (375)	4.47 (114)	13.13 (334)	11.13 (283)	11.19 (284)	16	16 (7.3)
SJIC6161406-JB	16 (406)	14 (356)	6 (152)	12 (305)	16.75 (425)	4.47 (114)	15.13 (384)	13.13 (334)	13.19 (335)	18	20 (9)

SJIC(H) SERIES INTERNAL MOUNTING PAN					
CATALOG NO.	A	B	C	D	THICKNESS
SJIC1010P	7.63 (194)	7.63 (194)	7.00 (178)	7.00 (178)	.13 (3.2)
SJIC1210P	7.63 (194)	9.63 (244)	7.00 (178)	9.00 (228)	.13 (3.2)
SJIC1212P	9.63 (244)	9.63 (244)	9.00 (228)	9.00 (228)	.13 (3.2)
SJIC1412P	9.63 (244)	11.63 (295)	9.00 (228)	11.00 (279)	.13 (3.2)
SJIC1614P	11.63 (295)	13.63 (346)	11.00 (279)	13.00 (330)	.13 (3.2)

All dimension in. (mm)



Internal mounting pans are made from high strength aluminum alloy. The aluminum alloy is corrosion resistance and can be drill and tapped in the field for ease of installation of components. Pans come standard with mounting hardware.

SJIC / SJCH MAXIMUM CONDUIT / GLAND OPENINGS					
W/O GLAND PLATE			W/ GLAND PLATE		
BOX DEPTH	MAX NPT	MAX METRIC	BOX DEPTH	MAX NPT	MAX METRIC
4	1"	M32	4	1/2"	M20
5	1-1/2"	M50	5	1-1/4"	M40
6	3"	M80	6	2"	M63



SJICH ENCLOSURES ONLY • HINGED SCREW COVER

TECHNE-TERM



SJICH Series

cCSAus / ATEX / IEC Ex Certified

Ex tb / AEx tb Zone 21 IIIC

T80°C/T100°C/T130°C Db

Enclosure Type 3, 4 & 4X IP66

Report No. 15.70013872

IECEX SIR 14.0053U

SIRA 14ATEX3156U

0518 II 2 G D

Ex e IIC Gb

Ex tb IIIC Db IP66

Service temperature -50°C to +135°C



FEATURES-SPECIFICATIONS

Applications

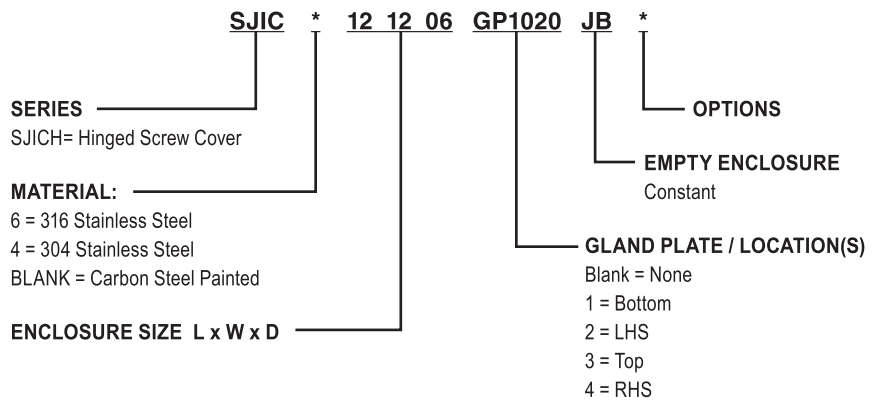
Panel builders and intergraders building equipment for use in hazardous , corrosive, wet, hose down, dust, dirty , for both hot and cold industrial applications.

- Pulp & Paper Mills
- Breweries
- Electrical Power Plants
- Refineries
- Petrochemical Plants
- Chemical Plants
- Wastewater Treatment
- Grain Facilities
- Marine, Docks, Ports
- Coal Handling
- Off Shore Platforms
- Pumping Stations
- Textile manufacturing
- Food Processing

- Screw covers 316 stainless steel
- Continuous robot welded seams for a hose down tight seal.
- SJICH have continuous one piece hinge construction.
- Ground/earthing studs in both cover and through wall of the box.
- One piece high temperature closed cell silicone gasket. With superior recovery and re-sealing properties.

- Sturdy 14 gauge box construction helps prevent bending or permanent deflection of the walls when installing openings.
- Welded one piece mounting flanges top and bottom for strength.
- Openings for glands or conduit

SJICH Enclosures Features—11 Sizes

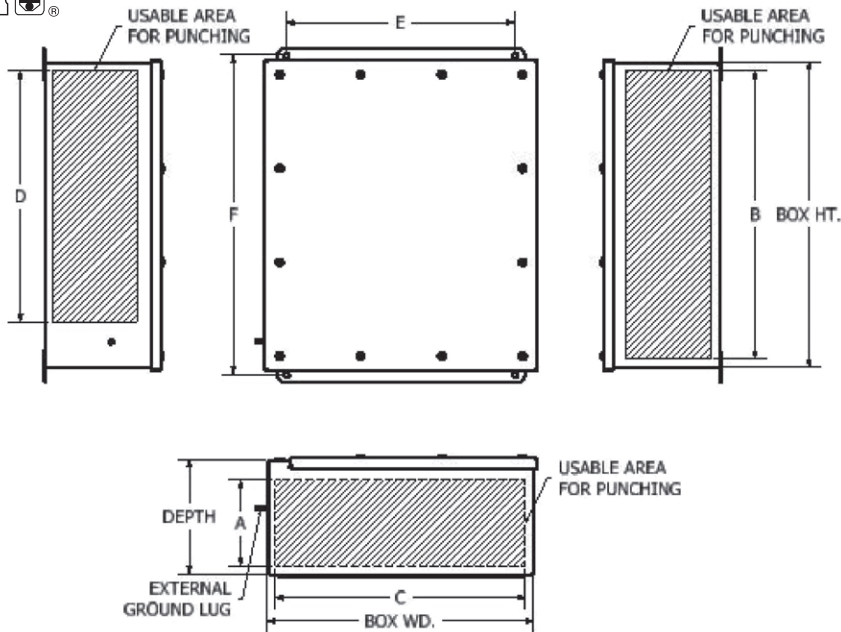




SJICH ENCLOSURES ONLY

TECHNE-TERM

SUFFIX NUMBER	DESCRIPTION
KIT-251	100 amp ground lug
KIT-252	225 amp ground lug
SU3-KDE	Class I Div. 2 Grps A, B, C & D, Type 4X. Ex e IIC Zone 1 IP 66 Drain & breather installed.
SU10-KDE	Class I Div. 2 Grps A, B, C & D, Type 4X. Ex e IIC Zone 1 IP 66 Drain only installed.
DC	Document Wallet (enclosures 10 x 10 and larger only)
SU9	Special paint finish
SU14	Fungus proofing of enclosures



See enclosure modification page for conduit / gland hole sizes and spacing.

CATALOG NUMBER	HEIGHT IN. (MM)	WIDTH	DEPTH	"E"	"F"	"A" BLANK WALL	"B" BLANK WALL	"C" BLANK WALL	"D" BLANK WALL	(W) MAX. POWER	WEIGHT LBS (KG)
SJICH6080606-JB	8 (203)	6 (152)	6 (152)	4.00 (102)	8.75 (222)	4.47 (114)	7.13 (181)	7.13 (181)	5.19 (132)	10.5	7.5 (3.4)
SJICH6080804-JB	8 (203)	8 (203)	4 (102)	6.00 (152)	8.75 (222)	2.47(63)	7.13 (181)	7.13 (181)	5.19 (132)	8.4	7.9 (3.6)
SJICH6080806-JB	8 (203)	8 (203)	6 (152)	6.00 (152)	8.75 (222)	4.47 (114)	7.13 (181)	7.13 (181)	5.19 (132)	11.4	8.33 (3.8)
SJICH6100804-JB	10 (254)	8 (203)	4 (102)	6.00 (152)	10.75 (273)	2.47(63)	9.13 (232)	7.13 (181)	7.19 (183)	8.4	9.5 (4.4)
SJICH6100806-JB	10 (254)	8 (203)	6 (152)	6.00 (152)	10.75 (273)	4.47 (114)	9.13 (232)	7.13 (181)	7.19 (183)	12.2	10 (4.5)
SJICH6101006-JB	10 (254)	10 (254)	6 (152)	8.00 (203)	10.75 (273)	4.47 (114)	9.13 (232)	9.13 (232)	7.19 (183)	13	11 (5)
SJICH6121005-JB	12 (305)	10 (254)	5 (127)	8.00 (203)	12.75 (324)	3.47 (88)	11.13 (283)	9.13 (232)	9.19 (233)	8.4	12 (5.4)
SJICH6121006-JB	12 (305)	10 (254)	6 (152)	8.00 (203)	12.75 (324)	4.47 (114)	11.13 (283)	9.13 (232)	9.19 (233)	14	13 (5.9)
SJICH6121206-JB	12 (305)	12 (305)	6 (152)	10.00 (254)	12.75 (324)	4.47 (114)	11.13 (283)	11.13 (283)	9.19 (233)	15	15 (6.8)
SJICH6141206-JB	14 (356)	12 (305)	6 (152)	10.00 (254)	14.75 (375)	4.47 (114)	13.13 (334)	11.13 (283)	11.19 (284)	16	16 (7.3)
SJICH6161406-JB	16 (406)	14 (356)	6 (152)	12 (305)	16.75 (425)	4.47 (114)	15.13 (384)	13.13 (334)	13.19 (335)	18	20 (9)

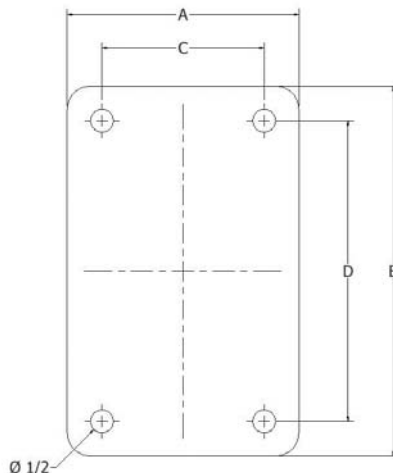
SJIC(H) SERIES INTERNAL MOUNTING PAN

CATALOG NO.	A	B	C	D	THICKNESS
SJIC1010P	7.63 (194)	7.63 (194)	7.00 (178)	7.00 (178)	.13 (3.2)
SJIC1210P	7.63 (194)	9.63 (244)	7.00 (178)	9.00 (228)	.13 (3.2)
SJIC1212P	9.63 (244)	9.63 (244)	9.00 (228)	9.00 (228)	.13 (3.2)
SJIC1412P	9.63 (244)	11.63 (295)	9.00 (228)	11.00 (279)	.13 (3.2)
SJIC1614P	11.63 (295)	13.63 (346)	11.00 (279)	13.00 (330)	.13 (3.2)

All dimension in. (mm)

Internal mounting pans are made from high strength aluminum alloy. The aluminum alloy is corrosion resistance and can be drilled and tapped in the field for ease of installation of components.

Pans come standard with mounting hardware.



SJIC / SJICH MAXIMUM CONDUIT / GLAND OPENINGS					
W/O GROUND PLATE			W/ GROUND PLATE		
BOX DEPTH	MAX NPT	MAX METRIC	BOX DEPTH	MAX NPT	MAX METRIC
4	1"	M32	4	1/2"	M20
5	1-1/2"	M50	5	1-1/4"	M40
6	3"	M80	6	2"	M63



USF / SJIC / SJICH ENCLOSURES



TABLE 1: Minimum distance from edge of box to the center of the conduit / cable entry.

NPT (METRIC)	4"	3-1/2"	3" (M75)	2-1/2" (M63)	2" (M50)	1-1/2" (M40)	1-1/4" (M32)	1" (M25)	3/4" (M20)	1/2" (M16)
IN. (MM)	2-3/4 (70)	2-1/2 (64)	2 (51)	2 (51)	1-5/8 (41)	1-3/8 (35)	1-1/4 (32)	1 (25)	7/8 (22)	3/4 (19)

TABLE 2 Minimum distance from edge of gland plate to the center of the conduit / cable entry.

NPT (METRIC)	4" (M100)	3-1/2" (M80)	3" (M75)	2-1/2" (M63)	2" (M50)	1-1/2" (M40)	1-1/4" (M32)	1" (M25)	3/4" (M20)	1/2" (M16)
IN. (MM)	3-1/4 (83)	3 (76)	2-3/4 (70)	2-1/2 (64)	2-1/8 (54)	1-7/8 (48)	1-3/4 (44)	1-1/2 (38)	1-3/8 (35)	1-1/4 (32)

TABLE 3: NEC / CEC minimum wire bending space from inside wall of the enclosure, North America applications only.

SIZE AWG (MM2)	16 (1.5)	14 (2.5)	12 (4)	10 (6)	8 (10)	6 (16)	4 (25)	2 (35)	1/0 (50)	2/0 (70)	3/0 (95)	4/0 (120)
IN. (MM)	1.5 (38)	1.5 (38)	1.5 (38)	1.5 (38)	1.5 (38)	2 (51)	3 (76)	3.5 (89)	5.5 (140)	6 (152)	6.5 (164)	7 (178)

TABLE 4: Punched hole diameters. For additional sizes not shown please contact the factory.

NPT	4"	3-1/2"	3"	2-1/2"	2"	1-1/2"	1-1/4"	1"	3/4"	1/2"
MAX. HOLE DIA. IN. (MM)	4.53 (115.06)	4.03 (102.36)	3.53 (89.66)	2.905 (73.79)	2.405 (61.08)	1.93 (49.2)	1.69 (42.93)	1.345 (34.16)	1.08 (27.4)	.87 (22.09)
METRIC	M100	M80	M75	M63	M50	M40	M32	M25	M20	M16
MAX. HOLE DIA. MM (IN.)	100.7 (3.94)	80.7 (3.15)	75.7 (2.95)	63.7 (2.48)	50.7 (1.97)	40.7 (1.58)	32.7 (1.26)	25.7 (0.98)	20.7 (0.79)	16.7 (0.63)

TABLE 5: Minimum distance of the center line to center line of the conduit / cable entries.

(NPT) [METRIC]	4 [M100]	3 1/2 [M80]	3 [M75]	2 1/2 [M63]	2 [M50]	1 1/2 [M40]	1 1/4 [M32]	1 [M25]	3/4 [M20]	1/2 [M16]
1/2 [M16]	3 5/8 [92mm]	3 3/8 [86mm]	3 1/8 [80mm]	2 3/4 [70mm]	2 1/2 [64mm]	2 1/4 [58mm]	2 1/8 [54mm]	1 7/8 [48mm]	1 3/4 [45mm]	1 5/8 [41mm]
3/4 [M20]	3 3/4 [96mm]	3 1/2 [89mm]	3 1/4 [83mm]	2 7/8 [74mm]	2 5/8 [68mm]	2 3/8 [60mm]	2 1/4 [58mm]	2 [51mm]	1 7/8 [48mm]	
1 [M25]	3 7/8 [99mm]	3 5/8 [92mm]	3 3/8 [86mm]	3 [77mm]	2 3/4 [70mm]	2 1/2 [64mm]	2 3/8 [60mm]	2 1/8 [54mm]		
1 1/4 [M32]	4 1/8 [105mm]	3 7/8 [99mm]	3 1/2 [89mm]	3 1/4 [83mm]	3 [77mm]	2 3/4 [70mm]	2 1/2 [64mm]			
1 1/2 [M40]	4 1/4 [108mm]	4 [102mm]	3 3/4 [96mm]	3 3/8 [86mm]	3 1/8 [80mm]	2 7/8 [73mm]				
2 [M50]	4 3/4 [121mm]	4 1/2 [115mm]	4 [102mm]	3 5/8 [92mm]	3 3/8 [86mm]					
2 1/2 [M63]	4 7/8 [124mm]	4 5/8 [118mm]	4 1/4 [108mm]	3 7/8 [99mm]						
3 [M75]	5 1/4 [134mm]	5 [127mm]	4 5/8 [118mm]							
3 1/2 [M80]	5 3/4 [147mm]	5 1/2 [140mm]								
4 [M100]	6 1/4 [159mm]									

All dimension in. (mm)



JUNCTION BOXES



Class II, Div. 1 & 2, Groups E, F, G
Class III
ENCL Type 3R, 4, 4X

UL LISTED - File E10514

SP Certified - File LR11716

FM APPROVED File 25132

See files for details or call Killark.

FEATURES-SPECIFICATIONS

Applications

- Hazardous locations due to the presence of combustible dusts or easily ignitable fibers or flyings
- Damp or wet locations (raintight)

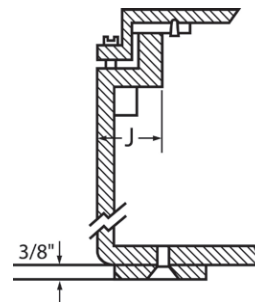
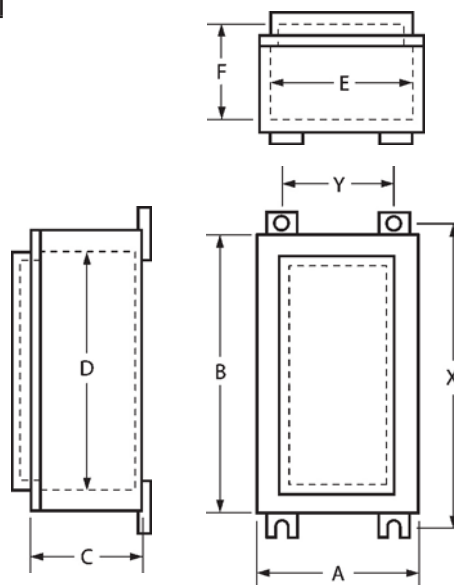
Features

- Copper-free aluminum (less than 4/10 of 1%)
- Surface mounting type box with raised cover
- Mounting lugs included as standard
- Cover screws are stainless steel
- Gaskets mechanically fastened to cover
- All DB boxes cast with wall thicknesses suitable to drill and tap conduit openings. Conduit openings may be factory or field installed. See chart for conduit size limitations. See page E55 for conduit opening data
- Enclosures are available blank or with factory modifications, options and accessories. See catalog pages E40-45 for additional details

MODIFICATIONS	
CATALOG NUMBER	DESCRIPTION
KIT-251	100 Amp ground lug
KIT-252	225 Amp ground lug

BOX WIDTH	"J" DIMENSION
6	1
8 THRU 20	1-3/8
24 AND LARGER	2

SUFFIX NUMBER	DESCRIPTION
SU2	Hinge installed
SU3	Drain and breather installed
SU8	Pan mounting studs





JUNCTION BOXES



Class II, Div. 1 & 2, Groups E, F, G
Class III
ENCL Type 3R, 4, 4X

LISTED - File E10514

Certified - File LR11716

APPROVED File 25132

See files for details or call Killark.

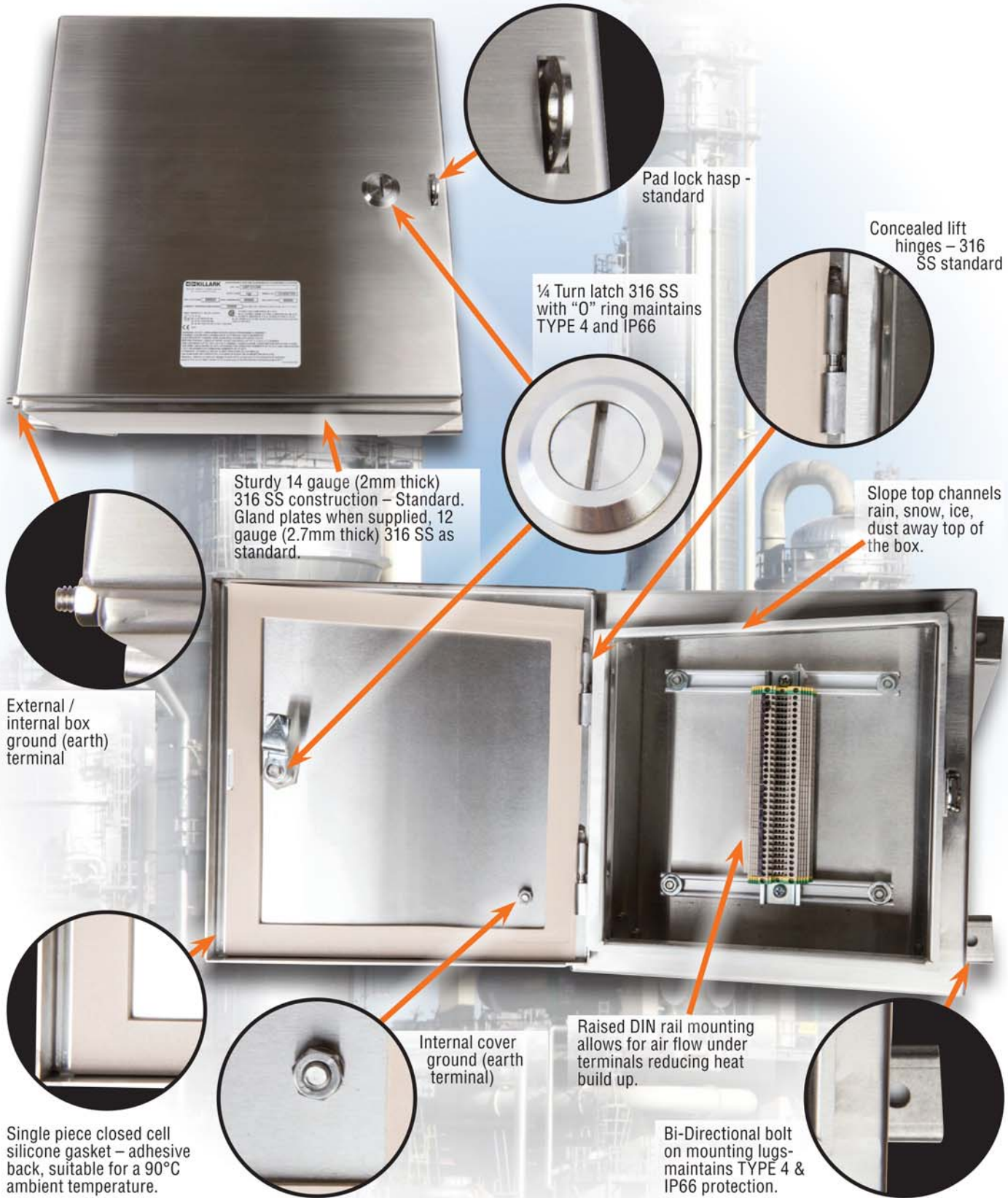
FEATURES-SPECIFICATIONS

CATALOG NUMBER	NOMINAL DIMENSIONS								MOUNTING DIMENSIONS		CATALOG NUMBER		MAX SIZE ^① CONDUIT OPENING		MAXIMUM NUMBER OF OPERATORS†
	OUTSIDE			INSIDE			COVER OPENING				OPTIONAL HINGE TYPE	OPTIONAL MOUNTING PAN ^{②③}	ENDS	BACK & SIDE	
	A	B	C	D	E	F	G	H	X	Y					
DB-664	6"	6"	4"	5-3/8"	5-3/8"	4-7/32"	4-1/4"	4-1/4"	7-1/4"	4-1/4"	HINGE-4	6307-6	2	2	1 row of 1 = 1
DB-884	8"	8"	4"	7-3/8"	7-3/8"	4-5/8"	5-7/16"	5-7/16"	9-1/4"	5-7/16"	HINGE-4	6247-8	2	2	2 rows of 2 = 4
DB-886	8"	8"	6"	7-3/8"	7-3/8"	6-5/8"	5-7/16"	5-7/16"	9-1/4"	5-7/16"	HINGE-4	6247-8	2	2	2 rows of 2 = 4
DB-8106	8"	10"	6"	9-3/8"	7-3/8"	6-5/8"	5-7/16"	5-5/16"	11-1/4"	5-5/16"	HINGE-4	6247-10	2	2	2 rows of 2 = 4
DB-6126	6"	12"	6"	11-3/8"	5-3/8"	6-7/32"	10-3/16"	4-5/16"	13-1/4"	4-5/16"	HINGE-4	6307-12	2	2	4 rows of 1 = 4
DB-8146	8"	14"	6"	13-3/8"	7-3/8"	6-5/8"	11-1/4"	5-5/16"	15-1/4"	5-5/16"	HINGE-4	6247-14	2	2	4 rows of 2 = 8
DB-8188	8"	18"	8"	17-3/8"	7-3/8"	8-5/8"	15-1/4"	5-5/16"	19-1/4"	5-5/16"	HINGE-4	6247-18	2	2	5 rows of 2 = 10
DB-10106	10"	10"	6"	9-3/8"	9-3/8"	6-1/2"	7-5/16"	7-5/16"	11-1/4"	7-5/16"	HINGE-4	6248-10	2	2	2 rows of 2 = 4
DB-10148	10"	14"	8"	13-3/8"	9-3/8"	8-1/2"	11-5/16"	7-5/16"	11-1/4"	7-5/16"	HINGE-4	6248-14	2	2	4 rows of 2 = 8
DB-12148	12"	14"	8"	13-3/8"	11-3/8"	8-7/16"	11-5/16"	9-5/16"	15-1/4"	9-5/16"	HINGE-4	6249-14	4	2	4 rows of 3 = 12
DB-12168	12"	16"	8"	15-3/8"	11-3/8"	8-9/16"	13-1/4"	9-1/4"	14-1/4"	9-1/4"	HINGE-4	6249-16	4	2	4 rows of 3 = 12
DB-12188	12"	18"	8"	17-3/8"	11-3/8"	8-5/8"	15-5/32"	9-5/32"	19-1/4"	9-5/32"	HINGE-4	6249-18	4	2	5 rows of 3 = 15
DB-12248	12"	24"	8"	23-3/8"	11-3/8"	8-1/6"	21-5/16"	9-5/16"	25-1/4"	9-5/16"	HINGE-4	6249-24	4	2	8 rows of 3 = 24
DB-16188	16"	18"	8"	17-3/8"	15-3/8"	8-9/16"	15-5/16"	13-5/16"	19-1/4"	13-5/16"	HINGE-4	6250-18	4	2	5 rows of 4 = 20
DB-16248	16"	24"	8"	23-3/8"	15-3/8"	8-9/16"	21-5/16"	13-5/16"	25-1/4"	13-5/16"	HINGE-4	6250-24	4	2	8 rows of 4 = 32
DB-16368	16"	36"	8"	35-3/8"	15-3/8"	8-9/16"	33-5/16"	13-5/16"	37-1/4"	13-5/16"	HINGE-4	6250-36	4	2	12 rows of 4 = 48
DB-20248	20"	24"	8"	23-3/8"	19-3/8"	8-9/16"	21-1/2"	17-1/2"	25-1/4"	17-1/2"	HINGE-4	6251-24	4	2	8 rows of 6 = 48
DB-203010	20"	30"	10"	29-3/8"	19-3/8"	10-5/8"	27-1/4"	17-1/4"	31-1/4"	17-1/4"	HINGE-4	6251-30	4	2	10 rows of 6 = 60
DB-243010	24"	30"	10"	29-1/8"	23-1/8"	10-7/16"	26"	20"	32"	20"	*HINGE-11L	6252-30	4	4	10 rows of 7 = 70
DB-243610	24"	36"	10"	35-3/8"	23-3/8"	10-7/16"	32"	20"	38"	20"	*HINGE-11L	6252-36	4	4	12 rows of 7 = 84

① These limits are necessary to assure 3-1/2 full threads to meet Class II requirements.
 ② Boxes are not factory machined for a mounting pan. Add suffix SU8 if box is to be supplied with pan mounting studs.
 ③ When pan is ordered without box, it is supplied with studs and hardware for field mounting. Machining of box for pan studs is required.
 * 24" wide enclosures are furnished with hinged covers on left side as a standard feature.
 † Maximum number of "G" series control operators permitted in cover, down + across = total.
 Use short style "G" series operators.



TERMINAL BOXES FOR HARSH & HAZARDOUS ENVIRONMENTS



Pad lock hasp - standard

Concealed lift hinges - 316 SS standard

¼ Turn latch 316 SS with "O" ring maintains TYPE 4 and IP66

Sturdy 14 gauge (2mm thick) 316 SS construction - Standard. Gland plates when supplied, 12 gauge (2.7mm thick) 316 SS as standard.

Slope top channels rain, snow, ice, dust away top of the box.

External / internal box ground (earth) terminal

Internal cover ground (earth terminal)

Raised DIN rail mounting allows for air flow under terminals reducing heat build up.

Single piece closed cell silicone gasket - adhesive back, suitable for a 90°C ambient temperature.

Bi-Directional bolt on mounting lugs-maintains TYPE 4 & IP66 protection.



ENCLOSURES

USF TERMINAL BOXES

TECHNE-TERM[®]

FEATURES-SPECIFICATIONS

Applications

Terminal enclosures for use in hazardous, corrosive, wet, hose down, dust, dirty, for both hot and cold industrial applications for terminating conductors by means of a terminal block.

- Pulp & Paper Mills
- Grain Facilities
- Breweries
- Marine, Docks, Ports
- Electrical Power Plants
- Coal Handling
- Refineries
- Off Shore Platforms
- Petrochemical Plants
- Pumping Stations
- Chemical Plants
- Textile manufacturing
- Wastewater Treatment
- Food Processing
- Used to link electrical wires. Provide access to conductors for maintenance and system expansions
- Primary circuits for distribution to field control devices.



USF Series

cCSAus / ATEX / IEC Ex Certified

IECEX SIR 14.0054

SIRA 14ATEX3157

CE 0518 II 2 G D

Ex e IIC Gb, Ex i IIC Gb

Ex tb IIIC Db IP66

TA= -50°C to +45°C /T6/T80°C

TA= -50°C to +55°C /T5/T100°C

TA= -50°C to +90°C /T4/T130°C

Class I, Div. 2, Groups A, B, C & D

Ex e/ Class I, Zones 1 & 2, AEX e

Groups IIA, IIB & IIC

Class II, Groups E, F & G. Class III

Type 3, 4 & 4X

Ex tb / Zone 21 & 22 AEx tb IIC

T80°C/ T100°C/T130°C Db

IP66

CSA 15.70013872

IEEx 15.0155X INMETRO



Material

- 316 stainless steel as standard.
- Option material 304 Stainless steel, carbon steel or aluminum.
- All external hardware 316 stainless steel.
- Gasket One piece high temperature closed cell silicone.

USF Terminal Box Features – 38 Sizes

- Offered with ABB or Weidmuller increase safety terminal blocks in choices of screw terminal or cage (spring) clamp styles DIN rail mounted. Intrinsically safe terminals available also.
- External slope top flange directs water, melting ice & snow and dust build up away from the opening side of the door.
- Continuous robot welded seams for a hose down tight seal.
- Concealed hinges with removable hinge pins. Standard on left side.
- Doors are interchangeable and easily removable.
- Ground/earthing studs in both cover and through wall of the box.
- Quarter turn 316 stainless steel latch
- One piece high temperature closed cell silicone gasket. With superior recovery and re-sealing properties.
- Sturdy 14 gauge box construction helps prevent bending or permanent deflection of the walls when field installing openings.
- Bi-directional removal mounting lugs for the widest flexibility during installations.
- Openings for glands or conduit factory or field installed – option for gland plates.

USF	12	12	06	*	W	S	1	6	GP1200	*
1	2	3	4	5	6	7	8	9		

1. USF SERIES

2. ENCLOSURE SIZE L x W x D

3. MATERIAL:

Blank = 316 Stainless Steel

S = 304 Stainless Steel

C = Carbon Steel Painted

4. TERMINAL MANUFACTURER

W = WEIDMULLER

A = ABB

5. TERMINAL TYPE

S = Screw Clamp

C = Cage Clamp

6. NO. ROWS OF TERMINAL

1 = 1 Row

2 = 2 Rows

3 = 3 Rows

4 = 4 Rows

Max of 9 Rows

7. TERMINALBLOCK SIZE

1 = 1.5mm² (AWG #14)

2 = 2.5mm² (AWG #14)

4 = 4mm² (AWG #12)

6 = 6mm² (AWG #10)

10 = 10mm² (AWG #8)

16 = 16mm² (AWG #6)

35 = 35mm² (AWG #2)

Larger sizes contact the factory

Specify ground /earth blocks size and qty separately. Must be included in total qty.

See pages E18 & E19 for maximum qty/size of blocks per enclosure

8. GLAND PLATE / LOCATIONS

0 = None

1 = Bottom

2 = LHS

3 = Top

4 = RHS

9. OPTIONS (SEE CATALOG)



USF TERMINAL BOXES



CATALOG NUMBER	HEIGHT IN. (MM)	WIDTH	DEPTH	"E"	"F"	"G"	"H"	"A" GLAND PLATE	"B" GLAND PLATE	"C" GLAND PLATE	WEIGHT LBS (KG)
USF121206	12 (305)	12 (305)	6 (153)	10.69 (272)	10.69 (272)	13.63 (346)	13.63 (346)	4.06 (103)	9.63 (245)	9.63 (245)	14 (6.3)
USF161206	16 (407)	12 (305)	6 (153)	10.69 (272)	14.69 (373)	13.63 (346)	17.63 (448)	4.06 (103)	13.38 (340)	9.63 (245)	20 (9.1)
USF161208	16 (407)	12 (305)	8 (203)	10.69 (272)	14.69 (373)	13.63 (346)	17.63 (448)	6.06 (154)	13.38 (340)	9.63 (245)	22 (10)
USF161210	16 (407)	12 (305)	10 (254)	10.69 (272)	14.69 (373)	13.63 (346)	17.63 (448)	8.06 (205)	13.38 (340)	9.63 (245)	24 (10.9)
USF161606	16 (407)	16 (407)	6 (153)	14.69 (373)	14.69 (373)	17.63 (448)	17.63 (448)	4.06 (103)	13.38 (340)	13.38 (340)	26 (11.8)
USF161608	16 (407)	16 (407)	8 (203)	14.69 (373)	14.69 (373)	17.63 (448)	17.63 (448)	6.06 (154)	13.38 (340)	13.38 (340)	27 (12.2)
USF161610	16 (407)	16 (407)	10 (254)	14.69 (373)	14.69 (373)	17.63 (448)	17.63 (448)	8.06 (205)	13.38 (340)	13.38 (340)	29 (13.2)
USF201606	20 (508)	16 (407)	6 (153)	18.69 (475)	14.69 (373)	21.63 (549)	17.63 (448)	4.06 (103)	17.38 (441)	13.38 (340)	29 (13.2)
USF201608	20 (508)	16 (407)	8 (203)	14.69 (373)	18.69 (475)	17.63 (448)	21.63 (549)	6.06 (154)	17.38 (441)	13.38 (340)	31 (14)
USF201610	20 (508)	16 (407)	10 (254)	14.69 (373)	18.69 (475)	17.63 (448)	21.63 (549)	8.06 (205)	17.38 (441)	13.38 (340)	32 (14.5)
USF202006	20 (508)	20 (508)	6 (153)	14.69 (373)	18.69 (475)	17.63 (448)	21.63 (549)	4.06 (103)	17.38 (441)	17.38 (441)	35 (15.9)
USF202008	20 (508)	20 (508)	8 (203)	18.69 (475)	18.69 (475)	21.63 (549)	21.63 (549)	6.06 (154)	17.38 (441)	17.38 (441)	37 (16.8)
USF202010	20 (508)	20 (508)	10 (254)	18.69 (475)	18.69 (475)	21.63 (549)	21.63 (549)	8.06 (205)	17.38 (441)	17.38 (441)	39 (17.7)
USF202012	20 (508)	20 (508)	12 (305)	18.69 (475)	18.69 (475)	21.63 (549)	21.63 (549)	10.06 (255)	17.38 (441)	17.38 (441)	44 (20)
USF241606	24 (610)	16 (407)	6 (153)	14.69 (373)	22.69 (576)	17.63 (448)	25.63 (651)	4.06 (103)	21.38 (543)	13.38 (340)	35 (15.9)
USF241608	24 (610)	16 (407)	8 (203)	18.69 (475)	18.69 (475)	21.63 (549)	21.63 (549)	6.06 (154)	21.38 (543)	13.38 (340)	36 (16.3)
USF241610	24 (610)	16 (407)	10 (254)	14.69 (373)	22.69 (576)	17.63 (448)	25.63 (651)	8.06 (205)	21.38 (543)	13.38 (340)	38 (17.2)
USF242006	24 (610)	20 (508)	6 (153)	14.69 (373)	22.69 (576)	17.63 (448)	25.63 (651)	4.06 (103)	21.38 (543)	17.38 (441)	42 (19)
USF242008	24 (610)	20 (508)	8 (203)	18.69 (475)	22.69 (576)	21.63 (549)	25.63 (651)	6.06 (154)	21.38 (543)	17.38 (441)	43 (19.5)
USF242010	24 (610)	20 (508)	10 (254)	18.69 (475)	22.69 (576)	21.63 (549)	25.63 (651)	8.06 (205)	21.38 (543)	17.38 (441)	44 (20)
USF242012	24 (610)	20 (508)	12 (305)	18.69 (475)	22.69 (576)	21.63 (549)	25.63 (651)	10.06 (255)	21.38 (543)	17.38 (441)	46 (20.9)
USF242406	24 (610)	24 (610)	6 (153)	18.69 (475)	22.69 (576)	21.63 (549)	25.63 (651)	4.06 (103)	21.38 (543)	21.38 (543)	49 (22.2)
USF242408	24 (610)	24 (610)	8 (203)	22.69 (576)	22.69 (576)	25.63 (651)	25.63 (651)	6.06 (154)	21.38 (543)	21.38 (543)	53 (24)
USF242410	24 (610)	24 (610)	10 (254)	22.69 (576)	22.69 (576)	25.63 (651)	25.63 (651)	8.06 (205)	21.38 (543)	21.38 (543)	58 (26.3)
USF242412	24 (610)	24 (610)	12 (305)	22.69 (576)	22.69 (576)	25.63 (651)	25.63 (651)	10.06 (255)	21.38 (543)	21.38 (543)	62 (28.1)
USF242416	24 (610)	24 (610)	16 (407)	22.69 (576)	22.69 (576)	25.63 (651)	25.63 (651)	14.06 (357)	21.38 (543)	21.38 (543)	71 (32.2)
USF242420	24 (610)	24 (610)	20 (508)	22.69 (576)	22.69 (576)	25.63 (651)	25.63 (651)	18.06 (458)	21.38 (543)	21.38 (543)	78 (35.4)
USF302008	30 (762)	20 (508)	8 (203)	22.69 (576)	22.69 (576)	25.63 (651)	25.63 (651)	6.06 (154)	26.00 (660)	17.38 (441)	59 (26.8)
USF302010	30 (762)	20 (508)	10 (254)	18.69 (475)	28.69 (729)	21.63 (549)	31.63 (803)	8.06 (205)	26.00 (660)	17.38 (441)	61 (27.7)
USF302408	30 (762)	24 (610)	8 (203)	18.69 (475)	28.69 (729)	21.63 (549)	31.63 (803)	6.06 (154)	26.00 (660)	21.38 (543)	56 (25.4)
USF302410	30 (762)	24 (610)	10 (254)	22.69 (576)	28.69 (729)	25.63 (651)	31.63 (803)	8.06 (205)	26.00 (660)	21.38 (543)	63 (28.6)
USF302412	30 (762)	24 (610)	12 (305)	22.69 (576)	28.69 (729)	25.63 (651)	31.63 (803)	10.06 (255)	26.00 (660)	21.38 (543)	64 (29)
USF302420	30 (762)	24 (610)	20 (508)	22.69 (576)	28.69 (729)	25.63 (651)	31.63 (803)	18.06 (458)	26.00 (660)	21.38 (543)	99 (45)
USF303008	30 (762)	30 (762)	8 (203)	22.69 (576)	28.69 (729)	25.63 (651)	31.63 (803)	6.06 (154)	26.00 (660)	26.00 (660)	68 (30.8)
USF303010	30 (762)	30 (762)	10 (254)	28.69 (729)	28.69 (729)	31.63 (803)	31.63 (803)	8.06 (205)	26.00 (660)	26.00 (660)	72 (32.7)
USF303012	30 (762)	30 (762)	12 (305)	28.69 (729)	28.69 (729)	31.63 (803)	31.63 (803)	10.06 (255)	26.00 (660)	26.00 (660)	89 (40.4)
USF362408	36 (915)	24 (610)	8 (203)	34.69 (881)	28.69 (729)	37.63 (956)	31.63 (803)	6.06 (154)	33.00 (838)	21.38 (543)	66 (30)
USF362410	36 (915)	24 (610)	10 (254)	9.79 (249)	35.20 (894)	8.15 (207)	27.63 (702)	8.06 (205)	33.00 (838)	21.38 (543)	70 (31.8)

All dimension in. (mm)



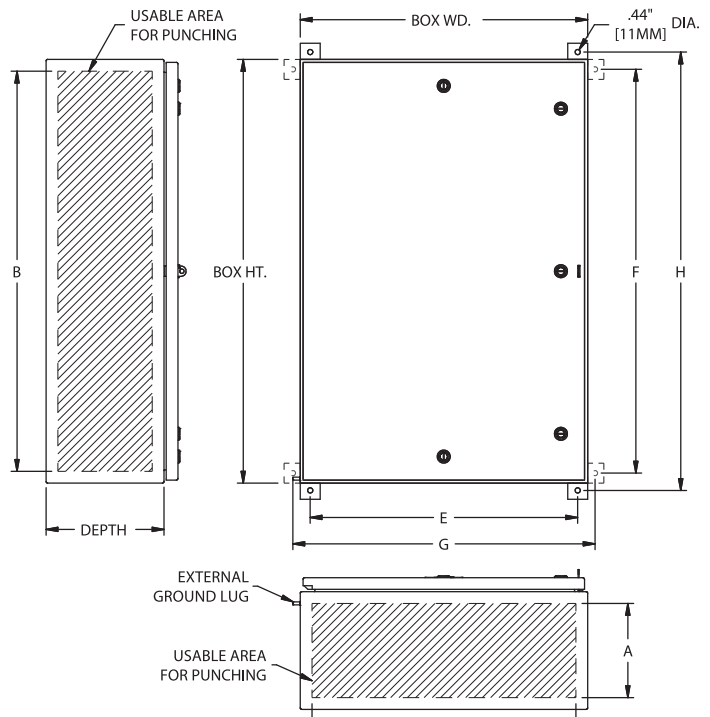
USF TERMINAL BOXES



CATALOG NUMBER	"A" BLANK WALL AREA	"B" BLANK WALL AREA	"C" BLANK WALL AREA	(W) MAX. POWER
USF121206	5.74 (146)	10.93 (277)	10.93 (277)	15.0
USF161206	5.74 (146)	14.93 (379)	10.93 (277)	17.0
USF161208	7.74 (196)	14.93 (379)	10.93 (277)	20.6
USF161210	9.74 (247)	14.93 (379)	10.93 (277)	23.5
USF161606	5.74 (146)	14.93 (379)	14.93 (379)	19.0
USF161608	7.74 (196)	14.93 (379)	14.93 (379)	20.0
USF161610	9.74 (247)	14.93 (379)	14.93 (379)	25.0
USF201606	5.74 (146)	18.93 (480)	14.93 (379)	21.0
USF201608	7.74 (196)	18.93 (480)	14.93 (379)	23.0
USF201610	9.74 (247)	18.93 (480)	14.93 (379)	26.0
USF202006	5.74 (146)	18.93 (480)	18.93 (480)	24.3
USF202008	7.74 (196)	18.93 (480)	18.93 (480)	26.0
USF202010	9.74 (247)	18.93 (480)	18.93 (480)	30.0
USF202012	11.74 (298)	18.93 (480)	18.93 (480)	36.0
USF241606	5.74 (146)	22.93 (582)	14.93 (379)	35.0
USF241608	7.74 (196)	22.93 (582)	14.93 (379)	36.0
USF241610	9.74 (247)	22.93 (582)	14.93 (379)	31.0
USF242006	5.74 (146)	22.93 (582)	18.93 (480)	24.5
USF242008	7.74 (196)	22.93 (582)	18.93 (480)	31.5
USF242010	9.74 (247)	22.93 (582)	18.93 (480)	33.6
USF242012	11.74 (298)	22.93 (582)	18.93 (480)	36.0
USF242406	5.74 (146)	22.93 (582)	22.93 (582)	25.8
USF242408	7.74 (196)	22.93 (582)	22.93 (582)	34.0
USF242410	9.74 (247)	22.93 (582)	22.93 (582)	34.0
USF242412	11.74 (298)	22.93 (582)	22.93 (582)	38.0
USF242416	15.74 (400)	22.93 (582)	22.93 (582)	42.0
USF242420	19.74 (501)	22.93 (582)	22.93 (582)	57.3
USF302008	7.74 (196)	28.93 (735)	18.93 (480)	36.5
USF302010	9.74 (247)	28.93 (735)	18.93 (480)	36.0
USF302408	7.74 (196)	28.93 (735)	22.93 (582)	39.0
USF302410	9.74 (247)	28.93 (735)	22.93 (582)	38.0
USF302412	11.74 (298)	28.93 (735)	22.93 (582)	40.0
USF302420	19.74 (501)	28.93 (735)	22.93 (582)	57.3
USF303008	7.74 (196)	28.93 (735)	28.93 (735)	43.0
USF303010	9.74 (247)	28.93 (735)	28.93 (735)	40.0
USF303012	11.74 (298)	28.93 (735)	28.93 (735)	46.0
USF362408	7.74 (196)	34.93 (887)	22.93 (582)	44.0
USF362410	9.74 (247)	34.93 (887)	22.93 (582)	40.0

All dimension in. (mm)

USF MAXIMUM CONDUIT / GLAND OPENINGS					
W/O GLAND PLATE			W/ GLAND PLATE		
BOX DEPTH	MAX NPT	MAX METRIC	BOX DEPTH	MAX NPT	MAX METRIC
6	3-1/2"	M100	6	2-1/2"	M75
8	4"	M100	8	4"	M100
10	4"	M100	10	4"	M100
12	4"	M100	12	4"	M100
16	4"	M100	16	4"	M100
20	4"	M100	20	4"	M100



Standard terminal offering

- ABB ZS Screw Clamp
- ABB ZK Cage (Spring) Clamp
- Weidmuller WD Screw Clamp
- Weidmuller ZD Cage (Spring) Clamp

Additional ABB & Weidmuller terminal blocks available. Contact the factory for more information.

Terminals are mounted on TS-35 DIN rail. The rails are mounted to raised collared studs or unistrut rails which adds additional air flow and wire room.

Pages E6 & E7 for maximum number of terminals and rows per enclosure.

Specify ground / earth blocks size and qty separately. Must be included in total qty.

The USF terminal boxes are suitable for use Wago, Phoenix and Klemsan Elektrik terminals.

Options

- Panel ID tag 316 stainless steel
- Tamperproof latches
- Key latches
- Copper ground / earth bars

See enclosure modification page for conduit / gland holes sizes and spacing.



WEIDMULLER TERMINALS

Weidmuller WDU Series Screw Terminal

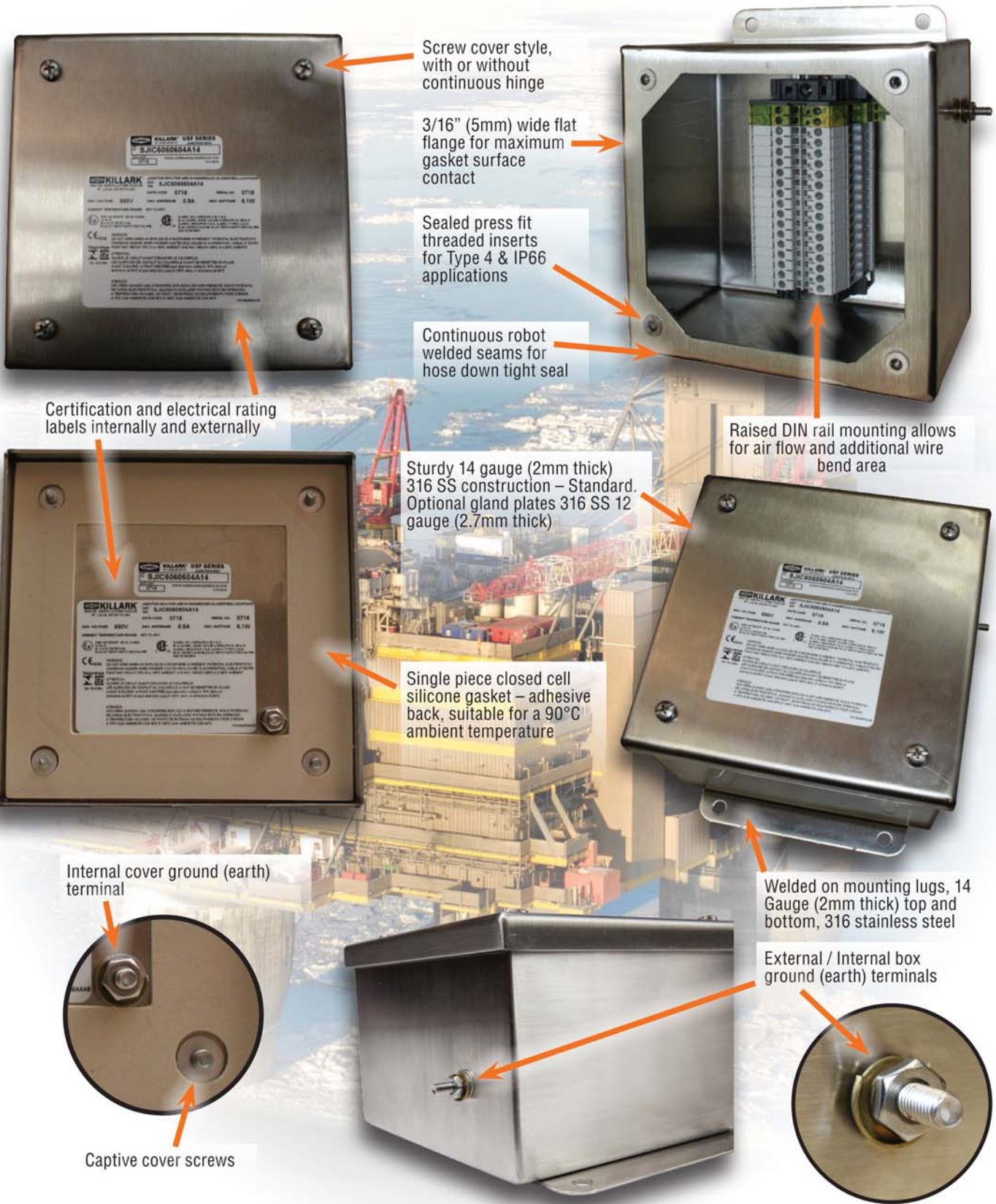
Weidmuller ZDU Series Cage Clamp Terminals

Weidmuller WDUN Series Screw Clamp Terminals

WDU 2.5 15 AMPS 2.5MM ² 550VAC (14 AWG)								ZDU 2.5 21 AMPS 2.5MM ² 550VAC (14 AWG)								WDU 2.5N 15 AMPS 2.5MM ² 440VAC (14 AWG)													
ROW	1	2	3	4	5	6	7	ROW	1	2	3	4	5	6	7	ROW	1	2	3	4	5	6	7	8	9				
USF1212**	35	70						USF1212**	35	70						USF1212**	34	68	102	136									
USF1612**	55	110						USF1612**	55	110						USF1612**	54	108	162	216									
USF1616**	55	110	165					USF1616**	55	110	165					USF1616**	54	108	162	216									
USF2016**	75	150	225					USF2016**	75	150	225					USF2016**	74	148	222	296									
USF2020**	75	150	225	300	375			USF2020**	75	150	225	300				USF2020**	74	148	222	296	370								
USF2416**	95	190	285					USF2416**	95	190	285					USF2416**	94	188	282	376									
USF2420**	95	190	285	380	475			USF2420**	95	190	285	380				USF2420**	94	188	282	376	470								
USF2424**	95	190	285	380	475	570		USF2424**	95	190	285	380	475	570		USF2424**	94	188	282	376	470	564	658						
USF3020**	118	236	354	472	590			USF3020**	118	236	354	472				USF3020**	118	236	354	472	590								
USF3024**	118	236	354	472	590	708		USF3024**	118	236	354	472	590	708		USF3024**	118	236	354	472	590	708	826						
USF3030**	118	260	354	472	590	708	826	USF3030**	118	236	354	472	590	708	826	USF3030**	118	260	354	472	590	708	826	944	1062				
USF3624**	153	306	459	612	765	918		USF3624**	153	306	459	612	765	918		USF3624**	153	306	459	612	765	918	1377						
WDU 4 28 AMPS 4MM ² 690VAC (12 AWG 600VAC)								ZDU 4 28 AMPS 4MM ² 550VAC (12 AWG)								WDU 4N 27 AMPS 4MM ² 440VAC (12 AWG)													
USF1212**	29	58						USF1212**	29	58						USF1212**	29	58											
USF1612**	46	92						USF1612**	45	90						USF1612**	45	90	135										
USF1616**	46	92	138					USF1616**	45	90	135					USF1616**	46	92	138										
USF2016**	62	124	186					USF2016**	62	124	186					USF2016**	62	124	186	248	310								
USF2020**	62	124	186	248	310			USF2020**	62	124	186	248				USF2020**	62	124	186	248	310								
USF2416**	79	158	237					USF2416**	79	158	237					USF2416**	79	158	237	316	395								
USF2420**	79	158	237	316	395			USF2420**	79	158	237	316				USF2420**	79	158	237	316	395	474							
USF2424**	79	158	237	316	395	474		USF2424**	79	158	237	316	395	474		USF2424**	79	158	237	316	395	474	553						
USF3020**	98	196	294	392	490			USF3020**	98	196	294	392				USF3020**	98	196	294	392	490	588	686						
USF3024**	98	196	294	392	490	588		USF3024**	98	196	294	392	490	588		USF3024**	98	196	294	392	490	588	686	784	882				
USF3030**	98	260	294	392	490	588	686	USF3030**	98	196	294	392	490	588	686	USF3030**	98	260	294	392	490	588	686	784	882				
USF3624**	127	254	381	508	635	762		USF3624**	127	254	381	508	635	762		USF3624**	127	254	381	508	635	762	1143						
WDU 6 36 AMPS 6MM ² 550VAC (10 AWG)								ZDU 6 36 AMPS 6MM ² 550VAC (10 AWG)								WDK 2.5N 21 AMPS 2.5MM ² 550VAC (14 AWG) DOUBLE POLE FEED THROUGH													
USF1212**	23	46						USF1212**	21	42						USF1212**	33	66											
USF1612**	35	70						USF1612**	34	68						USF1612**	53	106											
USF1616**	35	70	105					USF1616**	34	68	102					USF1616**	53	106	159										
USF2016**	48	96	144					USF2016**	46	92	138					USF2016**	73	146	219										
USF2020**	48	96	144	192	240			USF2020**	46	92	138	184				USF2020**	73	146	219	292									
USF2416**	61	122	183					USF2416**	59	118	177					USF2416**	93	186	279										
USF2420**	61	122	183	244	305			USF2420**	59	118	177	236				USF2420**	93	186	279	372	465	558							
USF2424**	61	122	183	244	305	366		USF2424**	59	118	177	236	295			USF2424**	93	186	279	372	465	558	646						
USF3020**	76	152	228	304	380			USF3020**	73	146	219	292				USF3020**	116	232	348	464	580	696							
USF3024**	76	152	228	304	380	456		USF3024**	73	146	219	292	365			USF3024**	116	232	348	464	580	696	812	944	1062				
USF3030**	76	152	228	304	380	456	532	USF3030**	73	146	219	292	365	438	511	USF3030**	116	232	348	464	580	696	812	944	1062				
USF3624**	98	196	294	392	490	588		USF3624**	95	190	285	380	475			USF3624**	151	302	453	604	755	906							
WDU 10 50 AMPS 10MM ² 550VAC (8 AWG)								ZDU 10 50 AMPS 10MM ² 550VAC (8 AWG)								WDK 4N 28 AMPS 4MM ² 550VAC (12 AWG) DOUBLE POLE FEED THROUGH													
USF1212**	18	36						USF1212**	17	35						USF1212**	28	56											
USF1612**	28	56						USF1612**	27	54						USF1612**	44	88											
USF1616**	28	56	84					USF1616**	27	54						USF1616**	44	88	132										
USF2016**	38	76	114					USF2016**	37	74						USF2016**	61	122	183										
USF2020**	38	76	114	152				USF2020**	37	74	111					USF2020**	61	122	183	244									
USF2416**	48	96	144					USF2416**	47	94						USF2416**	93	186	279										
USF2420**	48	96	144	192				USF2420**	47	94	141					USF2420**	93	186	279	372									
USF2424**	48	96	144	192	240			USF2424**	47	94	141	188				USF2424**	93	186	279	372	465	558							
USF3020**	60	120	180	240				USF3020**	59	118	177					USF3020**	97	194	291	388	485	582							
USF3024**	60	120	180	240	300			USF3024**	59	118	177	236				USF3024**	97	194	291	388	485	582	679	784	882				
USF3030**	60	120	180	240	300	360	420	USF3030**	59	118	177	236	295			USF3030**	97	194	291	388	485	582	679	784	882				
USF3624**	78	156	234	312	390			USF3624**	76	152	228	304				USF3624**	126	252	378	504	630	756							
WDU 16 66 AMPS 16MM ² 690VAC (6 AWG 600VAC)								ZDU 16 66 AMPS 16MM ² 690VAC (6 AWG 600VAC)								WDK 2.5N 21 AMPS 2.5MM ² 550VAC (14 AWG) FOUR POLES FEED THROUGH													
USF1212**	14	28						USF1212**	14	28						USF1212**	33	66											
USF1612**	22	44						USF1612**	22	44						USF1612**	53	106											
USF1616**	22	44	66					USF1616**	22	44						USF1616**	53	106	159										
USF2016**	30	60	90					USF2016**	30	60						USF2016**	73	146	219										
USF2020**	30	60	90	120				USF2020**	30	60	90					USF2020**	73	146	219	292									
USF2416**	39	78	117					USF2416**	39	78						USF2416**	93	186	279										
USF2420**	39	78	117	156				USF2420**	39	78	117					USF2420**	93	186	279	372									
USF2424**	39	78	117	156	195			USF2424**																					



TERMINAL BOXES FOR HARSH & HAZARDOUS ENVIRONMENTS



Screw cover style, with or without continuous hinge

3/16" (5mm) wide flat flange for maximum gasket surface contact

Sealed press fit threaded inserts for Type 4 & IP66 applications

Continuous robot welded seams for hose down tight seal

Certification and electrical rating labels internally and externally

Raised DIN rail mounting allows for air flow and additional wire bend area

Sturdy 14 gauge (2mm thick) 316 SS construction – Standard. Optional gland plates 316 SS 12 gauge (2.7mm thick)

Single piece closed cell silicone gasket – adhesive back, suitable for a 90°C ambient temperature

Internal cover ground (earth) terminal

Welded on mounting lugs, 14 Gauge (2mm thick) top and bottom, 316 stainless steel

External / Internal box ground (earth) terminals

Captive cover screws

ENCLOSURES



SJIC / SJICH SERIES

SJIC & SJICH TERMINAL BOXES • SCREW COVER & HINGED SCREW COVER

TECHNE-TERM[®]

FEATURES-SPECIFICATIONS

Applications

Terminal enclosures for use in hazardous, corrosive, wet, hose down, dust, dirty, for both hot and cold industrial applications for terminating conductors by means of a terminal block.

- Pulp & Paper Mills
- Grain Facilities
- Breweries
- Marine, Docks, Ports
- Electrical Power Plants
- Coal Handling
- Refineries
- Off Shore Platforms
- Petrochemical Plants
- Pumping Stations
- Chemical Plants
- Textile manufacturing
- Wastewater Treatment
- Food Processing
- Used to link electrical wires. Provide access to conductors for maintenance and system expansions
- Primary circuits for distribution to field control devices



SJIC Series

cCSAus / ATEX / IEC Ex Certified

IECEx SIR 14.0054

SIRA 14ATEX3157

CE 0518 II 2 G D

Ex e IIC Gb, Ex i IIC Gb

Ex tb IIIC Db IP66

TA= -50°C to +45°C /T6/T80°C

TA= -50°C to +55°C /T5/T100°C

TA= -50°C to +90°C /T4/T130°C

Class I, Div. 2, Groups A, B, C & D

Ex e/ Class I, Zones 1 & 2, AEX e

Groups IIA, IIB & IIC

Class II, Groups E, F & G. Class III

Type 3, 4 & 4X

Ex tb / Zone 21 & 22 AEx tb IIC

T80°C/ T100°C/T130°C Db

IP66

CSA 15.70013872

IEEx 15.0155X INMETRO



Material

- 316 stainless steel as standard.
- Option material 304 Stainless steel, carbon steel or aluminum.
- All external hardware 316 stainless steel.
- Gasket One piece high temperature closed cell silicone.

SJIC Enclosures Features – 15 Sizes SJICH Enclosures Features – 11 Sizes

- Offered with ABB or Weidmuller increase safety terminal blocks in choices of screw terminal or cage (spring) clamp styles DIN rail mounted. Intrinsically safe terminals available also.
- Screw covers 316 stainless steel
- Continuous robot welded seams for a hose down tight seal.
- SJIC doors are interchangeable and easily removable.
- SJICH have continuous one piece hinge construction. Standard on left side.
- Ground/earthing studs in both cover and through wall of the box.
- One piece high temperature closed cell silicone gasket. With superior recovery and re-sealing properties.
- Sturdy 14 gauge box construction helps prevent bending or permanent deflection of the walls when field installing openings.
- Welded one piece mounting flanges top and bottom for strength.
- Openings for glands or conduit factory or field installed – option for gland plates.

SJIC	*	12 12 06	W	S	1	6	GP1200	*
1	2	3	4	5	6	7	8	9

1. SERIES

SJIC = Screw Cover
SJICH = Screw / Hinged Cover

2. MATERIAL:

6 = 316 Stainless Steel
4 = 304 Stainless Steel
Blank = Carbon Steel Painted

3. ENCLOSURE SIZE L x W x D

4. TERMINAL MANUFACTURER

W = WEIDMULLER
A = ABB

5. TERMINAL TYPE

S = Screw Clamp
C = Cage Clamp

6. NO. ROWS OF TERMINAL

1 = 1 Row
2 = 2 Rows
3 = 3 Rows
4 = 4 Rows

7. TERMINALBLOCK SIZE

1 = 1.5mm² (AWG #14)
2 = 2.5mm² (AWG #14)
4 = 4mm² (AWG #12)
6 = 6mm² (AWG #10)
10 = 10mm² (AWG #8)
16 = 16mm² (AWG #6)
35 = 35mm² (AWG #2)

Larger sizes contact the factory

Specify ground /earth blocks size and qty separately. Must be included in total qty. See pages E11 & E12 for maximum qty/size of blocks per enclosure

8. GLAND PLATE / LOCATIONS

0 = None
1 = Bottom
2 = LHS
3 = Top
4 = RHS

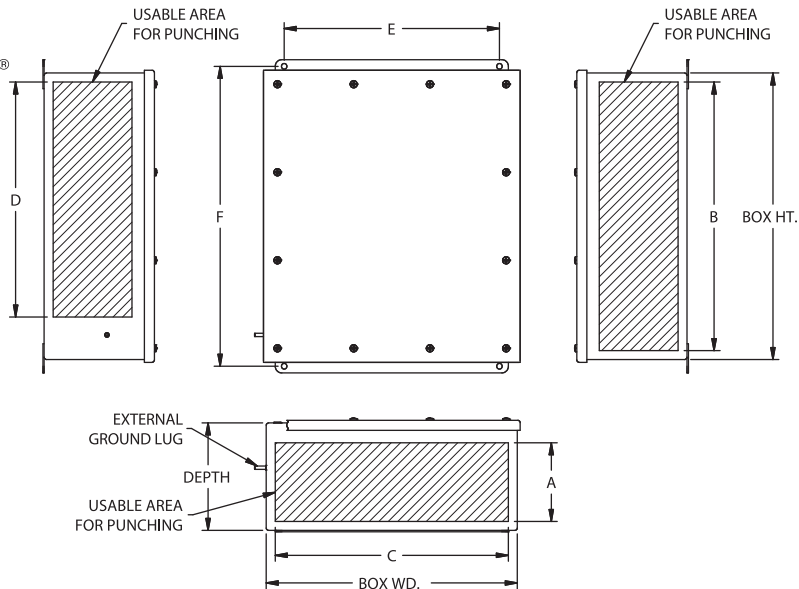
See enclosure charts for suitable gland plates

9. OPTIONS (SEE CATALOG)



SJIC TERMINAL BOXES

TECHNE-TERM



SUFFIX NUMBER	DESCRIPTION
KIT-251	100 amp ground lug
KIT-252	225 amp ground lug
SU3-KDE	Class I Div. 2 Grps A, B, C & D, Type 4X, Ex e IIC Zone 1 IP 66 Drain & breather installed.
SU10-KDE	Class I Div. 2 Grps A, B, C & D, Type 4X, Ex e IIC Zone 1 IP 66 Drain only installed.
DC	Document Wallet (enclosures 10 x 10 and larger only)
SU9	Special paint finish
SU14	Fungus proofing of enclosures

See enclosure modification page for conduit / gland hole sizes and spacing.

CATALOG NUMBER	HEIGHT IN. (MM)	WIDTH	DEPTH	"E"	"F"	"A" BLANK WALL	"B" BLANK WALL	"C" BLANK WALL	"D" BLANK WALL
SJIC6040404	4 (102)	4 (102)	4 (102)	2.00 (51)	4.75 (121)	2.47(63)	3.13 (79)	3.13 (79)	1.19 (30)
SJIC6060404	6 (152)	4 (102)	4 (102)	2.00 (51)	6.75 (171)	2.47(63)	5.13 (130)	3.13 (79)	3.19 (81)
SJIC6060604	6 (152)	6 (152)	4 (102)	4.00 (102)	6.75 (171)	2.47(63)	5.13 (130)	5.13 (130)	3.19 (81)
SJIC6060606	6 (152)	6 (152)	6 (152)	4.00 (102)	6.75 (171)	4.47 (114)	5.13 (130)	5.13 (130)	3.19 (81)
SJIC6080606*	8 (203)	6 (152)	6 (152)	4.00 (102)	8.75 (222)	4.47 (114)	7.13 (181)	7.13 (181)	5.19 (132)
SJIC6080804	8 (203)	8 (203)	4 (102)	6.00 (152)	8.75 (222)	2.47(63)	7.13 (181)	7.13 (181)	5.19 (132)
SJIC6080806*	8 (203)	8 (203)	6 (152)	6.00 (152)	8.75 (222)	4.47 (114)	7.13 (181)	7.13 (181)	5.19 (132)
SJIC6100804	10 (254)	8 (203)	4 (102)	6.00 (152)	10.75 (273)	2.47(63)	9.13 (232)	7.13 (181)	7.19 (183)
SJIC6100806*	10 (254)	8 (203)	6 (152)	6.00 (152)	10.75 (273)	4.47 (114)	9.13 (232)	7.13 (181)	7.19 (183)
SJIC6101006*	10 (254)	10 (254)	6 (152)	8.00 (203)	10.75 (273)	4.47 (114)	9.13 (232)	9.13 (232)	7.19 (183)
SJIC6121005*	12 (305)	10 (254)	5 (127)	8.00 (203)	12.75 (324)	3.47 (88)	11.13 (283)	9.13 (232)	9.19 (233)
SJIC6121006*	12 (305)	10 (254)	6 (152)	8.00 (203)	12.75 (324)	4.47 (114)	11.13 (283)	9.13 (232)	9.19 (233)
SJIC6121206*	12 (305)	12 (305)	6 (152)	10.00 (254)	12.75 (324)	4.47 (114)	11.13 (283)	11.13 (283)	9.19 (233)
SJIC6141206*	14 (356)	12 (305)	6 (152)	10.00 (254)	14.75 (375)	4.47 (114)	13.13 (334)	11.13 (283)	11.19 (284)
SJIC6161406*	16 (406)	14 (356)	6 (152)	12 (305)	16.75 (425)	4.47 (114)	15.13 (384)	13.13 (334)	13.19 (335)

All dimension in. (mm)

*Enclosure can be supplied with gland plates

CATALOG NUMBER	(W) MAX. POWER	WEIGHT LBS / (KG)
SJIC6040404	4.1	2.83 (1.3)
SJIC6060404	5.2	3.6 (1.6)
SJIC6060604	6.1	4.9 (2.2)
SJIC6060606	8.4	5.9 (2.7)
SJIC(H)6080606	10.5	7.5 (3.4)
SJIC(H)6080804	8.4	7.9 (3.6)
SJIC(H)6080806	11.4	8.33 (3.8)
SJIC(H)6100804	8.4	9.5 (4.4)
SJIC(H)6100806	12.2	10 (4.5)
SJIC(H)6101006	13	11 (5)
SJIC(H)6121005	8.4	12 (5.4)
SJIC(H)6121006	14	13 (5.9)
SJIC(H)6121206	15	15 (6.8)
SJIC(H)6141206	16	16 (7.3)
SJIC(H)6161406	18	20 (9)

SJIC & SJICH TERMINAL BOXES

Instock Terminal Boxes

- Populated with ABB ZS4, 32 Amps 4mm² 690VAC (12 AWG 600VAC) terminal blocks.
- Supplied with two ZS 4-PE ground / earth blocks per rail.
- Blank enclosures for field modifications for gland or conduit openings.
- Material – 316 stainless steel

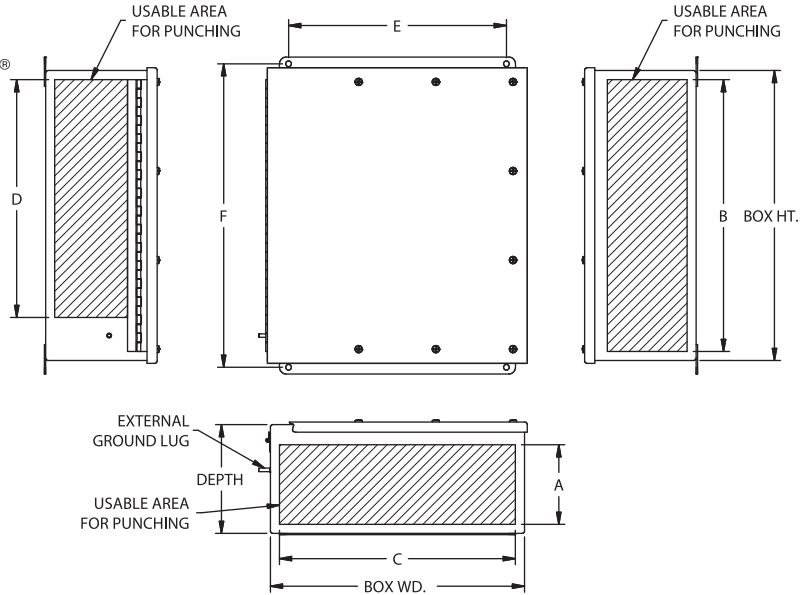
CATALOG NUMBER	TOTAL QTY OF TERMINALS	NO. OF RAILS
SJIC6040404A14	6	1
SJIC6060604A14	16	1
SJIC6100806A14	30	1
SJIC6101006A24	60	2
SJIC6121206A24	80	2



SJICH TERMINAL BOXES

TECHNE-TERM

SUFFIX NUMBER	DESCRIPTION
KIT-251	100 amp ground lug
KIT-252	225 amp ground lug
SU3-KDE	Class I Div. 2 Grps A, B, C & D, Type 4X. Ex e IIC Zone 1 IP 66 Drain & breather installed.
SU10-KDE	Class I Div. 2 Grps A, B, C & D, Type 4X. Ex e IIC Zone 1 IP 66 Drain only installed.
DC	Document Wallet (enclosures 10 x 10 and larger only)
SU9	Special paint finish
SU14	Fungus proofing of enclosures



See enclosure modification page for conduit / gland hole sizes and spacing.

CATALOG NUMBER	HEIGHT IN. (MM)	WIDTH	DEPTH	"E"	"F"	"A" BLANK WALL	"B" BLANK WALL	"C" BLANK WALL	"D" BLANK WALL	"E" BLANK WALL
SJICH6080606*	8 (203)	6 (152)	6 (152)	4.00 (102)	8.75 (222)	4.47 (114)	7.13 (181)	7.13 (181)	5.19 (132)	3.81 (97)
SJICH6080804	8 (203)	8 (203)	4 (102)	6.00 (152)	8.75 (222)	2.47(63)	7.13 (181)	7.13 (181)	5.19 (132)	1.81 (46)
SJICH6080806*	8 (203)	8 (203)	6 (152)	6.00 (152)	8.75 (222)	4.47 (114)	7.13 (181)	7.13 (181)	5.19 (132)	3.81 (97)
SJICH6100804	10 (254)	8 (203)	4 (102)	6.00 (152)	10.75 (273)	2.47(63)	9.13 (232)	7.13 (181)	7.19 (183)	1.81 (46)
SJICH6100806*	10 (254)	8 (203)	6 (152)	6.00 (152)	10.75 (273)	4.47 (114)	9.13 (232)	7.13 (181)	7.19 (183)	3.81 (97)
SJICH6101006*	10 (254)	10 (254)	6 (152)	8.00 (203)	10.75 (273)	4.47 (114)	9.13 (232)	9.13 (232)	7.19 (183)	3.81 (97)
SJICH6121005*	12 (305)	10 (254)	5 (127)	8.00 (203)	12.75 (324)	3.47 (88)	11.13 (283)	9.13 (232)	9.19 (233)	2.81 (71)
SJICH6121006*	12 (305)	10 (254)	6 (152)	8.00 (203)	12.75 (324)	4.47 (114)	11.13 (283)	9.13 (232)	9.19 (233)	3.81 (97)
SJICH6121206*	12 (305)	12 (305)	6 (152)	10.00 (254)	12.75 (324)	4.47 (114)	11.13 (283)	11.13 (283)	9.19 (233)	3.81 (97)
SJICH6141206*	14 (356)	12 (305)	6 (152)	10.00 (254)	14.75 (375)	4.47 (114)	13.13 (334)	11.13 (283)	11.19 (284)	3.81 (97)
SJICH6161406*	16 (406)	14 (356)	6 (152)	12 (305)	16.75 (425)	4.47 (114)	15.13 (384)	13.13 (334)	13.19 (335)	3.81 (97)

*Enclosure can be supplied with gland plates
All dimension in. (mm)

Standard terminal offering

- ABB ZS Screw Clamp
- ABB ZK Cage (Spring) Clamp
- Weidmuller WD Screw Clamp
- Weidmuller ZD Cage (Spring) Clamp

Terminals are mounted on TS-35 DIN rail. The rails are mounted to raised collared studs or unistrut rails which adds additional air flow and wire room.

Additional ABB & Weidmuller terminal blocks available. Contact the factory for more information.

Pages E24 & E25 for maximum number of terminals and rows per enclosure.

Specify ground / earth blocks size and qty separately. Must be included in total qty.

The SJIC(H) terminal boxes are suitable for use Wago, Phoenix and Klemsan Elektrik terminals.

Options

- Panel ID tag 316 stainless steel
- Copper ground / earth bars

SJIC / SJICH MAXIMUM CONDUIT / GLAND OPENINGS					
W/O GLAND PLATE			W/ GLAND PLATE		
BOX DEPTH	MAX NPT	MAX METRIC	BOX DEPTH	MAX NPT	MAX METRIC
4	1"	M32	4	1/2"	M20
5	1-1/2"	M50	5	1-1/4"	M40
6	3"	M80	6	2"	M63



WEIDMULLER TERMINALS

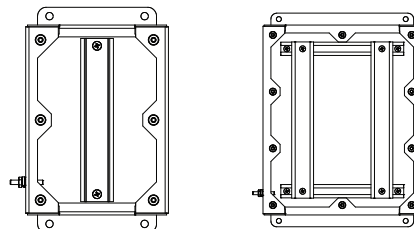
Weidmuller WD Series Screw Terminals

Table listing Weidmuller WD Series Screw Terminals with columns for WDU 2.5, WDU 4, WDU 6, WDU 10, WDU 16, and WDU 35, and rows for various terminal types (e.g., SJIC604040*, SJIC606040*, etc.) and their dimensions.

Table listing Weidmuller ZD Series Cage Clamp Terminals with columns for WDU 2.5N, WDK 2.5N, WDK 4N, WDK 2.5N V, and WDK 4N V, and rows for various terminal types (e.g., SJIC604040*, SJIC606040*, etc.) and their dimensions.

Weidmuller ZD Series Cage Clamp Terminals

Table listing Weidmuller ZD Series Cage Clamp Terminals with columns for ZDU 2.5, ZDU 4, ZDU 6, ZDU 10, ZDU 16, and ZDU 35, and rows for various terminal types (e.g., SJIC604040*, SJIC606040*, etc.) and their dimensions.





IEC Ex e RATINGS

ABB TERM BLOCK	TERMINAL RESISTIVE OHMS	MAX AMPS	MAX VAC	MAX WIRE SIZE				WIRE STRIP LENGTH IN. (MM)	TORQUE VALUES		AMBIENT TEMPERATURE
				MAX WIRE - METRIC		MAX WIRE - USA			NM	LB.IN	
				MM ²	RESISTIVE OHMS/M	AWG	RESISTIVE OHMS/M				
ZS4	0.00098	32	690	4	0.00461	12	0.005210	0.413 (10.5)	0.6	5.3	-55°C to +105°C
ZS6	0.00077	41	690	6	0.00308	10	0.003277	0.413 (10.5)	0.85	7.5	
ZS10	0.0018	57	690	10	0.00183	6	0.001296	0.472 (12.0)	1.3	11.5	
ZS16	0.0024	76	690	16	0.00115	4	0.000813	0.531 (13.5)	1.8	15.9	
ZS35	0.004	125	690	35	0.000524	1/0	0.000323	0.669 (17.0)	2.9	25.7	
ZS4-D1	0.00226	29	440	4	0.00461	12	0.005210	0.394 (10.0)	0.6	5.3	
ZS6-D1	0.00226	40	440	6	0.00308	10	0.003277	0.394 (10.0)	0.85	7.5	
ZS4-D2	0.0026	29	440	4	0.00461	12	0.005210	0.394 (10.0)	0.6	5.3	
ZS6-D2	0.0026	40	440	6	0.00308	10	0.003277	0.394 (10.0)	0.85	7.5	
ZK2.5	0.0008	21	630	2.5	0.00741	12	0.005210	0.433 (11.0)	N/A	N/A	
ZK4	0.001	29	630	4	0.00461	10	0.003277	0.492 (12.5)			
ZK6	0.0013	37	630	6	0.00308	8	0.002061	0.492 (12.5)			
ZK10	0.0018	51	630	10	0.00115	6	0.001296	0.591 (15.0)			
ZK16	0.0024	69	630	16	0.000524	4	0.000813	0.591 (15.0)			
ZK2.5-3P	0.0008	21	630	2.5	0.00741	12	0.005210	0.433 (11.0)			
ZK4-3P	0.001	29	630	4	0.00461	10	0.003277	0.492 (12.5)			
ZK6-3P	0.0013	37	630	6	0.00308	8	0.002061	0.492 (12.5)			
ZK2.5-4P	0.0008	21	630	2.5	0.00741	12	0.005210	0.433 (11.0)			
ZK4-4P	0.001	29	630	4	0.00461	10	0.003277	0.492 (12.5)			

WEIDMULLER TERM BLOCK	TERMINAL RESISTIVE OHMS	MAX AMPS	MAX VAC	MAX WIRE SIZE				WIRE STRIP LENGTH IN. (MM)	TORQUE VALUES		AMBIENT TEMPERATURE
				MAX WIRE - METRIC		MAX WIRE - USA			NM	LB.IN	
				MM ²	RESISTIVE OHMS/M	AWG	RESISTIVE OHMS/M				
WDU 2.5	0.00033	15	550	2.5	0.00741	14	0.008284	0.394 (10.0)	0.4 - 0.8	0.3 - 0.6	-50°C to +100°C
WDU 4	0.00031	28	690	4	0.00461	12	0.005210	0.394 (10.0)	0.5 - 1.0	0.4 - 0.7	
WDU 6	0.00028	36	550	6	0.00308	10	0.003277	0.472 (12.0)	0.8 - 1.6	0.6 - 1.2	
WDU 10	0.0002	50	550	10	0.00183	8	0.002061	0.472 (12.0)	1.2 - 2.4	0.9 - 1.8	
WDU 16	0.00015	66	690	16	0.00115	6	0.001296	0.630 (16.0)	2.0 - 4.0	1.5 - 3.0	
WDU 35	0.0001	109	690	35	0.000524	2	0.000513	0.708 (18.0)	4.0 - 5.0	3.0 - 3.7	
WDU 2.5N	0.00036	15	440	2.5	0.00741	14	0.008284	0.394 (10.0)	0.4 - 0.6	0.3 - 0.4	
WDU 4N	0.00033	27	440	4	0.00461	12	0.005210	0.433 (11.0)	0.5 - 1.0	0.4 - 0.7	
WDK 2.5N	0.00053	21	550	2.5	0.00741	14	0.008284	0.315 (8.0)	0.4 - 0.6	0.3 - 0.4	
WDK 4N	0.00033	28	550	4	0.00461	12	0.005210	0.315 (8.0)	0.5 - 1.0	0.4 - 0.7	
WDK 2.5NV	0.00076	21	550	2.5	0.00741	14	0.008284	0.315 (8.0)	0.4 - 0.6	0.3 - 0.4	
WDK 4NV	0.00045	28	550	4	0.00461	12	0.005210	0.315 (8.0)	0.5 - 1.0	0.4 - 0.7	
ZDU 2.5	0.00033	21	550	2.5	0.00741	14	0.008284	0.394 (10.0)	N/A	N/A	
ZDU 4	0.00031	28	550	4	0.00461	12	0.005210	0.472 (12.0)			
ZDU 6	0.00028	36	550	6	0.00308	10	0.003277	0.512 (13.0)			
ZDU 10	0.0002	50	550	10	0.00183	8	0.002061	0.708 (18.0)			
ZDU 16	0.00015	66	550	16	0.00115	6	0.001296	0.708 (18.0)			
ZDU 35	0.0001	109	550	35	0.000524	2	0.000513	0.980 (25.0)			

PHOENIX TERM BLOCK	TERMINAL RESISTIVE OHMS	MAX AMPS	MAX VAC	MAX WIRE SIZE				WIRE STRIP LENGTH IN. (MM)	TORQUE VALUES		AMBIENT TEMPERATURE
				MAX WIRE - METRIC		MAX WIRE - USA			NM	LB.FT	
				MM ²	RESISTIVE OHMS/M	AWG	RESISTIVE OHMS/M				
UT 2.5	0.00041	22	690	2.5	0.00741	12	0.005210	0.35 (9.00)	0.5 - 0.6	0.4	-60°C to +110°C
UT 4	0.00026	30	690	4	0.00461	10	0.003277	0.35 (9.00)	0.6 - 0.8	0.4 - 0.6	
UT 6	0.0002	40	690	6	0.00308	8	0.002061	0.39 (10.00)	1.5 - 1.8	1.1 - 1.3	
UT 10	0.00014	54	690	10	0.00183	6	0.001296	0.39 (10.00)	1.5 - 1.8	1.1 - 1.3	
UT 16	0.00016	73.5	690	16	0.00115	4	0.000813	0.55 (14.00)	2.5 - 3	1.8 - 2.2	
UT 35	0.00006	126	690	35	0.000524	1/0	0.000323	0.708 (18.00)	3.2 - 3.7	2.4 - 2.7	
UK 2.5N	0.00041	24	550	2.5	0.00741	14	0.008284	0.28 (7.00)	0.6 - 0.8	0.4 - 0.6	
UK 3N	0.0005	29	690	2.5	0.00461	12	0.005210	0.315 (8.0)	0.6 - 0.8	0.4 - 0.6	
UK 5N	0.00037	32	690	4	0.00308	10	0.003277	0.315 (8.0)	0.6 - 0.8	0.4 - 0.6	
UK 6N	0.00016	41	690	6	0.00183	8	0.002061	0.39 (10.00)	1.5 - 1.8	1.1 - 1.3	
UK 10N	0.00012	57	690	10	0.00115	6	0.001296	0.39 (10.00)	1.5 - 1.8	1.1 - 1.3	
UK 16N	0.00017	74	690	16	0.000524	4	0.000813	0.433 (11.0)	1.5 - 1.8	1.1 - 1.3	
ST 2.5	0.00141	21	550	2.5	0.00741	12	0.005210	0.39 (10.00)	N/A	N/A	
ST 4	0.00063	30	550	4	0.00461	10	0.003277	0.39 (10.00)			
ST 6	0.00056	36.5	550	6	0.00308	8	0.002061	0.472 (12.0)			
ST 10	0.0004	50	550	10	0.00183	6	0.001296	0.708 (18.00)			
ST 16	0.00034	65	550	16	0.00115	4	0.000813	0.708 (18.00)			
ST 35	0.00021	108	690	35	0.000524	2	0.000513	0.980 (25.0)			



USF / SJIC / SJICH ENCLOSURES



TABLE 1: Minimum distance from edge of box to the center of the conduit / cable entry.

NPT (METRIC)	4"	3-1/2"	3" (M75)	2-1/2" (M63)	2" (M50)	1-1/2" (M40)	1-1/4" (M32)	1" (M25)	3/4" (M20)	1/2" (M16)
IN. (MM)	2-3/4 (70)	2-1/2 (64)	2 (51)	2 (51)	1-5/8 (41)	1-3/8 (35)	1-1/4 (32)	1 (25)	7/8 (22)	3/4 (19)

TABLE 2 Minimum distance from edge of gland plate to the center of the conduit / cable entry.

NPT (METRIC)	4" (M100)	3-1/2" (M80)	3" (M75)	2-1/2" (M63)	2" (M50)	1-1/2" (M40)	1-1/4" (M32)	1" (M25)	3/4" (M20)	1/2" (M16)
IN. (MM)	3-1/4 (83)	3 (76)	2-3/4 (70)	2-1/2 (64)	2-1/8 (54)	1-7/8 (48)	1-3/4 (44)	1-1/2 (38)	1-3/8 (35)	1-1/4 (32)

TABLE 3: NEC / CEC minimum wire bending space from inside wall of the enclosure, North America applications only.

SIZE AWG (MM2)	16 (1.5)	14 (2.5)	12 (4)	10 (6)	8 (10)	6 (16)	4 (25)	2 (35)	1/0 (50)	2/0 (70)	3/0 (95)	4/0 (120)
IN. (MM)	1.5 (38)	1.5 (38)	1.5 (38)	1.5 (38)	1.5 (38)	2 (51)	3 (76)	3.5 (89)	5.5 (140)	6 (152)	6.5 (164)	7 (178)

TABLE 4: Punched hole diameters. For additional sizes not shown please contact the factory.

NPT	4"	3-1/2"	3"	2-1/2"	2"	1-1/2"	1-1/4"	1"	3/4"	1/2"
MAX. HOLE DIA. IN. (MM)	4.53 (115.06)	4.03 (102.36)	3.53 (89.66)	2.905 (73.79)	2.405 (61.08)	1.93 (49.2)	1.69 (42.93)	1.345 (34.16)	1.08 (27.4)	.87 (22.09)
METRIC	M100	M80	M75	M63	M50	M40	M32	M25	M20	M16
MAX. HOLE DIA. MM (IN.)	100.7 (3.94)	80.7 (3.15)	75.7 (2.95)	63.7 (2.48)	50.7 (1.97)	40.7 (1.58)	32.7 (1.26)	25.7 (0.98)	20.7 (0.79)	16.7 (0.63)

TABLE 5: Minimum distance of the center line to center line of the conduit / cable entries.

(NPT) [METRIC]	4 [M100]	3 1/2 [M80]	3 [M75]	2 1/2 [M63]	2 [M50]	1 1/2 [M40]	1 1/4 [M32]	1 [M25]	3/4 [M20]	1/2 [M16]
1/2 [M16]	3 5/8 [92mm]	3 3/8 [86mm]	3 1/8 [80mm]	2 3/4 [70mm]	2 1/2 [64mm]	2 1/4 [58mm]	2 1/8 [54mm]	1 7/8 [48mm]	1 3/4 [45mm]	1 5/8 [41mm]
3/4 [M20]	3 3/4 [96mm]	3 1/2 [89mm]	3 1/4 [83mm]	2 7/8 [74mm]	2 5/8 [68mm]	2 3/8 [60mm]	2 1/4 [58mm]	2 [51mm]	1 7/8 [48mm]	
1 [M25]	3 7/8 [99mm]	3 5/8 [92mm]	3 3/8 [86mm]	3 [77mm]	2 3/4 [70mm]	2 1/2 [64mm]	2 3/8 [60mm]	2 1/8 [54mm]		
1 1/4 [M32]	4 1/8 [105mm]	3 7/8 [99mm]	3 1/2 [89mm]	3 1/4 [83mm]	3 [77mm]	2 3/4 [70mm]	2 1/2 [64mm]			
1 1/2 [M40]	4 1/4 [108mm]	4 [102mm]	3 3/4 [96mm]	3 3/8 [86mm]	3 1/8 [80mm]	2 7/8 [73mm]				
2 [M50]	4 3/4 [121mm]	4 1/2 [115mm]	4 [102mm]	3 5/8 [92mm]	3 3/8 [86mm]					
2 1/2 [M63]	4 7/8 [124mm]	4 5/8 [118mm]	4 1/4 [108mm]	3 7/8 [99mm]						
3 [M75]	5 1/4 [134mm]	5 [127mm]	4 5/8 [118mm]							
3 1/2 [M80]	5 3/4 [147mm]	5 1/2 [140mm]								
4 [M100]	6 1/4 [159mm]									

All dimension in. (mm)

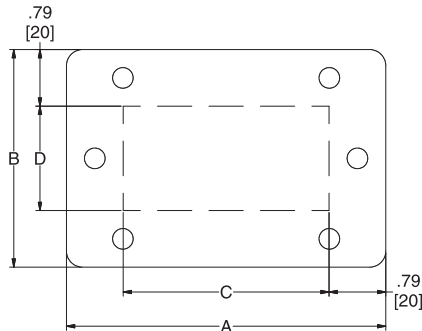


USF / USFC / SJIC(H)6 / SJIC(H) TERMINAL BOXES AND ENCLOSURES

Replacement Gland Plates

Gland plates kits comes with the following:

- Gland plate in either 316 stainless steel or painted carbon steel.
- Mounting screws and retaining washers.
- One piece closed cell silicone gasket.



Catalog Logic

USF - **GP** **12** x **6**
 1 2 3 4

1. Enclosure Series
2. Gland Plate
3. Box Nominal Length or Width
4. Box Nominal Depth

Note: Gland plates not supplied with ground stud / earth connection. If one is required contact the factory for price and special part number.

REPLACEMENT GLAND PLATES

CATALOG NUMBER: 316 STAINLESS STEEL	CATALOG NUMBER PAINTED CARBON STEEL	"A" OVER ALL LENGTH	"B" OVER ALL WIDTH	"C" AREA FOR OPENINGS	"D" AREA FOR OPENINGS
USF-GP12X6	USFC-GP12X6	10.97 [279]	5.74 [146]	9.40 [239]	4.16 [106]
USF-GP12X8	USFC-GP12X8	10.97 [279]	7.74 [197]	9.40 [239]	6.16 [156]
USF-GP12X10	USFC-GP12X10	10.97 [279]	9.74 [247]	9.40 [239]	8.16 [207]
USF-GP16X6	USFC-GP16X6	14.97 [380]	5.74 [146]	13.40 [340]	4.16 [106]
USF-GP16X8	USFC-GP16X8	14.97 [380]	7.74 [197]	13.40 [340]	6.16 [156]
USF-GP16X10	USFC-GP16X10	14.97 [380]	9.74 [247]	13.40 [340]	8.16 [207]
USF-GP20X6	USFC-GP20X6	18.97 [482]	5.74 [146]	17.40 [442]	4.16 [106]
USF-GP20X8	USFC-GP20X8	18.97 [482]	7.74 [197]	17.40 [442]	6.16 [156]
USF-GP20X10	USFC-GP20X10	18.97 [482]	9.74 [247]	17.40 [442]	8.16 [207]
USF-GP20X12	USFC-GP20X12	18.97 [482]	11.74 [298]	17.40 [442]	10.16 [258]
USF-GP24X6	USFC-GP24X6	22.97 [583]	5.74 [146]	21.40 [544]	4.16 [106]
USF-GP24X8	USFC-GP24X8	22.97 [583]	7.74 [197]	21.40 [544]	6.16 [156]
USF-GP24X10	USFC-GP24X10	22.97 [583]	9.74 [247]	21.40 [544]	8.16 [207]
USF-GP24X12	USFC-GP24X12	22.97 [583]	11.74 [298]	21.40 [544]	10.16 [258]
USF-GP24X16	USFC-GP24X16	22.97 [583]	15.74 [400]	21.40 [544]	14.16 [360]
USF-GP24X20	USFC-GP24X20	22.97 [583]	19.74 [501]	21.40 [544]	18.16 [461]
USF-GP30X8	USFC-GP30X8	27.59 [701]	7.74 [197]	26.02 [661]	6.16 [156]
USF-GP30X10	USFC-GP30X10	27.59 [701]	9.74 [247]	26.02 [661]	8.16 [207]
USF-GP30X12	USFC-GP30X12	27.59 [701]	11.74 [298]	26.02 [661]	10.16 [258]
USF-GP30X16	USFC-GP30X16	27.59 [701]	15.74 [400]	26.02 [661]	14.16 [360]
USF-GP30X20	USFC-GP30X20	27.59 [701]	19.74 [501]	33.02 [839]	18.16 [461]
USF-GP36X8	USFC-GP36X8	34.59 [879]	7.74 [197]	33.02 [839]	6.16 [156]
USF-GP36X10	USFC-GP36X10	34.59 [879]	9.74 [247]	33.02 [839]	8.16 [207]
USF-GP36X12	USFC-GP36X12	34.59 [879]	11.74 [298]	33.02 [839]	10.16 [258]
SJIC6-GP0404	SJIC-GP0404	3.74 [95]	3.28 [83]	2.16 [55]	1.71 [43]
SJIC6-GP0604	SJIC-GP0604	5.74 [146]	3.28 [83]	4.16 [106]	1.71 [43]
SJIC6-GP0804	SJIC-GP0804	7.74 [197]	3.28 [83]	6.16 [156]	1.71 [43]
SJIC6-GP1004	SJIC-GP1004	9.74 [247]	3.28 [83]	8.16 [207]	1.71 [43]
SJIC6-GP1005	SJIC-GP1005	9.74 [247]	4.28 [109]	8.16 [207]	2.71 [69]
SJIC6-GP0606	SJIC-GP0606	5.74 [146]	5.28 [134]	4.16 [106]	3.71 [94]
SJIC6-GP0806	SJIC-GP0806	7.74 [197]	5.28 [134]	6.16 [156]	3.71 [94]
SJIC6-GP1006	SJIC-GP1006	9.74 [247]	5.28 [134]	8.16 [207]	3.71 [94]
SJIC6-GP1206	SJIC-GP1206	11.74 [298]	5.28 [134]	10.16 [258]	3.71 [94]
SJIC6-GP1406	SJIC-GP1406	13.74 [349]	5.28 [134]	12.16 [309]	3.71 [94]

KDE DRAIN / BREATHER



Available In

- KDEAL0050 – Alum 1/2" NPT
- KDEAL0M20 – Alum M20
- KDES60050 – 316SS 1/2" NPT
- KDES60M20 – 316SS M20
- KDEGF0050 – Plastic 1/2" NPT
- KDEGF0M20 – Plastic M20

File #2714851

Class I, Div. 2, Groups A, B, C & D;
Class I, Zone 1, AEx e IIC Gb & Zone 21,
AEx tb IIIC Db
Class II, Div. 1 & 2, Groups E, F & G;
Class III, Div 1 & 2 Type 3, 4 & 4x
Ambient Temperature -55°C to +80°C

IEx 15.0154X INMETRO (Brazil)
CML 15ATEX3028X
IECEX QPS 15.0002X
ATEX / IEC Ex II 2 G D CE 0518
Ex e IIC Gb T6
Ex t IIIC Db T80°C IP66
Tamb = -55°C To +80°C

ENCLOSURES

USF/USFC/SJIC(H)6/SJIC(H) SERIES

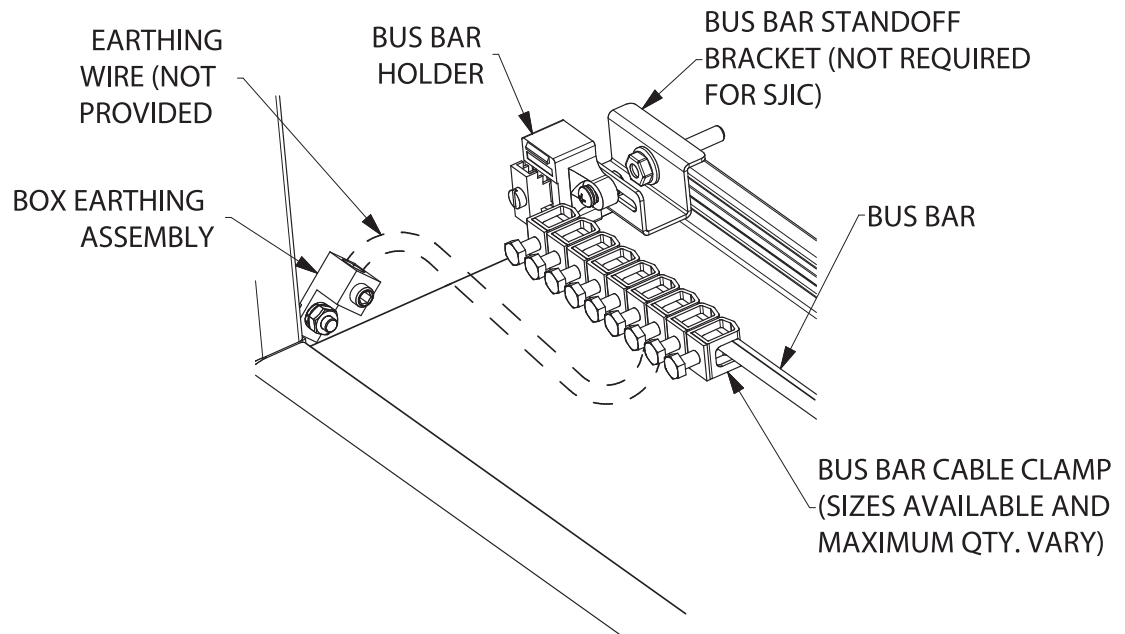


BUS BAR / GROUND BUS OPTION

Description:

- **Bus bar** – Tin plated copper, 10mm wide x 3 mm thick, rated for 140 amperes.
- **Bus clamps** – ZB 4 wire range 0.5 - 6mm² (#20 to #10 AWG)
ZB 10 wire range 1.5 - 10mm² (#16 to #8 AWG)
- **Kit contains** – mounting hardware, mounting brackets, bus bar and bus clamps

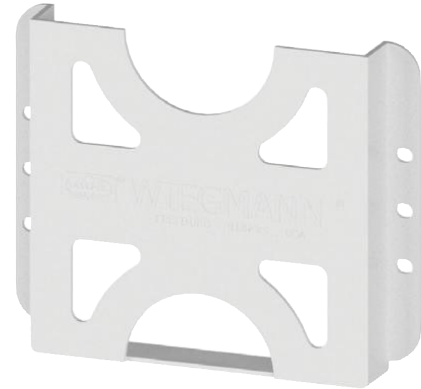
CATALOG NUMBER	CLAMP SIZE	QTY	BOX SERIES / WIDTH
SJIC-GB10N4-26	ZB 4	26	SJIC 10"
SJIC-GB10N10-17	ZB 10	17	
SJIC-GB12N4-36	ZB 4	36	SJIC 12"
SJIC-GB12N10-23	ZB 10	23	
SJIC-GB14N4-45	ZB 4	45	SJIC 14"
SJIC-GB14N10-30	ZB 10	30	
USF-GB12N4-35	ZB 4	35	USF 12"
USF-GB12N10-22	ZB 10	22	
USF-GB16N4-54	ZB 4	54	USF 16"
USF-GB16N10-35	ZB 10	35	
USF-GB18N4-63	ZB 4	63	USF 18"
USF-GB18N10-41	ZB 10	41	
USF-GB20N4-73	ZB 4	73	USF 20"
USF-GB20N10-48	ZB 10	48	
USF-GB24N4-92	ZB 4	92	USF 24"
USF-GB24N10-61	ZB 10	61	
USF-GB30N4-114	ZB 4	114	USF 30"
USF-GB30N10-75	ZB 10	75	



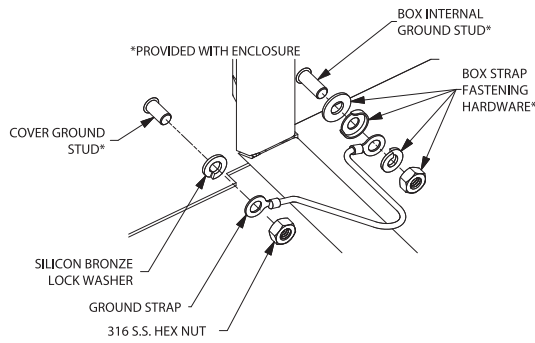


ACCESSORIES

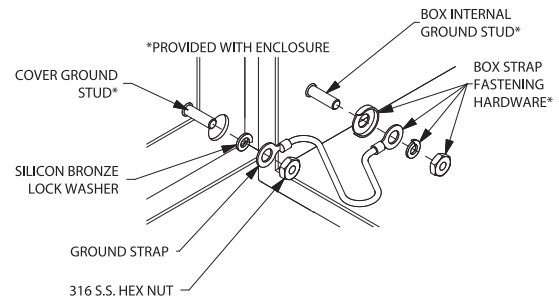
CATALOG NUMBER	DESCRIPTION
USF-DC	Document Door Wallet
USF-CVGRD	Cover Ground (earth) Kit
USF-BOXGRD	Box Ground (earth) Kit
USF-MTGFEET	Mounting Feet, Pack of 4
SJIC-CVGRD	Cover Ground (earth) Kit
SJIC-INTGRD	Box Ground (earth) Kit
SJIC-EXTGRD	External Ground (earth) Kit



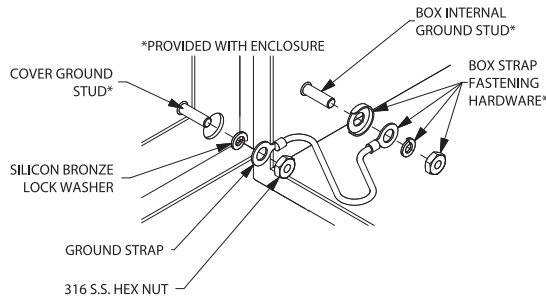
USF-DC



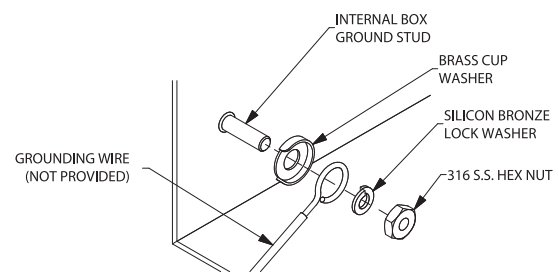
USF-CVGRD



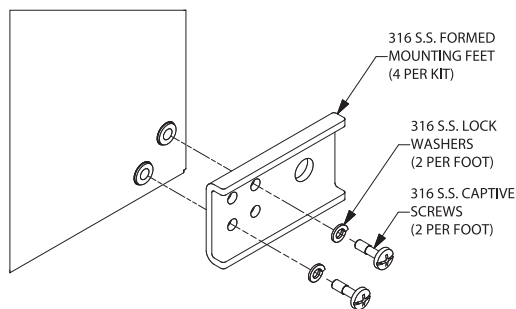
SJIC-CVGRD



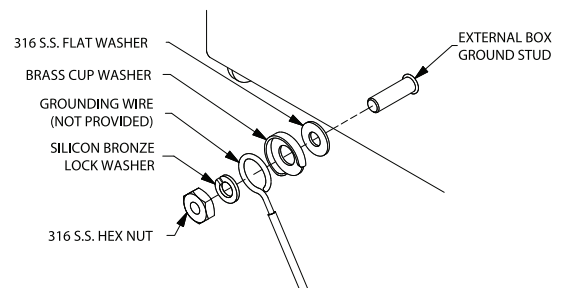
SJIC-CVGRD



SJIC-INTGRD



USF-MTGFEET



SJIC-EXTGRD



ENCLOSURES

ALUMINUM OUTLET BODIES WITH TERMINAL BLOCK - UL / CSA



GECTT-2-6TB



Class I, Div. 1 & 2, Groups B, C, D
 Class I, Zones 1 & 2, Groups IIB, IIA
 Class II, Div. 1 & 2, Groups E, F, G
 Class III, Type 3, 4 & 4X

LISTED - File E10514

Certified - File LR11716

FEATURES-SPECIFICATIONS

Applications

GE series conduit boxes with terminals are installed in conduit systems within hazardous areas to:

- Protect conductors in threaded rigid conduit
- Act as pull and splice boxes
- Interconnect lengths of conduit
- Change conduit direction
- Provide access to conductors for maintenance and future system changes
- Used to link electrical wires. Primary circuit brought into the enclosure is distributed to field control devices or sensors

Features

- Water shedding cover-suitable for wet locations when mounted in upright position
- External cover threads on body protecting conductors from damage during pulling
- No pinching of conductors during cover installation

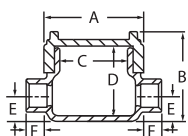
- Three different hub arrangements
- Taper threaded hubs to provide ground continuity
- Smooth integral hub bushing to protect conductor insulation when pulling
- Weather-resistant finish
- Green ground screw standard in all boxes
- Weidmuller 6 point MK3 terminal block is mounted inside box on raised pads
- Type 4 "O" Ring Standard

- Terminal rated 300V max/20 AMP/for wire size #22--12AWG
- Hub type XTF furnished with mounting flange

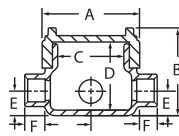
Material/Finish

- Body and cover are copper-free aluminum (less than 4/10 of 1%)
- Finish-Electrostatically applied powder coating

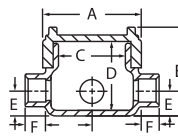
GE SERIES OUTLET BOX WITH 6 POINT TERMINAL BLOCK										
HUB TYPE	CATALOG NUMBER	HUB SIZE	A	B	C	D	E	F	COVER OPENING	VOLUME CU. IN.
C	GECCT-2-6TB	3/4"	3-11/16" (94)	3-5/8" (92)	2-11/16" (68)	2-3/4" (70)	1" (25)	13/16" (21)	2-11/16" (68)	19
T	GECTT-2-6TB	3/4"								
X	GECXT-2-6TB	3/4"								
XTF	GECXTF-2-6TB	3/4"								



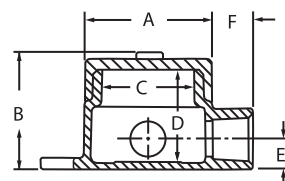
C Type



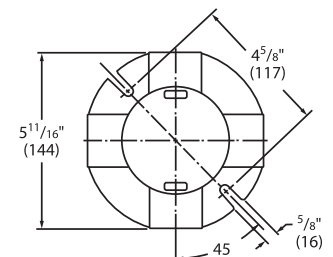
T Type



X Type



XTF Type
With Mounting Flange





HK SERIES



HK TERMINAL BOX - UL / CSA / ATEX / IEC EX



Class I, Div. 1 & 2, Groups A*, B, C, D**
 Class I, Zones 1 & 2, Groups IIB + H2, IIA
 Class II, Div. 1 & 2, Groups E, F, G
 Class III
 Enclosure Type 3, 4, 4X

UL - File E83969 & file E150827
 SP Certified - File LR11716
 FM Approved Certified - File 1W1R4-RE



ATEX/IEC Ex Certified
 DEMKO 06 ATEX 141023X / IEC Ex UL 14.0060X
 DEMKO 06 ATEX 0521635X / IEC Ex UL 14.0069X
 Ex II 2 G D CE 0518
 Ex db IIC "T4...T3" Gb***
 Ex e IIC "T4...T3" Gb
 Ex tb IIIC "T110°C...T140°C" Db IP66
 -60°C ≤ Ta ≤ +70°C With Blank Covers
 -60°C ≤ Ta ≤ +70°C With Glass Lens Covers

FEATURES-SPECIFICATIONS

UL DEMKO
 Increased Safety/Flame Proof
 Terminal Enclosure

Applications

- Used within hazardous areas to splice or terminate conductors by means of a terminal block
- Act as pull and splice boxes
- Provide access to conductors for maintenance and future system changes
- Used to link electrical wires. Primary circuit brought into the enclosure is distributed to field control devices or sensors

Features

- Select from 4 body types and 8 different covers
- Single port box provided with two 3/4" NPT standard openings. One additional 1/2" or 3/4" NPT can be added.
- Double port has three 3/4" NPT's as standard.
- Maximum (10) 2.5mm² blocks. Quantity doubles for 2HKB's.
- 630 Volts max. and 60 Amps max.

Notes:

- * Group A FM only on HK single cover box.
- ** Seal within 18" of enclosure for Group BCD and within 6" for Group A in accordance with sections 501-5 and 502-5 of the National Electric Code.
- *** Seal immediately adjacent to enclosure

Catalog Number Logic
 HK Series ATEX/IEC Ex Terminal Box

<u>HKB</u>	<u>B</u>	<u>*</u>	<u>T</u>	<u>0</u>	<u>W</u>	<u>10</u>	<u>2</u>
1	2	3	4	5	6	7	8

1. Blank Box Type

HKB - Aluminum
 HKBD - Aluminum Deep
 HKSB - 316 Stainless Steel
 2HKB - Double Port

2. Cover Assembly

B - Blank
 GL - Flat Glass Lens Cover
 1D - 1 in. Dome Cover
 1GLD - 1 in. Glass Lens Cover
 2GLD - 2 in. Glass Lens Cover
 2D - 2 in. Dome Cover
 4D - 4 in. Dome Cover
 4GLD - 4 in. Glass Lens Cover

3. Second Cover Assembly for 2HKB only

B - Blank
 GL - Flat Glass Lens Cover
 1D - 1 in. Dome Cover
 1GLD - 1 in. Glass Lens Cover
 2GLD - 2 in. Glass Lens Cover
 2D - 2 in. Dome Cover
 4D - 4 in. Dome Cover
 4GLD - 4 in. Glass Lens Cover

4. Type of Protection

T - ATEX Type d or e

5. Side Alternate Machining

0 - None
 1 - 1/2 in. NPT
 2 - 3/4 in. NPT

6. Type of Manufacturer

W - Weidmuller

7. Indicates Total Number of Terminal Blocks

2.5 mm² - 10 max.
 4 mm² - 8 max.
 6 mm² - 6 max.
 10 mm² - 4 max.

8. Indicates Terminal Block Wire Size

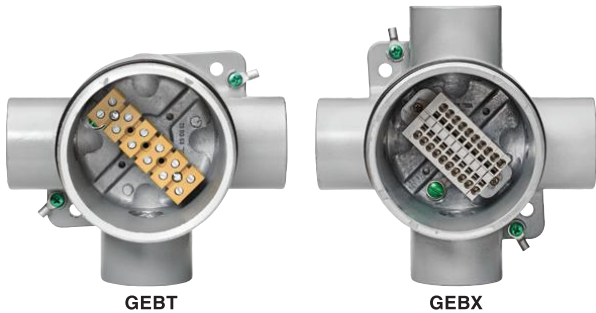
2 - 2.5 mm² (No. 12 AWG max.)
 4 - 4 mm² (No. 10 AWG max.)
 6 - 6 mm² (No. 8 AWG max.)
 10 - 10 mm² (No. 6 AWG max.)

Ordering Example: HKB-B-T1W102
 Description: HKB box with blank cover, with 1/2" NPT (in the side) pad, with qty. ten 2.5mm² Weidmuller terminal blocks.
 Dimensions: See pages E53 and E54.



ENCLOSURES

STOCK TERMINAL BOXES - UL / CSA / ATEX / IEC EX WITH PANEL MOUNTED TERMINALS



CLASSIFIED - File E83969
 UL
 SR Certified - LR11716
 Sira 12ATEX1244
 IEC Ex SIR 12.0107

Class I, Div. 1 & 2, Groups B, C, D
 Class I, Zone 1 & 2, Groups IIC, IIB, IIA
 Class II, Div. 1 & 2, Groups E, F, G
 Class III
 Enclosure Type 3, 4 & 4X IP66
 Ex II 2 G D CE 0518
 Ex d IIC T3* Gb
 Ex t IIIC T200°C* Db
 Ta = -40°C to +138°C* IP66



FEATURES-SPECIFICATIONS

Applications

Used within hazardous areas to splice or terminate conductors by means of a terminal block.

Acts as a pull and splice box.

Provides access to conductors for maintenance and future

Used to link and distribute electrical wires through a conduit or gland system to field controlled devices or sensors.

Features

- Cover o-ring supplied as standard for **Type 4X and IP66** applications
- Available in 3 configurations, C, T & X with **either 3/4" or 1" NPT taper threaded hubs** providing ground continuity
- Smooth integral hub bushing to protect conductor insulation when pulling
- Also available in M20 through M50 metric sizes
- No pinching of conductors during cover installation
- Three options of terminal blocks to select from
- One Internal and two external grounding (earthing) screws.
- Lugs on covers permits for easy removal and tightening

Industrial Applications

- Petroleum Refineries
- Oil Rigs & Platforms
- Chemical/Petrochemical Plants
- Pharmaceutical Facilities
- Automotive Repair Facilities
- Aircraft Facilities
- Wet/Corrosive Environments
- Grain Elevators

Materials

- Box & cover: Copper free aluminum (less than 4/10 of 1%)
- Finish: Electrostatically applied powder coating – Grey
- O-Ring Gasket Material: Nitrile compound
- Hub Sizes: 3/4 NPT & 1" NPT
- Stainless steel tamper-proof locking set screw in cover

Terminal Blocks Specifications

8TBMK: Weidmuller® MK3/8 Qty 8 points
 UL = 600VAC, 5AMP, #22 to #12 AWG
 CSA = 300VAC, 25AMP, #22 to #12 AWG
 IEC = 400VAC, 24AMP, 2.5mm²

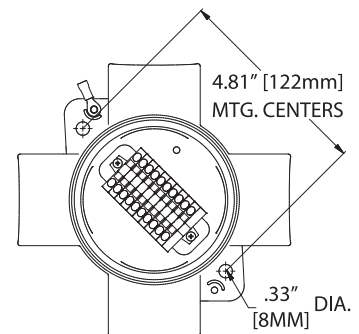
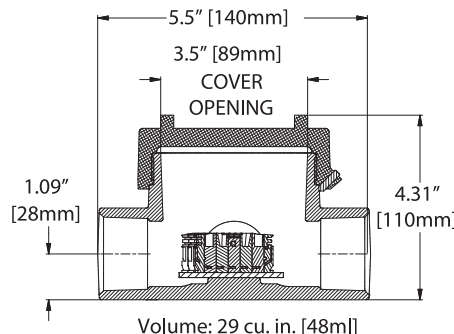
6TBMK: Weidmuller® MK6/6 Qty 6 points
 UL = 300VAC, 20AMP, #22 to #10 AWG
 CSA = 300VAC, 40AMP, #22 to #10 AWG
 IEC = 690VAC, 41AMP, 6mm²

10TBZD: Weidmuller® ZDUB2.5 Qty 10 points
 UL = 600VAC, 20AMP, #26 to #12 AWG
 CSA = 600VAC, 25AMP, #26 to #12 AWG
 IEC = 690VAC, 24AMP, 2.5mm²

*T Codes Ratings / Wattage Input

- 20 Watts of Power
 Ta 48°C = T6 / T85°C
 Ta 63°C = T5 / T100°C
 Ta 98°C = T4 / T135°C
 Ta 163°C = T3 / T200°C
- 30 Watts of Power
 Ta 50°C = T5 / T100°C
 Ta 85°C = T4 / T135°C
 Ta 150°C = T3 / T200°C
- 40 Watts of Power
 Ta 38°C = T5 / T100°C
 Ta 73°C = T4 / T135°C
 Ta 138°C = T3 / T200°C

HUB TYPE	CATALOG NUMBER	HUB SIZE	CATALOG NUMBER	HUB SIZE
C	GEBX-2-8TBMK-EX	3/4"	GEBX-3-8TBMK-EX	1"
	GEBX-2-6TBMK-EX		GEBX-3-6TBMK-EX	
	GEBX-2-10TBZD-EX		GEBX-3-10TBZD-EX	
T	GEBT-2-8TBMK-EX	3/4"	GEBT-3-8TBMK-EX	1"
	GEBT-2-6TBMK-EX		GEBT-3-6TBMK-EX	
	GEBT-2-10TBZD-EX		GEBT-3-10TBZD-EX	
X	GEBX-2-8TBMK-EX	3/4"	GEBX-3-8TBMK-EX	1"
	GEBX-2-6TBMK-EX		GEBX-3-6TBMK-EX	
	GEBX-2-10TBZD-EX		GEBX-3-10TBZD-EX	





GEB SERIES



TERMINAL BOXES - UL / CSA / ATEX / IEC Ex CONFIGURED **PANEL MOUNTED** TERMINALS



GEBC Open



GEBX Open

CLASSIFIED
UL - File E83969
SR Certified - LR11716
Sira 12ATEX1244
IEC Ex SIR 12.0107

Class I, Div. 1 & 2, Groups B, C, D
Class I, Zone 1 & 2, Groups IIC, IIB, IIA
Class II, Div. 1 & 2, Groups E, F, G
Class III
Enclosure Type 3, 4 & 4X IP66
Ex II 2 G D **CE 0518**
Ex d IIC T* Gb
Ex t IIIC T*°C Db
Ta = -40°C to +*°C IP66



FEATURES-SPECIFICATIONS

Applications

Used within hazardous areas to splice or terminate conductors by means of a terminal block.

Acts as a pull and splice box.

Provides access to conductors for maintenance and future

Used to link and distribute electrical wires through a conduit or gland system to field controlled devices or sensors.

Features

- Cover o-ring supplied as standard for **Type 4X and IP66** applications
- Available in 4 configurations, C, L, T & X with **either 1/2" to 1-1/2" NPT taper threaded hubs** providing ground continuity
- Smooth integral hub bushing to protect conductor insulation when pulling
- Also available in M20 through M50 metric sizes
- External cover threads on the body protecting conductors from damages during pulling.
- No pinching of conductors during cover installation
- Two terminal block manufacturers to choose from, Weidmuller® and ABB®
- Three options of terminal blocks to select from
- One Internal and two external grounding (earthing) screws.
- Lugs on covers permits for easy removal and tightening

Materials

- Box & cover: Copper free aluminum (less than 4/10 of 1%)
- Finish: Electrostatically applied powder coating - Grey
- O-Ring Gasket Material: Nitrile compound supplied as a standard on all units
- Hub Sizes: 1/2 NPT to 1-1/2" NPT and M20 to M50
- Stainless steel tamper-proof locking set screw in cover

GEB **T** - **2** **P** - **8TBMK** **2*** - **EX**
1 **2** **3** **4** **5** **6** **7**

1. Series

2. HUB CONFIGURATION

- C = FEED THROUGH
- L = "L" CONFIGURATION
- T = "T" CONFIGURATION
- X = "X" CONFIGURATION

3. OPENING SIZE

- 1 = 1/2 NPT (REDUCER)
- 2 = 3/4 NPT
- 3 = 1" NPT
- 4 = 1-1/4 NPT
- 5 = 1-1/2 NPT
- 24 = 1-1/4 x 3/4 NPT (T & X only)
- 25 = 1-1/2 x 3/4 NPT (T & X only)
- M20 = M20 METRIC
- M25 = M25 METRIC
- M32 = M32 METRIC
- M40 = M40 METRIC
- M50 = M50 METRIC
- M25-M40 = M25 - M40 METRIC ("T" only)
- M25-M40 = M25 - M50 METRIC ("T" only)

4. P = PANEL MOUNTED TERMINAL BLOCKS

Terminal Blocks Specifications

8TBMK: Weidmuller® MK3/8 Qty 8 points
UL = 600VAC, 5AMP, #22 to #12 AWG
CSA = 300VAC, 25AMP, #22 to #12 AWG
IEC = 400VAC, 24AMP, 2.5mm²

6TBMK: Weidmuller® MK6/6 Qty 6 points
UL = 300VAC, 20AMP, #22 to #10 AWG
CSA = 300VAC, 40AMP, #22 to #10 AWG
IEC = 690VAC, 41AMP, 6mm²

10TBZD: Weidmuller® ZDUB2.5 Qty 10 points
UL = 600VAC, 20AMP, #26 to #12 AWG
CSA = 600VAC, 25AMP, #26 to #12 AWG
IEC = 690VAC, 24AMP, 2.5mm²

10TBZD4AN: Weidmuller® ZDUB2.5/4AN/DM 4 Connections Qty 10 points
UL = 600VAC, 20AMP, #26 to #12 AWG
CSA = 600VAC, 25AMP, #26 to #12 AWG
IEC = 690VAC, 24AMP, 2.5mm²

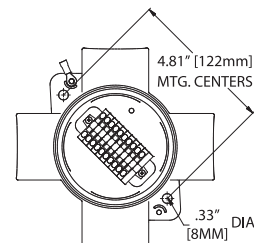
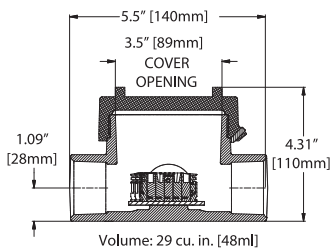
5. QTY / TYPE OF TERMINAL BLOCK / MAXIMUM WIRE SIZE

- 8TBMK3 = 2.5mm² (#12 AWG)
- 6TBMK6 = 6mm² (#8 AWG)
- 10TBZD = 2.5mm² (#12 AWG)
- 10TBZD4AN = 2.5mm² (#12 AWG)

6. "T" WATTAGE MARKING CODE*

- 2 = 20 WATTS MAXIMUM INPUT
- 3 = 30 WATTS MAXIMUM INPUT
- 4 = 40 WATTS MAXIMUM INPUT

7. UL / CSA / ATEX / IEC Ex

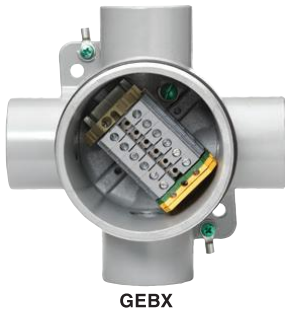


***T Codes Ratings / Wattage Input**

- 20 Watts of Power
Ta 48°C = T6 / T85°C
Ta 63°C = T5 / T100°C
Ta 98°C = T4 / T135°C
Ta 163°C = T3 / T200°C
- 30 Watts of Power
Ta 50°C = T5 / T100°C
Ta 85°C = T4 / T135°C
Ta 150°C = T3 / T200°C
- 40 Watts of Power
Ta 38°C = T5 / T100°C
Ta 73°C = T4 / T135°C
Ta 138°C = T3 / T200°C



TERMINAL BOXES - UL / CSA / ATEX / IEC EX DIN RAIL MOUNTED TERMINALS



GEBX

CLASSIFIED - File E83969

Certified - LR11716

Sira 12ATEX1244
IEC Ex SIR 12.0107

Class I, Div. 1 & 2, Groups B, C, D
Class I, Zone 1 & 2, Groups IIC, IIB, IIA
Class II, Div. 1 & 2, Groups E, F, G
Class III
Enclosure Type 3, 4 & 4X IP66

II 2 G D 0518

Ex d IIC T* Gb
Ex t IIIC T**C Db
Ta = -40°C to +*°C IP66



FEATURES-SPECIFICATIONS

Applications

Used within hazardous areas to splice or terminate conductors by means of a terminal block.

Acts as a pull and splice box.

Provides access to conductors for maintenance and future

Used to link and distribute electrical wires through a conduit or gland system to field controlled devices or sensors.

Features

- Cover o-ring supplied as standard for **Type 4X and IP66** applications
- Available in 4 configurations, C, L, T & X with **either 1/2" to 1-1/2" NPT taper threaded hubs** providing ground continuity
- Smooth integral hub bushing to protect conductor insulation when pulling
- Also available in M20 through M50 metric sizes
- External cover threads on the body protecting conductors from damages during pulling.
- No pinching of conductors during cover installation
- Two terminal block manufacturers to choose from, Weidmuller® and ABB®
- Three options of terminal blocks to select from
- One Internal and two external grounding (earthing) screws.
- Lugs on covers permits for easy removal and tightening
- Available with SKK 4mm² block up to qty 6. The SKK are rated up to 250°C continuous service

Materials

- Box & cover: Copper free aluminum (less than 4/10 of 1%)
- Finish: Electrostatically applied powder coating – Grey
- O-Ring Gasket Material: Nitrile compound supplied as a standard on all units
- Hub Sizes: 1/2 NPT to 1-1/2" NPT and M20 to M50
- Stainless steel tamper-proof locking set screw in cover

GEB T - 2 D - W 1 6 2U 2* - EX
1 2 3 4 5 6 7 8 9 10

1. Series

2. HUB CONFIGURATION

- C = FEED THROUGH
- L = "L" CONFIGURATION
- T = "T" CONFIGURATION
- X = "X" CONFIGURATION

3. OPENING SIZE

- 1 = 1/2 NPT (REDUCER)
- 2 = 3/4 NPT
- 3 = 1" NPT
- 4 = 1-1/4 NPT
- 5 = 1-1/2 NPT
- 24 = 1-1/4 x 3/4 NPT (T & X only)
- 25 = 1-1/2 x 3/4 NPT (T & X only)
- M20 = M20 METRIC
- M25 = M25 METRIC
- M32 = M32 METRIC
- M40 = M40 METRIC
- M50 = M50 METRIC
- M25-M40 = M25 - M40 METRIC ("T" only)
- M25-M40 = M25 - M50 METRIC ("T" only)

4. D = DIN RAIL MOUNTED TERMINAL BLOCKS

5. TERMINAL BLOCK MANUFACTURER

- W = WEIDMULLER
- A = ABB

6. TYPE OF TERMINAL BLOCK FAMILY

- 1 = "WD" WEIDMULLER
- 2 = "SKK" WEIDMULLER CERAMIC
- 3 = "ZS" ABB

7. TOTAL NUMBER OF TERMINAL BLOCKS

- 2.5mm² = 10 MAX.
- 4mm² = 8 MAX.
- 6mm² = 6 MAX.
- 10mm² = 4 MAX.

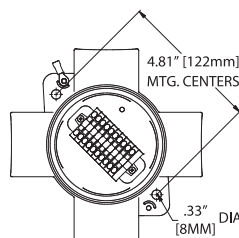
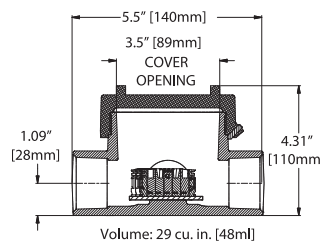
8. TERMINAL BLOCK MAX WIRE SIZE / TYPE

- 2 = 2.5mm² (#12 AWG)
- 4 = 4mm² (#10 AWG)
- 6 = 6mm² (#8 AWG)
- 10 = 10mm² (#6 AWG)

9. "T" WATTAGE MARKING CODE*

- 2 = 20 WATTS MAXIMUM INPUT
- 3 = 30 WATTS MAXIMUM INPUT
- 4 = 40 WATTS MAXIMUM INPUT

10. UL / CSA / ATEX / IEC Ex



***T Codes Ratings / Wattage Input**

- 20 Watts of Power
Ta 48°C = T6 / T85°C
Ta 63°C = T5 / T100°C
Ta 98°C = T4 / T135°C
Ta 163°C = T3 / T200°C
- 30 Watts of Power
Ta 50°C = T5 / T100°C
Ta 85°C = T4 / T135°C
Ta 150°C = T3 / T200°C
- 40 Watts of Power
Ta 38°C = T5 / T100°C
Ta 73°C = T4 / T135°C
Ta 138°C = T3 / T200°C



JUNCTION BOXES



Class I, Div. 1 & 2, Groups B[Ⓛ], C, D
Class I, Zones 1 & 2, Groups IIB+H₂, IIA
Class II, Div. 1 & 2, Groups E, F, G
Class III, Div. 1 & 2
ENCL. Type 3, 4, & 4X[Ⓛ]
CENELEC/ATEX/IEC Ex
Ex d IIB + H2 T5 or T6
Ex tD A21 IP66
Tamb ≤ + 60°C

ATEX / IEC Ex Certified

- #UL886 - Outlet Boxes and Fittings for use in Hazardous (Classified) Locations. File #E10514
- #UL698 & #UL1203 - Explosion Proof and Dust Ignition Proof Electrical Equipment. Files #E83969 & E12379
- #C22.2 No. 30-M1986 -Explosion Proof Enclosure for use in Class I Hazardous Locations. FILE #LR11716
- II 2 GD
- CE 0518
- PTB 07 ATEX 1025U (Empty Housing)
- PTB 07 ATEX 1024 (Enclosure with Controls)
- IEC Ex 07.0022U
- IEC Ex 07.0023



FEATURES-SPECIFICATIONS

QUANTUM[®]

Applications

- Locations made hazardous due to the presence of flammable gases or vapors, combustible dust, or easily ignitable fibers and flyings, and areas which are subject to corrosion, weather and dampness
- Petroleum Refineries, Chemical and Petrochemical plants with indoor and outdoor processes
- Applications requiring junction, pull and/or splices boxes
- Enclosure to house control stations, meters, relays, starters, circuit breakers, terminal blocks and other equipment or devices

• **Global applications (ATEX/IEC Ex) Enclosures are available for global applications with “CEN” suffix. Assemblies that are modified to ATEX IEC Ex standards maintain their North American certifications.**

- Enclosures are available blank or with factory modifications, options and accessories. See catalog pages E40-E45 for additional details

Features

- Copper-Free Cast Aluminum Construction. High strength, lighter in weight, corrosion resistant
- Fewer Cover Bolts. Computer-aided design lessens the number of cover bolts by eliminating corner bolts. Reduces installation and maintenance time
- Gasketed Flange. Nitrile (BUNA-N) “O” ring gasket is located inside bolt circle to prevent water seeping into enclosure
- Ductile Mounting Lugs. Lugs are made of ductile aluminum alloy to adjust to irregular mounting surfaces without damaging enclosure. Enclosure size 8x12x6 and larger furnished with bi-directional mounting lugs which may be positioned either vertically or horizontally to facilitate mounting
- Hinges. All enclosure sizes 8x12x6 and larger are supplied as standard with hinges mounted on the left side. Smaller enclosures are drilled for field installation of two Killark HINGE-9 assemblies or can be installed at factory by adding SU2 to catalog number. For hinges to be located in other positions, specify when ordering
- Recessed Flange Notches. Flanges are notched to allow for easier cover opening with prying instrument without flange

damage

- Enclosures are cast with wall thickness suitable for drilling and tapping of conduit openings in all sides and back of boxes. Conduit size and location information is found on dimensional chart in this section. Conduit openings can be factory or field installed
- Mounting pan bosses are pre-drilled at factory for field mounting of optional mounting pan

Material/Finish

- Enclosure: Copper-free aluminum (less than 4/10 of 1%)
- Hinges: Aluminum with stainless steel hardware
- Steel Cover Bolts
- Optional Mounting Pans: Sheet aluminum
- Optional Windows: Tempered soda lime glass
- Aluminum Lacquer Paint Finish Standard

[Ⓛ] Conduits must be sealed within 18” for Group B applications.
[Ⓛ] Type 4X and NEMA 4X with optional SU-1 modification.



ENCLOSURES

JUNCTION BOXES



See page E33 for area classification and certification information

FEATURES-SPECIFICATIONS

MODIFICATIONS	
SUFFIX NUMBER	DESCRIPTION
KIT-251	100 amp ground lug
KIT-252	225 amp ground lug
SU3-ATEX [Ⓢ]	ATEX IECEx Drain & breather installed. Groups B & Ex d IIB+H2
SU3B-4X	Type 4X drain D & breather installed Group B, C, D Type 4X
SU2	Install hinges (8x10 and smaller enclosures)
SU9	Special paint finish
SU14	Fungus proofing of enclosures
SU93	Do not paint enclosures
SU1	Stainless steel external hardware for Type 4X
TOE PLATE KIT	Door guide plate to assist in aligning installing cover bolts

[Ⓢ] The installation of a SU3-ATEX will void the TYPE 4-4X and IP66 ratings of enclosure.

Hinges

Hinges are provided standard on EXB 6x12x4 box and on sizes 8x12x6 and larger. Smaller size EXB boxes are factory drilled for field installation of (2) HINGE-12L on left side.

For replacement hinges use HINGE-11L for enclosures size 8x12x6 through 16x24x10. HINGE-10L is for use with box size 18x24x8 and larger. (See page E41 for hinge information.)

Order Mounting pan as separate item and specify if factory or field installed.

† Maximum number of "G" series control operators permitted in cover, down + across = total. See Controls section when selecting "G" Series control operators.

Note: For Group B applications all conduit openings must be sealed within 18" of enclosures.

[Ⓢ] Not ATEX approved

[Ⓢ] CCSAus only

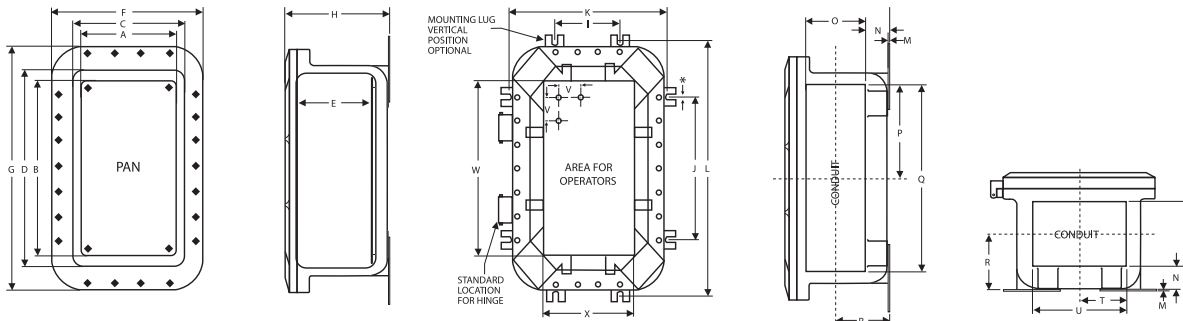
EXB JUNCTION BOXES AND ENCLOSURES					
CATALOG NUMBER	NOMINAL ENCLOSURE INSIDE DIMENSIONS W" L" D" (MM)	MAXIMUM CONDUIT SIZE	OPTIONAL MOUNTING PAN NUMBER	MAXIMUM NUMBER OF OPERATORS†	WEIGHT LBS (KGS)
EXB-664 N34	6x6x4 (152x152x102)	2"	7997-5	2 rows of 2 = 4	18 (8.17)
EXB-684 N34 [Ⓢ]	6x8x4 (152x203x102)	2"	7997-1	2 rows of 3 = 6	26.6 (12.08)
EXB-6124 N34 [Ⓢ]	6x12x4 (152x305x102)	2"	7997-6	4 rows of 2 = 8	70 (31.78)
EXB-886 N34	8x8x6 (203x203x152)	2"	7996-1	3 rows of 3 = 9	30 (13.62)
EXB-8104 N34	8x10x4 (203x254x102)	2"	7996-2	4 rows of 3 = 12	35 (15.89)
EXB-8106 N34	8x10x6 (203x254x152)	2"	7996-2	4 rows of 3 = 12	38 (17.25)
EXB-8126 N34	8x12x6 (203x305x152)	3"	17619	4 rows of 3 = 12	47 (21.34)
EXB-8128 N34	8x12x8 (203x305x203)	4"	17619	4 rows of 3 = 12	67 (30.42)
EXB-10106 N34	10x10x6 (254x254x152)	3"	17618	3 rows of 3 = 9	92 (41.77)
EXB-10108 N34	10x10x8 (254x254x203)	5"	17618	3 rows of 3 = 9	72 (32.69)
EXB-10146 N34	10x14x6 (254x356x152)	3"	17617	5 rows of 3 = 15	82 (37.23)
EXB-10148 N34	10x14x8 (254x356x203)	5"	17617	5 rows of 3 = 15	89 (40.41)
EXB-12126 N34	12x12x6 (305x305x152)	3"	7988-1	4 rows of 4 = 16	75 (34.05)
EXB-12128 N34	12x12x8 (305x305x203)	5"	7988-1	4 rows of 4 = 16	83 (37.68)
EXB-12186 N34	12x18x6 (305x457x152)	3"	15515	7 rows of 4 = 28	110 (49.94)
EXB-12188 N34	12x18x8 (305x457x203)	5"	15515	7 rows of 4 = 28	120 (54.48)
EXB-12246 N34	12x24x6 (305x610x152)	3"	7988-4	9 rows of 4 = 36	145 (65.83)
EXB-12248 N34	12x24x8 (305x610x203)	5"	7988-4	9 rows of 4 = 36	160 (72.64)
EXB-122412 N34	12x24x12 (305x610x305)	5"	7988-4	9 rows of 4 = 36	190 (86.26)
EXB-12368 N34	12x36x8 (305x914x203)	5"	17620	14 rows of 4 = 56	231 (104.87)
EXB-123610 N34	12x36x10 (305x914x254)	6"	17620	14 rows of 4 = 56	245 (111.23)
EXB-14146 N34	14x14x6 (356x356x152)	3"	17621	5 rows of 5 = 25	121 (54.93)
EXB-14148 N34	14x14x8 (356x356x203)	5"	17621	5 rows of 5 = 25	136 (61.74)
EXB-16166 N34	16x16x6 (406x406x152)	3"	7995-1	6 rows of 6 = 36	127 (57.66)
EXB-16168 N34	16x16x8 (406x406x203)	5"	7995-1	6 rows of 6 = 36	138 (62.65)
EXB-16248 N34	16x24x8 (406x610x203)	5"	17622	8 rows of 5 = 40	251 (113.95)
EXB-162410 N34	16x24x10 (406x610x254)	6"	17622	8 rows of 5 = 40	266 (120.76)
EXB-18186 N34	18x18x6 (457x457x152)	3"	17623	6 rows of 6 = 36	206 (93.52)
EXB-18188 N34	18x18x8 (457x457x203)	5"	17623	6 rows of 6 = 36	220 (99.88)
EXB-18248 N34	18x24x8 (457x610x203)	5"	15516	9 rows of 7 = 63	240 (108.96)
EXB-182410 N34	18x24x10 (457x610x254)	6"	15516	9 rows of 7 = 63	260 (118.04)
EXB-18308 N34 [Ⓢ]	18x30x8 (457x762x203)	5"	22061	11 rows of 7 = 77	320 (145.28)
EXB-18368 N34	18x36x8 (457x914x203)	5"	15517	13 rows of 7 = 91	380 (172.52)
EXB-183610 N34	18x36x10 (457x914x254)	6"	15517	13 rows of 7 = 91	405 (183.87)
EXB-203611 N34	20x36x11 (508x914x279)	6"	17596	13 rows of 7 = 91	540 (245.16)
EXB-24248 N34	24x24x8 (610x610x203)	5"	8000-1	9 rows of 9 = 81	330 (149.82)
EXB-242410 N34	24x24x10 (610x610x254)	6"	8000-1	9 rows of 9 = 81	350 (158.90)
EXB-24308 N34	24x30x8 (610x762x203)	5"	20567	9 rows of 7 = 63	430 (195.22)
EXB-24368 N34	24x36x8 (610x914x203)	5"	17624	11 rows of 7 = 77	531 (241.07)
EXB-243610 N34	24x36x10 (610x914x254)	6"	17624	11 rows of 7 = 77	506 (229.72)



JUNCTION BOXES

CATALOG NUMBER	EXB DIMENSIONS													
	INTERNAL DIMENSIONS (INCHES)					EXTERNAL DIMENSIONS (INCHES)			MOUNTING DIMENSIONS (INCHES)					
	PAN		AVAILABLE FOR DEVICES			F	G	H	I	J	K	L	M	
	A	B	C	D	E									
EXB-664 N34	5 (127.0)	5 (127.0)	5.73 (145.5)	5.73 (145.5)	4.31 (109.47)	10.32 (262.13)	10.32 (262.13)	6.09 (154.69)	N/A	4.00 (101.60)	7.88 (200.15)	N/A	0.19 (4.83)	
EXB-684 N34	5 (127.0)	7 (177.8)	5.75 (146.1)	7.75 (196.9)	4.18 (106.17)	10.25 (260.35)	12.25 (311.15)	6.12 (155.45)	N/A	4.00 (101.60)	7.88 (200.15)	N/A	0.19 (4.83)	
EXB-6124 N34	5 (127.0)	11 (279.4)	5.75 (146.1)	11.75 (298.5)	4.25 (107.95)	10.69 (271.53)	16.69 (423.93)	7.00 (177.80)	N/A	7.82 (198.63)	7.88 (200.15)	N/A	0.19 (4.83)	
EXB-886 N34	7 (177.8)	7 (177.8)	7.59 (192.8)	7.59 (192.8)	6.06 (153.92)	12.32 (312.93)	12.32 (312.93)	8.09 (205.49)	N/A	6.00 (152.40)	9.88 (250.95)	N/A	0.19 (4.83)	
EXB-8104 N34	7 (177.8)	9 (228.6)	7.73 (196.3)	9.73 (247.1)	4.06 (103.12)	12.32 (312.93)	14.32 (363.73)	6.32 (160.53)	N/A	8.00 (203.20)	9.88 (250.95)	N/A	0.19 (4.83)	
EXB-8106 N34	7 (177.8)	9 (228.6)	7.59 (192.8)	9.59 (243.6)	6.06 (153.92)	12.32 (312.93)	14.32 (363.73)	8.32 (211.33)	N/A	8.00 (203.20)	9.88 (250.95)	N/A	0.19 (4.83)	
EXB-8126 N34	7 (177.8)	11 (279.4)	8 (203.2)	12 (304.8)	6.38 (161.54)	13.25 (336.55)	17.25 (438.15)	8.70 (220.98)	3.82 (97.03)	7.82 (198.63)	10.38 (263.65)	14.38 (365.25)	0.19 (6.35)	
EXB-8126 N34	7 (177.8)	11 (279.4)	8 (203.2)	12 (304.8)	8.38 (212.34)	13.25 (336.55)	17.25 (438.15)	10.70 (271.78)	3.82 (97.03)	7.82 (198.63)	10.38 (263.65)	14.38 (365.25)	0.19 (6.35)	
EXB-10100 N34	9 (228.6)	9 (228.6)	10 (254.0)	10 (254.0)	6.20 (157.48)	15.25 (387.35)	15.25 (387.35)	8.90 (226.06)	4.94 (125.48)	4.94 (125.48)	12.94 (328.68)	12.94 (328.68)	0.25 (6.35)	
EXB-10108 N34	9 (228.6)	9 (228.6)	10 (254.0)	10 (254.0)	8.20 (208.28)	15.25 (387.35)	15.25 (387.35)	10.90 (276.86)	4.94 (125.48)	4.94 (125.48)	12.94 (328.68)	12.94 (328.68)	0.25 (6.35)	
EXB-10146 N34	9 (228.6)	13 (330.2)	10 (254.0)	14 (355.6)	6.20 (157.48)	15.25 (387.35)	19.25 (488.95)	8.90 (226.06)	4.94 (125.48)	8.94 (227.08)	12.94 (328.68)	16.94 (430.28)	0.25 (6.35)	
EXB-10148 N34	9 (228.6)	13 (330.2)	10 (254.0)	14 (355.6)	8.20 (208.28)	15.25 (387.35)	19.25 (488.95)	10.90 (276.86)	4.94 (125.48)	8.94 (227.08)	12.94 (328.68)	16.94 (430.28)	0.25 (6.35)	
EXB-12126 N34	10.5 (266.7)	10.5 (266.7)	11.5 (292.1)	11.5 (292.1)	6.00 (152.40)	16.38 (416.05)	16.38 (416.05)	8.69 (220.73)	6.94 (176.28)	6.94 (176.28)	14.94 (379.48)	14.94 (379.48)	0.25 (6.35)	
EXB-12128 N34	10.5 (266.7)	10.5 (266.7)	11.37 (288.8)	11.37 (288.8)	8.00 (203.20)	16.38 (416.05)	16.38 (416.05)	10.69 (271.53)	6.94 (176.28)	6.94 (176.28)	14.94 (379.48)	14.94 (379.48)	0.25 (6.35)	
EXB-12186 N34	10 (254.0)	16 (406.4)	11.5 (292.1)	17.5 (444.5)	6.00 (152.40)	16.38 (416.05)	22.38 (568.45)	9.06 (230.12)	6.94 (176.28)	12.88 (327.15)	14.94 (379.48)	20.88 (530.35)	0.25 (6.35)	
EXB-12188 N34	10 (254.0)	16 (406.4)	11.37 (288.8)	17.37 (441.2)	8.00 (203.20)	16.38 (416.05)	22.38 (568.45)	11.06 (280.92)	6.94 (176.28)	12.88 (327.15)	14.94 (379.48)	20.88 (530.35)	0.25 (6.35)	
EXB-12246 N34	10.25 (260.4)	22.25 (565.2)	11.5 (292.1)	23.5 (596.9)	6.00 (152.40)	16.38 (416.05)	28.38 (720.85)	9.32 (236.73)	6.94 (176.28)	18.88 (479.55)	14.94 (379.48)	26.88 (682.75)	0.25 (6.35)	
EXB-12248 N34	10.25 (260.4)	22.25 (565.2)	11.37 (288.8)	23.37 (593.6)	8.00 (203.20)	16.38 (416.05)	28.38 (720.85)	11.32 (287.53)	6.94 (176.28)	18.88 (479.55)	14.94 (379.48)	26.88 (682.75)	0.25 (6.35)	
EXB-122412 N34	10.25 (260.4)	22.25 (565.2)	11.37 (288.8)	23.37 (593.6)	12.00 (304.80)	16.38 (416.05)	28.38 (720.85)	15.32 (389.13)	6.94 (176.28)	18.88 (479.55)	14.94 (379.48)	26.88 (682.75)	0.25 (6.35)	
EXB-12368 N34	11 (279.4)	35 (889.0)	12 (304.8)	36 (914.4)	8.12 (206.25)	17.25 (438.15)	41.25 (1047.75)	11.40 (289.56)	7.00 (177.80)	31.00 (787.40)	15.00 (381.00)	39.00 (990.60)	0.25 (6.35)	
EXB-123610 N34	11 (279.4)	35 (889.0)	12 (304.8)	36 (914.4)	10.12 (257.05)	17.25 (438.15)	41.25 (1047.75)	13.40 (340.36)	7.00 (177.80)	31.00 (787.40)	15.00 (381.00)	39.00 (990.60)	0.25 (6.35)	
EXB-14146 N34	13 (330.2)	13 (330.2)	14 (355.6)	14 (355.6)	6.20 (157.48)	19.25 (488.95)	19.25 (488.95)	9.40 (238.76)	9.00 (228.60)	9.00 (228.60)	17.00 (431.80)	17.00 (431.80)	0.25 (6.35)	
EXB-14148 N34	13 (330.2)	13 (330.2)	14 (355.6)	14 (355.6)	8.20 (208.28)	19.25 (488.95)	19.25 (488.95)	11.40 (289.56)	9.00 (228.60)	9.00 (228.60)	17.00 (431.80)	17.00 (431.80)	0.25 (6.35)	
EXB-16166 N34	14 (355.6)	14 (355.6)	15.5 (393.7)	15.5 (393.7)	6.00 (152.40)	20.38 (517.65)	20.38 (517.65)	9.19 (233.43)	10.94 (277.88)	10.94 (277.88)	18.94 (481.08)	18.94 (481.08)	0.25 (6.35)	
EXB-16168 N34	14 (355.6)	14 (355.6)	15.37 (390.4)	15.37 (390.4)	8.00 (203.20)	20.38 (517.65)	20.38 (517.65)	11.19 (284.23)	10.94 (277.88)	10.94 (277.88)	18.94 (481.08)	18.94 (481.08)	0.25 (6.35)	
EXB-16248 N34	15 (381.0)	23 (584.2)	16 (406.4)	24 (609.6)	8.12 (206.25)	21.25 (539.75)	29.25 (742.95)	12.00 (304.80)	11.38 (289.05)	19.38 (492.25)	19.38 (492.25)	27.38 (695.45)	0.25 (6.35)	
EXB-162410 N34	15 (381.0)	23 (584.2)	16 (406.4)	24 (609.6)	10.12 (257.05)	21.25 (539.75)	29.25 (742.95)	14.00 (355.60)	11.38 (289.05)	19.38 (492.25)	19.38 (492.25)	27.38 (695.45)	0.25 (6.35)	
EXB-18186 N34	17 (431.8)	17 (431.8)	18 (457.2)	18 (457.2)	6.12 (155.45)	23.25 (590.55)	23.25 (590.55)	10.00 (254.00)	13.38 (339.85)	13.38 (339.85)	21.38 (543.05)	21.38 (543.05)	0.25 (6.35)	
EXB-18188 N34	17 (431.8)	17 (431.8)	18 (457.2)	18 (457.2)	8.12 (206.25)	23.25 (590.55)	23.25 (590.55)	12.00 (304.80)	13.38 (339.85)	13.38 (339.85)	21.38 (543.05)	21.38 (543.05)	0.25 (6.35)	
EXB-18248 N34	16.38 (416.1)	22.13 (562.1)	17.37 (441.2)	23.37 (593.6)	8.00 (203.20)	22.38 (568.45)	28.38 (720.85)	11.75 (298.45)	13.00 (330.20)	19.00 (482.60)	21.00 (533.40)	27.00 (685.80)	0.25 (6.35)	
EXB-182410 N34	16.38 (416.1)	22.13 (562.1)	17.23 (437.6)	23.23 (590.0)	10.00 (254.00)	22.38 (568.45)	28.38 (720.85)	13.75 (349.25)	13.00 (330.20)	19.00 (482.60)	21.25 (539.75)	27.00 (685.80)	0.25 (6.35)	
EXB-18308 N34	16 (406.4)	29 (736.6)	17.87 (453.9)	30.8 (782.3)	8.00 (203.20)	22.37 (568.20)	35.37 (898.40)	12.37 (314.20)	13.25 (336.55)	26.5 (673.10)	21.00 (533.40)	34.50 (876.30)	0.25 (6.35)	
EXB-18368 N34	16 (406.4)	34 (863.6)	17.37 (441.2)	35.37 (898.4)	8.00 (203.20)	22.38 (568.45)	40.38 (1025.65)	12.38 (314.45)	13.25 (336.55)	31.50 (800.10)	21.25 (539.75)	39.50 (1003.30)	0.25 (6.35)	
EXB-183610 N34	16 (406.4)	34 (863.6)	17.23 (437.6)	35.23 (894.8)	10.00 (254.00)	22.38 (568.45)	40.38 (1025.65)	14.38 (365.25)	13.25 (336.55)	31.50 (800.10)	21.25 (539.75)	39.50 (1003.30)	0.25 (6.35)	
EXB-203611 N34	18.75 (476.3)	34.75 (882.7)	20.14 (511.6)	36.14 (918.0)	11.13 (282.70)	26.44 (671.58)	42.44 (1077.98)	15.56 (395.22)	15.75 (400.05)	31.75 (806.45)	23.75 (603.25)	39.75 (1009.65)	0.25 (6.35)	
EXB-24248 N34	22.25 (565.2)	22.25 (565.2)	23.37 (593.6)	23.37 (593.6)	8.06 (204.72)	28.38 (720.85)	28.38 (720.85)	12.19 (309.63)	19.50 (495.30)	19.50 (495.30)	27.50 (698.50)	27.50 (698.50)	0.25 (6.35)	
EXB-242410 N34	22.25 (565.2)	22.25 (565.2)	23.23 (590.0)	23.23 (590.0)	10.06 (255.52)	28.38 (720.85)	28.38 (720.85)	14.19 (360.43)	19.50 (495.30)	19.50 (495.30)	27.50 (698.50)	27.50 (698.50)	0.25 (6.35)	
EXB-24308 N34	23 (584.2)	29 (736.6)	24 (609.6)	30 (762.0)	8.12 (206.25)	29.25 (742.95)	35.25 (895.35)	12.40 (314.96)	19.56 (496.82)	25.56 (649.23)	27.56 (700.03)	33.56 (852.43)	0.25 (6.35)	
EXB-24368 N34	23 (584.2)	35 (889.0)	24 (609.6)	36 (914.4)	8.12 (206.25)	29.25 (742.95)	41.25 (1047.75)	12.40 (314.96)	19.56 (496.82)	31.56 (801.63)	27.56 (700.03)	39.56 (1004.83)	0.25 (6.35)	
EXB-243610 N34	23 (584.2)	35 (889.0)	24 (609.6)	36 (914.4)	10.12 (257.05)	29.25 (742.95)	41.25 (1047.75)	14.40 (365.76)	19.56 (496.82)	31.56 (801.63)	27.56 (700.03)	39.56 (1004.83)	0.25 (6.35)	

Full dimensional details are available on .DXF or .DWG format. See Killark web site.



* Mounting lug opening 7/16" for boxes up to and including 8128 and 91/16" for boxes 10 x 10 and larger

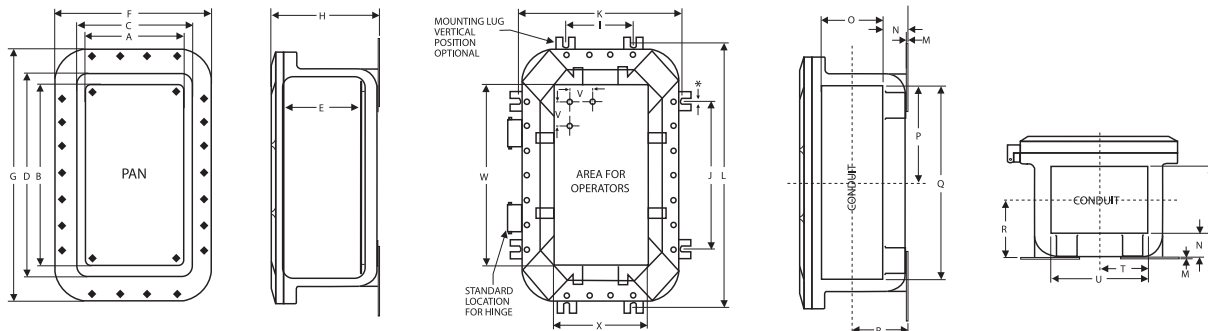


JUNCTION BOXES

EXB CONDUIT & OPERATOR LAYOUT INFORMATION

CATALOG NUMBER	CONDUIT AREA								OPERATOR AREA AND SPECS			
	N	O	P	Q	R	S	T	U	V	W	X	
EXB-664 N34	1.18 (30.0)	2.81 (71.4)	2.44 (62.0)	4.88 (124.0)	2.75 (69.85)	2.81 (71.37)	2.44 (61.98)	4.88 (123.95)	2.5 (63.50)	5 (127.00)	5 (127.00)	USE "LONG" STYLE G SERIES OPERATORS
EXB-684 N34	1.18 (30.0)	2.81 (71.4)	3.44 (87.4)	6.88 (174.8)	2.75 (69.85)	2.81 (71.37)	2.44 (61.98)	4.88 (123.95)	2.5 (63.50)	7 (177.80)	5 (127.00)	
EXB-6124 N34	1.18 (30.0)	2.81 (71.4)	5.00 (127.0)	10.00 (254.0)	2.75 (69.85)	2.81 (71.37)	2.44 (61.98)	4.88 (123.95)	2.5 (63.50)	11 (279.40)	5 (127.00)	
EXB-886 N34	1.18 (30.0)	4.81 (122.2)	3.44 (87.4)	6.88 (174.8)	3.75 (95.25)	4.81 (122.17)	3.44 (87.38)	6.88 (174.75)	2.5 (63.50)	7 (177.80)	7 (177.80)	
EXB-8104 N34	1.18 (30.0)	2.81 (71.4)	4.44 (112.8)	8.88 (225.6)	2.75 (69.85)	2.81 (71.37)	3.44 (87.38)	6.88 (174.75)	2.5 (63.50)	9 (228.60)	7 (177.80)	
EXB-8106 N34	1.18 (30.0)	4.18 (106.2)	4.44 (112.8)	8.88 (225.6)	3.45 (87.63)	4.81 (122.17)	3.44 (87.38)	6.88 (174.75)	2.5 (63.50)	9 (228.60)	7 (177.80)	
EXB-8126 N34	1.78 (45.2)	3.75 (95.3)	5 (127.0)	10 (254.0)	3.66 (92.96)	3.75 (95.25)	3 (76.20)	6 (152.40)	2.5 (63.50)	11 (279.40)	7 (177.80)	
EXB-8128 N34	1.78 (45.2)	5.75 (146.1)	5 (127.0)	10 (254.0)	4.66 (118.36)	5.75 (146.05)	3 (76.20)	6 (152.40)	2.5 (63.50)	11 (279.40)	7 (177.80)	
EXB-10106 N34	1.91 (48.5)	3.75 (95.3)	4 (101.6)	8 (203.2)	3.79 (96.27)	3.75 (95.25)	4 (101.60)	8 (203.20)	2.5 (63.50)	9 (228.60)	9 (228.60)	
EXB-10108 N34	1.91 (48.5)	5.75 (146.1)	4 (101.6)	8 (203.2)	4.79 (121.67)	5.75 (146.05)	4 (101.60)	8 (203.20)	2.5 (63.50)	9 (228.60)	9 (228.60)	
EXB-10146 N34	1.91 (48.5)	3.75 (95.3)	6 (152.4)	12 (304.8)	3.79 (96.27)	3.75 (95.25)	4 (101.60)	8 (203.20)	2.5 (63.50)	13 (330.20)	9 (228.60)	
EXB-10148 N34	1.91 (48.5)	5.75 (146.1)	6 (152.4)	12 (304.8)	4.79 (121.67)	5.75 (146.05)	4 (101.60)	8 (203.20)	2.5 (63.50)	13 (330.20)	9 (228.60)	
EXB-12126 N34	1.88 (47.8)	3.81 (96.8)	4.94 (125.5)	9.88 (251.0)	4.00 (101.60)	3.81 (96.77)	4.94 (125.48)	9.88 (250.95)	2.5 (63.50)	10 (254.00)	10 (254.00)	
EXB-12128 N34	1.88 (47.8)	5.81 (147.6)	4.94 (125.5)	9.88 (251.0)	5.00 (127.00)	5.81 (147.57)	4.94 (125.48)	9.88 (250.95)	2.5 (63.50)	10 (254.00)	10 (254.00)	
EXB-12186 N34	2.06 (52.3)	3.13 (79.5)	7.94 (201.7)	15.88 (403.4)	3.88 (98.55)	3.75 (95.25)	4.94 (125.48)	9.88 (250.95)	2.5 (63.50)	16 (406.40)	10 (254.00)	
EXB-12188 N34	2.06 (52.3)	5.13 (130.3)	7.94 (201.7)	15.88 (403.4)	4.88 (123.95)	5.75 (146.05)	4.94 (125.48)	9.88 (250.95)	2.5 (63.50)	16 (406.40)	10 (254.00)	
EXB-12246 N34	2.13 (54.1)	3.13 (79.5)	10.94 (277.9)	21.88 (555.8)	3.94 (100.08)	3.81 (96.77)	4.94 (125.48)	9.88 (250.95)	2.5 (63.50)	22.25 (565.15)	10.25 (260.35)	
EXB-12248 N34	2.13 (54.1)	5.13 (130.3)	10.94 (277.9)	21.88 (555.8)	4.94 (125.48)	5.81 (147.57)	4.94 (125.48)	9.88 (250.95)	2.5 (63.50)	22.25 (565.15)	10.25 (260.35)	
EXB-122412 N34	2.13 (54.1)	9.13 (231.9)	10.94 (277.9)	21.88 (555.8)	6.94 (176.28)	9.81 (249.17)	4.94 (125.48)	9.88 (250.95)	2.5 (63.50)	22.25 (565.15)	10.25 (260.35)	
EXB-12368 N34	2.09 (53.1)	5.75 (146.1)	17 (431.8)	34 (863.6)	4.97 (126.24)	5.75 (146.05)	5 (127.00)	10 (254.00)	2.5 (63.50)	35 (889.00)	11 (279.40)	
EXB-123610 N34	2.09 (53.1)	7.75 (196.9)	17 (431.8)	34 (863.6)	5.97 (151.64)	7.75 (196.85)	5 (127.00)	10 (254.00)	2.5 (63.50)	35 (889.00)	11 (279.40)	
EXB-14146 N34	2.09 (53.1)	3.75 (95.3)	6 (152.4)	12 (304.8)	3.97 (100.84)	3.75 (95.25)	6 (152.40)	12 (304.80)	2.5 (63.50)	13 (330.20)	13 (330.20)	
EXB-14148 N34	2.09 (53.1)	5.75 (146.1)	6 (152.4)	12 (304.8)	4.97 (126.24)	5.75 (146.05)	6 (152.40)	12 (304.80)	2.5 (63.50)	13 (330.20)	13 (330.20)	
EXB-16166 N34	2.06 (53.1)	3.75 (95.3)	6.94 (176.3)	13.88 (352.6)	4.18 (106.17)	3.75 (95.25)	6.94 (176.28)	13.88 (352.55)	2.5 (63.50)	14 (355.60)	14 (355.60)	
EXB-16168 N34	2.06 (53.1)	5.75 (146.1)	6.94 (176.3)	13.88 (352.6)	5.18 (131.57)	5.75 (146.05)	6.94 (176.28)	13.88 (352.55)	2.5 (63.50)	14 (355.60)	14 (355.60)	
EXB-16248 N34	2.34 (59.4)	5.75 (146.1)	11 (279.4)	22 (558.8)	5.22 (132.59)	5.75 (146.05)	7 (177.80)	14 (355.60)	2.5 (63.50)	22 (558.80)	14 (355.60)	
EXB-162410 N34	2.34 (59.4)	7.75 (196.9)	11 (279.4)	22 (558.8)	6.22 (157.99)	7.75 (196.85)	7 (177.80)	14 (355.60)	2.5 (63.50)	22 (558.80)	14 (355.60)	
EXB-18186 N34	2.34 (59.4)	3.75 (95.3)	8 (203.2)	16 (406.4)	4.22 (107.19)	3.75 (95.25)	8 (203.20)	16 (406.40)	2.5 (63.50)	16 (406.40)	16 (406.40)	
EXB-18188 N34	2.34 (59.4)	5.75 (146.1)	8 (203.2)	16 (406.4)	5.22 (132.59)	5.75 (146.05)	8 (203.20)	16 (406.40)	2.5 (63.50)	16 (406.40)	16 (406.40)	
EXB-18248 N34	2.32 (58.9)	4.88 (124.0)	10.94 (277.9)	21.88 (555.8)	5.00 (127.00)	5.56 (141.22)	7.94 (201.68)	15.88 (403.35)	2.5 (63.50)	22 (558.80)	16 (406.40)	
EXB-182410 N34	2.32 (58.9)	6.88 (174.8)	10.94 (277.9)	21.88 (555.8)	6.00 (152.40)	8.56 (217.42)	7.94 (201.68)	15.88 (403.35)	2.5 (63.50)	22 (558.80)	16 (406.40)	
EXB-18308 N34	2.50 (63.5)	4.88 (124.0)	14.44 (366.8)	28.88 (733.6)	5.18 (131.57)	6.06 (153.92)	7.94 (201.68)	15.88 (403.35)	2.5 (63.50)	29 (736.60)	16 (406.40)	
EXB-18368 N34	2.50 (63.5)	4.88 (124.0)	16.94 (430.3)	33.88 (860.6)	5.18 (131.57)	6.06 (153.92)	7.94 (201.68)	15.88 (403.35)	2.5 (63.50)	34 (863.60)	16 (406.40)	
EXB-183610 N34	2.50 (63.5)	6.88 (174.8)	16.94 (430.3)	33.88 (860.6)	6.18 (156.97)	8.06 (204.72)	7.94 (201.68)	15.88 (403.35)	2.5 (63.50)	34 (863.60)	16 (406.40)	
EXB-203611 N34	2.47 (62.7)	8.44 (214.4)	16.72 (424.7)	33.97 (862.8)	6.88 (174.75)	8.47 (215.14)	8.72 (221.49)	17.47 (443.74)	2.5 (63.50)	34.88 (885.95)	18.88 (479.55)	
EXB-24248 N34	2.88 (73.2)	5.50 (139.7)	10.88 (276.4)	21.88 (555.8)	5.88 (149.35)	5.50 (139.70)	10.94 (277.88)	21.88 (555.75)	2.5 (63.50)	22 (558.80)	22 (558.80)	
EXB-242410 N34	2.88 (73.2)	7.50 (190.5)	10.88 (276.4)	21.88 (555.8)	6.88 (174.75)	7.50 (190.50)	10.94 (277.88)	21.88 (555.75)	2.5 (63.50)	22 (558.80)	22 (558.80)	
EXB-24308 N34	2.47 (62.7)	5.75 (146.1)	14 (355.6)	28 (711.2)	5.35 (135.89)	5.75 (146.05)	11 (279.40)	22 (558.80)	3.0 (76.20)	28 (711.20)	22 (558.80)	
EXB-24368 N34	2.47 (62.7)	5.75 (146.1)	17 (431.8)	34 (863.6)	5.35 (135.89)	5.75 (146.05)	11 (279.40)	22 (558.80)	3.0 (76.20)	34 (863.60)	22 (558.80)	
EXB-243610 N34	2.47 (62.7)	7.75 (196.9)	17 (431.8)	34 (863.6)	6.35 (161.29)	7.75 (196.85)	11 (279.40)	22 (558.80)	3.0 (76.20)	34 (863.60)	22 (558.80)	

Full dimensional details are available on .DFX or .DWG format. See KILLARK web-site.



* Mounting lug opening 7/16" for boxes up to and including 8128 and 9/16" for boxes 10 x 10 and larger



B7E SERIES

KILLARK



JUNCTION BOXES

- #UL1203 - Explosion proof and dust-ignition-proof electrical equipment for use in hazardous (classified) locations. File #E83969
- #C22.2 No. 30-M1986-Explosion-proof Enclosure for use in Class I Hazardous Locations. FILE #LR11716

Class I, Div. 1 & 2, Groups B, C, D
Class I, Zone 1 & 2 Groups IIB + H2, IIA
Class II, Div. 1 & 2, Groups E, F, G
Class III, Div. 1 & 2 Enclosure Type 3, 4, 4X

FEATURES-SPECIFICATIONS



Applications

- Locations made hazardous due to the presence of flammable gases or vapors, combustible dust, or easily ignitable fibers and flyings, and areas which are subject to corrosion, weather and dampness
- Petroleum Refineries, Chemical and Petrochemical plants with indoor and outdoor process
- Applications requiring junction, pull and/or splice boxes
- Enclosures to house control stations, relays, starters, circuit breakers, terminal blocks and other equipment or devices

(Glass viewing windows cannot be added to the Prism Series Enclosures. Use Killark Quantum Enclosures when viewing windows are required.)

Features

- Copper-free cast aluminum construction. High strength, lighter in weight, corrosion resistant
- Quick Release, Captivated Cover Bolts of 316 Grade Stainless Steel. Triple-lead bolts require only 3-1/2 turns to disengage. Stainless steel (316 grade) for maximum protection from corrosion
- Gasketed Flange. Nitrile (BUNA-N) "O" ring gasket is located inside bolt circle to prevent water seeping into enclosure
- Ductile Mounting Lugs. Lugs are made of ductile aluminum alloy to adjust to irregular mounting surfaces without damage to enclosure
- Hinged Cover is Standard
- Recessed Flange Notches. Flanges are notched to allow for easier cover opening

with prying instrument without flange damage

- Conduit Openings. Conduit openings can be supplied at factory, or can be field installed.

Material/Finish

- Enclosure: Cast Copper-free Aluminum (less than 4/10 of 1%)
- Hinges: Aluminum with stainless steel hardware
- Cover Bolts: 316 Grade Stainless Steel
- Aluminum Lacquer Paint Finish Standard on all B7E except B7EP and B7EQ which are powder epoxy as standard

B7E JUNCTION BOXES AND ENCLOSURES

CATALOG NUMBER	DIMENSIONS								DRAWING FIGURE	MAXIMUM CONDUIT SIZE		MAXIMUM NUMBER OF OPERATORS ^②
	NOMINAL INSIDE			OUTSIDE			MOUNTING			TOP & BOTTOM	SIDES	
	WIDTH (A)	LENGTH (B)	DEPTH (C)	WIDTH (D)	LENGTH (E)	DEPTH (F)	WIDTH (G)	LENGTH (H)				
B7EA	6-1/2"	13-1/2"	6-11/16"	11"	18"	9-1/8"	3-5/8"	16-3/8"	1	1-1/2"	1"	4 rows of 2 = 8
B7EB	10"	18-1/2"	6-5/8"	14-1/2"	23"	9-1/8"	7"	21-3/8"	1	1-1/2"	1"	7 rows of 3 = 21
B7EC	8"	15-1/2"	6-11/16"	12-1/2"	20"	9-1/8"	5"	18-3/8"	1	1-1/2"	1"	5 rows of 2 = 10
B7ED	10"	21"	6-11/16"	14-1/2"	25-1/2"	9-1/8"	7"	23-7/8"	1	1-1/2"	1"	8 rows of 3 = 24
B7EE	8"	21-3/4"	8-5/16"	12-1/2"	26-1/4"	10-3/4"	5"	24-5/8"	1	2"	2"	8 rows of 2 = 16
B7EF	13"	22-3/4"	8-3/8"	17-7/8"	27-1/4"	11"	10-3/8"	25-5/8"	1	4"	4"	8 rows of 4 = 32
B7EG	12"	29-3/4"	8-7/8"	16-1/2"	34-1/4"	11-1/2"	9"	32-5/8"	1	5"	4"	8 rows of 3 = 24
B7EH	17"	29-3/4"	8-11/16"	21-1/2"	34-1/4"	11-7/8"	14"	32-5/8"	1	5"	4"	9 rows of 5 = 45
B7EJ	15-1/2"	57-1/2"	9-5/16"	20-1/4"	62-1/4"	15"	18-1/2"	43-1/2"	2	5"	5"	18 rows of 4 = 72
B7EK	13"	20"	6-5/8"	17-1/2"	24-3/4"	9-1/2"	15-1/4"	13"	2	3"	1-1/2"	6 rows of 4 = 24
B7EL	13"	29"	6-5/8"	17-1/2"	33-3/8"	9-1/2"	15-1/4"	21"	2	3"	1-1/2"	9 rows of 4 = 36
B7EM	13"	41"	6-5/8"	17-1/2"	45-3/8"	9-1/2"	15-1/4"	33"	2	3"	1-1/2"	14 rows of 4 = 56
B7EN	13"	50"	6-5/8"	17-1/2"	54-3/8"	9-1/2"	15-1/4"	42"	2	3"	1-1/2"	17 rows of 4 = 68
B7EP ^③	3-5/8"	5-13/16"	5-1/16"	5-3/4"	8-1/16"	6-5/16"	3-1/8"	8-1/8"	1	1"	1"	1 row of 2 = 2
B7EQ ^③	4-1/4"	9-3/16"	6-5/16"	8-1/8"	13-1/16"	7-13/16"	6-3/8"	7-1/2"	2	1-1/2"	1-1/2"	1 row of 4 = 4

① All Conduits must be sealed within 18" when used in Group B Locations.

② Operator spacing is 2-1/2" ϕ to ϕ except on B7EG & B7EH spacing is 3" ϕ to ϕ . Internal Mounting Pan Thickness is 1/8" except on B7EJ it is 3/16" thick. B7EJ Enclosure Cover has an Internal Rib Structure. Consult Killark for drawing details before layout of cover devices. Maximum number of "G" series control operators permitted in cover, down + across = total.

③ B7 COMPACT Series - Details on page E39.



ENCLOSURES

JUNCTION BOXES



FEATURES-SPECIFICATIONS

B7E JUNCTION BOXES AND ENCLOSURES			
CATALOG NUMBER	PAN ^①		
	CATALOG NUMBER	WIDTH (J)	LENGTH (K)
B7EA	19919	5"	11-3/4"
B7EB	19920	8-1/4"	16-3/4"
B7EC	18245	6-1/4"	13-3/4"
B7ED	19921	8-3/8"	19-3/8"
B7EE	19923	6-3/8"	20-3/8"
B7EF	18472	11-5/8"	21-1/4"
B7EG	19924	10"	28"
B7EH	19925	15-3/8"	28-3/8"
B7EJ	18279	13-1/2"	54"
B7EK	19926	11"	18"
B7EL	19927	11"	27"
B7EM	19928	11"	39"
B7EN	19929	11"	47"
B7EP ^②	—	N/A	N/A
B7EQ ^②	—	N/A	N/A

MODIFICATIONS	
SUFFIX NUMBER	DESCRIPTION
KIT-251	100 amp ground lug
KIT-252	225 amp ground lug
SU3B4X	Drain & breather installed (GRPs B, C & D TYPE 4X)
SU94	"Drill, tap & plug for future" drain & breather
SU9	Special paint finish
SU14	Fungus proofing of enclosure
SU93	Do not paint enclosure

① Internal Mounting Pan Thickness is 1/8" except on B7EJ it is 3/16" thick.

② B7 COMPACT Series - Details on page E39.

Dimensions (See page E37)

Figure 1

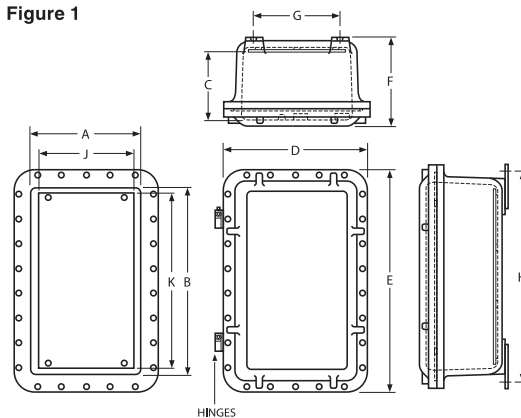
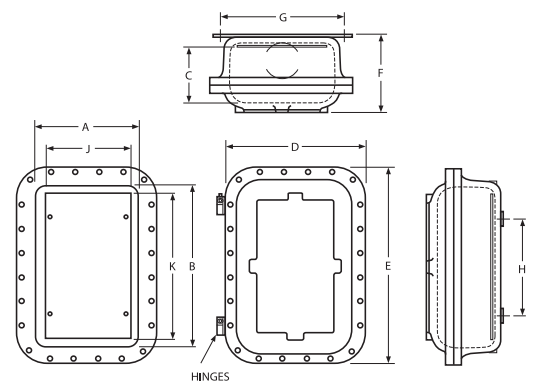


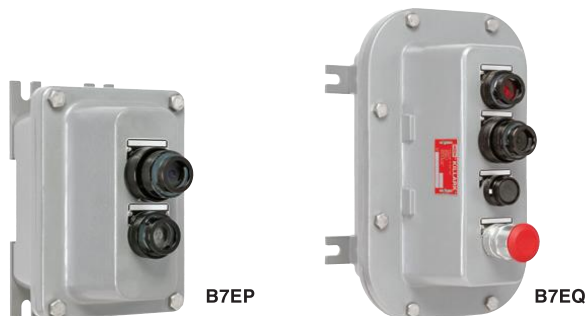
Figure 2





B7EP, B7EQ SERIES

JUNCTION BOXES



Class I, Div. 1 & 2, Groups B, C, D
 Class I, Zones 1 & 2, Groups IIB + H2, IIA
 Class II, Div. 1 & 2, Groups E, F, GⓈ
 Class III
 ENCL. Type 3, 4, & 4X

Certified - File LR11716

FEATURES-SPECIFICATIONS



Applications

The PRISM® B7 Series of enclosures are used in:

- Locations made hazardous due to the presence of flammable gasses or vapors combustible dust, fibers and flyings, and areas which are subject to corrosion, weather and dampness
- Petroleum Refineries, Chemical and Petrochemical plants with indoor and outdoor processes

Provided as blank enclosures or with factory modifications such as openings for "G Series" operators, conduit entries (NPT and metric), drains and breathers and terminal blocks.

Features

- Compact size enclosures for application flexibility
- NEMA 4, 4X rated - providing protection from hose directed water & corrosion
- Fewer cover bolts reduce installation and maintenance time
- Removable ductile mounting lugs adjust to irregular mounting surfaces
- See pages C40 - C49 for "G Series" control operators and accessories
- Use 'long style' operators

Standard Materials /Finish

- Enclosures: Copper-free aluminum (less than 4/10 of 1% copper content)
- Cover Bolts: 316 Stainless Steel
- O-ring Gasket: Silicone
- Finish: Grey Powder Polyester painted exterior, electrostatically applied.

MODIFICATIONS	
SUFFIX NUMBER	DESCRIPTION
KIT-251	100 amp ground lug
SU-2	Hinge-9 Installed
SU3B4X	Drain & Breather installed (NEMA 7BCD TYPE 4X)
SU9	Special paint finish
SU14	Fungus proofing of enclosure

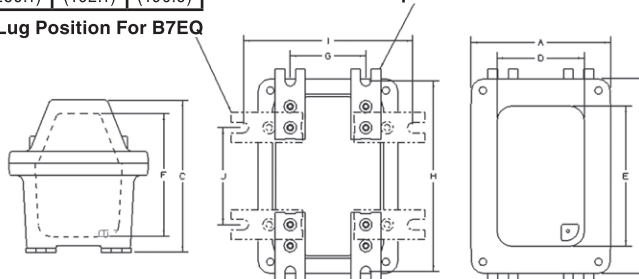
CATALOG NUMBER	MAX. # OPERATORS	CENTER TO CENTER SPACING	MAX. CONDUIT SIZE
ENCLOSURE ONLY			
B7EP	2	2.5 (63.5)	1"
B7EQ	4	2 (51)	1-1/2"

DIMENSIONS

CATALOG NUMBER	OUTSIDE BOX DIMENSIONS			NOMINAL INSIDE BOX			MOUNTING DIMENSIONS			
	A	B	C	D	E	F	G	H	I	J
B7EP	5.75 (146.1)	8.06 (204.7)	6.31 (160.3)	3.63 (92.2)	5.81 (147.6)	5.06 (128.5)	3.13 (79.5)	8.13 (206.5)	*	*
B7EQ	8.13 (206.5)	13.06 (331.7)	7.81 (198.4)	4.25 (108.0)	9.18 (233.2)	6.93 (176.0)	2.5 (63.5)	11.38 (289.1)	6.38 (162.1)	7.5 (190.5)

Standard Lug Position For B7EQ

Fixed Lug Position For B7EP
Optional Position For B7EQ



ENCLOSURES

EXB/DB SERIES



BLANK MOUNTING PANS

EXB Series Mounting Pans Ordering Instructions

Select proper mounting pan based on inside (length & width) of box. Order and price as separate item from junction box catalog number.

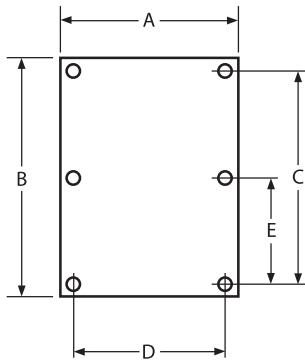
EXAMPLE: EXB-12186N34 } assemble
15155 }

EXB Series boxes have cast bosses which are drilled and tapped for direct mounting when pans are ordered.

Mounting pans are 1/8" or 3-16" thick sheet aluminum and are sized to provide the maximum usable surface area when installed.

All EXB series boxes have internal bosses that are factory machined to accept mounting pans.

Dimensions



DB Series Mounting Pans Ordering Instructions

Select proper mounting pan based on outside (length & width) of box. Order and price as separate item from the junction box catalog number.

EXAMPLE: DB-10106 } assemble
6248-10 }

DB Series boxes are provided with 1/2" raised mounting studs threaded into the back when pans are ordered. If a mounting pan is not ordered, mounting studs can still be provided by adding SU8 to box catalog number. See price list for SU8 pricing information.

EXB MOUNTING PAN								
CATALOG NUMBER	NOMINAL INSIDE BOX SIZE		MOUNTING PAN DIMENSION		MOUNTING HOLE SPACINGS			PAN THICKNESS
	WIDTH	LENGTH	A WIDTH	B LENGTH	C	D	E	
7997-5	6"	6"	5"	5"	3"	3"	—	.125
7997-1	6"	8"	5"	7"	5"	3"	—	.125
7997-6	6"	12"	5"	11"	9"	3"	—	.125
7996-1	8"	8"	7"	7"	5"	5"	—	.125
7996-2	8"	10"	7"	9"	7"	5"	—	.125
17619	8"	12"	7"	11"	9"	5"	—	.125
17617	10"	14"	9"	13"	11"	7"	—	.125
17618	10"	10"	9"	9"	7"	7"	—	.125
7988-1	12"	12"	10-1/2"	10-1/2"	9"	9"	—	.125
15515	12"	18"	10"	16"	15"	9"	—	.125
7988-4	12"	24"	10-1/4"	22-1/4"	21"	9"	—	.125
17620	12"	36"	11"	35"	33"	9"	17-1/2"	.125
17621	14"	14"	13"	13"	11"	11"	—	.125
7995-1	16"	16"	14"	14"	13"	13"	—	.125
7995-2	16"	24"	14-1/2"	23"	21"	13"	—	.125
17622	16"	24"	15"	23"	21"	13"	—	.125
17623	18"	18"	17"	17"	15"	15"	—	.190
15516	18"	24"	16-3/8"	22-1/8"	21"	15"	—	.125
15517	18"	36"	16"	34"	33"	15"	16-1/2"	.125
17596	20"	36"	18-3/4"	34-3/4"	32-3/4"	16-3/4"	16-3/8"	.190
8000-1	24"	24"	22-1/4"	22-1/4"	21"	21"	—	.125
17624	24"	36"	23"	35"	33"	21"	16-1/2"	.190
20567	24"	30"	23"	29"	27"	21"	13-1/2"	.190
22061	18"	30"	16"	29"	28"	15"	14"	.125

DB MOUNTING PAN								
6307-6	6"	6"	4"	4"	3"	3"	—	.125
6307-12	6"	12"	4"	10"	8-1/2"	3"	—	.125
6247-8	8"	8"	5"	5"	3-1/4"	3-1/4"	—	.125
6247-10	8"	10"	5"	7"	5-1/4"	3-1/4"	—	.125
6247-14	8"	14"	5"	11"	9-1/4"	3-1/4"	—	.125
6247-18	8"	18"	5"	15"	13-1/4"	3-1/4"	—	.125
6248-10	10"	10"	7"	7"	5-1/4"	5-1/4"	—	.125
6248-14	10"	14"	7"	11"	9-1/4"	5-1/4"	—	.125
6249-14	12"	14"	9"	11"	9-1/4"	7-1/4"	—	.125
6249-16	12"	16"	9"	13"	11-1/4"	7-1/4"	—	.125
6249-18	12"	18"	9"	15"	13-1/4"	7-1/4"	—	.125
6249-24	12"	24"	9"	21"	19-1/4"	7-1/4"	—	.125
6250-18	16"	18"	13"	15"	13-1/4"	11-1/4"	—	.125
6250-24	16"	24"	13"	21"	19-1/4"	11-1/4"	—	.125
6250-36	16"	36"	13"	33"	31-1/4"	11-1/4"	15-5/8"	.125
6251-24	20"	24"	17"	21"	19-1/4"	15-1/4"	—	.125
6252-36	24"	36"	18-3/4"	30-3/4"	29"	17"	14-1/2"	.190



HINGES AND GLASS LENS COVERS



HINGE-10L and HINGE-10R
HINGE-11L and HINGE-11R
HINGE-12L and HINGE-12R
Extruded Aluminum

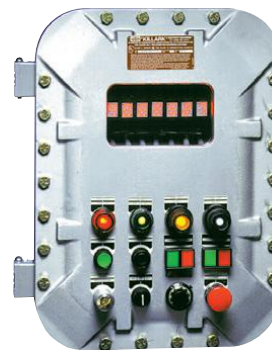


HINGE 4 Stainless Steel

Round and Rectangular Lens Covers Must Be Factory Installed



GL/GLX Series Lens Cover



FEATURES-SPECIFICATIONS
HINGES

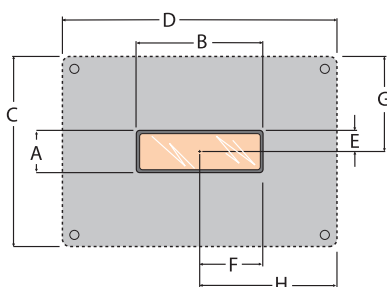
Applications

Hinges are installed on flanged enclosures to allow for easier and safer installation and when performing maintenance on internal components.

HINGES		
CATALOG NUMBER	SERIES USED	MATERIAL
HINGE-4	DB	Stainless steel
HINGE-12L	Small EXB	Extruded aluminum
HINGE-12R		
HINGE-10L	Larger sizes EXB	Extruded aluminum
HINGE-10R		
HINGE-11L	Mid Sizes EXB, DB	Extruded aluminum
HINGE-11R		

Note: Hinge is a single hinge and two required per enclosure.

- Hinge 10L-10R-11L-11R-12L-12R include two hinges
- Hinge 10L, 11L & 12L are for mounting on left side of enclosure
- Hinge 10R, 11R & 12R are for mounting on right side of enclosure
- All hinges supplied with stainless steel mounting screws and pins



GL/GLX ROUND GLASS LENS COVERS

Applications

Use GL Series lens on:

- All EXB Boxes

Use GLX Series lens on:

- All DB Boxes

Refer to recommended minimum spacing table. Series GL and GLX have identical viewing lens diameter and outside diameter. The difference is in the thread pitch.

GLXR RECTANGULAR GLASS LENS COVERS

Applications

Rectangular glass lens windows can be factory installed to enable viewing of digital read out meters and devices such as:

- Volt meters
- Flow meters
- Gas analyzers
- Process receivers, transmitters and controllers

Ordering Information

Rectangular lens option must be factory installed and ordered in conjunction with appropriate EXB Series enclosure. See page E42. Submit drawing or sketch to specify lens location. Consult factory for multi-lens arrangements.

GLXR RECTANGULAR LENS COVER ASSEMBLIES								
CATALOG NUMBER	VIEWING AREA ^①		MINIMUM SPACE		OTHER DIMENSIONS			
	A	B	C	D	E	F	G	H
GLXR13	1 (25.4)	3 (76.2)	4.5 (114.3)	6.5 (165.1)	0.5 (12.7)	1.5 (38.1)	2.25 (57.2)	3.25 (82.6)
GLXR24	2 (50.8)	4 (101.6)	5.5 (139.7)	7.5 (190.5)	1 (25.4)	2 (50.8)	2.72 (69.1)	3.75 (95.3)
GLXR27	2 (50.8)	7 (177.8)	5.5 (139.7)	10.5 (266.7)	1 (25.4)	3.5 (88.9)	2.75 (69.9)	5.25 (133.4)
GLXR34	3.5 (88.9)	4 (101.6)	7 (177.8)	7.5 (190.5)	1.75 (44.5)	2 (50.8)	3.5 (88.9)	3.75 (95.3)
GLXR36	3 (76.2)	6 (152.4)	6.5 (165.1)	9.5 (241.3)	1.5 (38.1)	3 (76.2)	3.25 (82.6)	4.75 (120.7)
GLXR47	4 (101.6)	7 (177.8)	7.5 (190.5)	10.5 (266.7)	2 (50.8)	3.5 (88.9)	3.75 (95.3)	5.25 (133.4)
GLXR59	5 (127.0)	9 (228.6)	8.5 (215.9)	12.5 (317.5)	2.5 (63.5)	4.5 (114.3)	4.25 (108.0)	6.25 (158.8)
GLXR99	9 (228.6)	9 (228.6)	12.5 (317.5)	12.5 (317.5)	4.5 (114.3)	4.5 (114.3)	6.25 (158.8)	6.25 (158.8)

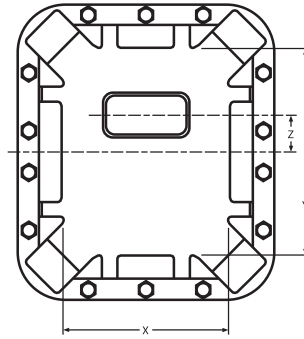
^① Other sizes available. Contact the factory for additional information.

GL/GLX RECOMMENDED MINIMUM SPACING – CENTERLINE TO CENTERLINE							VIEWING DIAMETER	OUTSIDE DIAMETER
GLASS LENS TYPE	GL/GLX-275	GL/GLX-300	GL/GLX-375	GL/GLX-537	GL/GLX-600	GL/GLX-775		
GL/GLX-275	7 (177.8)	7.5 (190.5)	7.75 (196.9)	8.75 (222.3)	9 (228.6)	10 (254.0)	2.75 (69.9)	4.63 (117.6)
GL/GLX-300	7.5 (190.5)	8 (203.2)	8.25 (209.6)	9.25 (235.0)	9.5 (241.3)	10.5 (266.7)	2.93 (74.4)	5.25 (133.4)
GL/GLX-375	7.75 (196.9)	8.25 (209.6)	8.5 (215.9)	9.5 (241.3)	9.75 (247.7)	10.75 (273.1)	3.75 (95.3)	6.25 (158.8)
GL/GLX-537	8.75 (222.3)	9.25 (235.0)	9.5 (241.3)	10.5 (266.7)	10.75 (273.1)	11.75 (298.5)	5.38 (136.7)	7.88 (200.2)
GL/GLX-600	9 (228.6)	9.5 (241.3)	9.75 (247.7)	10.75 (273.1)	11 (279.4)	12 (304.8)	6 (152.4)	8.88 (225.6)
GL/GLX-775	10 (254.0)	10.5 (266.7)	10.75 (273.1)	11.75 (298.5)	12 (304.8)	13 (330.2)	7.75 (196.9)	10.25 (260.4)

Note: For spacing less than minimum in table, (shown in inches) consult factory.



GLASS LENS COVER



FEATURES-SPECIFICATIONS

GLXR LAYOUT GUIDE

CATALOG NUMBER	USEABLE COVER AREA		Z = MAXIMUM CENTER LINE OF COVER TO CENTERLINE OF GLASS LENS							
	X	Y	GLXR13	GLXR24	GLXR27	GLXR34	GLXR36	GLXR47	GLXR59	GLXR99
EXB-664 N34	5 (127.0)	5 (127.0)	N	N	N	N	N	N	N	N
EXB-684 N34	5 (127.0)	7 (177.8)	1.25 (31.8)	N	N	N	N	N	N	N
EXB-6124 N34	5 (127.0)	11 (279.4)	3.25 (82.6)	R	N	N	N	N	N	N
EXB-886 N34	7 (177.8)	7 (177.8)	1.25 (31.8)	0.75 (19.1)	N	N	N	N	N	N
EXB-8104 N34	7 (177.8)	9 (228.6)	2.25 (57.2)	1.75 (44.5)	N	1 (25.4)	N	N	N	N
EXB-8106 N34	7 (177.8)	9 (228.6)	2.25 (57.2)	1.75 (44.5)	N	1 (25.4)	N	N	N	N
EXB-8126 N34	7 (177.8)	11 (279.4)	3.25 (82.6)	2.75 (69.9)	R*	2 (50.8)	R*	N	N	N
EXB-8128 N34	7 (177.8)	11 (279.4)	3.25 (82.6)	2.75 (69.9)	R*	2 (50.8)	R*	N	N	N
EXB-10106 N34	9 (228.6)	9 (228.6)	2.25 (57.2)	1.75 (44.5)	N	1 (25.4)	N	N	N	N
EXB-10108 N34	9 (228.6)	9 (228.6)	2.25 (57.2)	1.75 (44.5)	N	1 (25.4)	N	N	N	N
EXB-10146 N34	9 (228.6)	13 (330.2)	4.25 (108.0)	3.75 (95.3)	R	3 (76.2)	R	R	R	N
EXB-10148 N34	9 (228.6)	13 (330.2)	4.25 (108.0)	3.75 (95.3)	R	3 (76.2)	R	R	R	N
EXB-12126 N34	10 (254.0)	10 (254.0)	2.75 (69.9)	2.25 (57.2)	2.25 (57.2)	1.5 (38.1)	1.75 (44.5)	1.25 (31.8)	N	N
EXB-12128 N34	10 (254.0)	10 (254.0)	2.75 (69.9)	2.25 (57.2)	2.25 (57.2)	1.5 (38.1)	1.75 (44.5)	1.25 (31.8)	N	N
EXB-12186 N34	10 (254.0)	16 (406.4)	5.75 (146.1)	5.25 (133.4)	5.25 (133.4)	4.5 (114.3)	4.75 (120.7)	4.25 (108.0)	R*	N
EXB-12188 N34	10 (254.0)	16 (406.4)	5.75 (146.1)	5.25 (133.4)	5.25 (133.4)	4.5 (114.3)	4.75 (120.7)	4.25 (108.0)	R*	N
EXB-12246 N34	10.25 (260.4)	22.25 (565.2)	8.88 (225.6)	8.38 (212.9)	8.38 (212.9)	7.63 (193.8)	7.88 (200.2)	7.38 (187.5)	R	N
EXB-12248 N34	10.25 (260.4)	22.25 (565.2)	8.88 (225.6)	8.38 (212.9)	8.38 (212.9)	7.63 (193.8)	7.88 (200.2)	7.38 (187.5)	R	N
EXB-122412 N34	10.25 (260.4)	22.25 (565.2)	8.88 (225.6)	8.38 (212.9)	8.38 (212.9)	7.63 (193.8)	7.88 (200.2)	7.38 (187.5)	R	N
EXB-12368 N34	11 (279.4)	35 (889.0)	15.25 (387.4)	14.75 (374.7)	14.75 (374.7)	14 (355.6)	14.25 (362.0)	13.75 (349.3)	R*	N
EXB-123610 N34	11 (279.4)	35 (889.0)	15.25 (387.4)	14.75 (374.7)	14.75 (374.7)	14 (355.6)	14.25 (362.0)	13.75 (349.3)	R*	N
EXB-14146 N34	13 (330.2)	13 (330.2)	4.25 (108.0)	3.75 (95.3)	3.75 (95.3)	3 (76.2)	3.25 (82.6)	2.75 (69.9)	2.25 (57.2)	*
EXB-14148 N34	13 (330.2)	13 (330.2)	4.25 (108.0)	3.75 (95.3)	3.75 (95.3)	3 (76.2)	3.25 (82.6)	2.75 (69.9)	2.25 (57.2)	*
EXB-16166 N34	14 (355.6)	14 (355.6)	4.75 (120.7)	4.25 (108.0)	4.25 (108.0)	3.5 (88.9)	3.75 (95.3)	3.25 (82.6)	2.75 (69.9)	0.75 (19.1)
EXB-16168 N34	14 (355.6)	14 (355.6)	4.75 (120.7)	4.25 (108.0)	4.25 (108.0)	3.5 (88.9)	3.75 (95.3)	3.25 (82.6)	2.75 (69.9)	0.75 (19.1)
EXB-16248 N34	14 (355.6)	22 (558.8)	8.75 (222.3)	8.25 (209.6)	8.25 (209.6)	7.5 (190.5)	7.75 (196.9)	7.25 (184.2)	6.75 (171.5)	4.75 (120.7)
EXB-162410 N34	14 (355.6)	22 (558.8)	8.75 (222.3)	8.25 (209.6)	8.25 (209.6)	7.5 (190.5)	7.75 (196.9)	7.25 (184.2)	6.75 (171.5)	4.75 (120.7)
EXB-18186 N34	16 (406.4)	16 (406.4)	5.75 (146.1)	5.25 (133.4)	5.25 (133.4)	4.5 (114.3)	4.75 (120.7)	4.25 (108.0)	3.75 (95.3)	1.75 (44.5)
EXB-18188 N34	16 (406.4)	16 (406.4)	5.75 (146.1)	5.25 (133.4)	5.25 (133.4)	4.5 (114.3)	4.75 (120.7)	4.25 (108.0)	3.75 (95.3)	1.75 (44.5)
EXB-18248 N34	16 (406.4)	22 (558.8)	8.75 (222.3)	8.25 (209.6)	8.25 (209.6)	7.5 (190.5)	7.75 (196.9)	7.25 (184.2)	6.75 (171.5)	4.75 (120.7)
EXB-182410 N34	16 (406.4)	22 (558.8)	8.75 (222.3)	8.25 (209.6)	8.25 (209.6)	7.5 (190.5)	7.75 (196.9)	7.25 (184.2)	6.75 (171.5)	4.75 (120.7)
EXB-18308 N34	16 (406.4)	29 (736.6)	12.25 (311.2)	11.75 (298.5)	11.75 (298.5)	10 (254.0)	11.25 (285.8)	9.75 (247.7)	9.25 (235.0)	8.25 (209.6)
EXB-18368 N34	16 (406.4)	34 (863.6)	14.75 (374.7)	14.25 (362.0)	14.25 (362.0)	12.25 (311.2)	13.75 (349.3)	12.25 (311.2)	11.75 (298.5)	10.75 (273.1)
EXB-183610 N34	16 (406.4)	34 (863.6)	14.75 (374.7)	14.25 (362.0)	14.25 (362.0)	12.25 (311.2)	13.75 (349.3)	12.25 (311.2)	11.75 (298.5)	10.75 (273.1)
EXB-203611 N34	18.88 (479.6)	34.88 (886.0)	15.18 (385.6)	14.68 (372.9)	14.68 (372.9)	13.93 (353.8)	14.18 (360.2)	13.68 (347.5)	13.18 (334.8)	11.18 (284.0)
EXB-24248 N34	22 (558.8)	22 (558.8)	8.75 (222.3)	8.25 (209.6)	8.25 (209.6)	7.5 (190.5)	7.25 (184.2)	7.25 (184.2)	6.75 (171.5)	4.75 (120.7)
EXB-242410 N34	22 (558.8)	22 (558.8)	8.75 (222.3)	8.25 (209.6)	8.25 (209.6)	7.5 (190.5)	7.25 (184.2)	7.25 (184.2)	6.75 (171.5)	4.75 (120.7)
EXB-24308 N34	22 (558.8)	28 (711.2)	11.75 (298.5)	11.25 (285.8)	11.25 (285.8)	9.5 (241.3)	10.75 (273.1)	9.25 (235.0)	9.75 (247.7)	7.75 (196.9)
EXB-24368 N34	22 (558.8)	34 (863.6)	14.75 (374.7)	14.25 (362.0)	14.25 (362.0)	12.5 (317.5)	13.75 (349.3)	13.25 (336.6)	12.75 (323.9)	10.75 (273.1)
EXB-243610 N34	22 (558.8)	34 (863.6)	14.75 (374.7)	14.25 (362.0)	14.25 (362.0)	12.5 (317.5)	13.75 (349.3)	13.25 (336.6)	12.75 (323.9)	10.75 (273.1)

Symbols: N = Enclosure will not accommodate this lens size
 R = Rotate lens 90°, consult factory for layout assistance

• = Voids UL/CSA/CENELEC certifications
 * = Indicates center line



KB DRAINS / BREATHERS

ATEX/IEC Ex Certified



KB1-4X



KB1BCEN



KB1DCEN

Class I, Div. 1 & 2, Groups B[ⓐ], C, D
 Class I, Zones 1 & 2, Groups IIB + H2[ⓐ]
 Class II, Div. 1 & 2, Groups E, F, G
 Class III, Enclosure Type 3, 4 & 4X[ⓐ]
 II 2 G Ex d IIB IIC[ⓐ] T226°C Gb IP44
 Ta = -50°C to +60°C

UL Listed - File E10514
 cULus Certified - File LR11716
 FM Certified File 25215
 IEC Ex CSA 10.0007U
 SIRA 10ATEX1351U



- ⓐ See chart below for suitability
- ⓑ Warning – not for use in acetylene atmosphere
- ⓒ Enclosure Type 4 & 4X for KB1-4X and KB1-4XS6 only

Applications

When installed in the top of an enclosure, these fittings act as breathers which allows air flow through the enclosure. Bottom installations permit water from condensation to drain from the enclosure continuously. The drains and breathers are offered in a variety of hub sizes, 1/4, 3/8 & 1/2 inch NPT and metric M16 & M20.

Body Material

Aluminum with optional stainless steel or brass available for special orders.

For use in enclosures with a maximum internal volume to 9526 cubic inches or 160 liters.

Volume

CATALOG NUMBER	THREAD SIZE	BODY MATERIAL	THIRD PARTY	SUITABILITY USA	THIRD PARTY	SUITABILITY CANADA	THIRD PARTY	SUITABILITY ATEX/IEC Ex
KB1BCEN BREATHER KB1DCEN DRAIN KBM20BCEN BREATHER KBM20DCEN DRAIN	1/2 NPT 1/2 NPT M20 M20	ALUMINUM ALUMINUM ALUMINUM ALUMINUM	CSAus CSAus CSAus CSAus	CLASS I GROUPS B, C & D CLASS I, ZONES 1 & 2 GR IIB+H2 CLASS II GROUPS E, F, & G CLASS III ENCL TYPE 3	c CSA c CSA c CSA c CSA	CLASS I GROUPS C & D CLASS I, ZONES 1 & 2 GR IIB CLASS II GROUPS E, F & G CLASS III ENCL TYPE 3	SIRA/CSA SIRA/CSA SIRA/CSA SIRA/CSA	II2 G Ex d IIC T226°C Gb IP44 [ⓐ]
KB1-4X KB1-4XS6	1/2 NPT 1/2 NPT	ALUMINUM 316SS	UL CSAus UL CSAus	CLASS I GROUPS B, C & D CLASS I, ZONES 1 & 2 GR IIB+H2 CLASS II GROUPS E, F, & G CLASS III ENCL TYPE 3 TYPE 3, 4 & 4X	c CSA c CSA	CLASS I GROUPS C & D CLASS I, ZONES 1 & 2 GR IIB CLASS II GROUPS E, F & G CLASS III ENCL TYPE 3 TYPE 3, 4 & 4X	N/A	N/A

Note: See Fitting Section for dimensions

KDE SERIES DRAIN BREATHER

Applications

When installed in the bottom of a thin wall enclosure the KDE allows water from condensation to drain continuously out of the enclosure. The drain breathers are installed through clearance holes and held secured with a internal locknut. The silicone external o ring makes a hose down tight seal.



KDEGF0M20



KDES60M20

Class I, Div. 2, Groups A, B, C, D
 Class I, Zone 1 & 2, Ex e / AEx e IIC, A/Ex tb
 Class II, Div. 1[ⓐ] & 2, Groups E, F, G
 Class III, Ambient Temperature Range
 -55°C to +80°C
 Enclosure Type 3, 4 & 4X[ⓐ] IP66

Ex II 2 G D CE 0518
 Ex e IIC Gb
 Ex tb IIIC Db IP66
 Ta = -55°C to + 80°C



cULus 2714851
 CML 15ATEX3028X
 IECEx QPS 15.0002X
 Seguranca IEX 15.0154X INMETRO

- ⓐ Class II Div. 1 Canada only, Div. 2 in the US
- ⓑ Type 4X in 316 & 304 SS, Aluminum & Nylon Materials

Features

- Sealing o-ring supplied as standard and suitable for use in a -55°C to +80°C temperature range.
- Variety of thread sizes 1/2 & 3/4 NPT, 1/2 & 3/4 NPSM, M20 & M25.
- Available in 300 series stainless steel, 316 stainless steel, aluminum and 30% glass filled nylon.
- Internal 316 stainless steel locknut supplied as standard. When tighten to the proper torque the joint makes a hose down tight seal for type 4, 4X & IP66 application.
- 303 or 304 stainless steel, 316 stainless steel, brass, aluminum or 30% glass filled nylon.
- Internal locknut 316 stainless steel.
- High temp silicone o-ring

Materials

MATERIAL / CATALOG NUMBER					
ENTRY THREAD SIZE & TYPE	GLASS FILLED PA6 NYLON	ALUMINUM	316 STAINLESS STEEL	BRASS	NICKEL PLATED BRASS
M20	KDEGF0M20	KDEAL0M20	KDES60M20	KDEBR0M20	KDEBR1M20
M25	KDEGF0M25	KDEAL0M25	KDES60M25	KDEBR0M25	KDEBR1M25
1/2" NPT	KDEGF0050	KDEAL0050	KDES60050	KDEBR0050	KDEBR1050
3/4" NPT	KDEGF0075	KDEAL0075	KDES60075	KDEBR0075	KDEBR1075

Note: Other thread forms and materials available upon request.

ENCLOSURES

KB/EXH SERIES



KB SERIES FLAME ARRESTOR

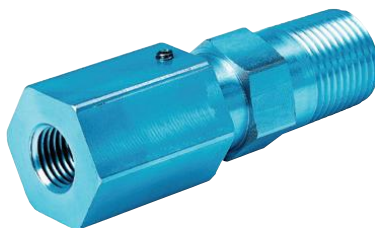
FEATURES-SPECIFICATIONS

Applications

The flame arrestor provides a means to connect gas analysis equipment and electro pneumatic devices' pipe or tubing system through the wall of an explosion-proof enclosure.

Body Material: 6061-T6 series aluminum provided as standard. Optional stainless steel or brass for special orders.

ATEX/IEC Ex Certified



Class I, Div. 1 & 2, Groups B[Ⓛ], C, D
 Class I, Zones 1 & 2, Groups IIB + H2[Ⓛ]
 Class II, Div. 1 & 2, Groups E, F, G
 Class III, NEMA Type 3, 4[Ⓛ]
 II 2 G Ex d IIB IIC[Ⓛ] T3 Gb IP66[Ⓛ]
 Ex tb IIIC IP65/IP66[Ⓛ]
 Ta = -50°C to +60°C

Ex[Ⓛ] Certified - File LR11716
 IEC Ex CSA 10.0007U
 SIR A 10ATEX1351U



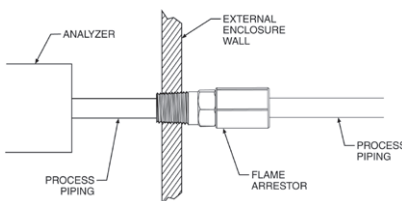
Ⓛ See chart below for suitability
 Ⓛ Warning – not for use in acetylene atmospheres

CATALOG NUMBER	EXTERNAL THREAD SIZE	INTERNAL THREAD SIZE	THIRD PARTY	SUITABILITY USA	THIRD PARTY	SUITABILITY CANADA	THIRD PARTY	SUITABILITY ATEX/IEC Ex
KB1FA25	1/2 NPT	1/4 NPT	CSAus	CLASS I GROUPS B, C & D CLASS I, ZONES 1 & 2 GR IIB+H2 CLASS II GROUPS E, F, & G CLASS III TYPE 3 & 4	c CSA c CSA	CLASS I GROUPS C & D CLASS I, ZONES 1 & 2 GR IIB CLASS II GROUPS E, F & G CLASS III TYPE 3 & 4	SIRA/CSA	II 2 G Ex d IIC [Ⓛ] T3 Gb IP66
KB1FAM16 KBM20FA25 KBM20FA16	1/2 NPT M20 M20	M16 1/4 NPT M16	CSAus CSAus CSAus	CLASS I GROUPS B, C & D CLASS I, ZONES 1 & 2 GR IIB+H2 CLASS II GROUPS E, F & G CLASS III TYPE 3	c CSA c CSA c CSA	CLASS I GROUPS C & D CLASS I, ZONES 1 & 2 GR IIB CLASS II GROUPS E, F & G CLASS III TYPE 3	SIRA/CSA SIRA/CSA SIRA/CSA	II 2 G Ex d IIC T3 Gb IP65

Specifications

Air flow = 83 + 15 / -25 SCFH at 5PSI
 Pressure drop = 1.3 PSI at 100 PSI
 Maximum flow pressure = 800 PSI
 Volume = For use in enclosures with a maximum internal volume of 9526 cubic inches or 160 liters.

TYPICAL INSTALLATION



EXH SERIES CIRCUIT BREAKER HANDLES

FEATURES-SPECIFICATIONS

Applications

EXH Series circuit breaker handles are for use with the following Series of Killark enclosures: EXB, DB, B7E

- Used to activate circuit breakers and motor circuit protectors from front cover
- Factory or field installed in a 3/4" NPSM opening for EXH1 & EXH2 and a 1-1/4" NPSM for EXH3
- Has provision for Lock-On and Lock-Off with up to three padlocks
- Consists of an external handle mechanism with through-the-enclosure shaft and internal toggle mechanism and breaker pan

Materials

- Copper free aluminum with 316 stainless steel shaft and screens
- O-ring 70 durometer nitrile

Submit sketch showing the desired location of internal breaker for factory location of handle mechanism. Order as separate option with enclosure for factory installation or by Catalog Number for field installation. Consult factory for handle mechanism for fused and non-fused disconnect switches.



EXH

Class I, Div. 1 & 2, Groups B,C,D
 Class I, Zones 1 & 2, Groups IIB+H₂, IIA
 Class II, Div. 1 & 2, Groups E, F, G
 Class III, Encl. Type 3, 4 & 4X
 NEMA 3, 4, 4X, 7 (B,C,D) 9 (E,F,G)

UL LISTED - File E150827

SPR Certified - File LR11714

EXH CIRCUIT BREAKER HANDLE WITH SHAFT AND PAN					
CATALOG NUMBER			BREAKER MANUFACTURER	BREAKER FRAMES TO OPERATE	MAX. AMPS
6" DEEP BOX	8" DEEP BOX	10" DEEP BOX			
EXH1A6	EXH1A8	EXH1A10	GE	TEB-TEH-THEH-TEL	150
			ITE/Siemens	ED2-ED4-ED6-HED4-HED6	125
			Square D	FAL-FHL-FCL	100
			Cutler Hammer	EHD-FDB-FD-HFD-FDC-HMCP	150
N/A	EXH1B8	EXH1B10	GE	TFJ-TFK-TFK-TFL	225
			Square D	KAL-KHL-KCL	250
N/A	EXH2C8	EXH2C10	Cutler Hammer	JDB-JD-HJD-JDC	250
			Cutler Hammer	DK-KDB-KD-HKD-KDC	400
N/A	EXH3D8	EXH3D10	GE	TJJ-TJK4-TJK6-THJK4-THJK6	600
			ITE/Siemens	FXD6-FD6-HFD6-CFD6	250
			ITE/Siemens	JXD2-JXD6-JD6-HJD6-HHJD6-CJD6	400
			ITE/Siemens	LXD6-LD6-HKD6-HHLD6-CLD6	600
			Square D	LAL-LHL	400
			Cutler Hammer	LDB-LD-HLD-LDC	600
N/A	N/A	EXH3E10	GE	TKM8-THKM8-TKM12-THKM12	1200
			ITE/Siemens	MXD6-MD6-HMXD6-HMD6-CMD6	800
			ITE/Siemens	NXD6-ND6-HNXD6-HND6-CND6	1200
			Square D	LCL	600
			Square D	MAL-MHL	1000
Cutler Hammer	ND-HND-NDC	1200			



TERMINAL BLOCKS



Terminal Block

FEATURES-SPECIFICATIONS

600 Volt –#8–#22 CU; #8–#12 AL.
50 Amp Maximum

Applications

Mounting in EXB, XJB, GR, DB Series junction boxes.

- Use in connecting and in arrangement of control wiring for control panel and switchboard applications

Features

- Terminal blocks have clamping screw-type terminals which accommodate either aluminum or copper wire. TMS marking strips are included.
- When more than one terminal strip is required, a mounting pan should be used for ease of mounting and wiring

$$C = .625 + (1.3125 \times N)$$

$$L = 1.250 + (1.3125 \times N)$$

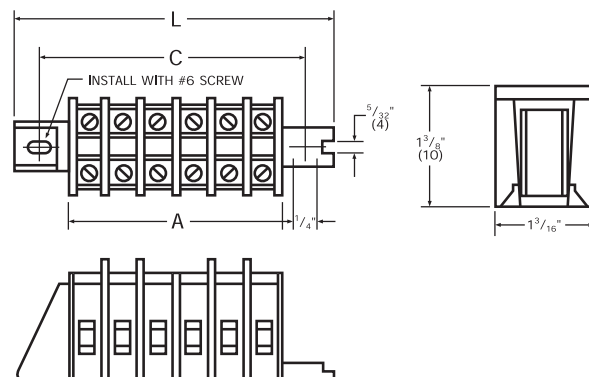
N = NUMBER OF BLOCKS

TBWE TERMINAL BLOCKS				
CATALOG NUMBER	NO. OF CIRCUITS	DIMENSIONS		
		A	C	L
TBWE-3	3	1.25	1-7/8"	2-1/2"
TBWE-6	6	2.50	3-1/8"	3-3/4"
TBWE-9	9	3.75	4-3/8"	5"
TBWE-12	12	5.0	5-5/8"	6-1/4"
TBWE-15	15	6.25	6-7/8"	7-1/2"
TBWE-18	18	7.50	8-1/8"	8-3/4"
TBWE-21	21	8.75	9-3/8"	10"
TBWE-24	24	10.0	10-5/8"	11-1/4"
TBWE-27	27	11.25	11-7/8"	12-1/2"
TBWE-30	30	12.50	13-1/8"	13-3/4"
TBWE-33	33	13.75	14-3/8"	15"
TBWE-36	36	15.0	15-5/8"	16-1/4"
TBWE-39	39	16.25	16-7/8"	17-1/2"
TBWE-42	42	17.5	18-1/8"	18-3/4"
TBWE-45	45	18.75	19-3/8"	20"
TBWE-48	48	20.0	20-5/8"	21-1/4"
TBWE-51	51	21.25	21-7/8"	22-1/2"
TBWE-54	54	22.50	23-1/8"	23-3/4"
TBWE-57	57	23.75	24-3/8"	25"
TBWE-60	60	25.0	25-5/8"	26-1/4"

Cutler Hammer Type TBA Modular Terminal Blocks

600 Volt-#8–#22 CU.; #8–#12 AL.

Clamping Screw Type Terminals, Type TMS Marking Strip Included





THREADED ENCLOSURES

**ATEX / IEC Ex Certified**

Class I, Div. 1 & 2, Groups B, C, D
Class I, Zones 1 & 2, Groups IIB+H2, IIA
Class II, Div. 1 & 2, Groups E, F, G
Class III, Div. 1 & 2
ENCL Type 3, 4 & 4X
ATEX/IEC Ex
Ex d IIC T6 or T5
Ex tD A21 IP66 T80°C or T90°C IP66
Ta = -20°C to +60°C

- UL #UL886 - Outlet Boxes and Fittings for use in Hazardous (Classified) Locations. File #E10514
- UL #UL1203 - Explosion Proof and Dust Ignition Proof Electrical Equipment. File #E83969
- SR #C22.2 No. 30-M1986 - Explosion Proof Enclosure for use in Class I Hazardous Locations. File #LR11716
- FM #3600 & 3615 File #2Y4A5.AE
- Ex II 2 G/D 0518 CE
 PTB 02 ATEX 1071U (Empty Housing)
 PTB 02 ATEX 1072 (Enclosure with Controls)
 IEC Ex PTB 05 0029
 IEC Ex PTB 05.0028U

FEATURES-SPECIFICATIONS**Applications**

- Hazardous locations due to the presence of flammable gases or vapors, combustible dusts or easily ignitable fibers or flyings, and areas which are subject to corrosion, weather and dampness
- Installations at petroleum refineries, chemical and petrochemical plants, storage areas, and other processing facilities where hazardous substances are handled or stored
- Applications requiring junction, pull and/or splice boxes
- Enclosures to house meters, relays, terminal strips, control transformers, etc.

- **Global applications* (ATEX/IEC Ex) Enclosures are available for global applications with "CEN" suffix. Assemblies that are modified to ATEX/IEC Ex standards maintain their North American certifications.**

Features

- Compact square or rectangular enclosures with threaded screw type covers provide easy access to interior
- Can be shipped in component parts and still maintain third party UL-CSA-FM approvals
- Available in three different cover types, flat blank, lens and dome covers
- Cast mounting lugs are standard on all assemblies
- Available as blank box or can be custom drilled and tapped for conduit openings which may be factory or field installed on the four sides or back wall
- Gaskets are standard on all assemblies and with covers when component part ordering
- Internal ground screw supplied on all boxes
- CEN suffix modification for GENELEC Certification includes an external ground screw, cover locking screw, and nameplate displaying certification and area classifications. Feature is only available on complete assemblies and not available when component part ordering.

Material/Finish

- Enclosures:
Copper-free Aluminum

(less than 4/10 of 1%)

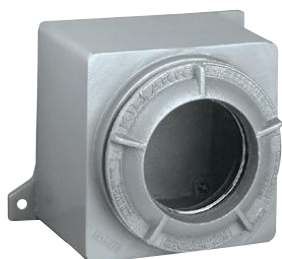
- Optional Mounting Pans:
Sheet Aluminum
- Lens Cover Glass:
Tempered soda lime glass
- Cover Gaskets:
GRB, GRE, GRM, GRK, GRL
70 Durometer NITRILE
GRH, GRHA, GRHC
57 63 Durometer BUNA-N
- Electrostatically applied gray powder epoxy/polyester finish on exterior of box and cover



THREADED ENCLOSURES



Box with blank cover



Box with lens cover



Box with dome cover

NOTE: See Page E46 for Third Party Certifications

FEATURES-SPECIFICATIONS

GR COMPLETE ASSEMBLIES									
COVER OPENING DIAMETER	NOMINAL EXTERNAL BOX DIMENSIONS WITHOUT COVER			CATALOG NUMBER		VIEWING AREA	CATALOG NUMBER	DEPTH OF DOME	MAXIMUM CONDUIT SIZE
	L	W	D	BOX WITH BLANK COVER	BOX WITH LENS COVER		BOX WITH DOME COVER		
3.906 (99.21)	4.63 (117.60)	4.63 (117.60)	4.15 (105.41)	GRB	GRB-275L	2.75 (70)	2GRB	2 (51)	1-1/2"
							4GRB	4 (102)	
4.34 (110.24)	6.63 (168.40)	5.5 (139.70)	5.25 (133.35)	GRE	GRE-300L	3 (76)	—	—	2"
5.28 (134.11)	6.87 (174.50)	6.87 (174.50)	5.93 (150.62)	GRM	GRM-375L	3.75 (95)	5GRM	5 (127)	2"
7.25 (184.15)	9.87 (250.70)	8.38 (212.85)	6.53 (165.86)	GRK	GRK-537L	5.38 (137)	4GRK	4 (102)	2-1/2"
7.87 (199.90)	10.5 (266.70)	8.87 (225.30)	7.18 (182.37)	GRL	GRL-600L	6 (152)	—	—	2"
9.63 (244.60)	12 (304.80)	11 (279.40)	7.63 (193.80)	GRH	GRH-775L	7.75 (197)	4GRH	4 (102)	3 1/2"
							8GRH	8 (203)	
9.63 (244.60)	12.18 (309.37)	11 (279.40)	11 (279.40)	GRHC	GRHC-775L	7.75 (197)	4GRHC	4 (102)	4"
							8GRHC	8 (203)	
9.63 (244.60)	12 (304.80)	11 (279.40)	16.18 (410.97)	GRHA	GRHA-775L	7.75 (197)	4GRHA	4 (102)	4"
							8GRHA	8 (203)	

NOTE: To order above items with ATEX IEC EX Modifications and Certifications add suffix CEN to end of catalog number. (Example: GRBCEN)
To order above items with a flat back pan installed add suffix P to catalog number.



GR COMPONENT PARTS							
ENCLOSURE SERIES	CATALOG NUMBER OF COMPONENTS						
	BOX WITHOUT COVER	BLANK COVER	LENS COVER	DOME COVER	GASKET REPLACEMENT	FLAT PAN	DIMENSIONS FOR MTG. PANS
GRB	GRBB	GRB-BC	GL-275	2"- 2GRBD	GRB-RG	6086PAN	3.4 x 3.5 (86 x 89)
				4"- 4GRBD			
GRE	GREB	GRE-BC	GL-300	—	GRE-RG	6074	4 x 4.5 (102 x 114)
GRM	GRMB	GRM-BC	GL-375	5"- 5GRMD	GRM-RG	6064	5 x 5 (127 x 127)
GRK	GRKB	GRK-BC	GL-537	4"- 4GRKD	GRK-RG	6038	5.5 x 7.5 (140 x 191)
GRL	GRLB	GRL-BC	GL-600	—	GRL-RG	6053	6 x 8.5 (152 x 216)
GRH	GRHB	GRH-BC	GL-775	4"- 4GRHD	GRH-RG	6058	8 x 9 (203 x 229)
				8"- 8GRHD			
GRHC	GRHCB	GRH-BC	GL-775	4"- 4GRHD	GRH-RG	6058	
				8"- 8GRHD			
GRHA	GRHAB	GRH-BC	GL-775	4"- 4GRHD	GRH-RG	6058	
				8"- 8GRHD			

NOTES: Covers are supplied with gasket.
For Group B locations all conduits must be sealed within 18" of enclosures.



THREADED ENCLOSURES

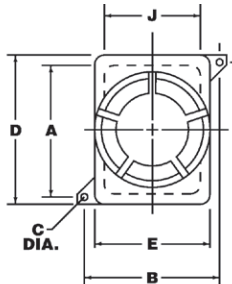
CAT. NO.	MTG DIM					INTERNAL							+M
	A	B	C	D	E	F	G*	H	I	J	K	L	
GRB	4 (101.6)	6 (152.4)	0.31 (7.9)	4.63 (117.6)	4.63 (117.6)	4.15 (105.4)	3.91 (99.3)	4.56 (115.8)	4.53 (115.1)	3.75 (95.3)	3.75 (95.3)	2.68 (68.1)	2.75 (69.9)
GRE	5.75 (146.1)	6.5 (165.1)	0.31 (7.9)	6.63 (168.4)	5.5 (139.7)	5.25 (133.4)	4.34 (110.2)	5.75 (146.1)	5.72 (145.3)	4.63 (117.6)	5.75 (146.1)	3.28 (83.3)	3 (76.2)
GRM	5.87 (149.1)	8.13 (206.5)	0.31 (7.9)	6.87 (174.5)	6.87 (174.5)	5.93 (150.6)	5.28 (134.1)	6.56 (166.6)	6.56 (166.6)	6 (152.4)	6 (152.4)	4.18 (106.2)	3.75 (95.3)
GRK	9.13 (231.9)	9.63 (244.6)	0.31 (7.9)	9.87 (250.7)	8.38 (212.9)	6.53 (165.9)	7.25 (184.2)	7.28 (184.9)	7.18 (182.4)	7.06 (179.3)	8.31 (211.1)	4.13 (104.9)	5.38 (136.7)
GRL	9.5 (241.3)	10.5 (266.7)	0.44 (11.2)	10.5 (266.7)	8.87 (225.3)	7.18 (182.4)	7.87 (199.9)	7.97 (202.4)	7.93 (201.4)	7.63 (193.8)	9.13 (231.9)	4.93 (125.2)	6 (152.4)
GRH	10.75 (273.1)	12.13 (308.1)	0.44 (11.2)	12 (304.8)	11.63 (295.4)	7.63 (193.8)	9.63 (244.6)	8.38 (212.9)	8.63 (219.2)	9.5 (241.3)	10.5 (266.7)	5 (127.0)	7.75 (196.9)
GRHA	8.25 (209.6)	12.13 (308.1)	0.44 (11.2)	12 (304.8)	11.63 (295.4)	16.18 (411.0)	9.63 (244.6)	16.93 (430.0)	17.18 (436.4)	9.5 (241.3)	10.5 (266.7)	13.56 (344.4)	7.75 (196.9)
GRHC	8.25 (209.6)	12.13 (308.1)	0.56 (14.2)	12.18 (309.4)	11.63 (295.4)	11 (279.4)	9.63 (244.6)	11.75 (298.5)	12 (304.8)	9.56 (242.8)	10.63 (270.0)	8.43 (214.1)	7.75 (196.9)

CATALOG NUMBER BASIC BOX W/DOME COVER	S DIM INCHES (MM)
2GRB	7 (177.80)
4GRB	9 (228.60)
5GRM	12.25 (311.15)
4GRK	11.93 (303.02)
4GRH	13 (330.20)
8GRH	17 (431.80)
4GRHA	21.5 (546.10)
8GRHA	25.5 (647.70)
4GRHC	16.31 (414.27)
8GRHC	20.31 (515.88)

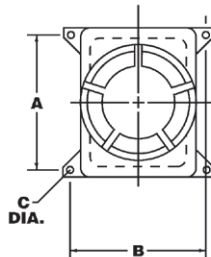
NOTE: GRH has four lugs with holes. GRHA & GRHC has four lugs with slots.

* Box Opening

+ Lens Viewing



GRB GRK
GRE GRL
GRM

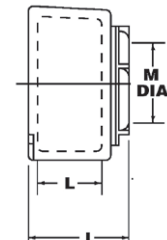


GRH
GRHA
GRHC

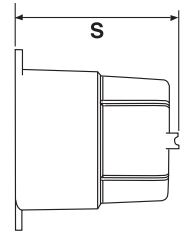
Dimensions



Blank Cover



Lens Cover



Dome Cover

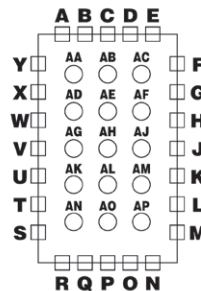
GR MODIFICATIONS	
SUFFIX NUMBER	DESCRIPTION
SU3B-4X	Drain and breather Groups B, C, D, Type 4X
SU3ATEX	ATEX/IEC Ex Drain and breather*
P	Internal flat mounting pan installed
CEN	ATEX/IEC Ex modification and certification (complete box & cover assembly only)
SU8	Drill for pan mounting studs without pan
SU6	Removal of external mounting lugs

- SU3B-4x are not ATEX/IECEx approved
- SU3-ATEX voids Type 4, 4X and IP66 rating

*See Drain / Breather Catalog Page

Drilled & Tapped Conduit Openings

Boxes are furnished blank for field drilling and tapping of conduit openings. If factory openings are requested submit drawing or select from charts below.



SYMBOL NUMBER	
SIZE	SYMBOL
1/2"	1
3/4"	2
1"	3
1-1/4"	4
1-1/2"	5
2"	6
2-1/2"	7
3"	8
3-1/2"	9
4"	10

GR ENCLOSURE VOLUMES	
CATALOG NUMBER	VOLUME CU IN (LT)
GRB	45 (0.74)
GRE	105 (1.72)
GRM	180 (2.95)
GRK	305 (5.00)
GRL	405 (6.64)
GRH	615 (10.09)
GRHA	1450 (23.78)
GRHC	985 (16.15)
GRB-275L	40 (0.66)
GRE-300L	95 (1.56)
GRM-375L	170 (2.79)
GRK-537L	280 (4.59)
GRL-600L	380 (6.23)
GRH-775L	570 (9.35)
GRHA-775L	1400 (22.96)
GRHC-775L	940 (15.42)
2GRB	60 (0.98)
4GRB	80 (1.31)
5GRM	250 (4.10)
4GRK	410 (6.72)
4GRH	820 (13.45)
8GRH	1050 (17.22)
4GRHA	1660 (27.22)
8GRHA	1890 (31.00)
4GRHC	1195 (19.60)
8GRHC	1425 (23.37)

EXAMPLE: GRB-C3-J2-P1=
GRB enclosure with 1" NPT top center,
3/4" NPT right side center,
1/2" NPT bottom center






GR SERIES

KILLARK

INSTRUMENT ENCLOSURES



Class I, Div. 1 & 2, Groups B,C,D
Class I, Zones 1 & 2, Groups IIB+H2, IIA
Class II, Div. 1 & 2, Groups E, F, G
Class III, Div. 1 & 2
ENCL. Type 3, 4, & 4X

-  #UL1203 - Explosion Proof and Dust Ignition Proof Electrical Equipment. File #E83969
-  #C22.2 No. 30-M1986 -Explosion Proof Enclosure for use in Class I Hazardous Locations. File #LR11716
-  #3600 & 3615 File #2Y4A5.AE

FEATURES-SPECIFICATIONS

Applications

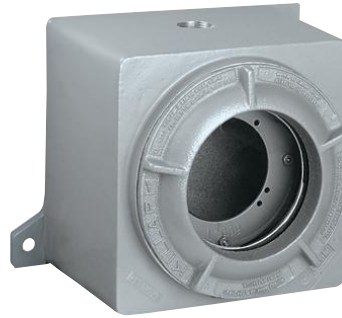
Use GR Series Instrument Enclosures for mounting of 3", 3-1/2", 4" or 4-1/2" round or rectangular instruments such as ammeters and voltmeters

- Two 3/4"-14 NPT drilled and tapped conduit openings, one top and one bottom, are standard
- Internal mounting pan is attached to inside back of box with spacers for mounting meter

GR INSTRUMENT ENCLOSURES (INSTRUMENTS NOT SUPPLIED)				
CATALOG NUMBER	MANUFACTURER	INSTRUMENT		
		MODEL	SIZE	TYPE
GRM-375L52	Weston	1930 Series	3-1/2"	Rectangular
		301 Series	3"	Rectangular
		301 Series	3-1/2"	Round
GRM-375L52	General Electric	KT w/o reset	3"	Rectangular
		KT w/o reset	3-1/2"	Round
GRM-375L52	Cutler Hammer	R-351	3"	Rectangular
		B-351 w/o reset	3"	Rectangular
		N-351	3-1/2"	Round
GRM-375L52	Simpson	27, 27T, 37, 47, 57, 77 Series	3"	Rectangular
		2100 Series	3-1/2"	Rectangular
		25, 25T, 35, 45, 55 Series	3-1/2"	Round
		55ET	3-1/2"	Round
		75	3-1/2"	Round
		1300 Series	3-1/2"	Rectangular
		3223	3-1/2"	Round
3323	3-1/2"	Rectangular		
GRM-375L52	Cutler Hammer	N-371 Series	4-1/2"	Round
GRK-537L52A	Cutler Hammer	R-371 Series	4"	Rectangular
GRK-537L52A	Simpson	3224	4-1/2"	Round
GRK-537L52A	General Electric	250, 162, 167, 251 Series	3-1/2"	Rectangular
		178 Series	4-1/2"	Rectangular
		171 Series frequency meter	4-1/2"	Rectangular
		236 w/o Reset	3-1/2"	Rectangular
GRK-537L52B	Weston	1940 Series	4-1/2"	Rectangular
GRK-537L52B	General Electric	AB/DB-30 AC ammeter	4-1/2"	Rectangular
		AB/DB-30 AC/DC ammeter	4-1/2"	Rectangular
GRL-600L52B	General Electric	AB/DB-40 AC ammeter	4-1/2"	Rectangular
GRK-537L52B	General Electric	DB-40 DC ammeter	4-1/2"	Rectangular
		DB-40 DC voltmeter	4-1/2"	Rectangular
		171, 250, 251 Series	4-1/2"	Rectangular
GRL-600L52C	Simpson	29, 29T, 39, 49, 59, 79, 1300, 2100 Series	4-1/2"	Rectangular
GRH-775L52B	General Electric	AB/DB-40 AC voltmeter	4-1/2"	Rectangular



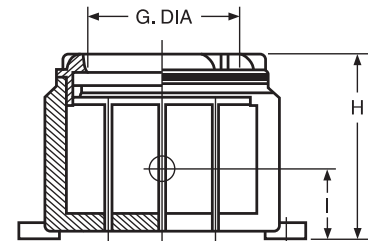
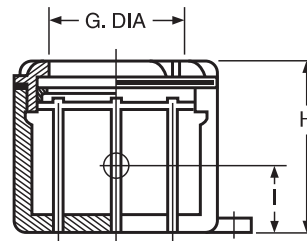
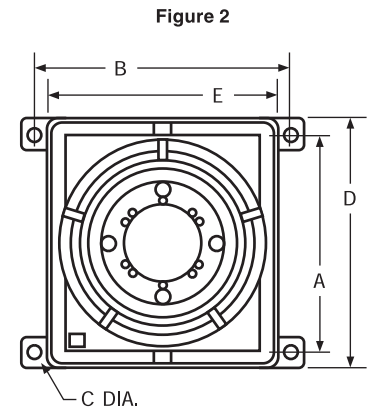
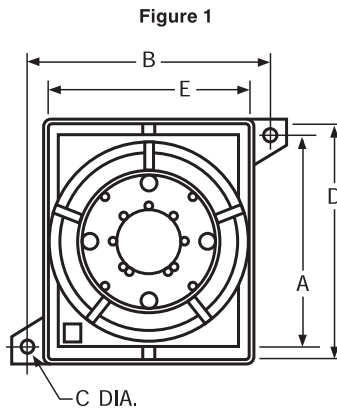
INSTRUMENT ENCLOSURES



FEATURES-SPECIFICATIONS

GR DIMENSIONS									
CATALOG NUMBER	FIG. NO.	A	B	C	D	E	G	H	I
GRM-375L52	1	5-7/8"	8-1/8"	5/16"	6-7/8"	6-7/8"	3-9/16"	6-13/32"	2-5/8"
GRK-537L52A	1	9-1/8"	9-1/8"	5/16"	9-7/8"	7-7/8"	4-7/8"	6-11/16"	2-1/2"
GRK-537L52B	1	9-1/8"	9-1/8"	5/16"	9-7/8"	7-7/8"	4-7/8"	6-11/16"	2-1/2"
GRL-600L52B	1	9-1/2"	10-1/2"	7/16"	10-1/2"	8-7/8"	5-13/16"	7-17/32"	2-3/4"
GRL-600L52C	1	9-1/2"	10-1/2"	7/16"	10-1/2"	8-7/8"	5-13/16"	7-17/32"	2-3/4"
GRH-775L52B	2	10-3/4"	12-1/8"	7/16"	12"	11"	7-7/16"	8-3/4"	3"

Dimensions





HK/2HK SERIES

KILLARK

INSTRUMENT / DEVICE ENCLOSURES



HK



2HK

FEATURES-SPECIFICATIONS

Applications

Instrumentation housed in HK Series enclosures typically used to measure, detect, monitor, transmit and control industrial processes and systems.

HK Series enclosures are suitable for a broad range of applications, meeting both domestic and international code requirements.

Some specific examples of the type of instruments that can be housed in these enclosures include:

- Flow measurement devices
- Temperature monitors
- Two-wire transmitters
- Gas detectors
- Ph analyzers
- Pressure gauges
- Temperature transmitters
- Oxygen/combustible gas sensors
- Methane gas monitors
- Level detectors
- H2S monitors
- Transducers
- Pressure switches

See pages E57 - E58 for dimensions.

Features

- Enclosures are explosion proof, dust/ignition proof, weather proof and tamper resistant
- HK Series boxes covers are cast from a copper-free aluminum alloy
- Cast stainless steel box, flat & lens cover available (HKSB-BC + HKSB-GLC)
- Neoprene O-rings are provided with HK boxes to assure water resistance in NEMA 4/IP66 conditions
- Three box styles available: HKB, HKBD single cover design and the 2HKB double cover design. 2HKB enclosure has two separate chambers for isolation between

power and instrument.

- HKB, HKBD box has offset feed-thru conduit openings (3/4" NPT) for maximum use of interior volume
- 2HKB box has offset feed-thru conduit openings (3/4" NPT) on power side and one (3/4" NPT) on bottom instrument side
- Interior mounting pad for instrument/device cast into the bottom of the HKB, HKBD box is provided in an "X"-configuration for flexibility
- Location of the internal ground screw boss does not interfere with the mounting of the instrument or device
- Eight different cover styles are available: standard flat cover, standard glass lens cover, 1" dome cover, 1" dome lens cover, 2" dome cover, 2" glass lens dome cover, 4" dome cover and 4" dome lens cover.
- All covers have shrouded tamper resistant set screws as standard which can help to combat excessive vibration in rugged settings
- Lugs on cover permit easy removal and tightening

Material/Finish

- Boxes and covers – copper-free aluminum (less than 4/10 of 1%)
- HKSB series is 316 cast stainless steel
- O-ring sealing gasket – Neoprene rubber

ATEX/IECEX Certified

IECEX UL 14.0071U
DEMKO 01 ATEX 15742U

Ex II 2 G / D

Ex db IIC Gb, Ex tb IIC Db IP66
Ta = -60°C to +70°C for GL (glass) lenses
Ta = -60°C to +70°C for blank covers

Class I, Div. 1 & 2, Groups A*, B, C, D†
Class I, Zones 1 & 2, Groups IIB + H2, IIA
Class II, Div. 1 & 2, Groups E, F, G
Class III, Type 3, 4, 4X

UL - File E83969 & File E150827

SP - Certified - File LR11716

FM - File 1W1R4-RE



- Ground screws – zinc plated steel with green dye (Stainless steel on HKSB)
- Allen head cover screw – cadmium plated steel (Stainless steel on HKSB)
- Glass lens – 3/8" thick tempered glass
- Finish – silver powder epoxy paint, electrostatically applied
- Special colors available in quantity

* Group A FM only on HK single cover box. Order with -GA suffix.

** CENELEC on assembled HK parts only with suffix "C".

*** Seal immediately adjacent to enclosure.

† Seal within 18" of enclosure for Groups BCD and within 6" for Group A in accordance with sections 501-5 and 502-5 of the National Electrical Code.

HK Design Features



2HK Design Features



ENCLOSURES

HK/2HK SERIES



INSTRUMENT / DEVICE ENCLOSURES

Boxes



HKB
HKBD



2HKB



HKB-BC



HKSB-GLC

Standard Flat Covers



HFC Blank



HKGL Lens



HK1D Blank



HK1GLD Lens



HK2D Blank



HK2GLD Lens



HK4D Blank



HK4GLD Lens

Dome Covers 1", 2" and 4"

FEATURES-SPECIFICATIONS

2HKB Series Boxes

The wall that separates the instrument side from the power side can be machined for slots or holes up to a maximum of two slots 5/16" by 1-1/2".

Submit drawings for machining requirements to Killark.

Factory Modifications

Approvals allow for factory or field modifications on HKB box for drilling and tapping conduit openings on side or back of enclosure without voiding UL-CSA-FM approvals. Internal mounting pad holes on "X" configured boss can be factory added by drilling from inside of box without piercing the bottom of enclosures. Assemblies with ATEX/IEC Ex approvals must be factory modified in order to comply with certifications.

HK ASSEMBLED PARTS ^{②③}					
CATALOG NUMBER (CAST ALUMINUM)					
HKB BOX & COVERS		HKBD BOX & COVERS	2HKB BOX W / BLANK COVER ON POWER SIDE & OPTIONAL COVER ON INSTRUMENT SIDE ^④		COVER TYPE
UL-CSA-FM APPROVED	CENELEC UL-CSA-FM APPROVED	UL-CSA-FM APPROVED	(UL-CSA-FM)	CENELEC UL-CSA-FM APPROVED ^①	
HKB-B	HKB-BC	HKBD-B	2HKB-B-B	2HKB-BC-BC	Standard flat
HKB-2D	HKB-2DC	HKBD-2D	2HKB-B-2D	2HKB-BC-2DC	2" Dome
HKB-4D	HKB-4DC	HKBD-4D	2HKB-B-4D	2HKB-BC-4DC	4" Dome
HKB-GL	HKB-GLC	HKBD-GL	2HKB-B-GL	2HKB-BC-GLC	Lens
HKB-2GLD	HKB-2GLDC	HKBD-2GLD	2HKB-B-2GLD	2HKB-BC-2GLDC	2" Dome lens

HK COMPONENT PARTS	
CATALOG NUMBER	DESCRIPTION
HKB	Single cover box only
HKBD	Single deep box only
2HKB	Double cover Box only
HFC	Flat cover
HKGL	Lens cover
HK1D	1" Dome cover
HK1GLD	1" Dome lens cover
HK2D	2" Dome cover
HK4D	4" Dome cover
HK2GLD	2" Dome lens cover
HK4GLD ^⑤	4" Dome lens cover
15722LABB	Rep. "O" Ring Gasket

HKSB STAINLESS STEEL ASSEMBLED PARTS ^②	
HKSB BOX & COVERS CENELEC UL-CSA-FM APPROVED	COVER TYPE
HKSB-BC	Standard flat
HKSB-GLC	Lens

^① Assemblies that are CENELEC approved include as standard:

- External ground screw with terminal
- Predrilled nameplate holes and screw on pad for customer installed nameplate.

^② See information at right for optional factory machining.

^③ Product is stocked at component level. Recommend ordering as such for reduced lead time.

^④ 2HKB Assemblies include a flat cover on power side, dome and lens covers can be substituted in place of flat cover, consult factory for ordering details.

^⑤ Not FM Approved

HKB FACTORY MODIFICATIONS	
OPTIONAL FACTORY MACHINING (HKB)	
CATALOG SUFFIX	DESCRIPTION
-01 -	1/2 NPT hub in back
-02 -	3/4 NPT hub in back
-10 -	1/2 NPT hub in side
-20 -	3/4 NPT hub in side
-21 -	3/4 NPT hub in side 1/2 NPT hub in back
-22 -	3/4 NPT hub in side 3/4 NPT hub in back
-02S -	3/4 NPSM hub in back
-22S -	3/4 NPT hub in side 3/4 NPSM hub in back
-2S2S -	3/4 NPSM hub in side 3/4 NPSM hub in back
-2S0 -	3/4 NPSM hub in side
-2S1 -	3/4 NPSM hub in side 1/2 NPT hub in back
-2S2 -	3/4 NPSM hub in side 3/4 NPT hub in back
-GS	External ground screw (Standard on HKB assembly with CENELEC approvals)
-GA -	Group A - FM approval (Available only on HKB box furnished with covers installed)
-SU93 -	Unpainted - Natural finish
-SU9 -	Special colors of powder paint available in quantity. Consult factory for details

Ordering examples:

Modified box component HKB-20

Modified assembly HKB - B - 20 OR HKB - BC - 20



INSTRUMENT / DEVICE ENCLOSURES



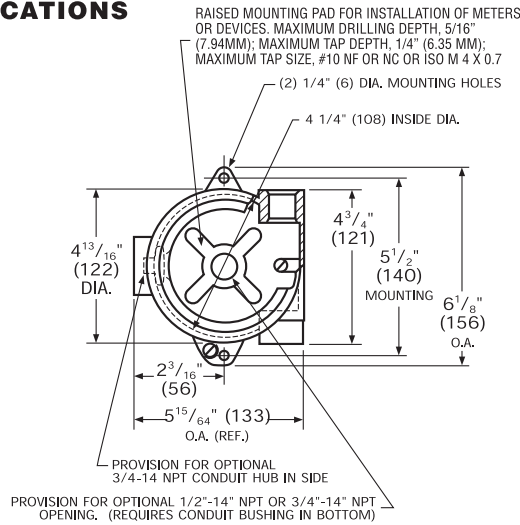
HK



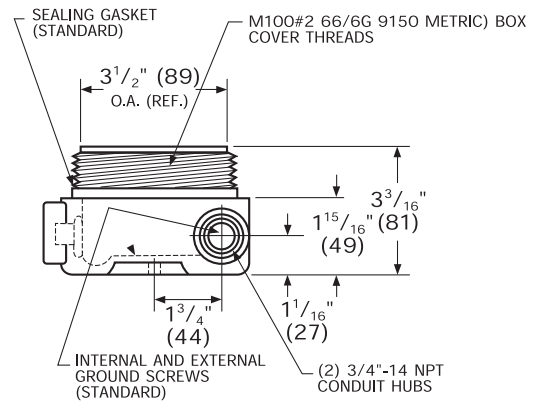
HKSB - Stainless Steel

FEATURES-SPECIFICATIONS

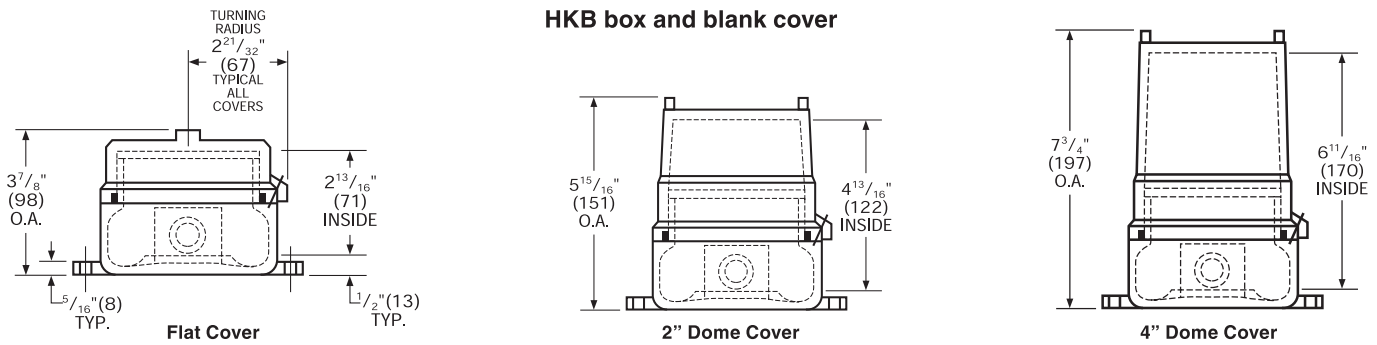
Dimensions
 Note: Add 1/2" to all depth dimensions when using HKBD Deep Box.
 HKBD volume = 33 cu.in.



HKB Volume: 31 cu. in.



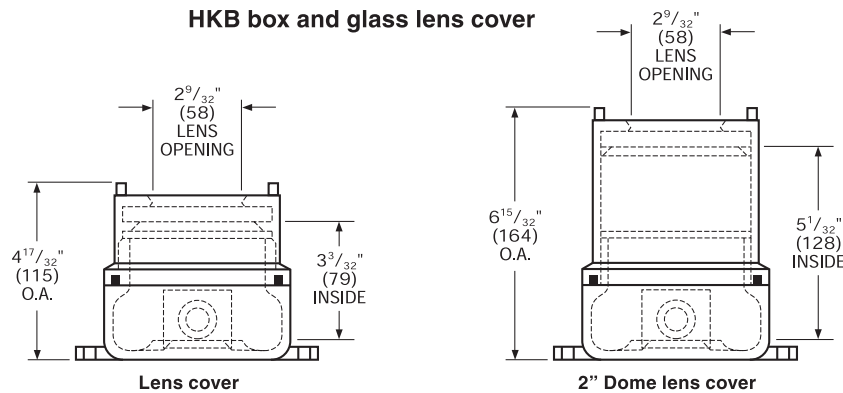
HKB box and blank cover



HKB box and glass lens cover

For HK1GLD (1" Dome Lens Cover), add 1" to lens cover verticle height dimensions

For HK4GLD (4" Dome Lens Cover), add 2" to 2 dome lens cover verticle height dimensions





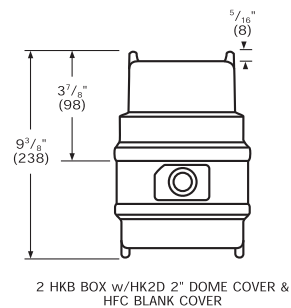
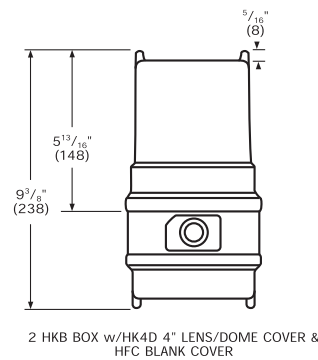
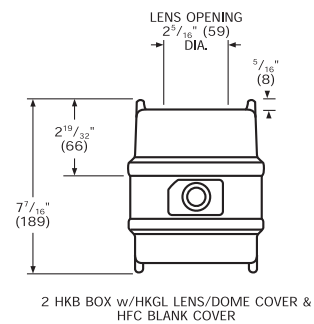
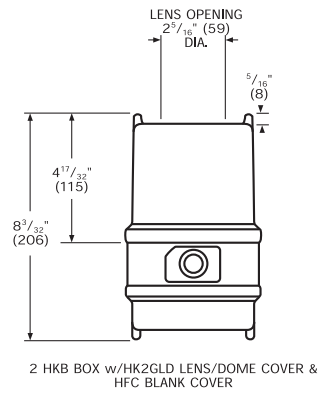
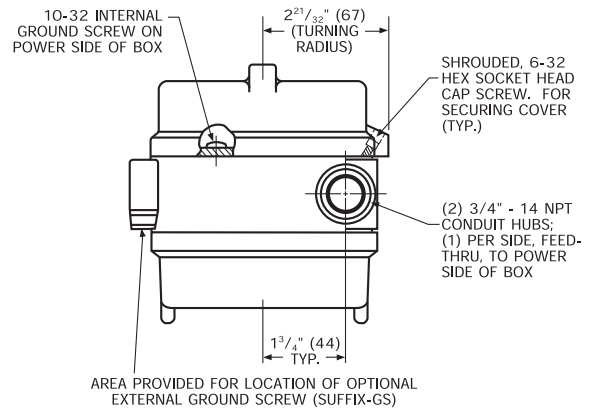
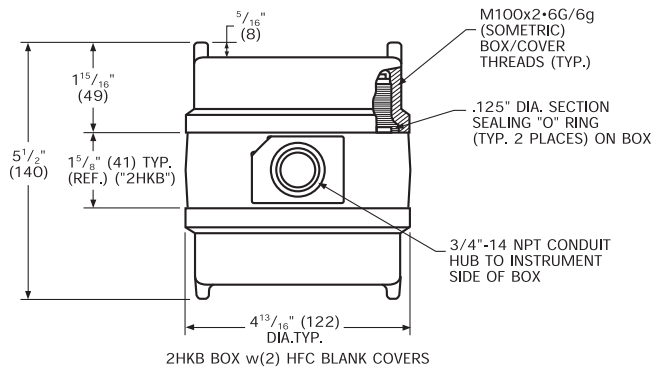
INSTRUMENT / DEVICE ENCLOSURES



2HK

FEATURES-SPECIFICATIONS

Dimensions





CONDUIT OPENING DATA

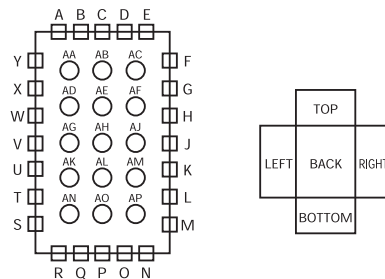
Instructions

Drilled and tapped conduit openings will be evenly spaced and located in the area indicated on the location chart. Critical conduit opening locations may be indicated by supplying a diagram similar to the one shown at right indicating critical dimensions and locations. Specific conduit openings must be located dimensionally from box centerlines to conduit centerlines and from outside back surface of box to conduit centerline.

Ordering Information:

- (1) Select the letter on location chart which indicates conduit opening position desired.
- (2) Select symbol number from chart which indicates conduit opening type and size.

- (3) Combine the conduit location letter, size and type number, and add as a suffix to junction box catalog number.
Example: EXB-12248 N34-C3-J5-PI3-AH4



Drawing indicates position as looking into open face of box with short side (top) up.

EXB/XJB/DB/GR SYMBOL NUMBERS		
CONDUIT SIZE	CONDUIT OPENINGS DRILLED AND TAPPED	UNION ^④
1/2"	1	11
3/4"	2	12
1"	3	13
1-1/4"	4	14
1-1/2"	5	15
2"	6	16
2-1/2"	7	17
3"	8	18
3-1/2"	9	19
4"	0	10
5"	02	-
6"	04	-

EXB/DB/GR – MINIMUM CENTERS FOR DRILLED AND TAPPED OPENINGS AND UNION HUBS													
SIZE	FORM	1/2"	3/4"	1"	1-1/4"	1-1/2"	2"	2-1/2"	3"	3-1/2"	4"	5"	6"
1/2"	①MIN	1-3/16"	-	-	-	-	-	-	-	-	-	-	-
1/2"	②PRE	1-3/8"	-	-	-	-	-	-	-	-	-	-	-
1/2"	③GU	1-5/8"	-	-	-	-	-	-	-	-	-	-	-
3/4"	①MIN	1-3/8"	1-1/2"	-	-	-	-	-	-	-	-	-	-
3/4"	②PRE	1-1/2"	1-5/8"	-	-	-	-	-	-	-	-	-	-
3/4"	③GU	1-3/4"	1-13/16"	-	-	-	-	-	-	-	-	-	-
1"	①MIN	1-1/2"	1-3/4"	1-13/16"	-	-	-	-	-	-	-	-	-
1"	②PRE	1-3/4"	1-7/8"	2"	-	-	-	-	-	-	-	-	-
1"	③GU	1-7/8"	2"	2-1/8"	-	-	-	-	-	-	-	-	-
1-1/4"	①MIN	1-11/16"	1-15/16"	2-1/16"	2-5/16"	-	-	-	-	-	-	-	-
1-1/4"	②PRE	1-15/16"	2-1/16"	2-1/4"	2-1/2"	-	-	-	-	-	-	-	-
1-1/4"	③GU	2-1/16"	2-1/4"	2-5/16"	2-1/2"	-	-	-	-	-	-	-	-
1-1/2"	①MIN	1-15/16"	2-1/16"	2-3/16"	2-1/2"	2-5/8"	-	-	-	-	-	-	-
1-1/2"	②PRE	2-1/8"	2-1/4"	2-3/8"	2-5/8"	2-3/4"	-	-	-	-	-	-	-
1-1/2"	③GU	2-3/16"	2-9/32"	2-7/16"	2-5/8"	2-3/4"	-	-	-	-	-	-	-
2"	①MIN	2-1/4"	2-3/8"	2-9/16"	2-13/16"	2-15/16"	3-3/16"	-	-	-	-	-	-
2"	②PRE	2-3/8"	2-1/2"	2-3/4"	3"	3-1/8"	3-3/8"	-	-	-	-	-	-
2"	③GU	2-1/2"	2-19/32"	2-3/4"	3"	3-1/8"	3-3/8"	-	-	-	-	-	-
2-1/2"	①MIN	2-7/16"	2-9/16"	2-3/4"	3"	3-1/8"	3-3/8"	3-5/8"	-	-	-	-	-
2-1/2"	②PRE	2-5/8"	2-3/4"	3"	3-1/4"	3-3/8"	3-5/8"	4"	-	-	-	-	-
2-1/2"	③GU	3-1/8"	3-7/32"	3-3/8"	3-9/16"	3-11/16"	4"	4-5/8"	-	-	-	-	-
3"	①MIN	2-13/16"	2-15/16"	3-1/16"	3-5/16"	3-7/16"	3-3/4"	4"	4-5/16"	-	-	-	-
3"	②PRE	3"	3-1/8"	3-3/8"	3-5/8"	3-3/4"	4"	4-3/8"	4-3/4"	-	-	-	-
3"	③GU	3-9/16"	3-21/32"	3-13/16"	4"	4-1/8"	4-7/16"	5-1/16"	5-1/2"	-	-	-	-
3-1/2"	①MIN	3-1/8"	3-1/4"	3-3/8"	3-5/8"	3-3/4"	4-1/16"	4-5/16"	4-5/8"	4-15/16"	-	-	-
3-1/2"	②PRE	3-3/8"	3-1/2"	3-5/8"	3-7/8"	4"	4-3/8"	4-5/8"	5"	5-3/8"	-	-	-
3-1/2"	③GU	4"	4-3/32"	4-1/4"	4-7/16"	4-9/16"	4-7/8"	5-1/2"	5-15/16"	6-3/8"	-	-	-
4"	①MIN	3-7/16"	3-9/16"	3-11/16"	3-15/16"	4-1/16"	4-3/8"	4-5/8"	4-15/16"	5-1/4"	5-9/16"	-	-
4"	②PRE	3-3/4"	3-7/8"	4"	4-1/4"	4-3/8"	4-3/4"	5"	5-3/4"	5-5/8"	6"	-	-
4"	③GU	4"	4-3/32"	4-1/4"	4-7/16"	4-9/16"	4-7/8"	5-1/2"	5-15/16"	6-3/8"	6-3/8"	-	-
5"	①MIN	4-1/8"	4-1/4"	4-3/8"	4-5/8"	4-3/4"	5"	5-1/4"	5-9/16"	5-7/8"	6-3/16"	6-3/16"	-
5"	②PRE	4-3/8"	4-1/2"	4-5/8"	4-7/8"	5"	5-3/8"	5-5/8"	6"	6-1/4"	6-5/8"	7-1/4"	-
6"	①MIN	4-3/4"	4-7/8"	5"	5-1/4"	5-3/8"	5-5/8"	5-7/8"	6-3/16"	6-1/2"	6-13/16"	7-7/16"	8-1/8"
6"	②PRE	5"	5-1/8"	5-1/4"	5-1/2"	5-5/8"	6"	6-1/4"	6-5/8"	7"	7-1/4"	8"	8-5/8"
LOCKNUT BUSHING CONDUIT		1-1/4"	1-1/8"	1-11/16"	2-3/16"	2-7/16"	3"	3-7/16"	4-3/16"	4-13/16"	5-3/8"	6-11/16"	7-15/16"
		1"	1-1/4"	1-1/2"	1-7/8"	2-1/8"	2-5/8"	3-3/16"	3-7/8"	4-7/16"	5"	6-1/4"	7-3/8"
		7/8"	1-1/16"	1-3/8"	1-11/16"	1-15/16"	2-3/8"	2-7/8"	3-1/2"	4"	4-1/2"	5-9/16"	6-5/8"

① Minimum spacing required to provide clearance over locknuts and bushings.
 ② Preferred more liberal spacings between centers of conduits to be used whenever possible.

③ GU- spacing required for "GU" Series unions.
 ④ Supplied by using a drilled and tapped conduit opening with "GUM" Series union.
 ⑤ Note: For metric conduit openings round up to the nearest NPT and use "GU" spacing.



FITTINGS

FITTINGS INDEX

STANDARD LOCATIONS



K-Pak®
Shelf Cartons.....2



Duraloy® 7 Series
Aluminum or Iron Conduit Bodies3-9



Duraloy® 8 Series
Iron Conduit Bodies10-14



O Series / Duraloy® 5 Series
Aluminum or Malleable Iron
Conduit Bodies15-19



CO & Two Series
Aluminum Conduit Bodies20-22



MO/MOL/NECLB Series
Aluminum or Iron Mogul
Conduit Bodies23-26



SLB/SLBM/SOLB/MLB Series
Service Entrance27



WH Series
Conduit Hubs.....28-29



CL/CLM/TWCL Series
Pulling Elbow, Duct Seal 30



FB/STFB Series
Service Entrance31



F Series
Cast Device Boxes.....32-40
Covers, Accessories.....41-43



FSQ/FDQ Series
Custom Drilled & Tapped Device Boxes ... 40
Covers, Accessories.....41-43



VJ Series
Outlet Boxes 44



Malleable Iron-Insulated Grounding
Bushings..... 45

HAZARDOUS LOCATIONS



ENY/EY/EYS/EYD Series
Sealing Fittings46-51
Sealing Materials.....52-53



FITTINGS INDEX

HAZARDOUS LOCATIONS



ENY40/EYD40 Series
40% Fill Sealing Fittings51



GEB/GE Series
Aluminum and Iron Outlet Bodies.....54-62



GR Series
Outlet Bodies.....63-65



X/XALB Series
Conduit Bodies 66



JL/JAL Series
Outlet Bodies..... 67



GU/UN Series
Unions68-69



UNF/UNY Series
Expansion Conduit Unions.....70



PLUG/CUP/AN Series
Threaded Insert Plugs,
Rigid Conduit Nipples 71-75



KDB/KB/KDE Series
Drains and Breathers,
Flame Arrestors..... 76-78



R/RE/ADUP Series
Reducing Bushings and Adapters.....79-80



ELBOWS 81-82



ECF/EKJ Series
Bronze Flexible Couplings..... 83



ECFUF/EKJUF Series
Bronze Flexible Couplings with Female
Steel Unions 84



EKJ Series
Stainless Steel Flexible Couplings85-86



FITTINGS

FITTINGS INDEX

CONNECTORS – STANDARD / HAZARDOUS LOCATIONS



K Series
Liquidtight Connectors 87-89



Z Series
Aluminum & Steel/Malleable Iron Cord
Connectors 90-94
Increased Safety Cord Connectors.... 96-100



Z Series
Nylon Cord Connectors..... 95
Increased Safety Cord Connectors.... 96-100



CTCA Series
Connectors for Tray Cable 101



CMCA/MC Series
Metal Clad Cable Connectors..... 102-103



CMCXA/MCX Series
Hazardous Location
Metal Clad Cable Connectors..... 104-105



SWZ/LZN Series
Sealing Washers, Locknuts 106



ZHLN Series
Increased Safety Locknuts 106



PCC/ECC/RACC Series
Conduit Clamps 107

Notes 108



K-PAK

KILLARK

K-PAK SHELF CARTONS



FEATURES-SPECIFICATIONS

K-PAK®

K-PAK® packaging enables Killark distributors to feature fast-moving products in counter display areas.

Killark's best selling standard location products have been repackaged into smaller shelf packs for effective product family presentation.

The uniformly sized (width and height are consistent) cartons allow items to be merchandised on a typical 48" w x 54" H x 18" gondola unit (not supplied by Killark).

Features/Benefits

- Cartons are suitable for counter merchandising display and/or warehouse storage.
- Open-top bin box displays products for easy customer self-service.
- All cartons are bar coded for easy electronic identification.
- Conduit bodies are packaged with appropriate covers and gaskets.

K-PAK Carton Dimensions

Full depth cartons:

6" W x 81/2" H x 15" D

Half depth cartons:

6" W x 81/2" H x 71/2" D

Display face (width & height) same for all cartons.

O FITTINGS		
CATALOG NUMBER	DESCRIPTION	PKG QTY.
OC-1CG	1/2" C w/cover & gasket	40
OC-2CG	3/4" C w/cover & gasket	25
OC-3CG	1" C w/cover & gasket	20
OC-4CG	1-1/4" C w/cover & gasket	8
OC-5CG	1-1/2" C w/cover & gasket	8
OC-6CG	2" C w/cover & gasket	3
OLB-1CG	1/2" LB w/cover & gasket	40
OLB-2CG	3/4" LB w/cover & gasket	25
OLB-3CG	1" LB w/cover & gasket	15
OLB-4CG	1-1/4" LB w/cover & gasket	8
OLB-5CG	1-1/2" LB w/cover & gasket	5
OLB-6CG	2" LB w/cover & gasket	3
OLB-7CG	2-1/2" LB w/cover & gasket	1
OLB-8CG	3" LB w/cover & gasket	1
OLB-9CG	3-1/2" LB w/cover & gasket	1
OLL-0CG	4" LB w/cover & gasket	1
OLL-1CG	1/2" LL w/cover & gasket	40
OLL-2CG	3/4" LL w/cover & gasket	25
OLL-3CG	1" LL w/cover & gasket	15
OLL-4CG	1-1/4" LL w/cover & gasket	8
OLL-5CG	1-1/2" LL w/cover & gasket	8
OLL-6CG	2" LL w/cover & gasket	3
OLR-1CG	1/2" LR w/cover & gasket	40
OLR-2CG	3/4" LR w/cover & gasket	25
OLR-3CG	1" LR w/cover & gasket	15
OLR-4CG	1-1/4" LR w/cover & gasket	8
OLR-5CG	1-1/2" LR w/cover & gasket	8
OLR-6CG	2" LR w/cover & gasket	3
OT-1CG	1/2" T w/cover & gasket	30
OT-2CG	3/4" T w/cover & gasket	25
OT-3CG	1" T w/cover & gasket	15
OT-4CG	1-1/4" T w/cover & gasket	8
OT-5CG	1-1/2" T w/cover & gasket	8
OT-6CG	2" T w/cover & gasket	2

SLB FITTINGS		
CATALOG NUMBER	DESCRIPTION	PKG QTY.
SLB-1-CP	1/2" Service entrance LB	50
SLB-2-CP	3/4" Service entrance LB	25
SLB-3-CP	1" Service entrance LB	25

CO FITTINGS*		
CATALOG NUMBER	DESCRIPTION	PKG QTY.
COC-1CG	1/2" C w/cover & gasket	10
COC-2CG	3/4" C w/cover & gasket	10
COC-3CG	1" C w/cover & gasket	5
COLB-1CG	1/2" LB w/cover & gasket	10
COLB-2CG	3/4" LB w/cover & gasket	10
COLB-3CG	1" LB w/cover & gasket	5
COLL-1CG	1" L w/cover & gasket	10
COLL-2CG	2" L w/cover & gasket	10
COLL-3CG	3" L w/cover & gasket	5
COLR-1CG	1/2" LR w/cover & gasket	10
COLR-2CG	3/4" LR w/cover & gasket	10
COLR-3CG	1" LR w/cover & gasket	5
COT-1CG	1/2" LR w/cover & gasket	10
COT-2CG	3/4" LR w/cover & gasket	10
COT-3CG	1" LR w/cover & gasket	5

* For additional sizes see pages F20 - F22

FS/FD BACK BOXES/COVERS		
CATALOG NUMBER	DESCRIPTION	PKG QTY.
1FA-CP	Duplex cover	50
1FT-CP	Toggle cover	50
FCLA-CP	Duplex cover	25
FDC-1-CP	1/2" FDC box	10
FDC-2-CP	3/4" FDC box	10
FD-1-CP	1/2" FD box	10
FD-2-CP	3/4" FD box	10
FSBC-CP	Blank cover	50
FSC-1-CP	1/2" FSC box	15
FSC-2-CP	3/4" FSC box	15
FST-CP	Cover	25
FS-1-CP	1/2" FS box	20
FS-2-CP	3/4" FS box	20

WH WEATHERPROOF HUBS		
CATALOG NUMBER	DESCRIPTION	PKG QTY.
WH-1	1/2" Conduit hub	25
WH-2	3/4" Conduit hub	25
WH-3	1" Conduit hub	25

FITTINGS

DURALOY® 7 SERIES



ALUMINUM OR IRON CONDUIT BODIES



LR Type

- Suitable for wet locations when used with gasketed covers.
- Federal Specification W-C-586D/A-A 50563.
- Suitable for use in hazardous location applications when installed according to NEC Articles 501.10(b), Class I, Div. 2, (Suitable for use in Class I Zone 2 applications) 502.10 and 503.10.

UL LISTED File No. E3397

SP Certified File No. LR11852

FEATURES-SPECIFICATIONS

DURALOY⁷

Applications

To provide access to conductors for pulling, splicing, and maintenance. Threaded for rigid conduit and IMC.

Features

- Intermateability UL Listed and CSA Certified interchangeability with competitive products
- Enhanced sealing capabilities neoprene sealing gaskets provide a NEMA 3 Seal
- High-quality sealing hardware 316 stainless steel cover screws and washers with neoprene gaskets
- Suitable for wet locations when used with gaskets
- Innovative spring clip design for installation ease and repeat usage
- Smooth integral wire bushings protects cable from damage when wires are pulled through opening
- For use with threaded rigid conduit steel or aluminum
- Ten standard hub configurations
- Flat-back design for greater wiring capacity and mounting stability

Material/Finish

Aluminum

- Copper-free aluminum (less than 4/10 of 1%)
- Electrostatically applied powder coating

Duraloy Iron

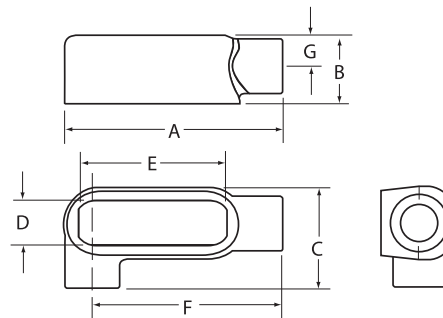
- Duraloy gray iron alloy
- Superior corrosion protection tri-coat finish of electrozinc, chromate sealant and electrostatically applied powder coating.

LR TYPE CONDUIT BODY*										
CATALOG NUMBER		HUB SIZE	DIMENSIONS							VOLUME CU. IN.
KILLARK ALUM.	DURALOY IRON		A	B	C	D	E	F	G	
LR17SA	LR17	1/2"	4-11/16" (119)	1-7/16" (37)	2-5/16" (59)	1" (25)	3-3/16" (81)	4-1/16" (103)	5/8" (16)	4.0
LR27SA	LR27	3/4"	5-3/8" (137)	1-11/16" (43)	2-5/8" (67)	1-1/8" (29)	3-13/16" (97)	4-5/8" (117)	3/4" (19)	7.0
LR37SA	LR37	1"	6-5/16" (160)	1-7/8" (48)	3-1/16" (78)	1-3/8" (35)	4-1/2" (114)	5-3/8" (137)	7/8" (22)	11.0
LR47SA	LR47	1-1/4"	6-13/16" (173)	2-5/16" (59)	3-1/2" (89)	1-13/16" (46)	5" (127)	5-3/4" (146)	1-1/8" (29)	19.5
LR57SA	LR57	1-1/2"	7-1/4" (184)	2-9/16" (65)	3-11/16" (94)	2-1/16" (52)	5-7/16" (138)	6-1/16" (154)	1-1/4" (32)	26.0
LR67SA	LR67	2"	8-1/4" (210)	3-1/8" (79)	4-1/4" (108)	2-5/8" (67)	6-3/8" (162)	6-3/4" (171)	1-1/2" (38)	48.0
LR77SA	LR77	2-1/2"	10-15/16" (278)	4-3/8" (111)	6-3/16" (157)	3-7/8" (98)	8-3/8" (213)	8-3/4" (222)	2-1/8" (54)	131.5
LR87SA	LR87	3"	10-15/16" (278)	4-3/8" (111)	6-3/16" (157)	3-7/8" (98)	8-3/8" (213)	8-3/4" (222)	2-1/8" (54)	131.5
LR97SA	LR97	3-1/2"	13" (330)	5-3/8" (137)	7-1/4" (184)	4-3/4" (121)	10-1/4" (260)	10-5/16" (262)	2-5/8" (67)	238.0
LR107SA	LR107	4"	13" (330)	5-3/8" (137)	7-1/4" (184)	4-3/4" (121)	10-1/4" (260)	10-5/16" (262)	2-5/8" (67)	238.0

* For conduit body packaged with cover and gasket, add CG to the catalog number.

** For other finishes contact factory.

Dimensions



LR Type



ALUMINUM OR IRON CONDUIT BODIES



L Type[Ⓛ]



T Type

- Suitable for wet locations when used with gasketed covers.
- Federal Specification W-C-586D/A-A 50563.
- Suitable for use in hazardous location applications when installed according to NEC Articles 501.10(b), Class I, Div. 2, (Suitable for use in Class I Zone 2 applications) 502.10 and 503.10.

UL LISTED File No. E3397

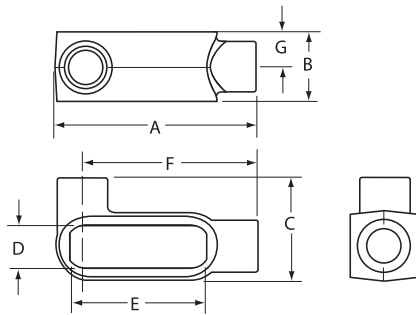
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FEATURES-SPECIFICATIONS

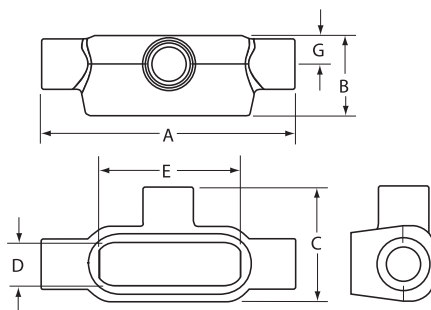


See page F3 for Standard Materials & Finish

Dimensions



L Type



T Type

L TYPE [Ⓛ] CONDUIT BODY*										
CATALOG NUMBER		HUB SIZE	DIMENSIONS							VOLUME CU. IN.
KILLARK ALUM.	DURALOY IRON		A	B	C	D	E	F	G	
L17SA	L17	1/2"	4-11/16" (119)	1-7/16" (37)	2-5/16" (59)	1" (25)	3-3/16" (81)	4-1/16" (103)	5/8" (16)	4.0
L27SA	L27	3/4"	5-3/8" (137)	1-11/16" (43)	2-5/8" (67)	1-1/8" (29)	3-13/16" (97)	4-5/8" (117)	3/4" (19)	7.0
L37SA	L37	1"	6-5/16" (160)	1-7/8" (48)	3-1/16" (78)	1-3/8" (35)	4-1/2" (114)	5-3/8" (137)	7/8" (22)	11.0
L47SA	L47	1-1/4"	6-13/16" (173)	2-5/16" (59)	3-1/2" (89)	1-13/16" (46)	5" (127)	5-3/4" (146)	1-1/8" (29)	19.5
L57SA	L57	1-1/2"	7-1/4" (184)	2-9/16" (65)	3-11/16" (94)	2-1/16" (52)	5-7/16" (138)	6-1/16" (154)	1-1/4" (32)	26.0
L67SA	L67	2"	8-1/4" (210)	3-1/8" (79)	4-1/4" (108)	2-5/8" (67)	6-3/8" (162)	6-3/4" (171)	1-1/2" (38)	48.0
L77SA	L77	2-1/2"	10-15/16" (278)	4-3/8" (111)	6-3/16" (157)	3-7/8" (98)	8-3/8" (213)	8-3/4" (222)	2-1/8" (54)	131.5
L87SA	L87	3"	10-15/16" (278)	4-3/8" (111)	6-3/16" (157)	3-7/8" (98)	8-3/8" (213)	8-3/4" (222)	2-1/8" (54)	131.5

Ⓛ L type is double faced and may be used as LL or LR. Has 2 openings, one of which is furnished with a blank sheet cover.

T TYPE CONDUIT BODY*										
CATALOG NUMBER		HUB SIZE	DIMENSIONS							VOLUME CU. IN.
KILLARK ALUM.	DURALOY IRON		A	B	C	D	E	F	G	
T17SA	T17	1/2"	5-11/16" (000)	1-13/16" (46)	2-1/2" (64)	1" (25)	3-3/16" (81)	—	5/8" (16)	6.2
T27SA	T27	3/4"	6-5/16" (000)	2-1/16" (52)	2-3/4" (67)	1-1/8" (29)	3-13/16" (97)	—	3/4" (19)	9.5
T37SA	T37	1"	7-5/8" (194)	2-1/4" (57)	3-1/4" (83)	1-3/8" (35)	4-1/2" (114)	—	7/8" (22)	11.5
T47SA	T47	1-1/4"	8" (203)	2-5/16" (59)	3-1/2" (89)	1-13/16" (46)	5" (127)	—	1-1/8" (29)	20.0
T57SA	T57	1-1/2"	8-7/16" (214)	2-9/16" (65)	3-11/16" (94)	2-1/16" (52)	5-7/16" (138)	—	1-1/4" (32)	27.0
T67SA	T67	2"	9-7/16" (240)	3-1/8" (79)	4-1/4" (108)	2-5/8" (67)	6-3/8" (162)	—	1-1/2" (38)	50.0
T77SA	T77	2-1/2"	12-3/4" (324)	4-3/8" (111)	6-3/16" (157)	3-7/8" (98)	8-3/8" (213)	—	2-1/8" (54)	134.0
T87SA	T87	3"	12-3/4" (324)	4-3/8" (111)	6-3/16" (157)	3-7/8" (98)	8-3/8" (213)	—	2-1/8" (54)	134.0
T97SA	T97	3-1/2"	14-7/8" (378)	5-3/8" (137)	7-1/4" (184)	4-3/4" (121)	10-1/4" (260)	—	2-5/8" (67)	238.0
T107SA	T107	4"	14-7/8" (378)	5-3/8" (137)	7-1/4" (184)	4-3/4" (121)	10-1/4" (260)	—	2-5/8" (67)	238.0

* For conduit body packaged with cover and gasket, add CG to the catalog number.

** For other finishes contact factory.

FITTINGS

DURALOY® 7 SERIES



ALUMINUM OR IRON CONDUIT BODIES



- Suitable for wet locations when used with gasketed covers.
- Federal Specification W-C-586D/A-A 50563.
- Suitable for use in hazardous location applications when installed according to NEC Articles 501.10(b), Class I, Div. 2, (Suitable for use in Class I Zone 2 applications) 502.10 and 503.10.

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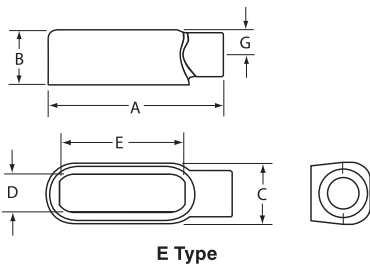
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FEATURES-SPECIFICATIONS

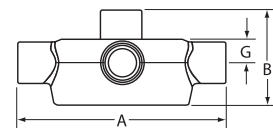


See page F3 for Standard Materials & Finish

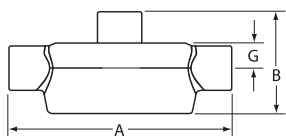
Dimensions



E Type



TA Type



TB Type

E TYPE CONDUIT BODY*										
CATALOG NUMBER		HUB SIZE	DIMENSIONS							VOLUME CU. IN.
KILLARK ALUM.	DURALOY IRON		A	B	C	D	E	F	G	
E17SA	E17	1/2"	4-11/16" (119)	1-7/16" (37)	1-1/2" (38)	1" (25)	3-3/16" (81)	—	5/8" (16)	4.0
E27SA	E27	3/4"	5-3/8" (137)	1-11/16" (43)	1-3/4" (67)	1-1/8" (29)	3-13/16" (97)	—	3/4" (19)	7.0
E37SA	E37	1"	6-5/16" (160)	1-7/8" (48)	1-15/16" (49)	1-3/8" (35)	4-1/2" (114)	—	7/8" (22)	11.0

TA TYPE CONDUIT BODY*										
CATALOG NUMBER		HUB SIZE	DIMENSIONS							VOLUME CU. IN.
KILLARK ALUM.	DURALOY IRON		A	B	C	D	E	F	G	
TA17SA	TA17	1/2"	5-11/16" (144)	2-5/8" (67)	2-1/2" (64)	1" (25)	3-3/16" (81)	—	5/8" (16)	6.2
TA27SA	TA27	3/4"	6-5/16" (160)	2-7/8" (73)	2-3/4" (67)	1-1/8" (29)	3-13/16" (97)	—	3/4" (19)	9.5
TA37SA	TA37	1"	7-5/8" (194)	3-3/8" (86)	3-1/4" (100)	1-3/8" (35)	4-1/2" (114)	—	7/8" (22)	15.5
TA47SA	TA47	1-1/4"	8" (203)	3-1/2" (89)	3-1/2" (89)	1-13/16" (46)	5" (127)	—	1-1/8" (16)	20.0
TA57SA	TA57	1-1/2"	8-7/16" (214)	3-3/4" (95)	3-3/4" (94)	2-1/16" (52)	5-7/16" (138)	—	1-1/4" (32)	27.0
TA67SA	TA67	2"	9-7/16" (240)	4-5/16" (110)	4-1/4" (108)	2-5/8" (67)	6-3/8" (162)	—	1-1/2" (38)	50.0

TB TYPE CONDUIT BODY*										
CATALOG NUMBER		HUB SIZE	DIMENSIONS							VOLUME CU. IN.
KILLARK ALUM.	DURALOY IRON		A	B	C	D	E	F	G	
TB17SA	TB17	1/2"	5-11/16" (144)	2-5/8" (67)	1-11/16" (43)	1" (25)	3-3/16" (81)	—	5/8" (16)	6.2
TB27SA	TB27	3/4"	6-5/16" (160)	2-7/8" (73)	1-7/8" (67)	1-1/8" (29)	3-13/16" (97)	—	3/4" (19)	9.5
TB37SA	TB37	1"	7-5/8" (194)	3-3/8" (86)	3-3/8" (86)	1-3/8" (35)	4-1/2" (114)	—	7/8" (22)	15.5
TB47SA	TB47	1-1/4"	8" (203)	3-1/2" (89)	3-1/2" (89)	1-13/16" (46)	5" (127)	—	1-1/8" (16)	20.0
TB57SA	TB57	1-1/2"	8-7/16" (214)	3-3/4" (95)	3-3/4" (95)	2-1/16" (52)	5-7/16" (138)	—	1-1/4" (32)	27.0
TB67SA	TB67	2"	9-7/16" (240)	4-5/16" (110)	4-5/16" (110)	2-5/8" (67)	6-3/8" (162)	—	1-1/2" (38)	50.0

* For conduit body packaged with cover and gasket, add CG to the catalog number.

** For other finishes contact factory.



ALUMINUM OR IRON CONDUIT BODIES



X Type



C Type

- Suitable for wet locations when used with gasketed covers.
- Federal Specification W-C-586D/A-A 50563.
- Suitable for use in hazardous location applications when installed according to NEC Articles 501.10(b), Class I, Div. 2, (Suitable for use in Class I Zone 2 applications) 502.10 and 503.10.

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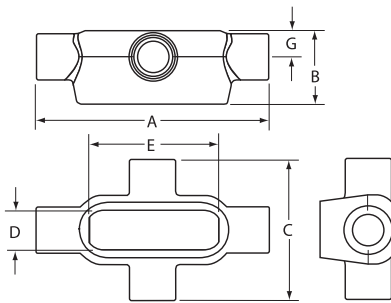
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FEATURES-SPECIFICATIONS

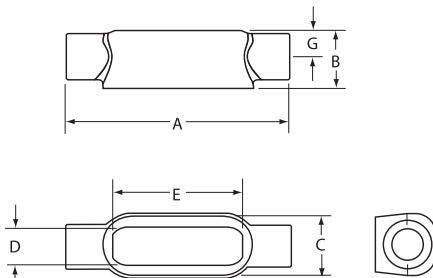


See page F3 for Standard Materials & Finish

Dimensions



X Type



C Type

X TYPE CONDUIT BODY*										
CATALOG NUMBER	KILLARK ALUM.	DURALOY IRON	HUB SIZE	DIMENSIONS						VOLUME CU. IN.
				A	B	C	D	E	F	
X17SA	X17	1/2"	5-11/16" (144)	1-3/8" (35)	3-3/8" (86)	1" (25)	3-3/16" (81)	—	5/8" (16)	6.2
X27SA	X27	3/4"	6-5/16" (160)	2-1/16" (52)	3-9/16" (67)	1-1/8" (29)	3-13/16" (97)	—	3/4" (19)	9.5
X37SA	X37	1"	7-5/8" (194)	2-1/4" (57)	4-3/8" (111)	1-3/8" (35)	4-1/2" (114)	—	7/8" (22)	15.5
X47SA	X47	1-1/4"	8" (203)	2-5/16" (59)	4-11/16" (000)	1-13/16" (46)	5" (127)	—	1-1/8" (29)	20.0
X57SA	X57	1-1/2"	8-7/16" (214)	2-9/16" (65)	4-7/8" (124)	2-1/16" (52)	5-7/16" (138)	—	1-1/4" (32)	27.0
X67SA	X67	2"	9-7/16" (240)	3-1/8" (79)	5-7/16" (138)	2-5/8" (67)	6-3/8" (162)	—	1-1/2" (38)	50.0

C TYPE CONDUIT BODY*										
CATALOG NUMBER	KILLARK ALUM.	DURALOY IRON	HUB SIZE	DIMENSIONS						VOLUME CU. IN.
				A	B	C	D	E	F	
C17SA	C17	1/2"	5-1/2" (140)	1-7/16" (37)	1-1/2" (38)	1" (25)	3-3/16" (81)	—	5/8" (16)	4.0
C27SA	C27	3/4"	6-3/16" (157)	1-11/16" (43)	1-3/4" (67)	1-1/8" (29)	3-13/16" (97)	—	3/4" (19)	7.0
C37SA	C37	1"	7-7/16" (189)	1-7/8" (48)	1-15/16" (49)	1-3/8" (35)	4-1/2" (114)	—	7/8" (22)	11.0
C47SA	C47	1-1/4"	8" (203)	2-5/16" (59)	2-5/16" (59)	1-13/16" (46)	5" (127)	—	1-1/8" (29)	19.5
C57SA	C57	1-1/2"	8-7/16" (214)	2-9/16" (65)	2-1/2" (64)	2-1/16" (52)	5-7/16" (138)	—	1-1/4" (32)	26.0
C67SA	C67	2"	9-7/16" (240)	3-1/8" (79)	3-1/16" (78)	2-5/8" (67)	6-3/8" (162)	—	1-1/2" (38)	48.0
C77SA	C77	2-1/2"	12-3/4" (324)	4-3/8" (111)	4-3/8" (111)	3-7/8" (98)	8-3/8" (213)	—	2-1/8" (54)	131.5
C87SA	C87	3"	12-3/4" (324)	4-3/8" (111)	4-3/8" (111)	3-7/8" (98)	8-3/8" (213)	—	2-1/8" (54)	131.5
C97SA	C97	3-1/2"	14-7/8" (378)	5-3/8" (137)	5-3/8" (137)	4-3/4" (121)	10-1/4" (260)	—	2-5/8" (67)	238.0
C107SA	C107	4"	14-7/8" (378)	5-3/8" (137)	5-3/8" (137)	4-3/4" (121)	10-1/4" (260)	—	2-5/8" (67)	238.0

* For conduit body packaged with cover and gasket, add CG to the catalog number.

** For other finishes contact factory.

FITTINGS

DURALOY® 7 SERIES



ALUMINUM OR IRON CONDUIT BODIES



LB Type



LL Type

- Suitable for wet locations when used with gasketed covers.
- Federal Specification W-C-586D/A-A 50563.
- Suitable for use in hazardous location applications when installed according to NEC Articles 501.10(b), Class I, Div. 2, (Suitable for use in Class I Zone 2 applications) 502.10 and 503.10.

UL LISTED File No. E3397

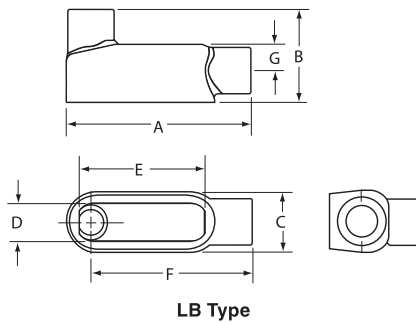
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FEATURES-SPECIFICATIONS

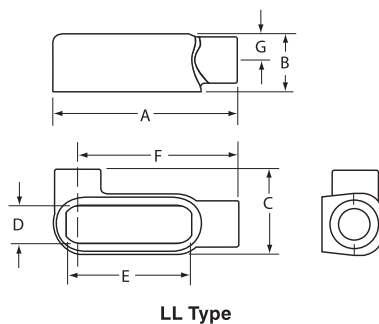


See page F3 for Standard Materials & Finish

Dimensions



LB Type



LL Type

LB TYPE CONDUIT BODY*										
CATALOG NUMBER		HUB SIZE	DIMENSIONS							VOLUME CU. IN.
KILLARK ALUM.	DURALOY IRON		A	B	C	D	E	F	G	
LB17SA	LB17	1/2"	4-11/16" (119)	2-1/4" (57)	1-1/2" (38)	1" (25)	3-3/16" (81)	4-1/16" (103)	5/8" (16)	4.0
LB27SA	LB27	3/4"	5-3/8" (137)	2-1/2" (64)	1-3/4" (67)	1-1/8" (29)	3-13/16" (97)	4-5/8" (117)	3/4" (19)	7.0
LB37SA	LB37	1"	6-5/16" (160)	3" (76)	1-15/16" (49)	1-3/8" (35)	4-1/2" (114)	5-3/8" (137)	7/8" (22)	11.0
LB47SA	LB47	1-1/4"	6-13/16" (173)	3-1/2" (89)	2-5/16" (59)	1-13/16" (46)	5" (127)	5-3/4" (146)	1-1/8" (29)	19.5
LB57SA	LB57	1-1/2"	7-1/4" (184)	3-3/4" (95)	2-1/2" (64)	2-1/16" (52)	5-7/16" (138)	6-1/16" (154)	1-1/4" (32)	26.0
LB67SA	LB67	2"	8-1/4" (210)	4-5/16" (109)	3-1/16" (78)	2-5/8" (67)	6-3/8" (162)	6-3/4" (171)	1-1/2" (38)	48.0
LB77SA	LB77	2-1/2"	10-15/16" (278)	6-3/16" (157)	4-3/8" (111)	3-7/8" (98)	8-3/8" (213)	8-3/4" (222)	2-1/8" (54)	131.5
LB87SA	LB87	3"	10-15/16" (278)	6-3/16" (157)	4-3/8" (111)	3-7/8" (98)	8-3/8" (213)	8-3/4" (222)	2-1/8" (54)	131.5
LB97SA	LB97	3-1/2"	13" (330)	7-1/4" (184)	5-3/8" (137)	4-3/4" (121)	10-1/4" (260)	10-5/16" (262)	2-5/8" (67)	238.0
LB107SA	LB107	4"	13" (330)	7-1/4" (184)	5-3/8" (137)	4-3/4" (121)	10-1/4" (260)	10-5/16" (262)	2-5/8" (67)	238.0

LL TYPE CONDUIT BODY*										
CATALOG NUMBER		HUB SIZE	DIMENSIONS							VOLUME CU. IN.
KILLARK ALUM.	DURALOY IRON		A	B	C	D	E	F	G	
LL17SA	LL17	1/2"	4-11/16" (119)	1-7/16" (37)	2-5/16" (59)	1" (25)	3-3/16" (81)	4-1/16" (103)	5/8" (16)	4.0
LL27SA	LL27	3/4"	5-3/8" (137)	1-11/16" (43)	2-5/8" (67)	1-1/8" (29)	3-13/16" (97)	4-5/8" (117)	3/4" (19)	7.0
LL37SA	LL37	1"	6-5/16" (160)	1-7/8" (48)	3-1/16" (78)	1-3/8" (35)	4-1/2" (114)	5-3/8" (137)	7/8" (22)	11.0
LL47SA	LL47	1-1/4"	6-13/16" (173)	2-5/16" (59)	3-1/2" (89)	1-13/16" (46)	5" (127)	5-3/4" (146)	1-1/8" (29)	19.5
LL57SA	LL57	1-1/2"	7-1/4" (184)	2-9/16" (65)	3-11/16" (94)	2-1/16" (52)	5-7/16" (138)	6-1/16" (154)	1-1/4" (32)	26.0
LL67SA	LL67	2"	8-1/4" (210)	3-1/8" (79)	4-1/4" (108)	2-5/8" (67)	6-3/8" (162)	6-3/4" (171)	1-1/2" (38)	48.0
LL77SA	LL77	2-1/2"	10-15/16" (278)	4-3/8" (111)	6-3/16" (157)	3-7/8" (98)	8-3/8" (213)	8-3/4" (222)	2-1/8" (54)	131.5
LL87SA	LL87	3"	10-15/16" (278)	4-3/8" (111)	6-3/16" (157)	3-7/8" (98)	8-3/8" (213)	8-3/4" (222)	2-1/8" (54)	131.5
LL97SA	LL97	3-1/2"	13" (330)	5-3/8" (137)	7-1/4" (184)	4-3/4" (121)	10-1/4" (260)	10-5/16" (262)	2-5/8" (67)	238.0
LL107SA	LL107	4"	13" (330)	5-3/8" (137)	7-1/4" (184)	4-3/4" (121)	10-1/4" (260)	10-5/16" (262)	2-5/8" (67)	238.0

* For conduit body packaged with cover and gasket, add CG to the catalog number.

** For other finishes contact factory.



ALUMINUM AND STEEL COVERS AND GASKETS



Stamped Covers



Stamped Covers with Integral Neoprene Gasket



Cast Covers



Cast Covers with Integral Neoprene Gasket

FEATURES-SPECIFICATIONS



Stamped Material/Finish

Aluminum

- Gasketed 316 Stainless steel screws
- Natural finish

Galvanized Steel

- 316 Stainless steel screws
- Natural finish

Gasket

- Neoprene

Cast Material/Finish

Copper-free Aluminum

(less than 4/10 of 1%)

- Electrostatically applied powder coating

Duraloy Gray Iron Alloy

- Tri-coat finish of electrozinc, chromate sealant, and electrostatically applied powder coating

- Gasketed 316 Stainless steel screws

Gasket

- Neoprene

STAMPED ALUMINUM AND STAMPED STEEL COVERS WITHOUT AND WITH GASKETS							
CATALOG NUMBER				HUB SIZE	DIMENSIONS		
ALUMINUM W/O GASKET	ALUMINUM W/GASKET	STEEL W/O GASKET	STEEL W/ GASKET		LENGTH	WIDTH	HEIGHT*
170SA	170GSA	170	170G	1/2"	3-11/16" (94)	1-3/8" (35)	5/16" (8)
270SA	270GSA	270	270G	3/4"	4-1/4" (108)	1-1/2" (32)	5/16" (8)
370SA	370GSA	370	370G	1"	5" (127)	1-3/4" (44)	5/16" (8)
470SA	470GSA	470	470G	1-1/4"	5-1/2" (140)	2-3/16" (56)	5/16" (8)
570SA	570GSA	570	570G	1-1/2"	6" (152)	2-7/16" (62)	5/16" (8)
670SA	670GSA	670	670G	2"	7" (178)	3" (76)	5/16" (8)
870SA	870GSA	870	870G	2-1/2"	9" (229)	4-1/4" (108)	9/16" (14)
870SA	870GSA	870	870G	3"	9" (229)	4-1/4" (108)	9/16" (14)
970SA	970GSA	970	970G	3-1/2"	11" (279)	5-1/4" (133)	9/16" (14)
970SA	970GSA	970	970G	4"	11" (279)	5-1/4" (133)	9/16" (14)

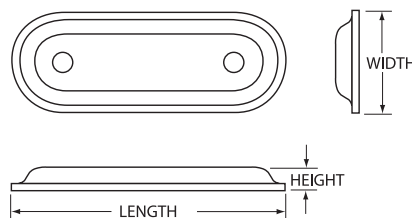
* For covers with integral gasket, add 1/8" (3) to height.

CAST ALUMINUM AND CAST IRON COVERS WITHOUT AND WITH GASKETS							
CATALOG NUMBER				HUB SIZE	DIMENSIONS		
ALUMINUM W/O GASKET	ALUMINUM W/GASKET	STEEL W/O GASKET	STEEL W/ GASKET		LENGTH	WIDTH	HEIGHT*
170CSA	170CGSA	170C	170CG	1/2"	3-11/16" (94)	1-3/8" (35)	5/16" (8)
270CSA	270CGSA	270C	270CG	3/4"	4-1/4" (108)	1-1/2" (32)	5/16" (8)
370CSA	370CGSA	370C	370CG	1"	5" (127)	1-3/4" (44)	5/16" (8)
470CSA	470CGSA	470C	470CG	1-1/4"	5-1/2" (140)	2-3/16" (56)	5/16" (8)
570CSA	570CGSA	570C	570CG	1-1/2"	6" (152)	2-7/16" (62)	5/16" (8)
670CSA	670CGSA	670C	670CG	2"	7" (178)	3" (76)	5/16" (8)
870CSA	870CGSA	870C	870CG	2-1/2"	9" (229)	4-1/4" (108)	9/16" (14)
870CSA	870CGSA	870C	870CG	3"	9" (229)	4-1/4" (108)	9/16" (14)
970CSA	970CGSA	970C	970CG	3-1/2"	11" (279)	5-1/4" (133)	9/16" (14)
970CSA	970CGSA	970C	970CG	4"	11" (279)	5-1/4" (133)	9/16" (14)

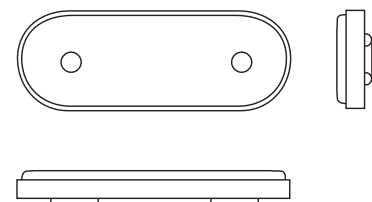
* For covers with integral gasket, add 1/8" (3) to height.

Dimensions

Stamped Covers

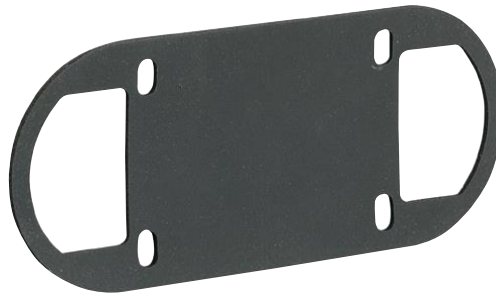


Cast Covers





GASKETS



Cover Gaskets

FEATURES-SPECIFICATIONS

DURALOY⁷

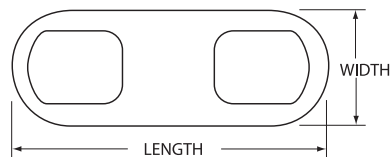
Material

- Open cell neoprene

COVER GASKETS (OPEN CELL NEOPRENE)

CATALOG NUMBER	HUB SIZE	DIMENSIONS		
		LENGTH	WIDTH	HEIGHT
GASK571	1/2"	3-11/16" (94)	1-3/8" (35)	1/8" (3)
GASK572	3/4"	4-1/4" (108)	1-1/2" (38)	1/8" (3)
GASK573	1"	5" (127)	1-3/4" (44)	1/8" (3)
GASK574	1-1/4"	5-1/2" (140)	2-3/16" (56)	1/8" (3)
GASK575	1-1/2"	6" (152)	2-7/16" (62)	1/8" (3)
GASK576	2"	7" (178)	3" (76)	1/8" (3)
GASK578	2-1/2"	9" (229)	4-1/4" (108)	1/8" (3)
GASK578	3"	9" (229)	4-1/4" (108)	1/8" (3)
GASK579	3-1/2"	11" (279)	5-1/4" (133)	1/8" (3)
GASK579	4"	11" (279)	5-1/4" (133)	1/8" (3)

Dimensions





IRON CONDUIT BODIES



C Type

- Suitable for wet locations when used with gasketed covers.
- Federal Specification W-C-586D/A-A 50563.
- Suitable for use in hazardous location applications when installed according to NEC Articles 501.10(b), Class I, Div. 2, (Suitable for use in Class I Zone 2 applications) 502.10 and 503.10.

UL LISTED File No. E3397

SP Certified File No. LR11852

FEATURES-SPECIFICATIONS



Applications

To provide access to conductors for pulling, splicing, and maintenance. Threaded for rigid conduit and IMC.

Features

- Completely interchangeable with competitive bodies, gaskets, and covers
- Flat back design provides greater cubic capacity for easier wire pulling and more room for splicing
- Raintight when used with gasketed covers
- Stainless steel screws on stamped and cast covers
- Smooth integral wire bushings

Material/Finish

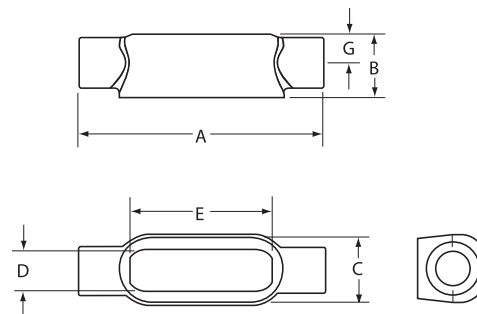
Duraloy Gray Iron Alloy

- Tri-coat finish of electrozinc, chromate sealant, and electrostatically applied powder coating.

C TYPE CONDUIT BODY*									
CATALOG NUMBER	HUB SIZE	DIMENSIONS							VOLUME CU. IN.
		A	B	C	D	E	F	G	
C18	1/2"	5-5/16" (135)	1-15/32" (37)	1-15/32" (37)	1" (25)	3-9/32" (83)	—	5/8" (16)	5.0
C28	3/4"	6-9/16" (167)	1-11/16" (43)	1-21/32" (42)	1-3/16" (30)	3-15/16" (100)	—	3/4" (19)	8.0
C38	1"	7-9/16" (192)	1-31/32" (50)	1-27/32" (47)	1-3/8" (35)	4-17/32" (115)	—	7/8" (22)	12.25
C448	1-1/4"	8-7/16" (214)	2-3/8" (60)	2-5/32" (55)	1-3/4" (44)	5-15/16" (151)	—	1-3/32" (28)	23.25
C58	1-1/2"	10-3/8" (264)	2-25/32" (71)	2-25/32" (71)	2-3/32" (53)	6-1/2" (165)	—	1-3/8" (35)	42.50
C68	2"	12-3/8" (314)	3-9/16" (90)	3-27/32" (98)	3" (76)	8-5/8" (219)	—	1-7/8" (48)	105.00
C78	2-1/2"	15-5/8" (397)	4-7/16" (113)	5" (127)	4-1/4" (108)	10-7/8" (276)	—	2-1/2" (64)	200.00
C88	3"	15-5/8" (397)	4-13/16" (122)	5" (127)	4-1/4" (108)	10-7/8" (276)	—	2-1/2" (64)	217.00

* For conduit body packaged with cover and gasket, add CG to the catalog number.

Dimensions



C Type

FITTINGS

DURALOY® 8 SERIES



IRON CONDUIT BODIES



LB Type



LL Type

- Suitable for wet locations when used with gasketed covers.
- Federal Specification W-C-586D/A-A 50563.
- Suitable for use in hazardous location applications when installed according to NEC Articles 501.10(b), Class I, Div. 2, (Suitable for use in Class I Zone 2 applications) 502.10 and 503.10.

UL LISTED File No. E3397

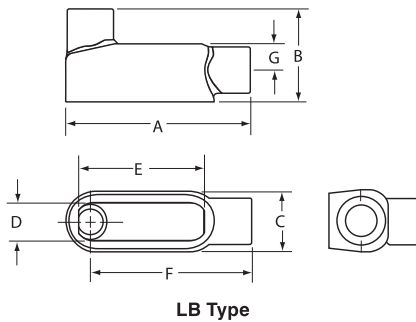
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FEATURES-SPECIFICATIONS

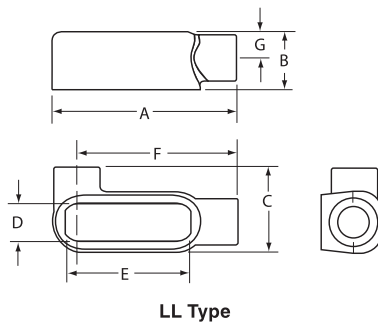


See page F10 for Standard Materials & Finish

Dimensions



LB Type



LL Type

LB TYPE CONDUIT BODY*									
CATALOG NUMBER	HUB SIZE	DIMENSIONS							VOLUME CU. IN.
		A	B	C	D	E	F	G	
LB18	1/2"	5-3/32" (129)	2-9/32" (58)	1-15/32" (37)	1" (25)	3-9/32" (83)	4-3/8" (111)	5/8" (16)	5.0
LB28	3/4"	5-3/4" (146)	2-1/2" (64)	1-21/32" (42)	1-3/16" (30)	3-15/16" (100)	4-29/32" (125)	3/4" (19)	8.0
LB38	1"	6-5/8" (168)	2-29/32" (74)	1-27/32" (47)	1-3/8" (35)	4-17/32" (115)	5-23/32" (145)	7/8" (22)	13.0
LB448	1-1/4"	7-1/2" (191)	3-5/16" (84)	2-5/32" (55)	1-3/4" (44)	5-15/16" (151)	6-13/32" (163)	1-3/32" (28)	24.0
LB58	1-1/2"	9-1/8" (232)	4-1/32" (102)	4-25/32" (121)	2-3/32" (53)	6-1/2" (165)	7-3/4" (197)	1-3/8" (35)	42.0
LB68	2"	11-1/8" (283)	4-13/16" (122)	4-13/16" (122)	3" (76)	8-5/8" (219)	9-3/16" (233)	1-7/8" (48)	105.0
LB78	2-1/2"	13-15/16" (354)	6-1/8" (156)	6-1/8" (156)	4-1/4" (108)	10-7/8" (276)	11-7/16" (291)	2-1/2" (64)	200.0
LB888	3"	13-15/16" (354)	6-1/2" (165)	6-1/2" (165)	4-1/4" (108)	10-7/8" (276)	11-7/16" (291)	2-1/2" (64)	217.0
LB98	3-1/2"	16-7/8" (429)	7-9/16" (192)	7-9/16" (192)	5-7/16" (138)	13-7/8" (352)	13-3/4" (349)	3-1/8" (79)	380.0
LB108	4"	16-7/8" (429)	7-13/16" (198)	7-13/16" (198)	5-7/16" (138)	13-7/8" (352)	13-3/4" (349)	3-1/8" (79)	400.0

LL TYPE CONDUIT BODY*									
CATALOG NUMBER	HUB SIZE	DIMENSIONS							VOLUME CU. IN.
		A	B	C	D	E	F	G	
LL18	1/2"	5-3/32" (129)	2-9/32" (56)	1-15/32" (37)	1" (25)	3-9/32" (83)	4-3/8" (111)	5/8" (16)	5.0
LL28	3/4"	5-3/4" (146)	2-1/2" (64)	1-21/32" (42)	1-3/16" (30)	3-15/16" (100)	4-29/32" (125)	3/4" (19)	8.0
LL38	1"	6-5/8" (168)	2-29/32" (74)	1-27/32" (47)	1-3/8" (35)	4-17/32" (115)	5-23/32" (145)	7/8" (22)	13.0
LL448	1-1/4"	7-1/2" (191)	3-5/16" (84)	2-5/32" (55)	1-3/4" (44)	5-15/16" (151)	6-13/32" (163)	1-3/32" (28)	24.0
LL58	1-1/2"	9-1/8" (232)	4-1/32" (102)	4-25/32" (121)	2-3/32" (53)	6-1/2" (165)	7-3/4" (197)	1-3/8" (35)	42.0
LL68	2"	11-1/8" (283)	4-13/16" (122)	4-13/16" (122)	3" (76)	8-5/8" (219)	9-3/16" (233)	1-7/8" (48)	105.0
LL78	2-1/2"	13-15/16" (354)	6-1/8" (156)	6-1/8" (156)	4-1/4" (108)	10-7/8" (276)	11-7/16" (291)	2-1/2" (64)	200.0
LL888	3"	13-15/16" (354)	6-1/2" (165)	6-1/2" (165)	4-1/4" (108)	10-7/8" (276)	11-7/16" (291)	2-1/2" (64)	217.0

* For conduit body packaged with cover and gasket, add CG to the catalog number.



IRON CONDUIT BODIES



LR Type



T Type

- Suitable for wet locations when used with gasketed covers.
- Federal Specification W-C-586D/A-A 50563.
- Suitable for use in hazardous location applications when installed according to NEC Articles 501.10(b), Class I, Div. 2, (Suitable for use in Class I Zone 2 applications) 502.10 and 503.10.

UL LISTED File No. E3397

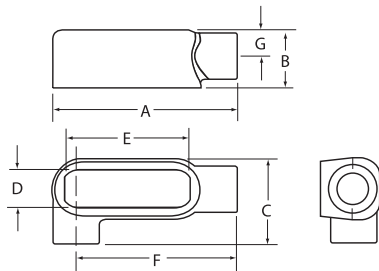
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FEATURES-SPECIFICATIONS

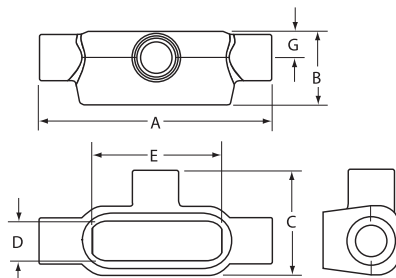


See page F10 for Standard Materials & Finish

Dimensions



LR Type



T Type

LR TYPE CONDUIT BODY*									
CATALOG NUMBER	HUB SIZE	DIMENSIONS							VOLUME CU. IN.
		A	B	C	D	E	F	G	
LR18	1/2"	5-3/32" (129)	1-15/16" (49)	2-9/32" (58)	1" (52)	3-9/32" (83)	4-3/8" (111)	5/8" (16)	5.0
LR28	3/4"	5-3/4" (146)	1-11/16" (43)	2-1/2" (64)	1-3/16" (30)	3-15/16" (84)	4-29/32" (125)	3/4" (19)	8.0
LR38	1"	6-5/8" (168)	1-31/32" (50)	2-29/32" (74)	1-3/8" (35)	4-17/32" (115)	5-23/32" (145)	7/8" (22)	13.0
LR448	1-1/4"	7-1/2" (191)	2-3/8" (60)	3-5/16" (84)	1-3/4" (44)	5-15/16" (151)	6-13/32" (163)	1-3/32" (28)	24.0
LR58	1-1/2"	9-1/8" (232)	2-25/32" (71)	4-1/32" (102)	2-3/32" (53)	6-1/2" (165)	7-3/4" (199)	1-3/8" (35)	42.0
LR68	2"	11-1/8" (283)	3-9/16" (90)	4-13/16" (122)	3" (76)	8-5/8" (219)	9-3/16" (233)	1-7/8" (48)	105.0
LR78	2-1/2"	13-15/16" (354)	4-7/16" (113)	6-1/8" (156)	4-1/4" (108)	10-7/8" (276)	11-7/16" (291)	2-1/2" (64)	200.0
LR888	3"	13-15/16" (354)	4-13/16" (122)	6-1/2" (165)	4-1/4" (108)	10-7/8" (276)	11-7/16" (291)	2-1/2" (64)	217.0

T TYPE CONDUIT BODY*									
CATALOG NUMBER	HUB SIZE	DIMENSIONS							VOLUME CU. IN.
		A	B	C	D	E	F	G	
T18	1/2"	5-15/16" (151)	1-25/32" (45)	2-5/16" (59)	1" (25)	3-9/32" (83)	—	5/8" (16)	6.0
T28	3/4"	6-9/16" (167)	2" (51)	2-1/2" (64)	1-3/16" (30)	3-15/16" (100)	—	3/4" (19)	10.0
T38	1"	7-9/16" (192)	2-9/32" (58)	2-25/32" (71)	1-3/8" (35)	4-17/32" (115)	—	7/8" (22)	15.0
T448	1-1/4"	8-7/16" (214)	2-5/8" (67)	3-1/8" (79)	1-3/4" (44)	5-5/16" (135)	—	1-3/32" (28)	25.0
T58	1-1/2"	10-3/8" (264)	2-25/32" (71)	4-1/32" (102)	2-3/32" (53)	6-1/2" (165)	—	1-3/8" (35)	44.0
T68	2"	12-3/8" (314)	3-9/16" (90)	5-1/8" (130)	3" (76)	8-5/8" (219)	—	1-7/8" (48)	105.0
T78	2-1/2"	15-5/8" (397)	4-7/16" (113)	6-11/16" (170)	4-1/4" (108)	10-11/16" (271)	—	2-1/2" (64)	200.0
T88	3"	15-5/8" (397)	4-13/16" (122)	6-11/16" (170)	4-1/4" (108)	10-11/16" (271)	—	2-1/2" (64)	217.0

* For conduit body packaged with cover and gasket, add CG to the catalog number.

FITTINGS

DURALOY® 8 SERIES



IRON CONDUIT BODIES



TB Type



X Type

- Suitable for wet locations when used with gasketed covers.
- Federal Specification W-C-586D/A-A 50563.
- Suitable for use in hazardous location applications when installed according to NEC Articles 501.10(b), Class I, Div. 2, (Suitable for use in Class I Zone 2 applications) 502.10 and 503.10.

UL LISTED File No. E3397

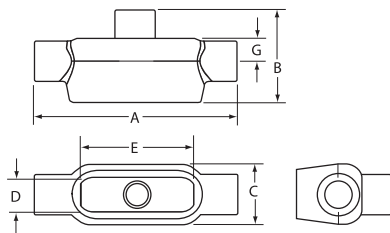
SP Certified File No. LR11852

FEATURES-SPECIFICATIONS

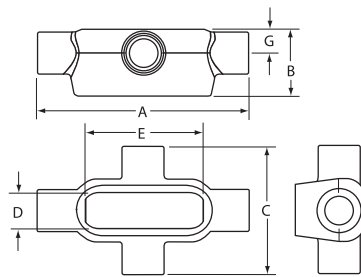
DURALOY® 8

See page F10 for Standard Materials & Finish

Dimensions



TB Type



X Type

TB TYPE CONDUIT BODY*									
CATALOG NUMBER	HUB SIZE	DIMENSIONS							VOLUME CU. IN.
		A	B	C	D	E	F	G	
TB18	1/2"	5-15/16" (151)	2-15/16" (75)	1-15/16" (49)	1" (25)	3-9/32" (83)	—	5/8" (16)	6.0
TB28	3/4"	6-9/16" (167)	2-1/2" (64)	1-21/32" (42)	1-3/16" (30)	3-15/16" (100)	—	3/4" (19)	10.0
TB38	1"	7-9/16" (192)	2-25/32" (71)	1-27/32" (47)	1-3/8" (35)	4-17/32" (115)	—	7/8" (22)	15.0
TB448	1-1/4"	8-7/16" (214)	3-1/8" (79)	2-3/16" (55)	1-3/4" (44)	5-5/16" (135)	—	1-3/32" (26)	25.0
TB58	1-1/2"	10-3/8" (264)	4-1/32" (102)	2-25/32" (71)	2-3/32" (53)	6-1/2" (165)	—	1-3/8" (35)	44.0
TB68	2"	12-3/8" (314)	5-1/8" (130)	3-7/8" (98)	3" (76)	8-5/8" (219)	—	1-7/8" (48)	105.0

X TYPE CONDUIT BODY*									
CATALOG NUMBER	HUB SIZE	DIMENSIONS							VOLUME CU. IN.
		A	B	C	D	E	F	G	
X18	1/2"	5-15/16" (151)	1-25/32" (45)	3-1/8" (79)	1" (25)	3-9/32" (83)	—	5/8" (16)	6.0
X28	3/4"	6-9/16" (167)	2" (51)	3-15/16" (100)	1-3/16" (30)	3-15/16" (100)	—	3/4" (19)	10.0
X38	1"	7-9/16" (192)	2-9/32" (58)	3-23/32" (94)	1-3/8" (35)	4-17/32" (115)	—	7/8" (22)	15.0
X448	1-1/4"	8-7/16" (214)	2-5/8" (67)	4-1/16" (103)	1-3/4" (44)	5-5/16" (135)	—	1-3/32" (26)	25.0
X58	1-1/2"	10-3/8" (264)	2-25/32" (71)	5-9/32" (134)	2-3/32" (53)	6-1/2" (165)	—	1-3/8" (35)	44.0
X68	2"	12-3/8" (314)	3-9/16" (90)	6-3/8" (162)	3" (76)	8-5/8" (219)	—	1-7/8" (48)	105.0

* For conduit body packaged with cover and gasket, add CG to the catalog number.



IRON COVERS AND GASKETS



Cast Covers



Stamped Steel Covers



Cover Gaskets (Neoprene)

- Suitable for wet locations when used with gasketed covers.
- Federal Specification W-C-586D/A-A 50563.
- Suitable for use in hazardous location applications when installed according to NEC Articles 501.10(b), Class I, Div. 2, (Suitable for use in Class I Zone 2 applications) 502.10 and 503.10.

UL LISTED File No. E3397

SP Certified File No. LR11852

FEATURES-SPECIFICATIONS



See page F10 for Standard Materials & Finish

Cast Material/Finish

Duraloy Gray Iron Alloy

- Tri-coat finish of electrozinc, chromate sealant, and electrostatically applied powder coating
- 300 Series stainless steel screws

Galvanized Steel

- Natural finish
- 300 Series stainless steel screws

Material/Finish

- Neoprene. Compression molded.

CAST IRON COVERS				
CATALOG NUMBER	HUB SIZE	OVERALL DIMENSIONS		
		LENGTH	WIDTH	HEIGHT
180F	1/2"	4-7/32"(107)	1-15/32"(37)	3/8"(10)
280F	3/4"	4-13/16"(122)	1-21/32"(42)	3/8"(10)
380F	1"	5-19/32"(142)	1-27/32"(47)	5/8"(16)
480F	1-1/4"	6-9/16"(167)	2-3/16"(56)	5/8"(16)
580F	1-1/2"	7-7/8"(200)	2-25/32"(71)	5/8"(16)
680F	2"	9-3/4"(248)	3-7/8"(98)	5/8"(16)
880F	2-1/2"	12-1/4"(311)	5"(127)	5/8"(16)
880F	3"	12-1/4"(311)	5"(127)	5/8"(16)
980F	3-1/2"	15"(381)	6-1/4"(159)	5/8"(16)
980F	4"	15"(381)	6-1/4"(159)	5/8"(16)

STAMPED STEEL COVERS				
CATALOG NUMBER	HUB SIZE	OVERALL DIMENSIONS		
		LENGTH	WIDTH	HEIGHT
180S	1/2"	4-7/32"(107)	1-15/32"(37)	5/16"(8)
280S	3/4"	4-13/16"(122)	1-21/32"(42)	5/16"(8)
380S	1"	5-19/32"(142)	1-27/32"(47)	5/16"(8)
480S	1-1/4"	6-9/16"(167)	2-3/16"(56)	5/16"(8)
580S	1-1/2"	7-7/8"(200)	2-25/32"(71)	5/16"(8)
680S	2"	9-3/4"(248)	3-7/8"(98)	5/16"(8)
880S	2-1/2"	12-1/4"(311)	5"(127)	9/16"(14)
880S	3"	12-1/4"(311)	5"(127)	9/16"(14)
980S	3-1/2"	15"(381)	6-1/4"(159)	9/16"(14)
980S	4"	15"(381)	6-1/4"(159)	9/16"(14)

COVER GASKETS				
CATALOG NUMBER	HUB SIZE	OVERALL DIMENSIONS		
		LENGTH	WIDTH	HEIGHT
GASK851N	1/2"	4-7/32"(107)	1-15/32"(37)	1/8"(3)
GASK852N	3/4"	4-13/16"(122)	1-21/32"(42)	1/8"(3)
GASK853N	1"	5-19/32"(142)	1-27/32"(47)	1/8"(3)
GASK854N	1-1/4"	6-9/16"(167)	2-3/16"(56)	1/8"(3)
GASK805N	1-1/2"	7-7/8"(200)	2-25/32"(71)	1/8"(3)
GASK806N	2"	9-3/4"(248)	3-7/8"(98)	1/8"(3)
GASK808N	2-1/2"	12-1/4"(311)	5"(127)	1/8"(3)
GASK808N	3"	12-1/4"(311)	5"(127)	1/8"(3)
GASK809N	3-1/2"	15"(381)	6-1/4"(159)	1/8"(3)
GASK809N	4"	15"(381)	6-1/4"(159)	1/8"(3)

NOTE - (2) screws 1/2" through 1-1/4", (4) screws 1-1/2" through 4"

FITTINGS

O SERIES / DURALOY® 5 SERIES



ALUMINUM OR MALLEABLE IRON CONDUIT BODIES



C Type



E Type

- Suitable for wet locations when used with gasketed covers.
- Federal Specification W-C-586D/A-A 50563.
- Suitable for use in hazardous location applications when installed according to NEC Articles 501.10(b), Class I, Div. 2, (Suitable for use in Class I Zone 2 applications) 502.10 and 503.10.

UL LISTED File No. E3397

SP Certified File No. LR11852

FEATURES-SPECIFICATIONS

DURALOY⁵

Applications

To provide access to conductors for pulling, splicing, and maintenance. Threaded for rigid conduit and IMC.

Features

- Tapered threaded hubs (NPT)
- Raintight when used with gasketed covers
- Malleable iron suitable for use in concrete
- Interchangeable with competitive products
- Stainless steel screws on stamped and cast covers

Material/Finish

Copper-free Aluminum
(less than 4/10 of 1%)

- Electrostatically applied powder coating

Duraloy Malleable Iron

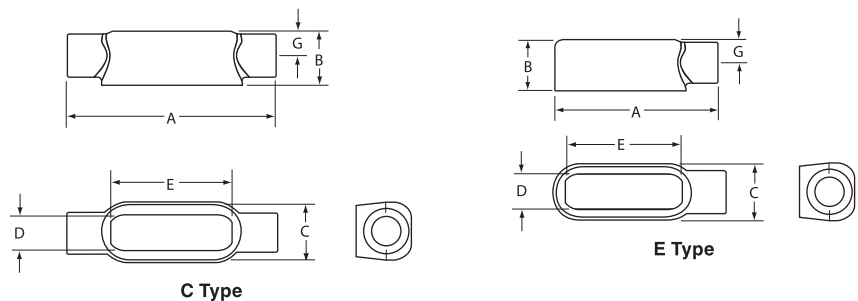
- Tri-coat finish of electrozinc, chromate sealant, and electrostatically applied powder coating.

C TYPE CONDUIT BODY*										
CATALOG NUMBER		HUB SIZE	DIMENSIONS							VOLUME CU. IN.
KILLARK ALUM.	DURALOY IRON		A	B	C	D	E	F	G	
OC-1	OC-1M	1/2"	5-3/16" (132)	1-3/8" (35)	1-3/8" (35)	1" (25)	3-5/32" (80)	—	5/8" (16)	4.0
OC-2	OC-2M	3/4"	6-1/8" (156)	1-5/8" (41)	1-5/8" (67)	1-7/32" (31)	3-25/32" (96)	—	3/4" (19)	7.0
OC-3	OC-3M	1"	7-1/8" (181)	2" (51)	1-7/8" (48)	1-15/32" (37)	4-17/32" (115)	—	15/16" (24)	12.0
OC-4	OC-4M	1-1/4"	9-1/8" (232)	2-5/8" (67)	2-5/8" (67)	2" (51)	6" (152)	—	1-3/16" (30)	32.0
OC-5	OC-5M	1-1/2"	9-1/4" (235)	2-3/4" (70)	2-5/8" (67)	2" (51)	6" (152)	—	1-3/8" (32)	36.0
OC-6	OC-6M	2"	11-7/8" (302)	3-1/2" (89)	3-1/8" (79)	2-9/16" (65)	8-1/16" (205)	—	1-5/8" (38)	70.0
OC-7	OC-7M	2-1/2"	15-1/8" (384)	4" (102)	4-3/8" (111)	3-11/16" (94)	10-5/8" (270)	—	1-13/16" (54)	153.0
OC-8	OC-8M	3"	15-1/8" (384)	4-3/4" (121)	4-3/8" (111)	3-11/16" (94)	10-5/8" (270)	—	2-3/16" (54)	181.0
OC-9	OC-9M	3-1/2"	18-3/8" (467)	5-1/2" (140)	5-1/2" (140)	4-7/8" (124)	13-1/8" (333)	—	2-1/2" (67)	290.0
OC-0	OC-0M	4"	18-3/8" (467)	5-5/8" (143)	5-1/2" (140)	4-7/8" (124)	13-1/8" (333)	—	2-3/4" (67)	320.0

E TYPE CONDUIT BODY*										
CATALOG NUMBER		HUB SIZE	DIMENSIONS							VOLUME CU. IN.
KILLARK ALUM.	DURALOY IRON		A	B	C	D	E	F	G	
OE-1	OE-1M	1/2"	4-5/8" (117)	1-3/8" (35)	1-3/8" (35)	1" (25)	3-9/32" (83)	—	5/8" (16)	4.0
OE-2	OE-2M	3/4"	5-3/8" (41)	1-5/8" (41)	1-5/8" (41)	1-7/32" (29)	3-15/16" (100)	—	3/4" (19)	7.0
OE-3	OE-3M	1"	6-1/4" (159)	2" (51)	1-7/8" (48)	1-15/32" (35)	4-17/32" (115)	—	7/8" (22)	12.0

* For conduit body packaged with cover and gasket, add **CG** to the catalog number.

Dimensions





ALUMINUM OR MALLEABLE IRON CONDUIT BODIES



LB Type



LL Type

- Suitable for wet locations when used with gasketed covers.
- Federal Specification W-C-586D/A-A 50563.
- Suitable for use in hazardous location applications when installed according to NEC Articles 501.10(b), Class I, Div. 2, (Suitable for use in Class I Zone 2 applications) 502.10 and 503.10.

UL LISTED File No. E3397

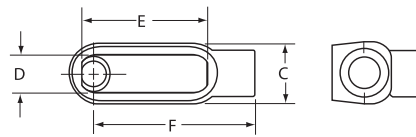
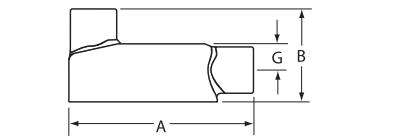
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FEATURES-SPECIFICATIONS

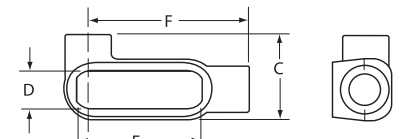
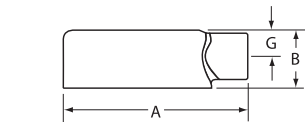


See page F15 for Standard Materials & Finish

Dimensions



LB Type



LL Type

LB TYPE CONDUIT BODY*

CATALOG NUMBER	KILLARK ALUM.	DURALOY IRON	HUB SIZE	DIMENSIONS						VOLUME CU. IN.
				A	B	C	D	E	F	
OLB-1	OLB-1M	1/2"	4-17/32" (115)	2-9/32" (83)	1-3/8" (35)	1" (25)	3-5/32" (80)	4-3/8" (111)	5/8" (16)	4.0
OLB-2	OLB-2M	3/4"	5-3/4" (146)	2-1/2" (64)	1-5/8" (41)	1-7/32" (31)	3-25/32" (96)	4-29/32" (125)	3/4" (19)	7.0
OLB-3	OLB-3M	1"	6-5/8" (168)	2-29/32" (74)	1-7/8" (48)	1-15/32" (37)	4-17/32" (115)	5-23/32" (145)	15/16" (24)	12.0
OLB-4	OLB-4M	1-1/4"	7-1/2" (191)	3-3/16" (81)	2-5/8" (67)	2" (51)	6" (152)	6-13/32" (162)	1-3/16" (30)	28.8
OLB-5	OLB-5M	1-1/2"	9-1/8" (232)	4" (102)	2-5/8" (67)	2" (51)	6" (152)	17-3/4" (451)	1-3/8" (32)	36.0
OLB-6	OLB-6M	2"	10" (254)	4-13/16" (122)	3-1/8" (79)	2-9/16" (65)	8-1/16" (205)	8-5/32" (207)	1-5/8" (38)	70.0
OLB-7	OLB-7M	2-1/2"	13-15/16" (354)	6-1/8" (156)	4-3/8" (111)	3-11/16" (94)	10-5/8" (270)	11-7/16" (291)	2-1/2" (64)	142.0
OLB-8	OLB-8M	3"	13-15/16" (354)	6-1/2" (165)	4-3/8" (111)	3-11/16" (94)	10-5/8" (270)	11-7/16" (291)	2-3/16" (54)	173.0
OLB-9	OLB-9M	3-1/2"	16-7/8" (429)	7-9/16" (192)	5-1/2" (140)	4-7/8" (124)	13-1/8" (333)	13-3/4" (349)	2-1/2" (67)	292.0
OLB-0	OLB-0M	4"	16-7/8" (429)	7-13/16" (198)	5-1/2" (140)	4-7/8" (124)	13-1/8" (333)	13-3/4" (349)	2-3/4" (70)	324.0

LL TYPE CONDUIT BODY*

CATALOG NUMBER	KILLARK ALUM.	DURALOY IRON	HUB SIZE	DIMENSIONS						VOLUME CU. IN.
				A	B	C	D	E	F	
OLL-1	OLL-1M	1/2"	4-5/8" (117)	1-3/8" (35)	2" (51)	1" (25)	3-5/32" (80)	—	5/8" (16)	4.0
OLL-2	OLL-2M	3/4"	5-3/8" (137)	1-5/8" (41)	2-3/16" (56)	1-7/32" (31)	3-25/32" (96)	—	3/4" (19)	7.0
OLL-3	OLL-3M	1"	6-1/4" (159)	2" (51)	2-9/16" (65)	1-15/32" (37)	4-17/32" (115)	—	15/16" (24)	12.0
OLL-4	OLL-4M	1-1/4"	8-1/8" (206)	2-5/8" (67)	3-1/2" (89)	2" (51)	6" (152)	—	1-3/16" (30)	32.0
OLL-5	OLL-5M	1-1/2"	8-1/8" (206)	2-3/4" (70)	3-1/2" (89)	2" (51)	6" (152)	—	1-3/8" (32)	36.0
OLL-6	OLL-6M	2"	10-9/16" (268)	3-1/2" (89)	4-3/16" (106)	2-9/16" (65)	8-1/16" (205)	—	1-5/8" (38)	70.0
OLL-7	OLL-7M	2-1/2"	13-11/16" (348)	4" (102)	5-3/4" (146)	3-11/16" (94)	10-5/8" (270)	—	1-13/16" (46)	142.0
OLL-8	OLL-8M	3"	13-11/16" (348)	4-3/4" (121)	5-3/4" (146)	3-11/16" (94)	10-5/8" (270)	—	2-3/16" (54)	173.0
OLL-9	OLL-9M	3-1/2"	16-1/2" (419)	5-1/2" (140)	7-1/8" (181)	4-7/8" (124)	13-1/8" (333)	—	2-1/2" (67)	292.0
OLL-0	OLL-0M	4"	16-1/2" (419)	5-5/8" (143)	7-1/8" (181)	4-7/8" (124)	13-1/8" (333)	—	2-3/4" (70)	324.0

* For conduit body packaged with cover and gasket, add CG to the catalog number.

FITTINGS

O SERIES / DURALOY® 5 SERIES



ALUMINUM OR MALLEABLE IRON CONDUIT BODIES



LR Type



T Type

- Suitable for wet locations when used with gasketed covers.
- Federal Specification W-C-586D/A-A 50563.
- Suitable for use in hazardous location applications when installed according to NEC Articles 501.10(b), Class 1, Div. 2, (Suitable for use in Class I Zone 2 applications) 502.10 and 503.10.

UL LISTED File No. E3397

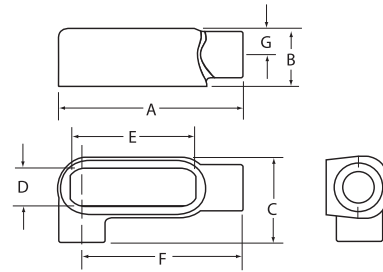
SP Certified File No. LR11852

FEATURES-SPECIFICATIONS

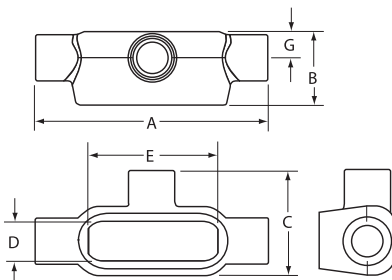
DURALOY⁵

See page F15 for Standard Materials & Finish

Dimensions



LR Type



T Type

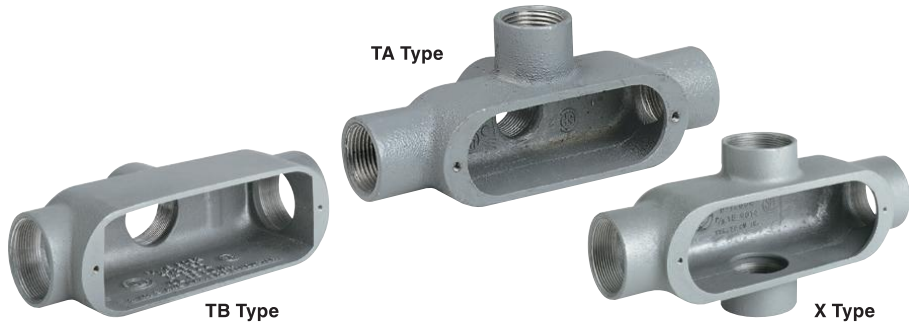
LR TYPE CONDUIT BODY*										
CATALOG NUMBER		HUB SIZE	DIMENSIONS							VOLUME CU. IN.
KILLARK ALUM.	DURALOY IRON		A	B	C	D	E	F	G	
OLR-1	OLR-1M	1/2"	4-5/8" (117)	1-3/8" (35)	2" (35)	1" (25)	3-5/32" (80)	4-3/8" (111)	5/8" (16)	4.0
OLR-2	OLR-2M	3/4"	5-3/8" (137)	1-5/8" (41)	2-3/16" (67)	1-7/32" (31)	3-25/32" (96)	4-29/32" (125)	3/4" (19)	7.0
OLR-3	OLR-3M	1"	6-1/4" (159)	2" (51)	2-9/16" (65)	1-15/32" (37)	4-17/32" (115)	5-23/32" (145)	15/16" (24)	12.0
OLR-4	OLR-4M	1-1/4"	8-1/8" (206)	2-5/8" (67)	3-1/2" (89)	2" (51)	6" (152)	6-13/32" (162)	1-3/16" (30)	32.0
OLR-5	OLR-5M	1-1/2"	8-1/8" (206)	2-3/4" (70)	3-1/2" (89)	2" (51)	6" (152)	17-3/4" (451)	1-3/8" (32)	31.0
OLR-6	OLR-6M	2"	10-9/16" (268)	3-1/2" (89)	4-3/16" (106)	2-9/16" (65)	8-1/16" (205)	9-5/32" (233)	1-5/8" (38)	70.0
OLR-7	OLR-7M	2-1/2"	13-11/16" (348)	4" (102)	5-3/4" (146)	3-11/16" (93)	10-5/8" (270)	11-7/16" (291)	1-13/16" (54)	142.0
OLR-8	OLR-8M	3"	13-11/16" (348)	4-3/4" (121)	5-3/4" (146)	3-11/16" (93)	10-5/8" (270)	11-7/16" (291)	2-3/16" (54)	173.0
OLR-9	OLR-9M	3-1/2"	16-1/2" (419)	5-1/2" (140)	7-1/8" (181)	4-7/8" (124)	13-1/8" (333)	13-3/4" (349)	2-1/2" (67)	292.0
OLR-0	OLR-0M	4"	16-1/2" (419)	5-5/8" (143)	7-1/8" (181)	4-7/8" (124)	13-1/8" (333)	13-3/4" (349)	2-3/4" (67)	324.0

T TYPE CONDUIT BODY*										
CATALOG NUMBER		HUB SIZE	DIMENSIONS							VOLUME CU. IN.
KILLARK ALUM.	DURALOY IRON		A	B	C	D	E	F	G	
OT-1	OT-1M	1/2"	5-3/8" (137)	1-3/8" (35)	2" (35)	1" (25)	3-5/32" (80)	—	5/8" (16)	4.0
OT-2	OT-2M	3/4"	6-1/16" (154)	1-5/8" (41)	2-3/16" (67)	1-7/32" (31)	3-25/32" (96)	—	3/4" (19)	7.0
OT-3	OT-3M	1"	7-1/8" (181)	2" (51)	2-9/16" (65)	1-15/32" (37)	4-17/32" (115)	—	15/16" (24)	12.0
OT-4	OT-4M	1-1/4"	9-3/16" (233)	2-5/8" (67)	3-1/2" (89)	2" (51)	6" (152)	—	1-3/16" (30)	32.0
OT-5	OT-5M	1-1/2"	9-3/16" (233)	2-3/4" (70)	3-1/2" (89)	2" (51)	6" (152)	—	1-3/8" (32)	33.0
OT-6	OT-6M	2"	11-5/8" (295)	3-1/2" (89)	4-3/16" (106)	2-9/16" (65)	8-1/16" (205)	—	1-5/8" (38)	70.0
OT-7	OT-7M	2-1/2"	15-1/8" (384)	4" (102)	5-3/4" (146)	3-11/16" (94)	10-5/8" (270)	—	1-13/16" (54)	142.0
OT-8	OT-8M	3"	15-1/8" (384)	4-3/4" (121)	5-3/4" (146)	3-11/16" (94)	10-5/8" (270)	—	2-3/16" (54)	173.0
OT-9	OT-9M	3-1/2"	18-1/8" (460)	5-1/2" (140)	7-1/8" (181)	4-7/8" (124)	13-1/8" (333)	—	2-1/2" (67)	292.0
OT-0	OT-0M	4"	18-1/8" (460)	5-5/8" (143)	7-1/8" (181)	4-7/8" (124)	13-1/8" (333)	—	2-3/4" (67)	324.0

* For conduit body packaged with cover and gasket, add CG to the catalog number.



ALUMINUM OR MALLEABLE IRON CONDUIT BODIES



- Suitable for wet locations when used with gasketed covers.
- Federal Specification W-C-586D/A-A 50563.
- Suitable for use in hazardous location applications when installed according to NEC Articles 501.10(b), Class I, Div. 2, (Suitable for use in Class I Zone 2 applications) 502.10 and 503.10.

UL LISTED File No. E3397

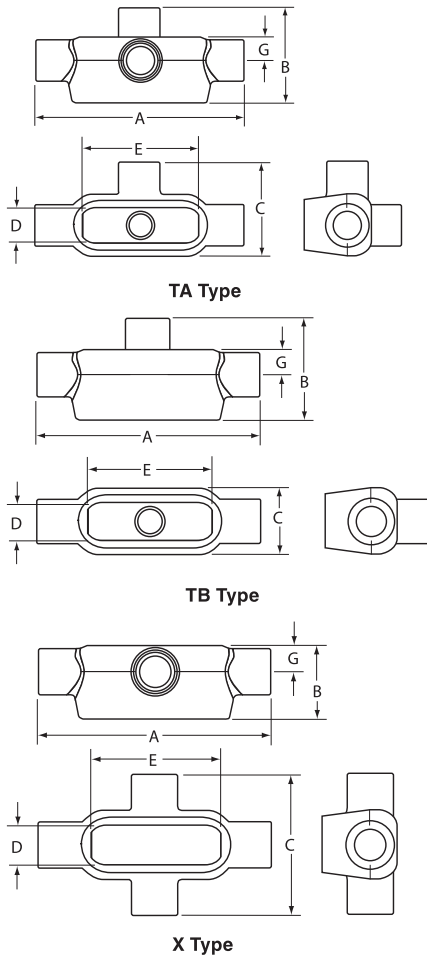
SP Certified File No. LR11852

FEATURES-SPECIFICATIONS

DURALOY®5

See page F15 for Standard Materials & Finish

Dimensions



TA TYPE CONDUIT BODY*										
CATALOG NUMBER		HUB SIZE	DIMENSIONS							VOLUME CU. IN.
KILLARK ALUM.	DURALOY IRON		A	B	C	D	E	F	G	
OTA-1	OTA-1M	1/2"	5-3/8" (137)	2-1/8" (54)	2" (51)	1" (25)	3-5/32" (80)	—	5/8" (16)	4.0
OTA-2	OTA-2M	3/4"	6-1/16" (154)	2-15/16" (75)	2-3/16" (56)	1-7/32" (29)	3-25/32" (96)	—	3/4" (19)	7.0
—	OTA-3M	1"	7-1/8" (181)	2-11/16" (68)	2-9/16" (65)	1-15/32" (35)	4-17/32" (115)	—	15/16" (24)	12.0

TB TYPE CONDUIT BODY*										
CATALOG NUMBER		HUB SIZE	DIMENSIONS							VOLUME CU. IN.
KILLARK ALUM.	DURALOY IRON		A	B	C	D	E	F	G	
OTB-1	OTB-1M	1/2"	5-3/8" (137)	2-1/8" (54)	1-5/16" (33)	1" (25)	3-5/32" (80)	—	5/8" (16)	4.0
OTB-2	OTB-2M	3/4"	6-1/16" (160)	2-5/16" (59)	1-9/16" (40)	1-7/32" (31)	3-25/32" (96)	—	3/4" (19)	7.0
OTB-3	OTB-3M	1"	7-1/8" (181)	2-11/16" (68)	1-13/16" (46)	1-15/32" (37)	4-17/32" (115)	—	15/16" (24)	12.0
OTB-4	OTB-4M	1-1/4"	9-3/16" (233)	3-9/16" (90)	2-1/2" (64)	2" (51)	6" (152)	—	1-3/16" (30)	32.0
OTB-5	OTB-5M	1-1/2"	9-3/16" (233)	3-3/4" (92)	2-1/2" (64)	2" (51)	6" (152)	—	1-3/8" (35)	36.0
OTB-6	OTB-6M	2"	11-5/8" (295)	4-5/8" (117)	3-1/8" (79)	2-9/16" (65)	8-1/16" (205)	—	1-5/8" (41)	70.0

X TYPE CONDUIT BODY*										
CATALOG NUMBER		HUB SIZE	DIMENSIONS							VOLUME CU. IN.
KILLARK ALUM.	DURALOY IRON		A	B	C	D	E	F	G	
OX-1	OX-1M	1/2"	5-3/8" (137)	1-3/4" (44)	1-11/16" (43)	1" (25)	3-5/32" (80)	—	5/8" (16)	4.0
OX-2	OX-2M	3/4"	6-1/16" (160)	2" (51)	2-7/8" (73)	1-7/32" (31)	3-25/32" (96)	—	3/4" (19)	7.0
OX-3	OX-3M	1"	7-1/8" (181)	2-1/4" (57)	3-3/8" (86)	1-15/32" (37)	4-17/32" (115)	—	15/16" (24)	12.0
OX-4	OX-4M	1-1/4"	9-3/16" (233)	2-9/16" (65)	4-1/2" (114)	2" (51)	6" (152)	—	1-3/16" (30)	32.0
OX-5	OX-5M	1-1/2"	9-3/16" (233)	2-3/4" (70)	4-1/2" (114)	2" (51)	6" (152)	—	1-3/8" (35)	36.0
OX-6	OX-6M	2"	11-5/8" (295)	3-3/8" (85)	5-1/4" (133)	2-9/16" (65)	8-1/16" (205)	—	1-5/8" (41)	70.0

* For conduit body packaged with cover and gasket, add CG to the catalog number.

FITTINGS

O SERIES / DURALOY® 5 SERIES



COVERS AND GASKETS



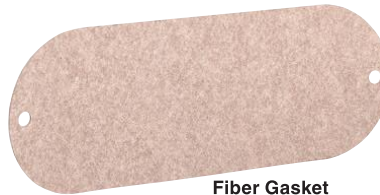
Aluminum and Steel Stamped Covers



Cast Iron Covers



Neoprene Gasket



Fiber Gasket

- Suitable for wet locations when used with gasketed covers.
- Federal Specification W-C-586D/A-A 50563.
- Suitable for use in hazardous location applications when installed according to NEC Articles 501.10(b), Class I, Div. 2, (Suitable for use in Class I Zone 2 applications) 502.10 and 503.10.
- Type 4 with Neoprene Gasket and Cover

UL LISTED File No. E3397

SP Certified File No. LR11852

FEATURES-SPECIFICATIONS

DURALOY⁵

Stamped Material/Finish

Copper-free Aluminum
(less than 4/10 of 1%)

- Natural finish
- 300 Series stainless steel screws

Galvanized Steel

- Natural finish
- 300 Series stainless steel screws

Cast Material/Finish

Duraloy Malleable Iron

- Tri-coat finish of electrozinc, chromate sealant, and electrostatically applied powder coating
- 300 Series stainless steel screws

Material/Finish

- Neoprene or fiber

ALUMINUM AND STEEL STAMPED COVERS

CATALOG NUMBER		HUB SIZE	DIMENSIONS		
KILLARK ALUMINUM	STEEL		LENGTH	WIDTH	HEIGHT
OL-10	OL-10M	1/2"	3-15/16"(100)	1-3/8"(35)	3/8"(10)
OL-20	OL-20M	3/4"	4-5/8"(117)	1-5/8"(41)	3/8"(10)
OL-30	OL-30M	1"	5-3/8"(137)	1-7/8"(48)	5/8"(16)
OL-450	OL-45M	1-1/4"	7-3/16"(183)	2-5/8"(67)	5/8"(16)
OL-450	OL-45M	1-1/2"	7-3/16"(183)	2-5/8"(67)	5/8"(16)
OL-60	OL-60M	2"	9-1/2"(241)	3-1/8"(79)	5/8"(16)
OL-780	OL-78M	2-1/2"	12-1/4"(311)	4-3/8"(111)	5/8"(16)
OL-780	OL-78M	3"	12-1/4"(311)	4-3/8"(111)	5/8"(16)
OL-900	OL-90M	3-1/2"	14-7/8"(378)	5-1/2"(140)	5/8"(16)
OL-900	OL-90M	4"	14-7/8"(378)	5-1/2"(140)	5/8"(16)

CAST IRON COVERS

CATALOG NUMBER	HUB SIZE	DIMENSIONS		
		LENGTH	WIDTH	HEIGHT
OL-10CM	1/2"	3-15/16"(100)	1-3/8"(35)	3/8"(10)
OL-20CM	3/4"	4-5/8"(117)	1-5/8"(41)	3/8"(10)
OL-30CM	1"	5-3/8"(137)	1-7/8"(48)	5/8"(16)
OL-45CM	1-1/4"	7-3/16"(183)	2-5/8"(67)	5/8"(16)
OL-45CM	1-1/2"	7-3/16"(183)	2-5/8"(67)	5/8"(16)
OL-60CM	2"	9-1/2"(241)	3-1/8"(79)	5/8"(16)
OL-78CM	2-1/2"	12-1/4"(311)	4-3/8"(111)	5/8"(16)
OL-78CM	3"	12-1/4"(311)	4-3/8"(111)	5/8"(16)
OL-90CM	3-1/2"	14-7/8"(378)	5-1/2"(140)	5/8"(16)
OL-90CM	4"	14-7/8"(378)	5-1/2"(140)	5/8"(16)

GASKETS

HUB SIZE	CATALOG NUMBER	
	NEOPRENE	FIBER
1/2"	OLK-1RG	OLK-1VG
3/4"	OLK-2RG	OLK-2VG
1"	OLK-3RG	OLK-3VG
1-1/4"	OL-45-RG	OL-45-VG
1-1/2"	OL-45-RG	OL-45-VG
2"	OL-6-RG	OL-6-VG
2-1/2"	OL-78-RG	OL-78-VG
3"	OL-78-RG	OL-78-VG
3-1/2"	OL-90-RG	OL-90-VG
4"	OL-90-RG	OL-90-VG



ALUMINUM CONDUIT BODIES



C Type - COC-1,2,3



LB Type - COLB-1,2,3



C Type - COC-4,5,6



LB Type - COLB-4,5,6



Unit Packaging
Body/Cover/Gasket

UL LISTED File No. E3397

SR Certified File No. LR11852

FEATURES-SPECIFICATIONS

Applications

To provide access to conductors for pulling, splicing, maintenance, and for future changes or upgrades. Combination bodies (1/2" - 2") for use with EMT or Rigid/IMC conduit. Sizes 2-1/2 and larger for use with EMT only (not threaded).

Features

- Combination bodies have threaded and set screw hubs
- Pre-packaged with body, cover and gasket.
- Covers furnished with stainless steel screws

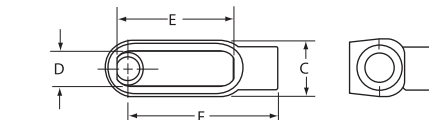
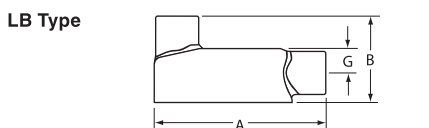
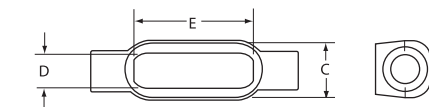
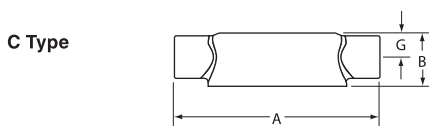
Material/Finish

Conduit Bodies – Die cast, copper-free aluminum (less than 4/10 of 1%) with electrostatically applied powder coating.

Covers – Stamped Aluminum/Natural Finish

Gaskets – Neoprene

Dimensions



C TYPE CONDUIT BODY										
CATALOG NUMBER	HUB SIZE	DIMENSIONS							VOLUME CU. IN.	
		A	B	C	D	E	F	G		
C	COC-1CG	1/2"	5-3/8" (137)	1-3/8" (35)	1-3/8" (35)	1" (25)	3-5/32" (80)	—	5/8" (16)	4.0
O	COC-2CG	3/4"	6-1/8" (156)	1-5/8" (41)	1-5/8" (41)	1-7/32" (31)	3-25/32" (96)	—	3/4" (19)	7.0
M	COC-3CG	1"	7-1/8" (181)	2" (51)	1-7/8" (48)	1-15/32" (37)	4-17/32" (115)	—	15/16" (24)	12.0
B	COC-4CG	1-1/4"	9-1/8" (232)	2-5/8" (67)	2-5/8" (67)	2" (51)	6" (152)	—	1-3/16" (30)	32.0
O	COC-5CG	1-1/2"	9-1/4" (235)	2-3/4" (70)	2-5/8" (67)	2" (51)	6" (152)	—	1-3/8" (32)	36.0
O	COC-6CG	2"	11-7/8" (302)	3-1/2" (89)	3-1/8" (79)	2-9/16" (65)	8-1/16" (205)	—	1-5/8" (38)	70.0
E	TWOC-7CG	2-1/2"	15-1/8" (384)	4" (102)	4-3/8" (111)	3-11/16" (94)	10-5/8" (270)	—	1-13/16" (54)	153.0
M	TWOC-8CG	3"	15-1/8" (384)	4-3/4" (121)	4-3/8" (111)	3-11/16" (94)	10-5/8" (270)	—	2-3/16" (54)	181.0
M	TWOC-9CG	3-1/2"	18-3/8" (467)	5-1/2" (140)	5-1/2" (140)	4-7/8" (124)	13-1/8" (333)	—	2-1/2" (67)	290.0
T	TWOC-0CG	4"	18-3/8" (467)	5-5/8" (143)	5-1/2" (140)	4-7/8" (124)	13-1/8" (333)	—	2-3/4" (67)	320.0

LB TYPE CONDUIT BODY										
CATALOG NUMBER	HUB SIZE	DIMENSIONS							VOLUME CU. IN.	
		A	B	C	D	E	F	G		
C	COLB-1CG	1/2"	4-17/32" (115)	2-9/32" (83)	1-3/8" (35)	1" (25)	3-5/32" (80)	4-3/8" (111)	5/8" (16)	4.0
O	COLB-2CG	3/4"	5-3/4" (146)	2-1/2" (64)	1-5/8" (41)	1-7/32" (31)	3-25/32" (96)	4-29/32" (125)	3/4" (19)	7.0
M	COLB-3CG	1"	6-5/8" (168)	2-29/32" (74)	1-7/8" (48)	1-15/32" (37)	4-17/32" (115)	5-23/32" (145)	15/16" (24)	12.0
B	COLB-4CG	1-1/4"	7-1/2" (191)	3-3/16" (81)	2-5/8" (67)	2" (51)	6" (152)	6-13/32" (162)	1-3/16" (30)	28.8
O	COLB-5CG	1-1/2"	9-1/8" (232)	4" (102)	2-5/8" (67)	2" (51)	6" (152)	17-3/4" (451)	1-3/8" (32)	36.0
O	COLB-6CG	2"	10" (254)	4-13/16" (122)	3-1/8" (79)	2-9/16" (65)	8-1/16" (205)	8-5/32" (207)	1-5/8" (38)	70.0
E	TWOLB-7CG	2-1/2"	13-15/16" (354)	6-1/8" (156)	4-3/8" (111)	3-11/16" (94)	10-5/8" (270)	11-7/16" (291)	2-1/2" (64)	142.0
M	TWOLB-8CG	3"	13-15/16" (354)	6-1/2" (165)	4-3/8" (111)	3-11/16" (94)	10-5/8" (270)	11-7/16" (291)	2-3/16" (54)	173.0
M	TWOLB-9CG	3-1/2"	16-7/8" (429)	7-9/16" (192)	5-1/2" (140)	4-7/8" (124)	13-1/8" (333)	13-3/4" (349)	2-1/2" (67)	292.0
T	TWOLB-0CG	4"	16-7/8" (429)	7-13/16" (198)	5-1/2" (140)	4-7/8" (124)	13-1/8" (333)	13-3/4" (349)	2-3/4" (70)	324.0

FITTINGS

CO & TWO SERIES



ALUMINUM CONDUIT BODIES



K-PAK®

Unit Packaging
Body/Cover/Gasket

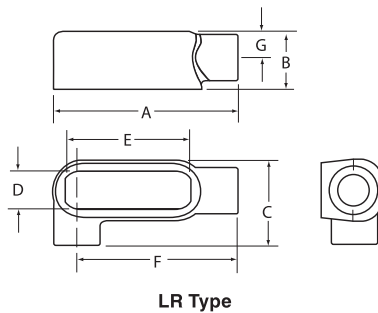
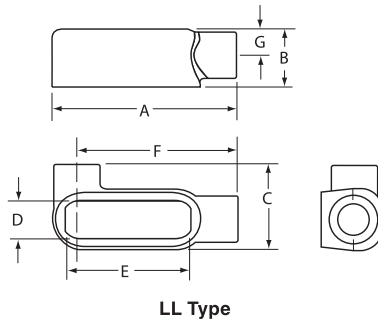
UL LISTED File No. E3397

SP Certified File No. LR11852

FEATURES-SPECIFICATIONS

See page F20 for Applications, Features and Standard Materials & Finish

Dimensions



LL TYPE CONDUIT BODY										
CATALOG NUMBER	HUB SIZE	DIMENSIONS							VOLUME CU. IN.	
		A	B	C	D	E	F	G		
C O M B	COLL-1CG	1/2"	4-5/8" (117)	1-3/8" (35)	2" (51)	1" (25)	3-5/32" (80)	—	5/8" (16)	4.0
	COLL-2CG	3/4"	5-3/8" (137)	1-5/8" (41)	2-3/16" (56)	1-7/32" (31)	3-25/32" (96)	—	3/4" (19)	7.0
	COLL-3CG	1"	6-1/4" (159)	2" (51)	2-9/16" (65)	1-15/32" (37)	4-17/32" (115)	—	15/16" (24)	12.0
	COLL-4CG	1-1/4"	8-1/8" (206)	2-5/8" (67)	3-1/2" (89)	2" (51)	6" (152)	—	1-3/16" (30)	32.0
	COLL-5CG	1-1/2"	8-1/8" (206)	2-3/4" (70)	3-1/2" (89)	2" (51)	6" (152)	—	1-3/8" (32)	31.0
	COLL-6CG	2"	10-9/16" (268)	3-1/2" (89)	4-3/16" (106)	2-9/16" (65)	8-1/16" (205)	—	1-5/8" (38)	70.0
E M T	TWOLL-7CG	2-1/2"	13-11/16" (348)	4" (102)	5-3/4" (146)	3-11/16" (94)	10-5/8" (270)	—	1-13/16" (46)	142.0
	TWOLL-8CG	3"	13-11/16" (348)	4-3/4" (121)	5-3/4" (146)	3-11/16" (94)	10-5/8" (270)	—	2-3/16" (54)	173.0
	TWOLL-9CG	3-1/2"	16-1/2" (419)	5-1/2" (140)	7-1/8" (181)	4-7/8" (124)	13-1/8" (333)	—	2-1/2" (67)	292.0
	TWOLL-0CG	4"	16-1/2" (419)	5-5/8" (143)	7-1/8" (181)	4-7/8" (124)	13-1/8" (333)	—	2-3/4" (67)	324.0

LR TYPE CONDUIT BODY										
CATALOG NUMBER	HUB SIZE	DIMENSIONS							VOLUME CU. IN.	
		A	B	C	D	E	F	G		
C O M B	COLR-1CG	1/2"	4-5/8" (117)	1-3/8" (35)	2" (51)	1" (25)	3-5/32" (80)	4-3/8" (111)	5/8" (16)	4.0
	COLR-2CG	3/4"	5-3/8" (137)	1-5/8" (41)	2-3/16" (56)	1-7/32" (31)	3-25/32" (96)	4-29/32" (125)	3/4" (19)	7.0
	COLR-3CG	1"	6-1/4" (159)	2" (51)	2-9/16" (65)	1-15/32" (37)	4-17/32" (115)	5-23/32" (145)	15/16" (24)	12.0
	COLR-4CG	1-1/4"	8-1/8" (206)	2-5/8" (67)	3-1/2" (89)	2" (51)	6" (152)	6-13/32" (162)	1-3/16" (30)	32.0
	COLR-5CG	1-1/2"	8-1/8" (206)	2-3/4" (70)	3-1/2" (89)	2" (51)	6" (152)	17-3/4" (451)	1-3/8" (32)	31.0
	COLR-6CG	2"	10-9/16" (268)	3-1/2" (89)	4-3/16" (106)	2-9/16" (65)	8-1/16" (205)	9-5/32" (233)	1-5/8" (38)	70.0
E M T	TWOLR-7CG	2-1/2"	13-11/16" (348)	4" (102)	5-3/4" (146)	3-11/16" (93)	10-5/8" (270)	11-7/16" (291)	1-13/16" (54)	142.0
	TWOLR-8CG	3"	13-11/16" (348)	4-3/4" (121)	5-3/4" (146)	3-11/16" (93)	10-5/8" (270)	11-7/16" (291)	2-3/16" (54)	173.0
	TWOLR-9CG	3-1/2"	16-1/2" (419)	5-1/2" (140)	7-1/8" (181)	4-7/8" (124)	13-1/8" (333)	13-3/4" (349)	2-1/2" (67)	292.0
	TWOLR-0CG	4"	16-1/2" (419)	5-5/8" (143)	7-1/8" (181)	4-7/8" (124)	13-1/8" (333)	13-3/4" (349)	2-3/4" (67)	324.0



ALUMINUM CONDUIT BODIES



T Type - COT-1,2,3



T Type - COT-4,5,6



NEOPRENE GASKET



ALUMINUM STAMPED COVER



Unit Packaging
Body/Cover/Gasket

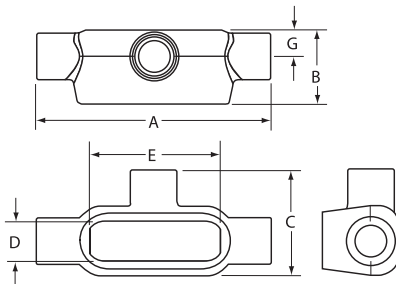
UL LISTED File No. E3397

SR Certified File No. LR11852

FEATURES-SPECIFICATIONS

See page F20 for Applications, Features and Standard Materials & Finish

Dimensions



T Type

T TYPE CONDUIT BODY										
CATALOG NUMBER	HUB SIZE	DIMENSIONS							VOLUME CU. IN.	
		A	B	C	D	E	F	G		
C	COT-1CG	1/2"	5-3/8" (137)	1-3/8" (35)	2" (35)	1" (25)	3-5/32" (80)	—	5/8" (16)	4.0
	COT-2CG	3/4"	6-1/16" (154)	1-5/8" (41)	2-3/16" (67)	1-7/32" (31)	3-25/32" (96)	—	3/4" (19)	7.0
	COT-3CG	1"	7-1/8" (181)	2" (51)	2-9/16" (65)	1-15/32" (37)	4-17/32" (115)	—	15/16" (24)	12.0
M	COT-4CG	1-1/4"	9-3/16" (233)	2-5/8" (67)	3-1/2" (89)	2" (51)	6" (152)	—	1-3/16" (30)	32.0
	COT-5CG	1-1/2"	9-3/16" (233)	2-3/4" (70)	3-1/2" (89)	2" (51)	6" (152)	—	1-3/8" (32)	33.0
O	COT-6CG	2"	11-5/8" (295)	3-1/2" (89)	4-3/16" (106)	2-9/16" (65)	8-1/16" (205)	—	1-5/8" (38)	70.0
E	TWOT-7CG	2-1/2"	15-1/8" (384)	4" (102)	5-3/4" (146)	3-11/16" (94)	10-5/8" (270)	—	1-13/16" (54)	142.0
	TWOT-8CG	3"	15-1/8" (384)	4-3/4" (121)	5-3/4" (146)	3-11/16" (94)	10-5/8" (270)	—	2-3/16" (54)	173.0
M	TWOT-9CG	3-1/2"	18-1/8" (460)	5-1/2" (140)	7-1/8" (181)	4-7/8" (124)	13-1/8" (333)	—	2-1/2" (67)	292.0
	TWOT-0CG	4"	18-1/8" (460)	5-5/8" (143)	7-1/8" (181)	4-7/8" (124)	13-1/8" (333)	—	2-3/4" (67)	324.0

NEOPRENE REPLACEMENT GASKETS	
CATALOG NUMBER	HUB SIZE
OLK-1RG	1/2"
OLK-2RG	3/4"
OLK-3RG	1"
OL-45-RG	1-1/4"
OL-45-RG	1-1/2"
OL-6-RG	2"
OL-78-RG	2-1/2"
OL-78-RG	3"
OL-90-RG	3-1/2"
OL-90-RG	4"

ALUMINUM REPLACEMENT COVERS				
CATALOG NUMBER	HUB SIZE	DIMENSIONS		
		LENGTH	WIDTH	HEIGHT
OL-10	1/2"	3-15/16"(100)	1-3/8"(35)	3/8"(10)
OL-20	3/4"	4-5/8"(117)	1-5/8"(41)	3/8"(10)
OL-30	1"	5-3/8"(137)	1-7/8"(48)	5/8"(16)
OL-450	1-1/4"	7-3/16"(183)	2-5/8"(67)	5/8"(16)
OL-450	1-1/2"	7-3/16"(183)	2-5/8"(67)	5/8"(16)
OL-60	2"	9-1/2"(241)	3-1/8"(79)	5/8"(16)
OL-780	2-1/2"	12-1/4"(311)	4-3/8"(111)	5/8"(16)
OL-780	3"	12-1/4"(311)	4-3/8"(111)	5/8"(16)
OL-900	3-1/2"	14-7/8"(378)	5-1/2"(140)	5/8"(16)
OL-900	4"	14-7/8"(378)	5-1/2"(140)	5/8"(16)



FITTINGS

IRON AND ALUMINUM MOGUL CONDUIT BODIES



LB TYPE



C TYPE

- Suitable for wet locations when used with gasketed covers.
- Federal Specification W-C-586D / A-A 50563.
- Suitable for use in hazardous location applications when installed according to NEC Articles 501.10(b), Class I, Div. 2, (Suitable for use in Class I Zone 2 applications) 502.10, and 503.10.



FEATURES-SPECIFICATIONS

Applications

- Mogul fittings are for use with rigid and IMC raceways
- Use where standard conduit bodies do not provide adequate access and wiring area for the pulling of large and heavy conductors
- For right angle bends where splices, pulls and taps are needed in a weather-proof chamber

Features

- A raised dome cover permits additional wiring room
- Furnished with captive ss screws and gasket
- LBD, C and UB Series available with built-in cable-pulling rollers on sizes 1-1/2" and larger. Add -WR to catalog number. Example MOLBD-5-WR.

Material/Finish

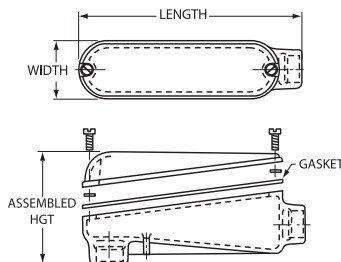
- Cast iron moguls are hot dipped galvanized
- Aluminum moguls are of copper-free aluminum (less than 4/10 of 1%) with electrostatically applied powder coating

LB TYPE MOGUL CONDUIT BODY						
CATALOG NUMBER		HUB SIZE	LENGTH	ASSEMBLED HEIGHT	WIDTH	6X LENGTH
KILLARK ALUM.	KILLARK IRON					
MOLBD-1	MOLBD-1M	1/2"	5" (127)	2-5/16" (59)	1-5/16" (33)	3" (76)
MOLBD-2	MOLBD-2M	3/4"	6-1/4" (159)	2-5/8" (67)	1-9/16" (40)	4-1/2" (114)
MOLBD-3	MOLBD-3M	1"	9-5/8" (244)	3-5/8" (92)	2-1/2" (64)	7-1/2" (191)
MOLBD-4	MOLBD-4M	1-1/4"	9-5/8" (244)	3-5/8" (92)	2-1/2" (64)	7-1/2" (191)
MOLBD-5	MOLBD-5M	1-1/2"	14-7/16" (367)	5-5/8" (143)	3" (76)	12" (305)
MOLBD-6	MOLBD-6M	2"	14-7/16" (367)	5-5/8" (143)	3" (76)	12" (305)
MOLBD-7	MOLBD-7M	2-1/2"	22" (559)	7-1/2" (191)	4-1/2" (114)	18" (457)
MOLBD-8	MOLBD-8M	3"	22" (559)	7-1/2" (191)	4-1/2" (114)	18" (457)
MOLBD-9	MOLBD-9M	3-1/2"	28-1/2" (724)	9-1/4" (235)	5-1/2" (140)	24" (610)
MOLBD-0	MOLBD-0M	4"	28-1/2" (724)	9-1/4" (235)	5-1/2" (140)	24" (610)

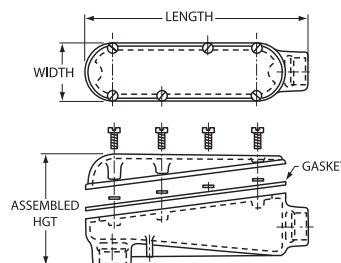
NOTE - For built-in cable rollers (on sizes 1-1/2" and larger), add -WR to catalog number. Example: MOLBD-5WR.

C TYPE MOGUL CONDUIT BODY						
CATALOG NUMBER		HUB SIZE	LENGTH	ASSEMBLED HEIGHT	WIDTH	8X LENGTH
KILLARK ALUM.	KILLARK IRON					
MOC-3	MOC-3M	1"	12" (305)	3" (76)	2-5/8" (67)	10" (254)
MOC-4	MOC-4M	1-1/4"	12-1/16" (306)	3-5/16" (84)	2-5/8" (67)	10" (254)
MOC-5	MOC-5M	1-1/2"	18-1/8" (460)	3-7/8" (98)	3-3/16" (81)	16" (406)
MOC-6	MOC-6M	2"	18-1/16" (459)	4-7/16" (113)	3-3/16" (81)	16" (406)
MOC-7	MOC-7M	2-1/2"	27-1/8" (689)	5-3/16" (132)	4-11/16" (119)	24" (610)
MOC-8	MOC-8M	3"	27-1/4" (692)	5-15/16" (151)	4-11/16" (119)	24" (610)
MOC-9	MOC-9M	3-1/2"	35-3/8" (899)	7-3/16" (183)	5-11/16" (144)	32" (813)
MOC-0	MOC-0M	4"	35-7/16" (900)	7-9/16" (192)	5-11/16" (144)	32" (813)

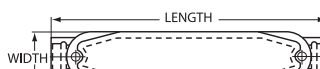
NOTE - For built-in cable rollers (on sizes 1-1/2" and larger), add -WR to catalog number. Example: MOLBD-5WR.



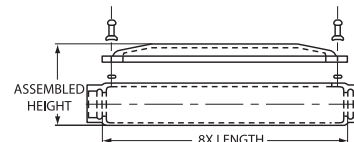
LB Sizes 1" thru 2"



LB Sizes 2-1/2" thru 4"



C Sizes





IRON AND ALUMINUM MOGUL CONDUIT BODIES



T TYPE



UB TYPE

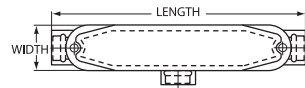
- Suitable for wet locations when used with gasketed covers.
- Federal Specification W-C-586D / A-A 50563.
- Suitable for use in hazardous location applications when installed according to NEC Articles 501.10(b), Class I, Div. 2, (Suitable for use in Class I Zone 2 applications) 502.10, and 503.10.



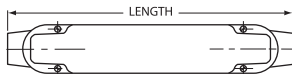
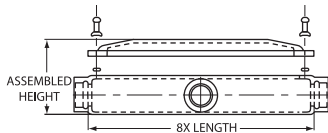
FEATURES-SPECIFICATIONS

See page F23 for Standard Materials & Finish

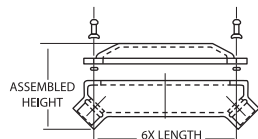
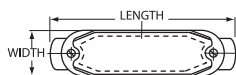
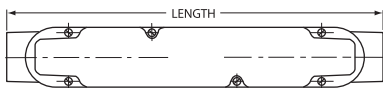
Dimensions



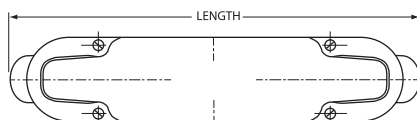
T Sizes 1" thru 2"



T Sizes 2-1/2" thru 4"



UB Sizes 1" thru 2"



UB Sizes 2-1/2" thru 4"

T TYPE						
CATALOG NUMBER		HUB SIZE	LENGTH	ASSEMBLED HEIGHT	WIDTH	8X LENGTH
KILLARK ALUM.	KILLARK IRON					
MOT-3	MOT-3M	1"	12" (305)	3" (76)	2-5/8" (67)	10" (254)
MOT-4	MOT-4M	1-1/4"	12-1/16" (306)	3-5/16" (84)	2-5/8" (67)	10" (254)
MOT-5	MOT-5M	1-1/2"	18-1/8" (460)	3-7/8" (98)	3-3/16" (81)	16" (406)
MOT-6	MOT-6M	2"	18-1/16" (459)	4-7/16" (113)	3-3/16" (81)	16" (406)
MOT-7	MOT-7M	2-1/2"	27-1/8" (689)	5-3/16" (132)	4-11/16" (119)	24" (610)
MOT-8	MOT-8M	3"	27-1/4" (692)	5-15/16" (151)	4-11/16" (119)	24" (610)
MOT-9	MOT-9M	3-1/2"	35-3/8" (899)	7-3/16" (183)	5-11/16" (144)	32" (813)
MOT-0	MOT-0M	4"	35-7/16" (900)	7-9/16" (192)	5-11/16" (144)	32" (813)

UB TYPE						
CATALOG NUMBER		HUB SIZE	LENGTH	ASSEMBLED HEIGHT	WIDTH	6X LENGTH
KILLARK ALUM.	KILLARK IRON					
MOUB-3	MOUB-3M	1"	10-7/16" (265)	3-7/8" (98)	2-5/8" (67)	7-1/2" (191)
MOUB-4	MOUB-4M	1-1/4"	10-7/16" (265)	4-3/16" (106)	2-5/8" (67)	7-1/2" (191)
MOUB-5	MOUB-5M	1-1/2"	15-9/16" (395)	5-1/8" (130)	3-3/16" (81)	12" (305)
MOUB-6	MOUB-6M	2"	15-9/16" (395)	5-3/4" (146)	3-3/16" (81)	12" (305)
MOUB-7	MOUB-7M	2-1/2"	23-1/16" (586)	8-1/2" (216)	4-11/16" (119)	18" (457)
MOUB-8	MOUB-8M	3"	23-5/16" (668)	8-1/2" (216)	4-11/16" (119)	18" (457)
MOUB-9	MOUB-9M	3-1/2"	30" (762)	10-3/8" (264)	5-11/16" (144)	24" (610)
MOUB-0	MOUB-0M	4"	30" (762)	10-3/8" (264)	5-11/16" (144)	24" (610)

NOTE - For built-in cable rollers (on sizes 1-1/2" and larger), add -WR to catalog number. Example: MOLBD-5WR.



FITTINGS

MOGUL CONDUIT BODIES



MOLB-4



MOLB-5 thru 0



MOLB-6CG



MLB-12

- Suitable for wet locations when used with gasketed covers.
- Federal Specification W-C-586D / A-A 50563.
- Suitable for use in hazardous location applications when installed according to NEC Articles 501.10(b), Class I, Div. 2, (Suitable for use in Class I Zone 2 applications) 502.10, and 503.10.



FEATURES-SPECIFICATIONS

Applications

- Mogul fittings are normally used where the standard "O" Series conduit bodies do not offer a sufficient amount of wiring room
- For right angle bends where splices, pulls and taps are needed in a weather-proof chamber

Features

- A raised dome cover provides additional wiring room
- Furnished with cover and gasket

Material/Finish

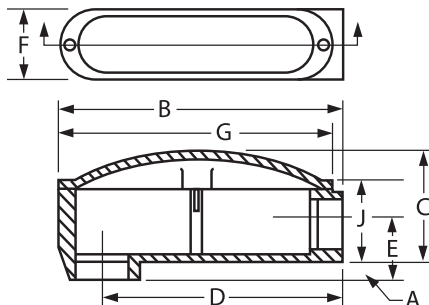
Copper-free Aluminum
(less than 4/10 of 1%)

- Electrostatically applied powder coating

		MOL CONDUIT BODIES							
CATALOG NUMBER	CONDUIT SIZE	DIMENSIONS							
		A	B	C	D	E	F	G	J
MOLB-4*	1-1/4"	5/16" (8)	9-3/4" (248)	2-3/4" (70)	8-1/2" (445)	1" (25)	2-3/8" (60)	9-1/8" (232)	2-3/4" (70)
MOLB-5	1-1/2"	1-5/16" (33)	13-3/16" (335)	4-3/4" (121)	11-1/2" (292)	2-3/8" (60)	3-1/8" (79)	12-7/8" (327)	3-3/8" (86)
MOLB-6	2"	1-1/16" (27)	13-3/16" (335)	4-1/4" (108)	11-1/2" (292)	2-1/2" (64)	3-1/8" (79)	12-7/8" (327)	3-3/8" (86)
MOLB-6CG*	2"	1/16" (2)	14-1/2" (368)	5-3/4" (146)	13" (330)	1-3/8" (35)	3" (76)	14-1/8" (359)	3-5/16" (84)
MOLB-7	2-1/2"	1-13/16" (46)	22-5/8" (575)	6-1/4" (159)	20" (508)	3-15/16" (100)	4-7/16" (113)	21-13/16" (554)	4-7/16" (113)
MOLB-8	3"	1-13/16" (46)	22-5/8" (575)	6-1/4" (169)	20" (508)	3-15/16" (100)	4-7/16" (113)	21-13/16" (554)	4-7/16" (113)
MOLB-9	3-1/2"	1-9/16" (40)	28-11/16" (729)	7-7/8" (200)	25-9/16" (649)	4-3/16" (106)	5-1/2" (140)	28-5/16" (719)	5-1/2" (140)
MOLB-0	4"	1-9/16" (40)	28-11/16" (729)	7-7/8" (200)	25-7/16" (646)	4-3/16" (106)	5-1/2" (140)	28-5/16" (719)	5-1/2" (140)
MLB-12*	5"	2-3/8" (68)	43-1/4" (1099)	12-1/4" (311)	38-5/8" (981)	6-1/4" (159)	9" (229)	42-1/2" (1080)	8-11/16" (221)

*Split cover design

Dimensions



MOL BLANK REPLACEMENT COVERS AND GASKETS	
CATALOG NUMBER	BODY STYLE
MOL-560	1-1/2" & 2"
MOL-780	2-1/2" & 3"
MOL-900	3-1/2" & 4"



40% FILL CONDUIT BODIES



NECLB-6

- Suitable for wet locations when used with gasketed covers.
- Federal Specification W-C-586D / A-A 50563.
- Suitable for use in hazardous location applications when installed according to NEC Articles 501.10(b), Class I, Div. 2, (Suitable for use in Class I Zone 2 applications) 502.10 and 503.10.



LISTED - File E3397

See files for details or call Killark.

FEATURES-SPECIFICATIONS

Applications

- Specially designed to meet National Electrical Code Article 370-28(a) (2) for angle pulls where the distance between the raceway entry and the opposite wall of the fitting must be at least six times the trade diameter of the raceway.
- A pull box with easy access to conductors

- A chamber with a large opening for easy access to perform changes in the conduit system
- For 90° bends in a conduit system
- Includes cover and gasket

Features

Large cover opening (length of opening exceeds six times the trade diameter of the hub size) for easy access to conductors. Cover and gasket included

Material/Finish

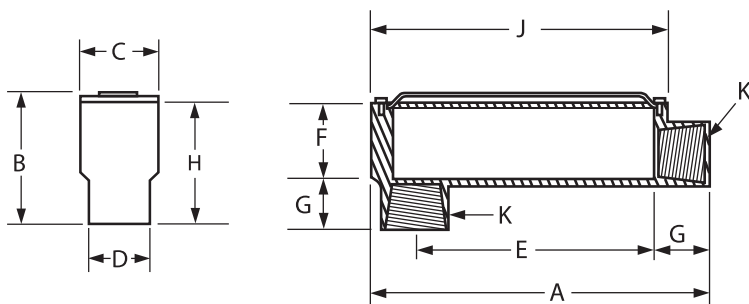
Copper-free Aluminum (less than 4/10 of 1%)

- Electrostatically applied powder coating

NECLB CONDUIT BODIES

CATALOG NUMBER	REPLACEMENT COVER AND GASKET	HUB SIZE	A	B	C	D	E	F	G	H	J	K
NECLB-3	NECLB-30	1"	8-1/8"	3-7/16"	2"	11-9/32"	6"	2"	1-1/8"	3-1/8"	7"	1 NPT
NECLB-4	NECLB-40	1-1/4"	9-7/8"	4-1/16"	2-3/8"	11-5/16"	7-1/2"	2-1/2"	1-3/16"	3-11/16"	8-5/8"	1-1/4 NPT
NECLB-5	NECLB-50	1-1/2"	11-17/32"	5-1/16"	2-3/4"	2-3/16"	9"	3-1/2"	1-3/16"	4-11/16"	10-5/8"	1-1/2 NPT
NECLB-6	NECLB-60	2"	14-25/32"	6-3/16"	3"	2-11/16"	12"	4"	1-3/16"	5-3/16"	13-11/16"	2 NPT

Dimensions



FITTINGS

SLB/SLBM/SOLB/MLB SERIES



SERVICE ENTRANCE • STANDARD AND HOSTILE LOCATIONS



SLB-1 thru 7



SOLB-8, 9, 0



SLBM-4



MLB-12

- Suitable for wet locations when used with gasketed covers.
- Federal Specification W-C-586D / A-A 50563.
- Suitable for use in hazardous location applications when installed according to NEC Articles 501.10(b), Class I, Div. 2, (Suitable for use in Class I Zone 2 applications) 502.10 and 503.10.

LISTED - File E22698

Certified - File LR11852
See files for details or call Killark

FEATURES-SPECIFICATIONS

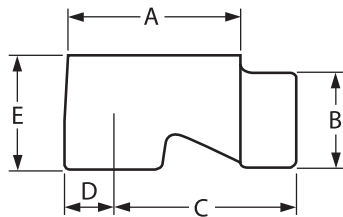
Features

- Designed for easier wire pulling
- Includes Cover and Gasket

Material/Finish

Copper-free Aluminum
(less than 4/10 of 1%)

- Electrostatically applied powder coating



SERVICE ENTRANCE BODIES

CATALOG NUMBER	CONDUIT SIZE	A	B	C	D	E	F
SLB-1	1/2"	2-3/4" (70)	1-1/16" (27)	2-3/8" (60)	3/4" (19)	1-3/8" (35)	1-3/16" (30)
SLB-2	3/4"	3-1/8" (79)	1-3/8" (35)	2-11/16" (68)	7/8" (22)	1-11/16" (43)	1-3/8" (35)
SLB-3	1"	3-3/4" (95)	1-5/8" (41)	3-1/4" (83)	15/16" (24)	1-15/16" (49)	1-3/4" (44)
SLB-4	1-1/4"	5" (127)	2" (51)	4-5/16" (110)	1-1/4" (32)	2-1/2" (64)	2-3/16" (56)
SLBM-4	1-1/4"	7-1/4" (184)	1-15/16" (49)	6-3/8" (162)	15/16" (24)	2-5/8" (67)	2-1/2" (64)
SLB-5	1-1/2"	5-3/4" (147)	2-7/16" (62)	4-3/4" (121)	1-1/2" (38)	2-9/16" (65)	2-7/16" (62)
SLB-6	2"	6-1/4" (159)	2-15/16" (75)	5" (127)	1-5/8" (41)	3-1/8" (79)	2-13/16" (71)
SLBM-6	2"	9-1/2" (241)	2-11/16" (68)	8-9/16" (217)	11-3/16" (284)	3-7/16" (87)	3-1/8" (79)
SLB-7	2-1/2"	8" (203)	3-9/16" (90)	6-7/8" (175)	11-5/16" (287)	4" (102)	3-1/2" (89)
SOLB-8	3"	12-1/4" (311)	4-7/16" (113)	10-7/16" (265)	11-3/16" (284)	6-1/4" (159)	4-7/16" (113)
SOLB-9	3-1/2"	15" (381)	5" (127)	11-7/8" (302)	3-1/8" (79)	7-1/2" (191)	5-1/2" (140)
SOLB-0	4"	15" (381)	5" (127)	11-7/8" (302)	3-1/8" (79)	7-1/2" (191)	5-1/2" (140)
MLB-12	5"	42-1/2" (1080)	8-11/16" (221)	38-5/8" (981)	4-5/8" (118)	12-1/4" (311)	9" (229)



CONDUIT HUBS



- Suitable for use in hazardous location applications when installed according to NEC Articles 501.10(b), Class I, Div. 2, (Suitable for use in Class I Zone 2 applications) 502.10, 503.10 and 505-15.
- Suitable for use with NEMA type enclosures 2, 3, 3R, 4, 12 and 13.



FEATURES-SPECIFICATIONS

Applications

Conduit hubs provide a liquid tight, oil tight and dust tight termination of electrical conduit through the walls of sheet metal enclosures. The hubs fit into standard knock-out dimensions.

Features

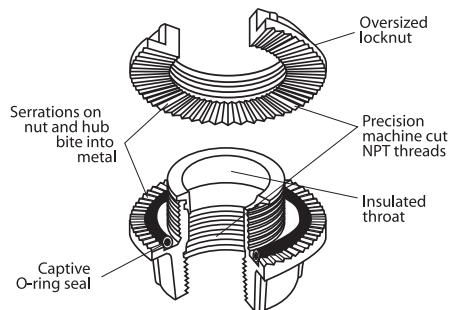
- Oversized locknut provides for a strong vibration-proof termination
- Captive sealing ring
- Serrations on hub body and locknut provide effective positive ground path
- Rugged cast zinc construction
- Insulated throat protects conductors
- Suitable for use with NEMA type enclosures 2, 3, 3R, 4, 12 and 13
- Available with grounding provision

Material/Finish

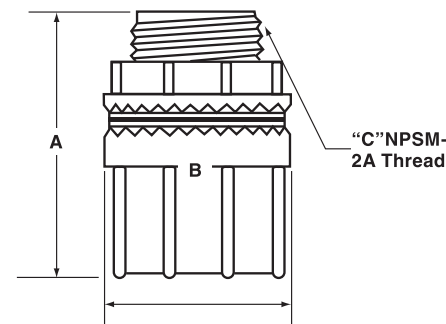
- Die cast zinc or Die cast aluminum
- Natural finish
- Sealing ring – Buna-N

DIE CAST ZINC WH WEATHERPROOF CONDUIT HUBS		
CATALOG NO. W/O GROUND	CATALOG NO. WITH GROUND	NPT HUB SIZE
WH-1	WH-1G	1/2"
WH-2	WH-2G	3/4"
WH-3	WH-3G	1"
WH-4	WH-4G	1-1/4"
WH-5	WH-5G	1-1/2"
WH-6	WH-6G	2"
WH-7	WH-7G	2-1/2"
WH-8	WH-8G	3"
WH-9	WH-9G	3-1/2"
WH-0	WH-0G	4"

DIE CAST ALUMINUM WH WEATHERPROOF CONDUIT HUBS		
CATALOG NO. W/O GROUND	CATALOG NO. WITH GROUND	NPT HUB SIZE
WH-1A	WH-1AG	1/2"
WH-2A	WH-2AG	3/4"
WH-3A	WH-3AG	1"
WH-4A	WH-4AG	1-1/4"
WH-5A	WH-5AG	1-1/2"
WH-6A	WH-6AG	2"
WH-7A	WH-7AG	2-1/2"
WH-8A	WH-8AG	3"
WH-9A	WH-9AG	3-1/2"
WH-0A	WH-0AG	4"



DIMENSIONS			
CATALOG NUMBER	A	B	C
WH-1	1.500"	1.437"	1/2"-14
WH-2	1.510"	1.685"	3/4"-14
WH-3	1.812"	1.921"	1"-11-1/2
WH-4	1.877"	2.370"	1-1/4"-11-1/2
WH-5	1.920"	2.745"	1-1/2"-11-1/2
WH-6	1.895"	3.236"	2"-11-1/2
WH-7	2.605"	3.708"	2-1/2"-8
WH-8	2.615"	4.370"	3"-8
WH-9	2.570"	4.941"	3-1/2"-8
WH-0	2.590"	5.450"	4"-8





FITTINGS

CONDUIT HUBS IN STAINLESS STEEL



WH-3SSG with Ground



- Suitable for use in hazardous location applications when installed according to NEC Articles 501.10(B), Class 1, Div. 2, (Suitable for use in Class I Zone 2 applications) 502.10, 503.10 and 505-15.
- Suitable for use with NEMA type enclosures 2, 3, 3R, 4, 4x 12 and 13.



cULus Certified to CSA Standards by UL

FEATURES-SPECIFICATIONS

Applications

Conduit hubs provide a liquid tight, oil tight and dust tight termination of electrical conduit through the walls of sheet metal enclosures. The hubs fit into standard knockout dimensions.

Features

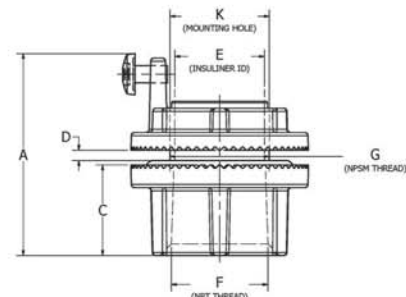
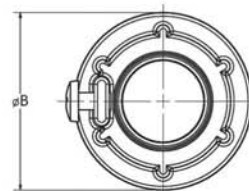
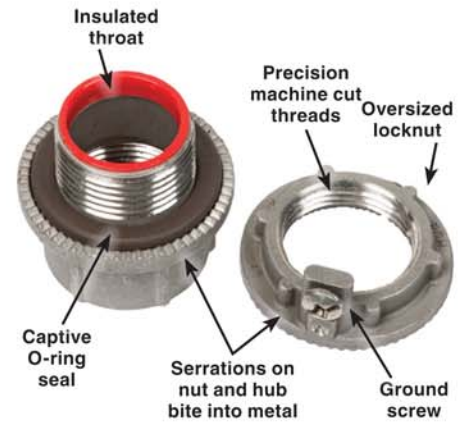
- Oversized locknut provides for a strong vibration-proof termination
- Captive sealing ring
- Serrations on hub body and locknut provide effective positive ground path
- Rugged 316 Stainless Steel
- Insulated throat protects conductors
- Suitable for use with NEMA type enclosures 2, 3, 3R, 4, 4x, 12 and 13
- Grounding provision for added safety

Material/Finish

- Nut and body 316 Stainless Steel
- Natural finish
- Sealing ring gasket - Viton
- Insuliner - Lexan
- Ground screw - Stainless steel

WH WEATHERPROOF CONDUIT HUBS			
CATALOG NUMBER	FEMALE NPT HUB SIZE	MAX. COPPER ^① GROUND WIRE SIZE	
WH-1SSG	1/2"	#8	#8
WH-2SSG	3/4"	#8	#8
WH-3SSG	1"	#8	#8
WH-4SSG	1-1/4"	#8	#8
WH-5SSG	1-1/2"	#8	#6
WH-6SSG	2"	#8	#4
WH-7SSG	2-1/2"	#6	#2
WH-8SSG	3"	#6	1/0
WH-9SSG	3-1/2"	#6	2/0
WH-0SSG	4"	#4	2/0

^① Use of wire terminal is recommended by UL and required by CSA for wire gauges over 10 AWG



"D" Dimension indicates maximum panel thickness hub will accommodate.

CAT. NUMBER	HUB SIZE	A	B	C	D	Ø E		F (NPT)	G (NPSM)	Ø K	
						MIN.	MAX.			MIN.	MAX.
WH-1SSG	1/2"	1-3/4" (44.45)	1-7/16" (36.51)	13/16" (20.64)	3/16" (4.76)	0.575	0.590	1/2"	1/2"	0.850	0.875
WH-2SSG	3/4"	2-1/16" (52.38)	1-11/16" (42.86)	57/64" (22.62)	3/16" (4.76)	0.780	0.800	3/4"	3/4"	1.060	1.090
WH-3SSG	1"	2-1/4" (57.15)	2" (50.8)	1-3/64" (26.59)	1/4" (6.35)	0.990	1.010	1"	1"	1.320	1.350
WH-4SSG	1-1/4"	2-9/32" (57.94)	2-3/8" (60.32)	1-1/32" (26.19)	1/4" (6.35)	1.270	1.290	1-1/4"	1-1/4"	1.660	1.690
WH-5SSG	1-1/2"	2-19/64" (58.30)	2-3/4" (69.85)	1-1/64" (25.79)	1/4" (6.35)	1.480	1.500	1-1/2"	1-1/2"	1.900	1.930
WH-6SSG	2"	2-25/64" (60.70)	3-1/4" (82.55)	1-3/32" (27.78)	1/4" (6.35)	1.930	1.950	2"	2"	2.380	2.410
WH-7SSG	2-1/2"	3-3/16" (80.90)	3-11/16" (93.66)	1-17/32" (38.89)	1/4" (6.35)	2.230	2.250	2-1/2"	2-1/2"	2.870	2.900
WH-8SSG	3"	3-3/16" (80.90)	4-19/64" (109.14)	1-17/32" (38.89)	1/4" (6.35)	2.870	2.890	3"	3"	3.490	3.520
WH-9SSG	3-1/2"	3-13/64" (81.36)	5" (127.00)	1-19/32" (40.48)	1/4" (6.35)	3.300	3.320	3-1/2"	3-1/2"	3.990	4.020
WH-0SSG	4"	3-5/32" (80.20)	5-15/32" (138.90)	1-17/32" (38.89)	1/4" (6.35)	3.750	3.770	4"	4"	4.500	4.530



PULLING ELBOW & DUCT SEAL • STANDARD AND HOSTILE LOCATIONS



Duct seal

UL LISTED - File E E22699

SP Certified - File LR11852

See files for details or call Killark.

FEATURES-SPECIFICATIONS

Applications

- 90° pulling elbows are used to accommodate pulling conductors through a sharp bend in the conduit system

Features

- Designed for easier wire pulling
- Includes Cover and Gasket

Material/Finish

Copper-free Aluminum
(less than 4/10 of 1%)

- Electrostatically applied powder coating

PULLING ELBOWS FOR THREADED CONDUIT

CATALOG NUMBER	HUB SIZE	TYPE
CL-1	1/2"	CL
CL-2	3/4"	
CL-3	1"	
CLM-1	1/2"	CLM
CLM-2	3/4"	
CLM-3	1"	

Ⓢ Raintight/concrete tight

Duct Seal is a soft, non-hardening weather-proof compound, easily applied in all working temperatures. It is non-staining, can be painted, is an excellent moisture barrier for weather-sealing service entries, electrical cables, conduit ducts, etc.

DUCT SEAL

CATALOG NUMBER	SIZE
DS-1	1-lb.
DS-5	5-lb.

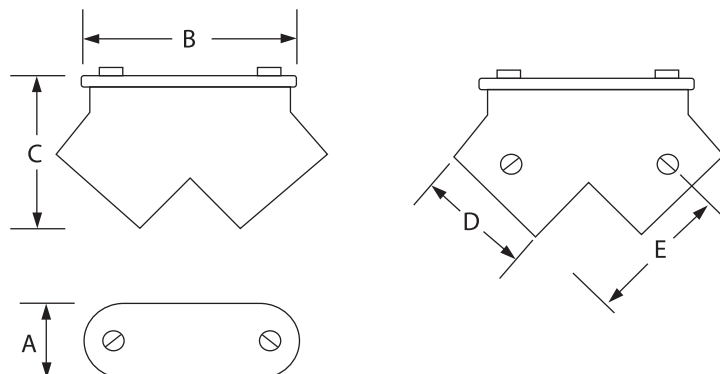
PULLING ELBOWS FOR THINWALL CONDUIT

CATALOG NUMBER	HUB SIZE
TWCL-1	1/2"
TWCL-2	3/4"

Ⓢ Set screw in each hub

DIMENSIONS

SIZE	A	B	C	D	E
1/2"	1-1/4" (32)	2-9/16" (65)	1-3/8" (35)	1-1/4" (32)	1-7/16" (37)
3/4"	1-3/8" (35)	2-3/4" (70)	1-9/16" (40)	1-3/8" (35)	1-17/32" (39)
1"	1-3/4" (44)	3-1/8" (79)	1-3/4" (44)	1-3/4" (44)	1-23/32" (44)



FITTINGS

FB/STFB SERIES



SERVICE ENTRANCE • STANDARD AND HOSTILE LOCATIONS



FB



STFB



- File E22698

See files for details or call Killark.

FEATURES-SPECIFICATIONS

Weather-proof for threaded conduit.

Applications

- For overhead service entrance
- For use with threaded rigid conduit

Features

- For use with aluminum or steel conduit
- Insulators included
- Easy installation and assembly
- Variety of knockout arrangements
- Vertical mounting
- Sizes 1/2" thru 4" available

Material/Finish

Copper-free Aluminum
(less than 4/10 of 1%)

- Natural finish

FB SERVICE ENTRANCE					
CATALOG NUMBER	HUB SIZE	KNOCKOUTS		DIMENSIONS	
		QUANTITY	DIAMETER	WIDTH	HEIGHT
FB-714	1/2"	4	3/8"	3.00" (76)	2.60" (66)
FB-724	3/4"	5	3/8"	2.39" (61)	2.32" (58)
FB-734	1"	5	1/2"	2.62" (67)	3.03" (80)
FB-745	1-1/4"	5	1/2"	2.62" (67)	3.03" (80)
FB-765	2"	6	One 1/2"	4.43" (113)	4.45" (113)
			Two 3/4"		
			Three 1"		
FB-787	3"	7	Four 1"	6.40" (163)	8.00" (203)
			Three 1-1/4"		
FB-707	4" 7	7	Four 1-3/4"	8.00"	9.00" (229)
			Two 1-1/8"		

For rigid or thinwall conduit (EMT)

Applications

- For overhead service entrance
- For use with EMT or rigid conduit

Features

- For use with aluminum or steel conduit
- Mounting clamp provides easy installation
- Insulators included
- Three point balance for proper alignment
- Variety of knockout arrangements
- Vertical mounting
- Sizes 3/4" thru 4" available

Material/Finish

Copper-free Aluminum
(less than 4/10 of 1%)

- Natural finish

STFB SERVICE ENTRANCE					
CATALOG NUMBER	HUB SIZE	KNOCKOUTS		DIMENSIONS	
		QUANTITY	DIAMETER	WIDTH	HEIGHT
STFB-2	3/4"	5	3/8"	2.39" (61)	2.32" (59)
STFB-3	1"	5	1/2"	2.62" (67)	3.03" (77)
STFB-4	1-1/4"	5	1/2"	2.62" (67)	3.03" (77)
STFB-5	1-1/2"	6	One 1/2"	3.43" (87)	3.75" (95)
			Two 5/8"		
			Three 3/4"		
STFB-6	2"	6	One 1/2"	4.43" (113)	4.45" (113)
			Two 3/4"		
			Three 1"		
STFB-7	2-1/2"	7	Four 1"	6.40" (163)	8.00" (203)
			Three 1-1/4"		
STFB-8	3"	7	Four 1"	6.40"	8.00" (203)
			Three 1-1/4"		
STFB-0	4"	7	Four 1-1/8"	8.00" (203)	9.00" (229)
			Three 1-3/4"		



CAST DEVICE BOXES • STANDARD AND HOSTILE LOCATIONS



FS-1 & 2

FS-3

FD-1, 2 & 3

FSC-1 & 2

FSC-3

UL Standard: 514A
 CSA Standard: C22.2 No. 18
 Fed Spec: W-C-586D
 NEMA: FB-1

LISTED File No. E 3397

Certified File No. LR11852

FEATURES-SPECIFICATIONS

Applications

- Accommodates wiring devices and provides opening to splice, tap, or pull conductors
- Provide access to conductors for maintenance and future system changes

Features

- Tapered threads (NPT with integral bushings)
- Internal grounding screw
- Mounting feet for FS & FSC are provided as standard
- Available single and two gang styles
- Suitable for use in wet locations when used with gasket covers
- Cast iron is suitable for concrete use
- For use with FS-style covers see pages F41-F43
- To order without mounting lugs, contact factory.

Material/Finish

Copper-free Aluminum
 (less than 4/10 of 1%)

- Electrostatically applied powder coating

Duraloy Iron

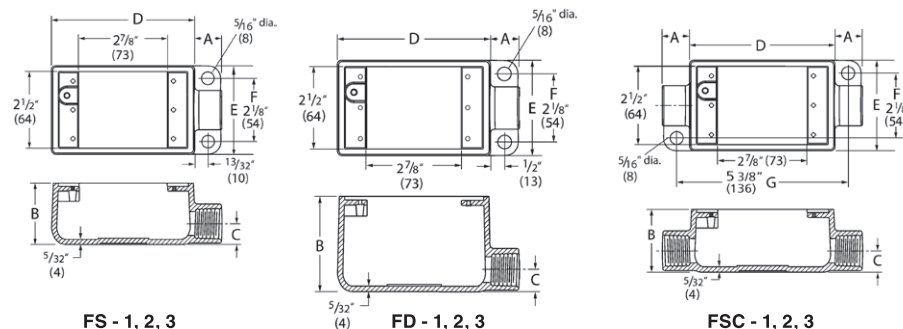
- Tri-coat finish of electrozinc, chromate sealant, and electrostatically applied powder coating

FS TYPE CAST DEVICE BOX – SHALLOW – DEAD END										
CATALOG NUMBER		HUB SIZE	DIMENSIONS							VOLUME CU. IN.
KILLARK ALUM.	DURALOY IRON		A	B	C	D	E	F	G	
FS-1	FS-1M	1/2"	7/8" (22)	2" (51)	11/16" (17)	4-5/8" (117)	2-7/8" (73)	2-1/8" (54)	—	18.0
FS-2	FS-2M	3/4"	7/8" (22)	2" (51)	11/16" (17)	4-5/8" (117)	2-7/8" (73)	2-1/8" (54)	—	18.0
FS-3	FS-3M	1"	7/8" (22)	2" (51)	11/16" (17)	4-5/8" (117)	2-7/8" (73)	2-1/8" (54)	—	18.0

FD TYPE CAST DEVICE BOX – DEEP – DEAD END										
CATALOG NUMBER		HUB SIZE	DIMENSIONS							VOLUME CU. IN.
KILLARK ALUM.	DURALOY IRON		A	B	C	D	E	F	G	
FD-1	FD-1M	1/2"	7/8" (22)	2-7/8" (73)	11/16" (17)	4-5/8" (117)	2-7/8" (73)	2-1/8" (54)	—	28.0
FD-2	FD-2M	3/4"	7/8" (22)	2-7/8" (73)	11/16" (17)	4-5/8" (117)	2-7/8" (73)	2-1/8" (54)	—	28.0
FD-3	FD-3M	1"	7/8" (22)	2-7/8" (73)	11/16" (17)	4-5/8" (117)	2-7/8" (73)	2-1/8" (54)	—	28.0

FSC TYPE CAST DEVICE BOX – SHALLOW – FEED THRU										
CATALOG NUMBER		HUB SIZE	DIMENSIONS							VOLUME CU. IN.
KILLARK ALUM.	DURALOY IRON		A	B	C	D	E	F	G	
FSC-1	FSC-1M	1/2"	7/8" (22)	2" (51)	11/16" (17)	4-5/8" (117)	2-7/8" (73)	2-1/8" (54)	5-3/8" (136)	18.0
FSC-2	FSC-2M	3/4"	7/8" (22)	2" (51)	11/16" (17)	4-5/8" (117)	2-7/8" (73)	2-1/8" (54)	5-3/8" (136)	18.0
FSC-3	FSC-3M	1"	7/8" (22)	2" (51)	11/16" (17)	4-5/8" (117)	2-7/8" (73)	2-1/8" (54)	5-3/8" (136)	18.0

Dimensions



FS - 1, 2, 3

FD - 1, 2, 3

FSC - 1, 2, 3

FITTINGS

FDC/FSOC/FSL SERIES



CAST DEVICE BOXES • STANDARD AND HOSTILE LOCATIONS



FDC 1, 2 & 3 with lugs



FSOC Type
(No Mounting Lugs)



FSL Type

UL Standard: 514A
CSA Standard: C22.2 No. 18
Fed Spec: W-C-586D
NEMA: FB-1

File No. E 3397

Certified File No. LR11852

FEATURES-SPECIFICATIONS

Applications

- Accommodates wiring devices and provides opening to splice, tap, or pull conductors
- Provide access to conductors for maintenance and future system changes

Features

- Tapered threads (NPT with integral bushings)
- Internal grounding screw
- Suitable for use in wet locations when used with gasket covers
- Cast iron is suitable for concrete use
- For use with FS-style covers see pages F41-F43
- To order without mounting lugs, contact factory.

Material/Finish

Copper-free Aluminum
(less than 4/10 of 1%)

- Electrostatically applied powder coating

Duraloy Iron

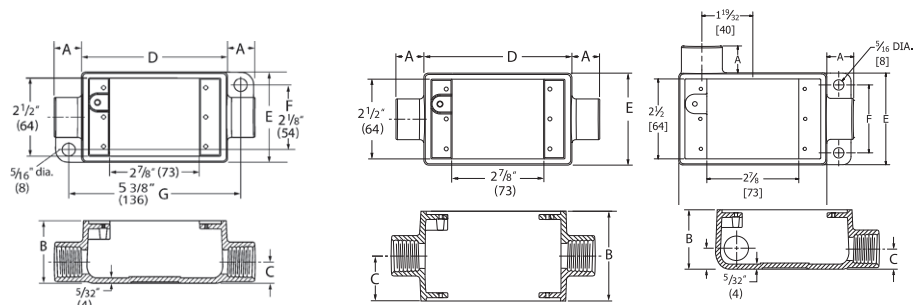
- Tri-coat finish of electrozinc, chromate sealant, and electrostatically applied powder coating

FDC TYPE CAST DEVICE BOX – DEEP – FEED THRU										
CATALOG NUMBER		HUB SIZE	DIMENSIONS							VOLUME CU. IN.
KILLARK ALUM.	DURALOY IRON		A	B	C	D	E	F	G	
FDC-1	FDC-1M	1/2"	7/8" (22)	2-7/8" (73)	11/16" (17)	4-5/8" (117)	2-7/8" (73)	2-1/8" (54)	5-3/8" (136)	28.5
FDC-2	FDC-2M	3/4"	7/8" (22)	2-7/8" (73)	11/16" (17)	4-5/8" (117)	2-7/8" (73)	2-1/8" (54)	5-3/8" (136)	28.5
FDC-3	FDC-3M	1"	7/8" (22)	2-7/8" (73)	11/16" (17)	4-5/8" (117)	2-7/8" (73)	2-1/8" (54)	5-3/8" (136)	28.5

FSOC TYPE CAST DEVICE OPEN BOX – SHALLOW – FEED THRU										
CATALOG NUMBER		HUB SIZE	DIMENSIONS							VOLUME CU. IN.
KILLARK ALUMINUM			A	B	C	D	E	F	G	
FSOC-1		1/2"	7/8" (22)	3" (76)	1-1/2" (138)	4-5/8" (117)	2-7/8" (73)	—	—	29.0

FSL TYPE CAST DEVICE BOX – SHALLOW										
CATALOG NUMBER		HUB SIZE	DIMENSIONS							VOLUME CU. IN.
KILLARK ALUM.	DURALOY IRON		A	B	C	D	E	F	G	
FSL-1	FSL-1M	1/2"	7/8" (22)	2" (51)	11/16" (17)	4-5/8" (117)	2-7/8" (73)	2-1/8" (54)	—	18.0
FSL-2	FSL-2M	3/4"	7/8" (22)	2" (51)	11/16" (17)	4-5/8" (117)	2-7/8" (73)	2-1/8" (54)	—	18.0

Dimensions



FDC - 1, 2 & 3

FSOC - 1

FSL - 1 & 2



CAST DEVICE BOXES • STANDARD AND HOSTILE LOCATIONS



FSR Type



FST Type

UL Standard: 514A
 CSA Standard: C22.2 No. 18
 Fed Spec: W-C-586D
 NEMA: FB-1

LISTED File No. E 3397

Certified File No. LR11852

FEATURES-SPECIFICATIONS

Applications

- Accommodates wiring devices and provides opening to splice, tap, or pull conductors
- Provide access to conductors for maintenance and future system changes

Features

- Tapered threads (NPT with integral bushings)
- Internal grounding screw
- Suitable for use in wet locations when used with gasket covers
- Cast iron is suitable for concrete use
- For use with FS-style covers see pages F41-F43
- To order without mounting lugs, contact factory

Material/Finish

Copper-free Aluminum
 (less than 4/10 of 1%)

- Electrostatically applied powder coating

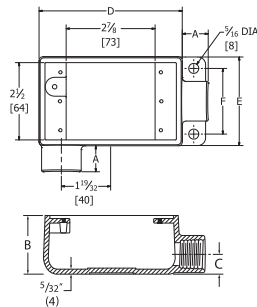
Duraloy Iron

- Tri-coat finish of electrozinc, chromate sealant, and electrostatically applied powder coating

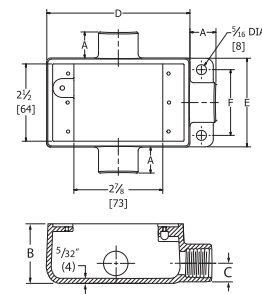
FSR TYPE CAST DEVICE BOX – SHALLOW										
CATALOG NUMBER		HUB SIZE	DIMENSIONS							VOLUME CU. IN.
KILLARK ALUM.	DURALOY IRON		A	B	C	D	E	F	G	
FSR-1	FSR-1M	1/2"	7/8" (22)	2" (51)	11/16" (17)	4-5/8" (117)	2-7/8" (73)	2-1/8" (54)	—	18.0
FSR-2	FSR-2M	3/4"	7/8" (22)	2" (51)	11/16" (17)	4-5/8" (117)	2-7/8" (73)	2-1/8" (54)	—	18.0

FST TYPE CAST DEVICE BOX – SHALLOW										
CATALOG NUMBER		HUB SIZE	DIMENSIONS							VOLUME CU. IN.
KILLARK ALUM.	DURALOY IRON		A	B	C	D	E	F	G	
FST-1	FST-1M	1/2"	7/8" (22)	2" (51)	11/16" (17)	4-5/8" (117)	2-7/8" (73)	2-1/8" (54)	—	18.0
FST-2	FST-2M	3/4"	7/8" (22)	2" (51)	11/16" (17)	4-5/8" (117)	2-7/8" (73)	2-1/8" (54)	—	18.0

Dimensions



FSR



FST

FITTINGS

FSX/FSA/FDA/FSLB SERIES



CAST DEVICE BOXES • STANDARD AND HOSTILE LOCATIONS



FSX Type



FSA/FDA Types



FSLB Type

UL Standard: 514A
 CSA Standard: C22.2 No. 18
 Fed Spec: W-C-586D
 NEMA: FB-1

File No. E 3397

Certified File No. LR11852

FEATURES-SPECIFICATIONS

Applications

- Accommodates wiring devices and provides opening to splice, tap, or pull conductors
- Provide access to conductors for maintenance and future system changes

Features

- Tapered threads (NPT with integral bushings)
- Internal grounding screw
- Optional mounting feet available on FS, FD, FSC, and FDC
- Available single and two gang styles
- Suitable for use in wet locations when used with gasket covers
- Cast iron is suitable for concrete use
- For use with FS-style covers see pages F41-F43
- To order without mounting lugs, contact factory.

Material/Finish

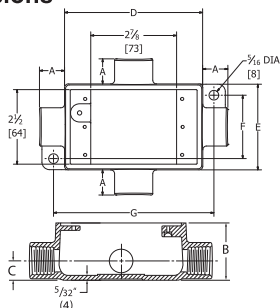
Copper-free Aluminum
 (less than 4/10 of 1%)

- Electrostatically applied powder coating

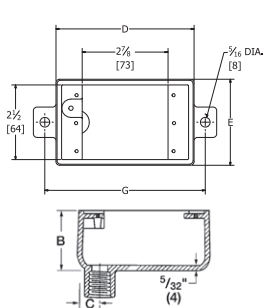
Duraloy Iron

- Tri-coat finish of electrozinc, chromate sealant, and electrostatically applied powder coating

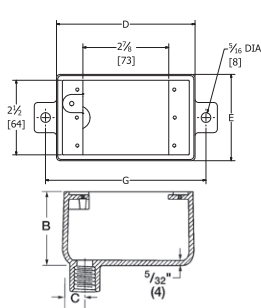
Dimensions



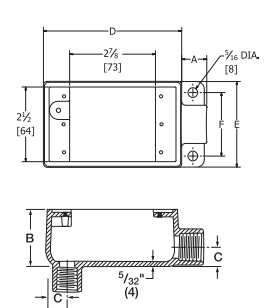
FSX



FSA



FDA



FSLB

FSX TYPE CAST DEVICE BOX – SHALLOW										
CATALOG NUMBER		HUB SIZE	DIMENSIONS							VOLUME CU. IN.
KILLARK ALUM.	DURALOY IRON		A	B	C	D	E	F	G	
FSX-1	FSX-1M	1/2"	7/8" (22)	2" (51)	11/16" (17)	4-5/8" (117)	2-7/8" (73)	2-1/8" (54)	5-3/8" (136)	18.0
FSX-2	FSX-2M	3/4"	7/8" (22)	2" (51)	11/16" (17)	4-5/8" (117)	2-7/8" (73)	2-1/8" (54)	5-3/8" (136)	18.0

FSA TYPE CAST DEVICE BOX – SHALLOW – DEAD END										
CATALOG NUMBER		HUB SIZE	DIMENSIONS							VOLUME CU. IN.
KILLARK ALUMINUM			A	B	C	D	E	F	G	
FSA-1		1/2"	7/8" (22)	2" (51)	11/16" (17)	4-5/8" (117)	2-7/8" (73)	—	5-3/8" (136)	18.0
FSA-2		3/4"	7/8" (22)	2" (51)	11/16" (17)	4-5/8" (117)	2-7/8" (73)	—	5-3/8" (136)	18.0

FDA TYPE CAST DEVICE BOX – DEEP – DEAD END										
CATALOG NUMBER		HUB SIZE	DIMENSIONS							VOLUME CU. IN.
KILLARK ALUMINUM			A	B	C	D	E	F	G	
FDA-2		3/4"	7/8" (22)	2-7/8" (73)	11/16" (17)	4-5/8" (117)	2-7/8" (73)	—	5-3/8" (136)	28.5

FSLB TYPE CAST DEVICE BOX – SHALLOW – FEED THRU										
CATALOG NUMBER		HUB SIZE	DIMENSIONS							VOLUME CU. IN.
KILLARK ALUMINUM			A	B	C	D	E	F	G	
FSLB-1		1/2"	7/8" (22)	2" (51)	11/16" (17)	4-5/8" (117)	2-7/8" (73)	2-1/8" (54)	—	18.0
FSLB-2		3/4"	7/8" (22)	2" (51)	11/16" (17)	4-5/8" (117)	2-7/8" (73)	2-1/8" (54)	—	18.0



CAST DEVICE BOXES • STANDARD AND HOSTILE LOCATIONS



FSS 1 & 2



FDS 2



FSCC 1 & 2



FDCC 2

UL Standard: 514A
 CSA Standard: C22.2 No. 18
 Fed Spec: W-C-586D
 NEMA: FB-1

LISTED File No. E 3397

Certified File No. LR11852

FEATURES-SPECIFICATIONS

Applications

- Accommodates wiring devices and provides opening to splice, tap, or pull conductors
- Provide access to conductors for maintenance and future system changes

Features

- Tapered threads (NPT with integral bushings)
- Internal grounding screw
- Suitable for use in wet locations when used with gasket covers
- Cast iron is suitable for concrete use
- For use with FS-style covers see pages F41-F43
- To order without mounting lugs, contact factory.

Material/Finish

Copper-free Aluminum
 (less than 4/10 of 1%)

- Electrostatically applied powder coating

Duraloy Iron

- Tri-coat finish of electrozinc, chromate sealant, and electrostatically applied powder coating

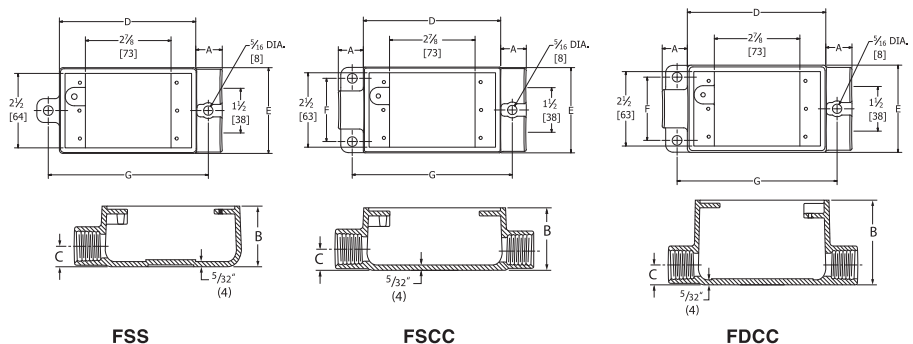
FSS TYPE CAST DEVICE BOX – SHALLOW											
CATALOG NUMBER	KILLARK ALUM.	DURALOY IRON	HUB SIZE	DIMENSIONS						VOLUME CU. IN.	
				A	B	C	D	E	F		G
FSS-1	FSS-1M		1/2"	7/8" (22)	2" (51)	11/16" (17)	4-5/8" (117)	2-7/8" (73)	—	5-3/8" (136)	18.0
FSS-2	FSS-2M		3/4"	7/8" (22)	2" (51)	11/16" (17)	4-5/8" (117)	2-7/8" (73)	—	5-3/8" (136)	18.0

FDS TYPE CAST DEVICE BOX											
CATALOG NUMBER	KILLARK ALUM.	DURALOY IRON	HUB SIZE	DIMENSIONS						VOLUME CU. IN.	
				A	B	C	D	E	F		G
FDS-2	FDS-2M		3/4"	7/8" (22)	2-7/8" (73)	11/16" (17)	4-5/8" (117)	2-7/8" (73)	—	5-3/8" (136)	28.5

FSCC TYPE CAST DEVICE BOX - SHALLOW											
CATALOG NUMBER	KILLARK ALUM.	DURALOY IRON	HUB SIZE	DIMENSIONS						VOLUME CU. IN.	
				A	B	C	D	E	F		G
FSCC-1	FSCC-1M		1/2"	7/8" (22)	2" (51)	11/16" (17)	4-5/8" (117)	2-7/8" (73)	2-1/8" (54)	5-3/8" (136)	18.0
FSCC-2	FSCC-2M		3/4"	7/8" (22)	2" (51)	11/16" (17)	4-5/8" (117)	2-7/8" (73)	2-1/8" (54)	5-3/8" (136)	18.0

FDCC TYPE CAST DEVICE BOX – DEEP											
CATALOG NUMBER	KILLARK ALUM.	DURALOY IRON	HUB SIZE	DIMENSIONS						VOLUME CU. IN.	
				A	B	C	D	E	F		G
FDCC-2	FDCC-2M		3/4"	7/8" (22)	2-7/8" (73)	11/16" (17)	4-5/8" (117)	2-7/8" (73)	2-1/8" (54)	5-3/8" (136)	28.5

Dimensions



FITTINGS

FSCA/FSCT SERIES



CAST DEVICE BOXES • STANDARD AND HOSTILE LOCATIONS



FSCA Type



FSCT Type

UL Standard: 514A
 CSA Standard: C22.2 No. 18
 Fed Spec: W-C-586D
 NEMA: FB-1

LISTED File No. E 3397

Certified File No. LR11852

FEATURES-SPECIFICATIONS

Applications

- Accommodates wiring devices and provides opening to splice, tap, or pull conductors
- Provide access to conductors for maintenance and future system changes

Features

- Tapered threads (NPT with integral bushings)
- Internal grounding screw
- Suitable for use in wet locations when used with gasket covers
- Cast iron is suitable for concrete use
- For use with FS-style covers see pages F41-F43
- To order without mounting lugs, contact factory.

Material/Finish

Copper-free Aluminum
 (less than 4/10 of 1%)

- Electrostatically applied powder coating

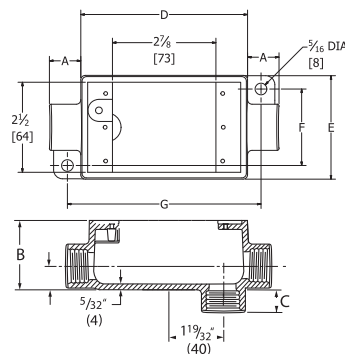
Duraloy Iron

- Tri-coat finish of electrozinc, chromate sealant, and electrostatically applied powder coating

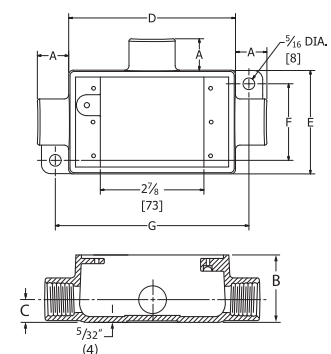
FSCA TYPE CAST DEVICE BOX – SHALLOW										
CATALOG NUMBER		HUB SIZE	DIMENSIONS							VOLUME CU. IN.
KILLARK ALUM.	DURALOY IRON		A	B	C	D	E	F	G	
FSCA-1	FSCA-1M	1/2"	7/8" (22)	2" (51)	11/16" (17)	4-5/8" (117)	2-7/8" (73)	2-1/8" (54)	5-3/8" (136)	18.0
FSCA-2	FSCA-2M	3/4"	7/8" (22)	2" (51)	11/16" (17)	4-5/8" (117)	2-7/8" (73)	2-1/8" (54)	5-3/8" (136)	18.0

FSCT TYPE CAST DEVICE BOX – SHALLOW										
CATALOG NUMBER		HUB SIZE	DIMENSIONS							VOLUME CU. IN.
KILLARK ALUM.	DURALOY IRON		A	B	C	D	E	F	G	
FSCT-1	FSCT-1M	1/2"	7/8" (22)	2" (51)	11/16" (17)	4-5/8" (117)	2-7/8" (73)	2-1/8" (54)	5-3/8" (136)	18.0
FSCT-2	FSCT-2M	3/4"	7/8" (22)	2" (51)	11/16" (17)	4-5/8" (117)	2-7/8" (73)	2-1/8" (54)	5-3/8" (136)	18.0

Dimensions



FSCA



FSCT



CAST DEVICE BOXES • STANDARD AND HOSTILE LOCATIONS



UL Standard: 514A
 CSA Standard: C22.2 No. 18
 Fed Spec: W-C-586D
 NEMA: FB-1

LISTED File No. E 3397

Certified File No. LR11852

FEATURES-SPECIFICATIONS

Applications

- Accommodates wiring devices and provides opening to splice, tap, or pull conductors
- Provide access to conductors for maintenance and future system changes

Features

- Tapered threads (NPT with integral bushings)
- Internal grounding screw
- Mounting lugs offered as standard
- Suitable for use in wet locations when used with gasket covers
- Cast iron is suitable for concrete use
- For use with FS-style covers see pages F41-F43
- To order without mounting lugs, contact factory.

Material/Finish

Copper-free Aluminum
 (less than 4/10 of 1%)

- Electrostatically applied powder coating

Duraloy Iron

- Tri-coat finish of electrozinc, chromate sealant, and electrostatically applied powder coating

2FS TYPE CAST DEVICE BOX TWO GANG – SHALLOW WITH MOUNTING LUGS

CATALOG NUMBER	KILLARK ALUM.	DURALOY IRON	HUB SIZE	DIMENSIONS						VOLUME CU. IN.	
				A	B	C	D	E	F		G
2FS-1	2FS-1M	2FS-1M	1/2"	7/8" (22)	2" (51)	11/16" (17)	4-5/8" (117)	4-11/16" (119)	2-1/8" (54)	5-3/8" (136)	32.0
2FS-2	2FS-2M	2FS-2M	3/4"	7/8" (22)	2" (51)	11/16" (17)	4-5/8" (117)	4-11/16" (119)	2-1/8" (54)	5-3/8" (136)	32.0
2FS-3	2FS-3M	2FS-3M	1"	7/8" (22)	2" (51)	11/16" (17)	4-5/8" (117)	4-11/16" (119)	2-1/8" (54)	5-3/8" (136)	32.0

2FD TYPE CAST DEVICE BOX TWO GANG – DEEP WITH MOUNTING LUGS

2FD-1	2FD-1M	2FD-1M	1/2"	7/8" (22)	2-15/16" (75)	11/16" (17)	4-5/8" (117)	4-11/16" (119)	2-1/8" (54)	5-3/8" (136)	47.0
2FD-2	2FD-2M	2FD-2M	3/4"	7/8" (22)	2-15/16" (75)	11/16" (17)	4-5/8" (117)	4-11/16" (119)	2-1/8" (54)	5-3/8" (136)	47.0

2FSC TYPE CAST DEVICE BOX TWO GANG – SHALLOW WITH MOUNTING LUGS

2FSC-1	2FSC-1M	2FSC-1M	1/2"	7/8" (22)	2" (51)	11/16" (17)	4-5/8" (117)	4-11/16" (119)	2-1/8" (54)	5-3/8" (136)	32.0
2FSC-2	2FSC-2M	2FSC-2M	3/4"	7/8" (22)	2" (51)	11/16" (17)	4-5/8" (117)	4-11/16" (119)	2-1/8" (54)	5-3/8" (136)	32.0

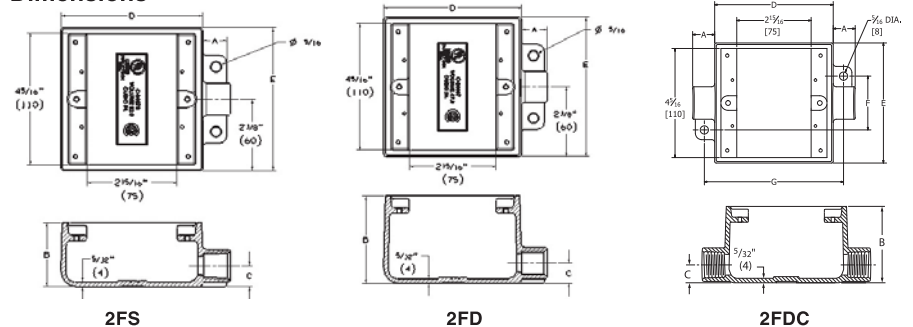
2FDC TYPE CAST DEVICE BOX TWO GANG – DEEP WITH MOUNTING LUGS

2FDC-1	2FDC-1M	2FDC-1M	1/2"	7/8" (22)	2-15/16" (75)	11/16" (17)	4-5/8" (117)	4-11/16" (119)	2-1/8" (54)	5-3/8" (136)	50.0
2FDC-2	2FDC-2M	2FDC-2M	3/4"	7/8" (22)	2-15/16" (75)	11/16" (17)	4-5/8" (117)	4-11/16" (119)	2-1/8" (54)	5-3/8" (136)	50.0

2FSD TYPE CAST DEVICE BOX TWO GANG – SHALLOW WITH MOUNTING LUGS

2FSD-1	2FSD-1M	2FSD-1M	1/2"	7/8" (22)	2" (51)	11/16" (17)	4-5/8" (117)	4-11/16" (119)	2-1/8" (54)	-	32.0
2FSD-2	2FSD-2M	2FSD-2M	3/4"	7/8" (22)	2" (51)	11/16" (17)	4-5/8" (117)	4-11/16" (119)	2-1/8" (54)	-	32.0

Dimensions



FITTINGS

2 & 3 FS/FD SERIES



CAST DEVICE BOXES • STANDARD AND HOSTILE LOCATIONS



FEATURES-SPECIFICATIONS

Applications

- Accommodates wiring devices and provides opening to splice, tap, or pull conductors
- Provide access to conductors for maintenance and future system changes

Features

- Internal grounding screw
- Suitable for use in wet locations when used with gasket covers
- For use with FS-style covers see pages F41-F43

Conduit Opening Data

- To specify conduit openings select the letter on these sketches which indicates the position desired. Follow this letter with the symbol indicating the type and size.
 - » Example: 2FS-A2-E2

Material/Finish

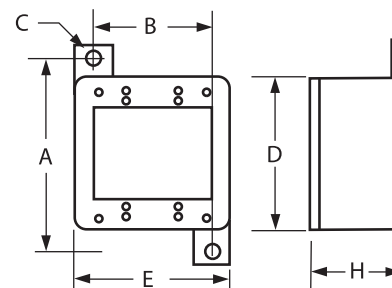
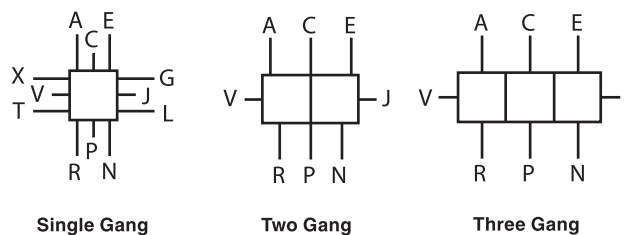
Copper-free Aluminum
(less than 4/10 of 1%)

- Electrostatically applied powder coating

FS/FD MULTI GANG BOXES ^①						
SERIES	A	B	C	D	E	H
FSQ	3-3/4" (95)	3-9/16" (90)	1/4" (6)	4-9/16" (116)	2-13/16" (71)	2" (51)
2FS	6-3/16" (157)	3-3/4" (95)	9/32" (7)	4-7/8" (124)	4-15/16" (125)	2" (51)
3FS	6-3/16" (157)	5-3/4" (146)	9/32" (7)	4-7/8" (124)	6-3/4" (125)	2" (51)
FDQ	3-3/4" (95)	3-9/16" (90)	1/4" (6)	4-9/16" (116)	2-13/16" (71)	2-7/8" (73)
2FD	6-3/16" (157)	3-3/4" (95)	9/32" (7)	4-7/8" (124)	4-15/16" (125)	2-7/8" (73)
3FD	6-3/16" (157)	5-3/4" (146)	9/32" (7)	4-7/8" (124)	6-3/4" (125)	2-7/8" (73)

FS/FD/FSQ/FDQ CONDUIT OPENING AND SYMBOL IDENTIFICATION		
FOR CONDUIT SIZE	THREADED SYMBOL NUMBER	UNION ^① SYMBOL NUMBER
1/2"	1	11
3/4"	2	12
1"	3	13
1-1/4"	4	14
1-1/2"	5	15

^① Union hubs are supplied by using a drilled and tapped opening with GUM Series union on 1/2", 3/4", 1", 1-1/4" and 1-1/2" sizes.





CUSTOM DRILLED & TAPPED DEVICE BOXES • STANDARD AND HOSTILE LOCATIONS

Single Gang



FDQ

Two Gang



2FDQ

Three Gang



3FDQ

Four Gang



4FDQ

UL LISTED - File E3397

SR Certified - File LR11852
See files for details or call Killark.

FEATURES-SPECIFICATIONS

Applications

- Accommodates wiring devices and provides opening to splice, tap, or pull conductors
- Provide access to conductors for maintenance and future system changes

Features

- The fittings on this page takes single gang covers listed on pages F41-F43
- FSQ and FDQ series boxes are made with individual cover openings so any combination of devices may be assembled
- Any assembly is suitable for wet and damp locations when it consists of these boxes and a cover suitable for wet and damp locations

- To specify conduit opening combination select the letter on the sketch which indicates the position of the opening desired. Follow this letter with the symbol indicating the type of opening-threaded, threadless or union

Maximum Conduit Opening Size

- » FS-1/2" thru 1"
- » FD-1/2" thru 1-1/2"

Material/Finish

Copper-free Aluminum
(less than 4/10 of 1%)

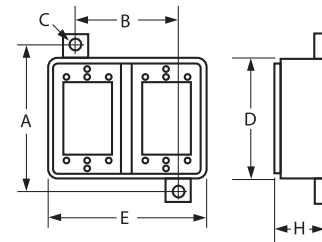
- Electrostatically applied powder coating

FSQ/FDQ MULTI GANG BOXES [Ⓢ]						
SERIES	A	B	C	D	E	H
FSQ	FSQ 3-3/4" (95)	3-9/16" (90)	1/4" (6)	4-9/16" (116)	2-13/16" (71)	2" (51)
3FSQ	6-1/8" (156)	7-1/2" (191)	5/16" (8)	4-15/16" (125)	9-13/16" (249)	2" (51)
FDQ	3-3/4" (95)	3-9/16" (90)	1/4" (6)	4-9/16" (116)	2-13/16" (71)	2-7/8" (73)
2FDQ	6-3/16" (157)	4-7/16" (113)	5/16" (8)	4-7/8" (124)	6-7/16" (164)	2-7/8" (73)
3FDQ	5-7/8" (149)	7-9/16" (192)	5/16" (8)	4-15/16" (125)	9-13/16" (249)	2-7/8" (73)
4FDQ	5-7/8" (149)	10-13/16" (275)	5/16" (8)	4-15/16" (125)	13-1/8" (333)	2-7/8" (73)

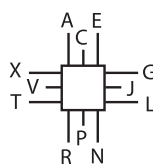
Conduit Opening Data

- To specify conduit openings select the letter on these sketches which indicates the position desired. Follow this letter with the symbol indicating the type and size.
» Example: 2FS-A2-E2-J13
- All conduit openings will be evenly spaced. When they are to be more accurately located, submit a sketch with spacing dimensions.
- Dimensions should be oriented from centerlines of body and outside back of body.
- FS and FSQ box will take drilled and tapped openings thru 1".
- FD and FDQ box will take drilled and tapped openings thru 1-1/2".

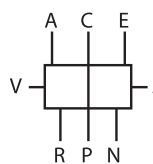
FSQ/FDQ/FSQ/FDQ CONDUIT OPENING AND SYMBOL IDENTIFICATION		
FOR CONDUIT SIZE	THREADED SYMBOL NUMBER	UNION [Ⓢ] SYMBOL NUMBER
1/2"	1	11
3/4"	2	12
1"	3	13
1-1/4"	4	14
1-1/2"	5	15



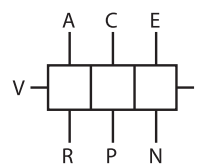
[Ⓢ] Union hubs are supplied by using a drilled and tapped opening with GUM Series union on 1/2", 3/4", 1", 1-1/4" and 1-1/2" sizes.



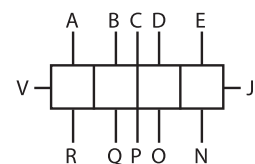
Single Gang



Two Gang



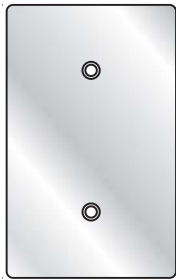
Three Gang



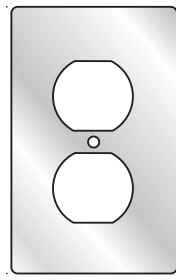
Four Gang



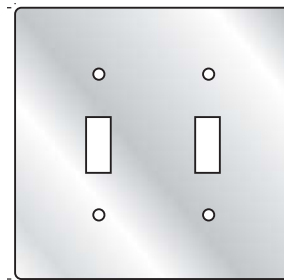
DEVICE BOX COVERS • STANDARD AND HOSTILE LOCATIONS



1FB Type



1FA Type



2FT Type

LISTED File No. E 3397

Certified File No. LR11852

FEATURES-SPECIFICATIONS

- Stamped metallic covers with or without electrostatically applied powder coating
- Gaskets to be ordered separately

SINGLE GANG		
CATALOG NUMBER		
WITH COATING	WITHOUT COATING	
Blank for Single Gang Boxes		
1FBC	1FB	
1 Toggle Switch		
1FTC	1FT	
1 Duplex Receptacle		
1FAC	1FA	
1-13/32" Opening Round Receptacle		
1FRC	1FR	
1-5/8" Opening Round Receptacle		
1FGC	1FG	

TWO GANG		
CATALOG NUMBER		
WITH COATING	WITHOUT COATING	
Blank for Two Gang Boxes		
2FBC	2FB	
2 Toggle Switches		
2FTC	2FT	
2 Duplex Receptacles		
2FAC	2FA	
Toggle Switch & Duplex Receptacle		
2FTAC	2FTA	
1-13/32" Openings 2 Round Receptacles		
2FRC	2FR	
1-5/8" Opening Round 2 Round Receptacles		
2FGC	2FG	

THREE GANG		
CATALOG NUMBER	DESCRIPTION	
3FB	Blank for 3 Gang Boxes	
3FT	3 Toggle Switches	
3FA	3 Duplex Receptacles	

REPLACEMENT GASKETS FOR COVERS (NEOPRENE RUBBER)		
CATALOG NUMBER	DESCRIPTION	
FSRG	Neoprene Gaskets for Single Gang Boxes	
2FSRG	Neoprene Gaskets for 2 Gang Boxes	
3FSRG	Neoprene Gaskets for 3 Gang Boxes	



DEVICE BOX COVERS • STANDARD AND HOSTILE LOCATIONS



FZ8647



FCL-GF Type



FST Type

UL LISTED File No. E 3397

SP Certified File No. LR11852

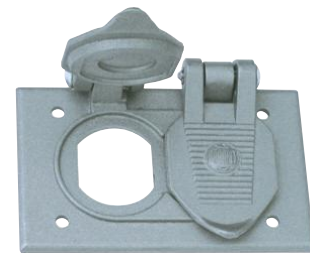
FEATURES-SPECIFICATIONS

- Cast metallic covers with electrostatically applied powder coating

CAST DEVICE COVERS – SINGLE GANG (GASKETS INCLUDED)		
CATALOG NUMBER	DESCRIPTION	
FSBC	Blank for Single Gang Boxes	
FSBCM	Iron Blank for Single Gang Boxes	
FZ8648	Square Toggle Lock in ON or OFF Position	
FZ8647	Square Toggle (Long Throw – Such as Manual Starters)	
FST	1 Toggle Switch	
FSPT	For Toggle Switch	
FSTG	Toggle Switch Guarded	

CAST DEVICE COVERS – SINGLE GANG (GASKETS INCLUDED)		
CATALOG NUMBER	DESCRIPTION	
FCLA	Duplex Receptacle	
FCLT	Toggle Switch	
FCLR	Round Receptacle 1.406" Dia.	
FCLG	Round Receptacle 1.625" Dia.	
FCLM	Round Receptacle 1.750" Dia.	
FCLN	Round Receptacle 2.156" Dia.	
FCL-GF	Device Cover for Most Manufacturers' GFI Devices Includes Gaskets and Screws	
FCL-VG	Replacement Vellumoid Gasket	

CAST DEVICE COVERS – TWO AND THREE GANG (GASKETS INCLUDED)		
CATALOG NUMBER	DESCRIPTION	
2FSBC	Blank for 2 Gang Boxes	
2FSBCM	Iron Blank for 2 Gang Boxes	
2FST	2 Toggle Switches	
3FST	3 Toggle Switches	
3FSBC	Blank for 3 Gang Boxes	



FCLA2

Duplex Wall Plate for horizontal mounting on FS/FD Boxes. Cast aluminum, gasketed and self-closing. Listed for wet locations with cover open in continuous use.



FITTINGS

DEVICE BOX ACCESSORIES • STANDARD AND HOSTILE LOCATIONS



FCL-GF



FZ-8647



While-In-Use Cover

FEATURES-SPECIFICATIONS

FCL DEVICE COVERS (FOR GFI RECEPTACLES)

Applications

- Use in dirty, dusty or corrosive areas
- Indoor/outdoor applications
- Where devices need physical protection

Features

- May be used with several different manufacturers' GFI devices
- Mounts on all FS, FD, FSQ and FDQ Series boxes (single opening)
- Snap type lid. UL/CSA suitable for wet locations.
- Gaskets included

CATALOG NUMBER	ITEM
FCL-GF	Device cover includes gaskets and screws
FCL-VG	Replacement Vellumoid gasket

File No. E 3397

File No. LR11852

FZ

Applications

- Suitable for NEMA 3 locations
- Areas where dust or dirt are a problem
- With standard toggle switches or manual motor starters

Features

- Copper-free aluminum
- Gaskets included
- Three toggle operator choices
- Lock "ON" or "OFF" provision standard
- Stainless steel screws
- Mounts on all FS, FD, FSQ and FDQ Series boxes (single opening)

CATALOG NUMBER	TYPE OF TOGGLE SWITCH HANDLE
FZ8648	Square toggle
FZ8647	Square toggle (Long throw-such as manual starters)
FZ	Round toggle

File No. E 3397

File No. LR11852

WHILE-IN-USE COVERS

Applications

- For use indoors or in outdoor wet and damp locations
- Cover can be closed while plug is inserted – still meeting wet location requirements

Features

- Rugged metallic construction
- UL Listed for 'Extra Duty' service
- Complies with NEC 2011 Article 406.9(B)
- Meets NEMA 3R
- Built-in strain relief for cords
- Pad-lockable design

CATALOG NUMBER	SINGLE GANG
5881-0	Vertical GFCI
5852-0	Vertical Duplex
5830-0	Vertical Round Devices, 1.55 in. or 2.10 in. dia.
5802-0	Horizontal GFCI
5861-0	Horizontal Duplex

US
Outlet Box
731A



OUTLET BOXES • STANDARD AND HOSTILE LOCATIONS



VLJSX Shallow



VLJX Medium



VLJDX Deep



VJBC Blank Cover



VJH-1 or VJH-2 Hub Cover



VBNB Gasket

UL LISTED - File E30107 and E3397

SR Certified - File LR11852
See files for details or call Killark.

FEATURES-SPECIFICATIONS

Applications

- VJ Series round boxes are available in three depths for use as splice boxes, for hanging pendant fixtures by using hub covers; or by using a VBA plate will take VFC fixture caps
- Cover mounting centers are 3-1/2" and will accommodate 4" round or octagonal box covers and devices. Screw holes are 8-32 size
- VJ Series are furnished with four "X" conduit openings and three close-up plugs
- Gaskets are required for wet and damp locations

Features

- Complies with NEMA 3, 4 and IPx6 (when gasketed)
- Supports up to 125 pounds
- Ground screw provided as standard

Material/Finish

Aluminum

- **BODY** Copper-free aluminum (less than 4/10 of 1%)
- **FINISH** Electrostatically applied powder coating
- **COVER** (Aluminum) Copper-free aluminum (less than 4/10 of 1%). Electrostatically applied powder coating

Iron

- **BODY** Duraloy iron alloy
- **FINISH** Tri-Coat Finish of Electro zinc, Chromate Sealant, and electrostatically applied powder coating
- **COVER** (Aluminum) Copper-free aluminum (less than 4/10 of 1%). Electrostatically applied powder coating

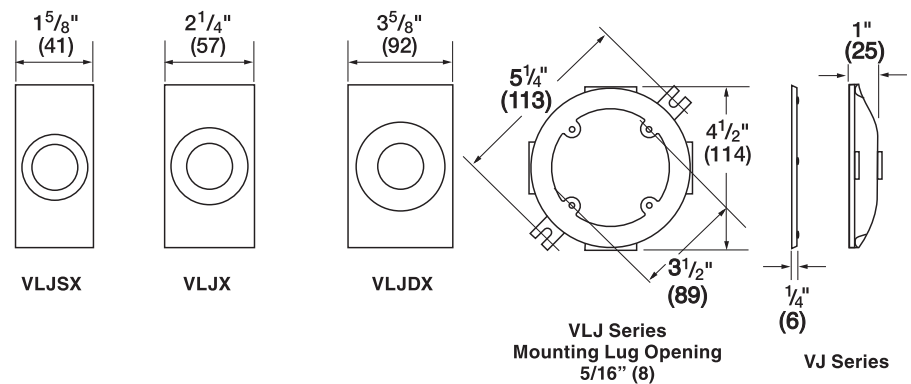
BOXES WITH LUGS						
CATALOG NUMBER					CONDUIT SIZE	HUB ARRANGEMENT
SHALLOW 1-5/8" (41)		MEDIUM 2-1/4" (57)		DEEP 3-5/8" (92)		
KILLARK ALUM.	DURALOY IRON	KILLARK ALUM.	DURALOY IRON	KILLARK ALUM.		
VLJSX-1	VLJSX-1M	VLJX-1	VLJX-1M	-	1/2"	X
VLJSX-2	VLJSX-2M	VLJX-2	VLJX-2M	VLJDX-2	3/4"	X
-	-	VLJX-3	VLJX-3M	VLJDX-3	1"	X

Note: Cover and gasket not included.

BACK CONDUIT OPENINGS		
SERIES	MAXIMUM CONDUIT SIZE	VOLUME CUBIC INCHES
Shallow	3/4"	17
Medium	1"	25
Deep	1-1/4"	45

Note: Must be drilled and tapped.

COVERS AND GASKETS			
CATALOG NUMBER	HUB SIZE	DEPTH	DESCRIPTION
VJBC	-	1/4"	Blank cover furnished with mounting screws. Gasket not included
VJH-1	1/2"	1"	Hub cover furnished with mounting screws. Gasket not included
VJH-2	3/4"	1"	Hub cover furnished with mounting screws. Gasket not included
VBNB	-	-	Gasket Nitrile Butadiene





FITTINGS

MALLEABLE IRON-INSULATED GROUNDING BUSHINGS



BUIG3

UL Standard 514 B
 SB C22.2 #18

FEATURES-SPECIFICATIONS

Applications

For use on threaded rigid/IMC conduit to provide a means of grounding conduit through an insulated bushing

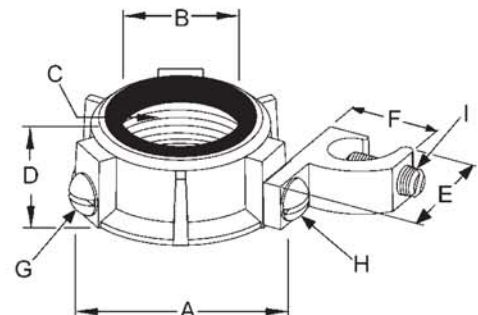
Product Features

- Lay-in lug style provides an easy means of inserting a ground wire
- Dual rated aluminum grounding lugs may be used with copper or aluminum grounding conductors
- Insuliner temperature rated at 150°C
- Malleable construction insures mechanical protection for the raceway
- Zinc electro plated for corrosion protection

INSULATED GROUNDING BUSHINGS – LAY-IN LUG – MALLEABLE IRON				
CATALOG NUMBER	TRADE SIZE	SHIP CTN QTY	GROUNDING WIRE CAPACITY	
			MIN.	MIN.
BUIG1	1/2"	50	#14 Sol.	#4 Str.
BUIG2	3/4"	50	#14 Sol.	#4 Str.
BUIG3	1"	50	#14 Sol.	#4 Str.
BUIG4	1-1/4"	25	#14 Sol.	#4 Str.
BUIG5	1-1/2"	10	#14 Sol.	#2 Str.
BUIG6	2"	10	#14 Sol.	#2 Str.
BUIG7	2-1/2"	10	#6 Str.	250 MCM
BUIG8	3"	5	#6 Str.	250 MCM
BUIG9	3-1/2"	5	#6 Str.	250 MCM
BUIG10	4"	5	#6 Str.	250 MCM
BUIG11	5"	5	#6 Str.	250 MCM
BUIG12	6"	5	#6 Str.	250 MCM

DIMENSIONS									
CATALOG NUMBER	A	B	C	D	E	F	G SET SCREW	H PAN HEAD SCREW	I SET SCREW
BUIG1	1-5/32"	7/16"	1/2"-14 NPS	3/4"	1-1/16"	3/4"	10-32 X 1/4"	10-32 X 1/4"	14-28 X 5/8"
BUIG2	1-13/32"	11/16"	3/4"-14 NPS	3/4"	1-1/16"	3/4"	10-32 X 1/4"	10-32 X 1/4"	14-28 X 5/8"
BUIG3	1-3/4"	15/16"	1"-11-1/2 NPS	3/4"	1-1/16"	3/4"	10-32 X 1/4"	10-32 X 1/4"	14-28 X 5/8"
BUIG4	2-1/8"	1-3/16"	1-1/4"-11-1/2 NPS	3/4"	1-1/16"	3/4"	10-32 X 1/4"	10-32 X 1/4"	14-28 X 5/8"
BUIG5	2-11/32"	1-7/16"	1-1/2"-11-1/2 NPS	3/4"	1-3/8"	15/16"	5/16-24 X 17/32"	5/16-24 X 17/32"	5/16-28 X 5/8"
BUIG6	2-23/32"	1-15/16"	2"-11-1/2 NPS	3/4"	1-3/8"	15/16"	5/16-24 X 17/32"	5/16-24 X 17/32"	5/16-28 X 5/8"
BUIG7	3-9/32"	2-3/16"	2-1/2"-8 NPS	1-3/8"	2-1/4"	1-3/4"	5/16-24 X 7/16"	5/16-24 X 17/32"	9/16-18 X 1-1/4"
BUIG8	3-7/8"	2-15/16"	3"-8 NPS	1-3/8"	2-1/4"	1-3/4"	5/16-24 X 7/16"	5/16-24 X 17/32"	9/16-18 X 1-1/4"
BUIG9	4-13/32"	3-7/16"	3-1/2"-8 NPS	1-3/8"	2-1/4"	1-3/4"	5/16-24 X 7/16"	5/16-24 X 17/32"	9/16-18 X 1-1/4"
BUIG10	4-29/32"	3-7/8"	4"-8 NPS	1-3/8"	2-1/4"	1-3/4"	5/16-24 X 7/16"	5/16-24 X 17/32"	9/16-18 X 1-1/4"
BUIG11	6-1/8"	4-7/8"	5"-8 NPS	1-3/8"	2-1/4"	1-3/4"	5/16-24 X 7/16"	5/16-24 X 17/32"	9/16-18 X 1-1/4"
BUIG12	7-3/16"	5-7/8"	6"-8 NPS	1-3/8"	2-1/4"	1-3/4"	5/16-24 X 7/16"	5/16-24 X 17/32"	9/16-18 X 1-1/4"

- A = O.D.
- B = I.D
- C = Thread size
- D = Thickness
- E = Height of lug
- F = Width of lug
- G = Screw spec, bonding screw
- H = Screw spec, screw that holds lug to bushing
- I = Screw spec, screw that holds ground wire





SEALING FITTINGS



ENY (For Vertical or Horizontal Conduit)
ENY with Nipple (For Vertical or Horizontal Conduit)



EYS (For Vertical or Horizontal Conduit)
EYS with Nipple (For Vertical or Horizontal Conduit)



EY (For Vertical Conduit)
EY with Nipple (For Vertical Conduit)



EYD (Drain/Seal for Vertical Conduit)
EYD with Nipple (Drain/Seal for Vertical Conduit)



ENY-2 (Fixture Hanger) (See Page L146)

Class I, Div. 1 & 2, Groups A, B, C, D
Class I, Zone 1, Groups IIC, IIB, IIA
Class II, Div. 1 & 2, Groups E, F, G
Class III

FEATURES-SPECIFICATIONS

Application & Installation
Class I, Divisions 1 and 2

The purpose of seals in a Class I hazardous location is to minimize the passage of gases and vapors and prevent the passage of flames from one electrical installation to another through the conduit system. Seals are required to be installed within 18 inches on any conduit run entering an enclosure which contains devices that may produce arcs, sparks, or high temperature. Where two enclosures are connected by a run of conduit not over 3 ft. long, a single seal located at the center of the run is considered satisfactory. Only explosionproof unions, couplings, elbows, and conduit bodies similar to "L", "T", and "X" type shall be permitted between the sealing fitting and the enclosure.

Seals shall be located within 18 inches of the enclosure or fitting on each conduit run of 2 inch size or larger entering an enclosure or fitting that contains terminals, splices, or taps.

Each run of conduit from a hazardous location to a nonhazardous location should be sealed to minimize the amount of gases and vapors communicated beyond the seal.

Class II, Divisions 1 and 2

Where a raceway provides communication between an enclosure which is required to be dust-ignitionproof and one which is not, suitable means shall be provided to prevent the entrance of dust into the dust-ignitionproof enclosure through the raceway.

Consideration for selection seals:

Select the proper sealing fitting for the hazardous gas/vapor involved; i.e., Class I Groups A, B, C, or D. Zone 1, Groups IIC, IIB, IIC.

Select a sealing fitting for the proper use in respect to mounting position. This is particularly critical when the conduit runs between hazardous and nonhazardous areas. Some seals are designed to be mounted in any position; others are restricted to vertical mounting.

Drains

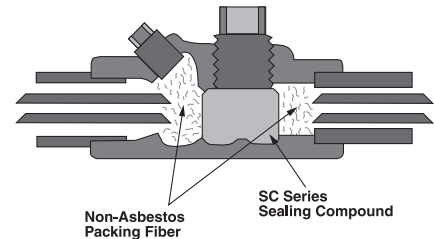
Where there is a probability that liquid or other condensed vapor may be trapped within enclosures for control equipment or at any point in the raceway system, approved means – such as installation of drain seals – shall be provided to prevent moisture accumulation.

For more complete data or special applications, consult the code or your local inspector.

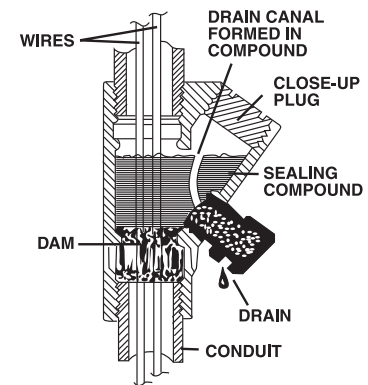
Sealing compounds shall be approved for the purpose and shall not be affected by the surrounding atmosphere or liquids, and shall not have a melting point of less than 93°C. (200°F.).

In the complete seal, the minimum thickness of the sealing compound shall not be less than the trade size of the conduit, and in no case less than 5/8 inch.

NOTE: The amount of Killark sealing compound and packing fiber required for any seal is determined by volume hub size and mounting position of the seal. Refer to installation data table on page F50 for specific amounts required.



Schematic drawings illustrate the application of sealing compound, fiber dams, and installed seal with drain.



Splices and taps shall not be made in fittings intended only for sealing with compound, nor shall other fittings in which splices or taps are made be filled with compound.

Killark sealing fittings are produced with utmost care to insure a substantial margin of safety. Threads are clean, deep, and snug. When properly installed with Killark sealing compound (SC Type) and Killark non-asbestos fiber (PF Type) for the dams, you can be sure your installation will provide more than adequate safety.

FITTINGS

ENY/EYS SERIES

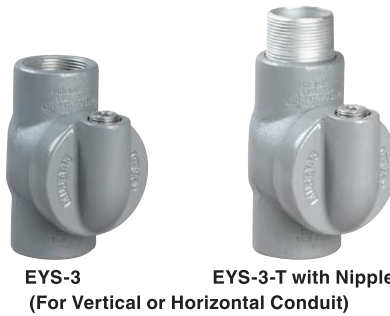


SEALING FITTINGS



ENY-3
(For Vertical or Horizontal Conduit)

ENY-3-T with Nipple
(For Vertical or Horizontal Conduit)



EYS-3
(For Vertical or Horizontal Conduit)

EYS-3-T with Nipple
(For Vertical or Horizontal Conduit)

ENY-1, 2, 3, 4, 5, 6
Class I, Div. 1 & 2, Groups A, B, C, D
Class I, Zone 1, Groups IIC, IIB, IIA
Class II, Div. 1 & 2, Groups E, F, G
Class III

EYS Series
Class I, Div. 1 & 2, Groups C, D
Class I, Zone 1, Groups IIB, IIA
Class II, Div. 1 & 2, Groups E, F, G
Class III

UL LISTED File No. E10514
CS Certified File No. LR11716
See files for details or call Killark.

FEATURES-SPECIFICATIONS

Material/Finish

Copper-free Aluminum
(less than 4/10 of 1%)

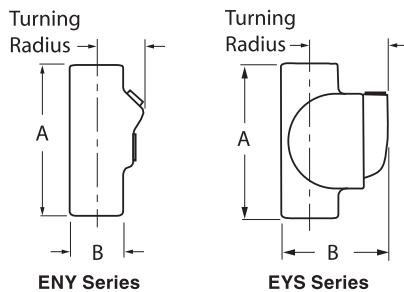
- Electrostatically applied powder coating

Duraloy Iron

- Tri-Coat Finish of electrozinc, chromate sealant, and electrostatically applied powder coating

ENY SEALING FITTINGS						ENY WITH NIPPLE	
HUB SIZE	CATALOG NUMBER		DIMENSIONS		TURNING RADIUS	CATALOG NUMBER	
	KILLARK ALUMINUM	DURALOY IRON	A	B		KILLARK ALUMINUM	DURALOY IRON
1/2"	ENY-1	ENY-1M	4-1/16" (103)	1-9/32" (33)	1-3/32"(30)	ENY-1-T	ENY-1TM
3/4"	ENY-2	ENY-2M	4-3/16" (106)	1-1/2" (38)	1-9/32"(33)	ENY-2-T	ENY-2TM
1"	ENY-3	ENY-3M	5" (127)	1-3/4" (45)	1-13/32"(36)	ENY-3-T	ENY-3TM
1-1/4"	ENY-4	ENY-4M	5-3/8" (137)	2-3/16" (56)	1-25/32"(45)	ENY-4-T	ENY-4TM
1-1/2"	ENY-5	ENY-5M	5-11/16" (144)	2-3/8" (60)	1-29/32"(48)	ENY-5-T	ENY-5TM
2"	ENY-6	ENY-6M	6-3/8" (162)	2-3/8" (60)	2-5/16"(59)	ENY-6-T	ENY-6TM

Dimensions



EYS SEALING FITTINGS						EYS WITH NIPPLE	
HUB SIZE	CATALOG NUMBER		DIMENSIONS		TURNING RADIUS	CATALOG NUMBER	
	KILLARK ALUMINUM	DURALOY IRON	A	B		KILLARK ALUMINUM	DURALOY IRON
1/2"	EYS-1	—	2-15/16"(75)	1-13/16"(46)	1-3/16"(30)	EYS-1-T	—
3/4"	EYS-2	—	4-1/16"(103)	2-1/16"(52)	1-9/32"(33)	EYS-2-T	—
1"	EYS-3	—	4-25/32"(121)	2-11/32"(60)	1-13/32"(36)	EYS-3-T	—
1-1/4"	EYS-4	—	5-3/8"(137)	3"(76)	1-25/32"(45)	EYS-4-T	—
1-1/2"	EYS-5	—	5-11/16"(144)	3-1/4"(83)	1-29/32"(48)	EYS-5-T	—
2"	EYS-6	—	6-3/8"(162)	3-15/16"(100)	2-5/16"(59)	EYS-6-T	—
2-1/2"	EYS-7	EYS-7M	7-5/8"(194)	4-1/2"(114)	4-1/8"(105)	EYS-7-T	EYS-7TM
3"	EYS-8	EYS-8M	7-5/8"(194)	4-1/2"(114)	4-3/8"(111)	EYS-8-T	EYS-8TM
3-1/2"	EYS-9	EYS-9M	7-1/8"(181)	5-3/16"(132)	4-3/4"(121)	EYS-9-T	EYS-9TM
4"	EYS-0	EYS-0M	7-1/8"(181)	5-3/16"(132)	4-3/4"(121)	EYS-0-T	EYS-0TM



SEALING FITTING



EY-3
(For Vertical Conduit)

EY-3-T with Nipple



EYD-3
(Drain/Seal for vertical conduit)

EYD-3-T with Nipple

EY & EYD Series
Class I, Div. 1 & 2, Groups C, D
Class I, Zone 1, Groups IIB, IIA
Class II, Div. 1 & 2, Groups E, F, G
Class III

UL LISTED File No. E10514
CS Certified File No. LR11716
See files for details or call Killark.

FEATURES-SPECIFICATIONS

Material/Finish

Copper-free Aluminum
(less than 4/10 of 1%)

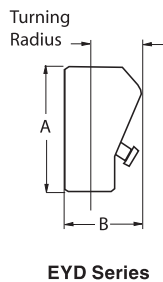
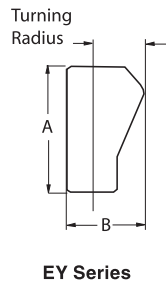
- Electrostatically applied powder coating

Duraloy Iron

- Tri-Coat Finish of electrozinc, chromate sealant, and electrostatically applied powder coating

EY SEALING FITTINGS						EY WITH NIPPLE	
HUB SIZE	CATALOG NUMBER		DIMENSIONS		TURNING RADIUS	CATALOG NUMBER	
	KILLARK ALUMINUM	DURALOY IRON	A	B		KILLARK ALUMINUM	DURALOY IRON
1/2"	EY-1	EY-1M	3-1/16"(78)	2-3/4"(70)	2-1/4"(57)	EY-1-T	EY-1TM
3/4"	EY-2	EY-2M	3-1/16"(78)	2-3/4"(70)	2-1/4"(57)	EY-2-T	EY-2TM
1"	EY-3	EY-3M	4-9/32"(109)	3-1/8"(79)	2-3/8"(60)	EY-3-T	EY-3TM
1-1/4"	EY-4	EY-4M	5-1/8"(130)	3-7/8"(98)	2-7/8"(73)	EY-4-T	EY-4TM
1-1/2"	EY-5	EY-5M	5-1/8"(130)	4-5/8"(117)	3-7/16"(87)	EY-5-T	EY-5TM
2"	EY-6	EY-6M	5-1/8"(230)	5-11/16"(144)	4-1/4"(108)	EY-6-T	EY-6TM
2-1/2"	EY-7	EY-7M	7"(178)	6-5/16"(160)	4-5/8"(117)	EY-7-T	EY-7TM
3"	EY-8	EY-8M	7"(178)	6-5/16"(160)	4-5/8"(117)	EY-8-T	EY-8TM
3-1/2"	EY-9	EY-9M	8-3/4"(222)	7-1/8"(181)	5-3/8"(138)	EY-9-T	EY-9TM
4"	EY-0	EY-0M	8-3/4"(222)	7-1/8"(181)	5-3/8"(138)	EY-0-T	EY-0TM

Dimensions



EYD SEALING FITTINGS						EYD WITH NIPPLE	
HUB SIZE	CATALOG NUMBER		DIMENSIONS		TURNING RADIUS	CATALOG NUMBER	
	KILLARK ALUMINUM	DURALOY IRON	A	B		KILLARK ALUMINUM	DURALOY IRON
1/2"	See New 1/2", 3/4", 1" Drain Seal offering on page F50						
3/4"							
1"							
1-1/4"	EYD-4	EYD-4M	5-1/8"(130)	3-7/8"(98)	2-7/8"(73)	EYD-4-T	EYD-4TM
1-1/2"	EYD-5	EYD-5M	5-1/8"(130)	4-5/8"(117)	3-7/16"(87)	EYD-5-T	EYD-5TM
2"	EYD-6	EYD-6M	5-1/8"(130)	5-11/16"(144)	4-1/4"(108)	EYD-6-T	EYD-6TM
2-1/2"	EYD-7	EYD-7M	7"(178)	6-5/16"(160)	4-5/8"(117)	EYD-7-T	EYD-7TM
3"	EYD-8	EYD-8M	7"(178)	6-5/16"(160)	4-5/8"(117)	EYD-8-T	EYD-8TM
3-1/2"	EYD-9	EYD-9M	8-3/4"(122)	7-1/8"(181)	5-3/8"(137)	EYD-9-T	EYD-9TM
4"	EYD-0	EYD-0M	8-3/4"(122)	7-1/8"(181)	5-3/8"(137)	EYD-0-T	EYD-0TM



FITTINGS

25% FILL VERTICAL SEALING FITTINGS



EY-75M



EY-75TM

EY Series
 Class I, Div. 1 & 2, Groups B, C, D
 Class I, Zone 1, Groups IIB, IIA
 Class II, Div. 1 & 2, Groups E, F, G
 Class III



FEATURES-SPECIFICATIONS

Applications

To seal conduits in vertical runs. To minimize the passage of gases and vapors and prevent the passage of flames from one portion of the electrical system to another through the conduit.

Features

- Large opening for easy packing of fiber dam and pouring of compound
- Integral bushings in conduit hubs to protect conductor insulation from damage
- Npt tapped hubs to ensure ground continuity
- Design provides minimum turning radius
- 25% conductor fill
- EY-T style supplied with removeable close nipples

Material/Finish

Copper-free Aluminum
 (less than 4/10 of 1%)

- Electrostatically applied powder coating

Duraloy Iron

- Tri-Coat Finish of electrozinc, chromate sealant, and electrostatically applied powder coating

EY VERTICAL SEALING FITTINGS						
HUB SIZE	CATALOG NUMBER	DIMENSIONS		TURNING RADIUS*	SEALING COMPOUND REQUIRED	PER HUB (PF)
	KILLARK ALUMINUM	A	B			
1/2"	EY-50	3-5/16" (84)	1-1/8" (29)	1-11/16" (37)	3/4 oz.	1/32 oz.
3/4"	EY-75	3-11/16" (94)	1-5/16" (33)	2" (51)	1-3/4 oz.	1/16 oz.
1"	EY-100	4-3/8" (111)	1-5/8" (41)	2-7/16" (62)	3-3/4 oz.	1/8 oz.

*Turning radius with plug removed.

EY VERTICAL SEALING FITTINGS WITH NIPPLE						
HUB SIZE	CATALOG NUMBER	DIMENSIONS		TURNING RADIUS*	SEALING COMPOUND REQUIRED	PER HUB (PF)
	KILLARK ALUMINUM	A	B			
1/2"	EY-50-T	4-3/16" (106)	1-1/8" (29)	1-11/16" (37)	3/4 oz.	1/32 oz.
3/4"	EY-75-T	4-9/16" (116)	1-5/16" (33)	2" (51)	1-3/4 oz.	1/16 oz.
1"	EY-100-T	5-1/2" (140)	1-5/8" (41)	2-7/16" (62)	3-3/4 oz.	1/8 oz.

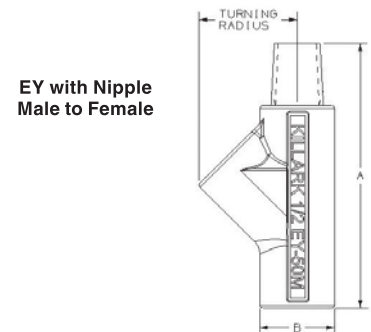
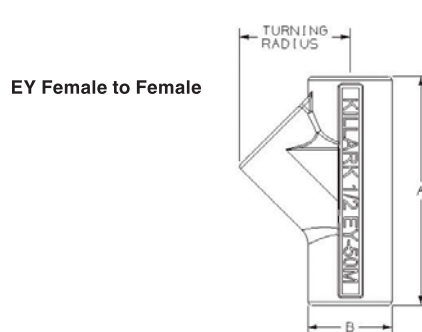
*Turning radius with plug removed.

EY VERTICAL SEALING FITTINGS						
HUB SIZE	CATALOG NUMBER	DIMENSIONS		TURNING RADIUS*	SEALING COMPOUND REQUIRED	PER HUB (PF)
	KILLARK IRON	A	B			
1/2"	EY-50M	3-5/16" (84)	1-1/8" (29)	1-11/16" (37)	3/4 oz.	1/32 oz.
3/4"	EY-75M	3-11/16" (94)	1-5/16" (33)	2" (51)	1-3/4 oz.	1/16 oz.
1"	EY-100M	4-3/8" (111)	1-5/8" (41)	2-7/16" (62)	3-3/4 oz.	1/8 oz.

*Turning radius with plug removed.

EY VERTICAL SEALING FITTINGS WITH NIPPLE						
HUB SIZE	CATALOG NUMBER	DIMENSIONS		TURNING RADIUS*	SEALING COMPOUND REQUIRED	PER HUB (PF)
	KILLARK IRON	A	B			
1/2"	EY-50TM	4-3/16" (106)	1-1/8" (29)	1-11/16" (37)	3/4 oz.	1/32 oz.
3/4"	EY-75TM	4-9/16" (116)	1-5/16" (33)	2" (51)	1-3/4 oz.	1/16 oz.
1"	EY-100TM	5-1/2" (140)	1-5/8" (41)	2-7/16" (62)	3-3/4 oz.	1/8 oz.

*Turning radius with plug removed.





DRAIN SEALING FITTING



EYD-75M

EYD-75TM

Class I, Div. 1 & 2, Groups B, C, D
 Class I, Zone 1, Groups IIB+H₂, IIA
 Class II, Div. 1 & 2, Groups E, F, G
 Class III



FEATURES-SPECIFICATIONS

Applications

To seal and drain vertical conduits. To minimize the passage of gases and vapors and prevent the passage of flames from one portion of the electrical system to another through the conduit.

Features

- Threaded for Rigid Conduit or IMC
- Tapered threads (NPT)
- Simple to install. Internal drainage path provides a visual means to ensure that the compound chamber is properly filled. No need to use hoses and wires
- Large cover openings for easy packing of fiber dam on 1/2" through 1" sizes
- Temporary plastic sleeve protects thread for drain/breather from contamination when pouring compound
- Unique design enables installation of drain/breather right after compound is poured – no waiting
- Provides continuous water drain path while allowing conduit run to breathe, in compliance with the NEC
- Includes Drain Breather Fitting KDB-375

Material/Finish

Copper-free Aluminum
 (less than 4/10 of 1%)

- Electrostatically applied powder coating

Duraloy Iron

- Tri-Coat Finish of electrozinc, chromate sealant, and electro-statically applied powder coating

EYD DRAIN SEALING FITTINGS						
HUB SIZE	CATALOG NUMBER	DIMENSIONS		TURNING RADIUS*	SEALING COMPOUND REQUIRED	PER HUB (PF)
	KILLARK ALUMINUM	A	B			
1/2"	EYD-50	3-1/2"(89)	1-1/8"(29)	1-5/8"(41)	1-1/4 oz.	1/32 oz.
3/4"	EYD-75	3-3/4"(95)	1-3/8"(35)	1-3/4"(45)	2 oz.	1/16 oz.
1"	EYD-100	4-3/8"(111)	1-3/4"(45)	2-1/8"(54)	4 oz.	1/8 oz.

* Turning radius with plug removed.

EYD DRAIN SEALING FITTINGS WITH NIPPLE						
HUB SIZE	CATALOG NUMBER	DIMENSIONS		TURNING RADIUS*	SEALING COMPOUND REQUIRED	PER HUB (PF)
	KILLARK ALUMINUM	A	B			
1/2"	EYD-50T	4-3/8"(111)	1-1/8"(29)	1-5/8"(41)	1-1/4 oz.	1/32 oz.
3/4"	EYD-75T	4-5/8"(118)	1-3/8"(35)	1-3/4"(45)	2 oz.	1/16 oz.
1"	EYD-100T	5-1/2"(140)	1-3/4"(45)	2-1/8"(54)	4 oz.	1/8 oz.

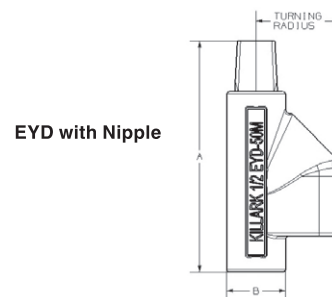
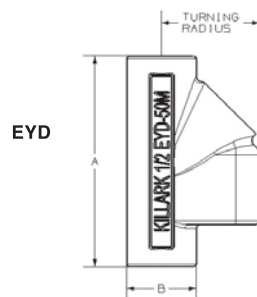
* Turning radius with plug removed.

EYD DRAIN SEALING FITTINGS – IRON						
HUB SIZE	CATALOG NUMBER	DIMENSIONS		TURNING RADIUS*	SEALING COMPOUND REQUIRED	PER HUB (PF)
	DURALOY IRON	A	B			
1/2"	EYD-50M	3-1/2"(89)	1-1/8"(29)	1-5/8"(41)	1-1/4 oz.	1/32 oz.
3/4"	EYD-75M	3-3/4"(95)	1-3/8"(35)	1-3/4"(45)	2 oz.	1/16 oz.
1"	EYD-100M	4-3/8"(111)	1-3/4"(45)	2-1/8"(54)	4 oz.	1/8 oz.

* Turning radius with plug removed.

EYD DRAIN SEALING FITTINGS WITH NIPPLE – IRON						
HUB SIZE	CATALOG NUMBER	DIMENSIONS		TURNING RADIUS*	SEALING COMPOUND REQUIRED	PER HUB (PF)
	DURALOY IRON	A	B			
1/2"	EYD-50TM	4-3/8"(111)	1-1/8"(29)	1-5/8"(41)	1-1/4 oz.	1/32 oz.
3/4"	EYD-75TM	4-5/8"(118)	1-3/8"(35)	1-3/4"(45)	2 oz.	1/16 oz.
1"	EYD-100TM	5-1/2"(140)	1-3/4"(45)	2-1/8"(54)	4 oz.	1/8 oz.

* Turning radius with plug removed.



FITTINGS

ENY40/EYD40 SERIES



40% FILL SEALING FITTINGS



ENY



EYD

ENY40-1, 2, 3, 4, 5
 Class I, Div. 1 & 2, Groups B, C, D
 Class I, Zone 1, Groups IIB+H₂, IIA
 Class II, Div. 1 & 2, Groups E, F, G
 Class III

ENY40-6, 7, 8, 9, 0
EYD40 (1 through 0) -6, 7, 8, 9, 0
 Class I, Div. 1 & 2, Groups C, D
 Class I, Zone 1, Groups IIB, IIA
 Class II, Div. 1 & 2, Groups E, F, G
 Class III

FEATURES-SPECIFICATIONS

Application

To seal Rigid Conduit or IMC Raceways with up to 40% wire fill.

Features

- A 40% wire fill capacity
- Large openings with threaded closures to provide easy access to conduit hubs for making dams
- Integral bushing in conduit hubs to protect conductor insulation from damage
- Npt threaded hubs to ensure ground continuity
- Minimum turning radius

Material/Finish

Copper-free Aluminum
 (less than 4/10 of 1%)

- Electrostatically applied powder coating

Duraloy Iron

- Tri-Coat Finish of electrozinc, chromate sealant, and electrostatically applied powder coating

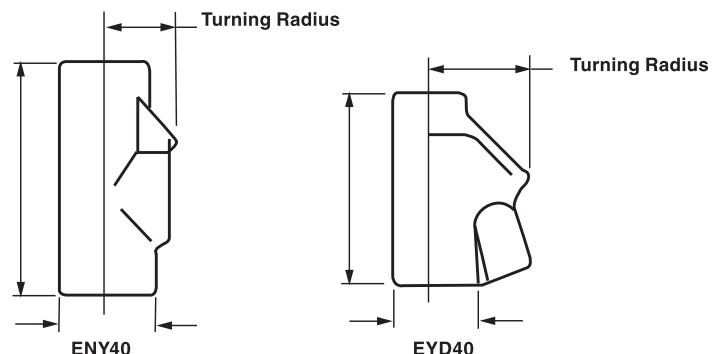
ENY40 40% VERTICAL AND/OR HORIZONTAL CONDUIT SEALING FITTINGS

HUB SIZE	CATALOG NUMBER		DIMENSIONS		TURNING RADIUS*	REQUIRED SEALING COMPOUND & PACKING FIBER OZ.	PER HUB (PF)
	KILLARK ALUMINUM	DURALOY IRON	A	B			
1/2"	ENY40-1	ENY40-1M	4-1/16"(103)	2-1/16"(52)	1-9/32"(33)	2	0.06
3/4"	ENY40-2	ENY40-2M	4-25/32"(121)	2-11/32"(60)	1-13/32"(36)	4	0.12
1"	ENY40-3	ENY40-3M	5-3/8"(137)	3"(76)	1-25/32"(45)	7	0.26
1-1/4"	ENY40-4	ENY40-4M	5-11/16"(144)	3-1/4"(83)	1-29/32"(48)	13	1.00
1-1/2"	ENY40-5	ENY40-5M	6-3/8"(162)	3-15/16"(100)	2-5/16"(59)	22	2.00
2"	ENY40-6	ENY40-6M	7-5/8"(194)	4-1/2"(114)	4-1/8"(105)	36	3.00
2-1/2"	ENY40-7	ENY40-7M	7-5/8"(194)	4-1/2"(114)	4-3/8"(111)	61	3.56
3"	ENY40-8	ENY40-8M	7-1/8"(181)	5-3/16"(132)	4-3/4"(121)	89	6.00
3-1/2"	ENY40-9	ENY40-9M	7-1/8"(181)	5-3/16"(132)	4-3/4"(121)	114	7.00
4"	ENY40-0	ENY40-0M	11-1/16"(281)	6-1/2"(165)	4-1/4"(108)	202	9.60

EYD40 40% VERTICAL CONDUIT DRAIN SEALING FITTINGS

HUB SIZE	CATALOG NUMBER		DIMENSIONS		TURNING RADIUS*	REQUIRED SEALING COMPOUND & PACKING FIBER OZ.	PER HUB (PF)
	KILLARK ALUMINUM	DURALOY IRON	A	B			
1/2"	EYD40-1	EYD40-1M	4-9/32"(109)	3-1/8"(79)	2-1/4"(57)	4	0.03
3/4"	EYD40-2	EYD40-2M	4-9/32"(109)	3-1/8"(79)	2-1/4"(57)	6	0.06
1"	EYD40-3	EYD40-3M	5-1/8"(130)	3-7/8"(98)	2-7/8"(73)	7	0.13
1-1/4"	EYD40-4	EYD40-4M	5-1/8"(130)	4-5/8"(117)	3-7/16"(87)	13	0.50
1-1/2"	EYD40-5	EYD40-5M	5-1/8"(130)	5-11/16"(144)	4-1/4"(108)	22	1.00
2"	EYD40-6	EYD40-6M	7"(178)	6-5/16"(160)	4-5/8"(117)	36	1.50
2-1/2"	EYD40-7	EYD40-7M	7"(178)	6-5/16"(160)	4-5/8"(117)	61	1.75
3"	EYD40-8	EYD40-8M	8-3/4"(122)	7-1/8"(181)	5-3/8"(137)	89	3.00
3-1/2"	EYD40-9	EYD40-9M	8-3/4"(122)	7-1/8"(181)	5-3/8"(137)	114	3.50
4"	EYD40-0	EYD40-0M	11-1/16"(281)	6-1/2"(165)	4-1/4"(108)	202	4.50

*Turning radius with cover plug removed.





SEALING MATERIALS



Sealing Compound



Packing Fiber



Thread Lubricants

FEATURES-SPECIFICATIONS

Series SC/PF/LUBG

Sealing Materials

SC Series Sealing compound is a cement used extensively for sealing conduit to prevent the spread of explosive gases. It is non-shrinking and a secure seal is formed. SC Series resists acids, water, oil, etc. It is UL Listed for use with Killark ENY, EY, and EYS Series. Also CSA certified for use with any CSA certified sealing fitting.

Packing Fiber

Killark's Packing Fiber is made from an environmentally safe, non-asbestos material. It is easy to use and forms a positive dam to hold compound (Killark SC Type) in ENY, EY, and EYS Series fittings.

Threaded Lubricants

Two special blends of lubricants have been developed by Killark for use with threaded joints. These lubricants are to be used to prevent galling of pipe threads when threaded into a coupling, junction box, etc. They insure a quick release of undamaged male and female threads when parts are disassembled.

LUBG is a general purpose lubricant to be used in temperatures ranging from 0° to 125°F.

LUBT is a high-quality lubricant to be used in temperatures ranging from -40° to +500°F. It is recommended to be used on hazardous location lighting fixtures.

OUNCES REQUIRED PER FITTING				
HUB SIZE	SEALING COMPOUND			PACKING FIBER
	ENY ^①	EYS ^①	EY/EYD	
1/2"	1.5 oz.	3.0 oz.	1.0 oz.	1/16 oz.
3/4"	2.0 oz.	3.0 oz.	2.0 oz.	1/8 oz.
1"	3.0 oz.	8.0 oz.	4.5 oz.	1/4 oz.
1-1/4"	6.5 oz.	8.5 oz.	7.5 oz.	1/2 oz.
1 1/2"	8.5 oz.	17.5 oz.	12.0 oz.	1 oz.
2"	15.0 oz.	27.0 oz.	24.0 oz.	2 oz.
2-1/2"	—	42.0 oz.	44.0 oz.	3 oz.
3"	—	47.0 oz.	44.0 oz.	4 oz.
3-1/2"	—	56.0 oz.	75.0 oz.	6 oz.
4"	—	56.0 oz.	75.0 oz.	9 oz.

^① ENY/EYS suitable for both horizontal or vertical applications.

SEALING COMPOUND	
CATALOG NUMBER	SIZE PACKAGE
SC-4 OZ	4 oz.
SC-8 OZ	8 oz.
SC-1 LB	1 lb.
SC-5 LB	5 lbs.

PACKING FIBER	
CATALOG NUMBER	SIZE PACKAGE
PF-2	2 oz.
PF-4	4 oz.
PF-16	1 lb.

THREAD LUBRICANTS	
CATALOG NUMBER	CONTAINER PACKAGE
LUBT-2	2 oz.
LUBG-6	6 oz.



FITTINGS

SEALING MATERIALS



FEATURES-SPECIFICATIONS

Applications

Sealing Compound

SC Series Sealing compound is a cement used extensively for sealing conduit to prevent the spread of explosive gases. It is non-shrinking and a secure seal is formed. SC Series resists acids, water, oil, etc. It is UL Listed for use with Killark ENY, EY, and EYS Series. Also CSA certified for use with any CSA certified sealing fitting.

Features

- Exact amount of compound and water are packaged together into a two-compartment plastic pouch.
- The precise amount of compound and water are available for mixing. No mixing or measure implements are required.
- Squeezing the inner water container forces the water into the compartment containing the sealing compound. Complete mixing takes place inside the plastic pouch.
- The mixed sealing compound can be poured directly into the sealing fitting. A tubular straw is provided for those difficult seals to reach.
- The package label indicates the size and quantity of sealing fittings each pouch will properly fill.

CATALOG NUMBER	HUB SIZE	SC5W WILL FILL THE FOLLOWING			CU. IN. FILL PER POUCH	NO. OF POUCHES PER CARTON
		ENY	EYS	EY/EYD		
SC5W ^①	1/2"	3	1	5	5	
	3/4"	2	1	2		
	1"	1	-	1		

CATALOG NUMBER	HUB SIZE	SC11W WILL FILL THE FOLLOWING			CU. IN. FILL PER POUCH	NO. OF POUCHES PER CARTON
		ENY	EYS	EY/EYD		
SC11W ^①	1/2"	7	3	11	11	5
	3/4"	5	3	5		
	1"	3	1	2		

^① Appropriate amount of Packing Fiber is included in carton. Additional Packing Fiber maybe purchased separately.



ALUMINUM OUTLET BODIES



C Type



L Type

Class I, Div. 1 & 2, Groups B, C, D*
 Class I, Zone I, Groups IIC, IIB, IIA
 Class II, Div. 1 & 2, Groups E, F, G
 Class III
 Type 4X

UL LISTED File No. E 10514

SP Certified File No. LR11716

FEATURES-SPECIFICATIONS

Applications

GEB series conduit boxes are installed in conduit systems within hazardous areas to:

- Protect conductors in threaded rigid conduit
- Act as pull and splice boxes
- Interconnect lengths of conduit
- Change conduit direction
- Provide access to conductors for maintenance and future system changes

Features

- Suitable for NEMA 4X applications
- Integral mounting lugs
- Green ground screw standard
- External cover thread on body plus smooth integral hub bushing protects conductor insulation when pulling
- 4 different hub arrangements
- Taper threaded hubs provide ground continuity
- External threaded body for additional wiring room
- Covers and gaskets furnished with boxes as standard
- 4 cored holes supplied inside casting for #8.32 self tapping screws for mounting devices as standard

Factory Modification

- Back and wall (mounting pad area) suitable for drilling 1/2" or 3/4" NPT or NPSM w/opening, consult factory

Material/Finish

Aluminum

- **BODY & COVER** Copper-free aluminum (less than 4/10 of 1%)
- **FINISH** Electrostatically applied powder coating

Size Ranges

- Hub – 3/4" to 1-1/2"
- Cover opening – 3-1/2"

Applicable Third Party Standards

UL Standards: 886 and 1203
 CSA Standards: C22.2 No. 30

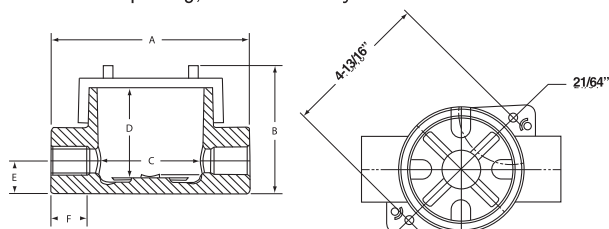
* 1-1/2" hub sizes require seal within 24" for Group B applicatons.

C TYPE OUTLET BODY

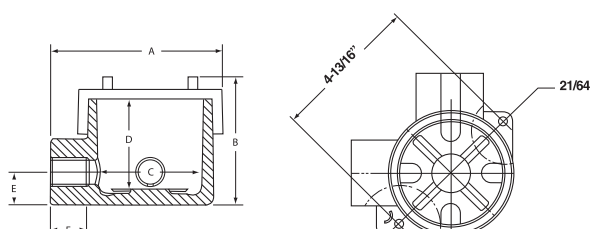
CATALOG NUMBER	HUB SIZE	DIMENSIONS						COVER OPENING	VOLUME CU. IN.
		A	B	C	D	E	F		
GEBC-2	3/4"	6-1/2" (165)	4-5/16" (110)	3-1/4" (83)	2-15/16" (75)	1-3/32" (28)	1-3/16" (30)	3-1/2" (89)	29
GEBC-3	1"	6-1/2" (165)	4-5/16" (110)	3-1/4" (83)	2-15/16" (75)	1-3/32" (28)	1-3/16" (30)	3-1/2" (89)	29
GEBC-4	1-1/4"	6-1/2" (165)	4-5/16" (110)	3-1/4" (83)	2-15/16" (75)	1-3/32" (28)	1-3/16" (30)	3-1/2" (89)	29
GEBC-5	1-1/2"	6-1/2" (165)	4-5/16" (110)	3-1/4" (83)	2-15/16" (75)	1-3/32" (28)	1-3/16" (30)	3-1/2" (89)	29

L TYPE OUTLET BODY

CATALOG NUMBER	HUB SIZE	DIMENSIONS						COVER OPENING	VOLUME CU. IN.
		A	B	C	D	E	F		
GEBL-2	3/4"	5-1/2" (140)	4-5/16" (110)	3-1/4" (83)	2-15/16" (75)	1-3/32" (28)	1-3/16" (30)	3-1/2" (89)	29
GEBL-3	1"	5-1/2" (140)	4-5/16" (110)	3-1/4" (83)	2-15/16" (75)	1-3/32" (28)	1-3/16" (30)	3-1/2" (89)	29
GEBL-4	1-1/4"	5-1/2" (140)	4-5/16" (110)	3-1/4" (83)	2-15/16" (75)	1-3/32" (28)	1-3/16" (30)	3-1/2" (89)	29
GEBL-5	1-1/2"	5-1/2" (140)	4-5/16" (110)	3-1/4" (83)	2-15/16" (75)	1-3/32" (28)	1-3/16" (30)	3-1/2" (89)	29



C Type



L Type



FITTINGS

ALUMINUM OUTLET BODIES



T Type



X Type

Class I, Div. 1 & 2, Groups B, C, D*
 Class I, Zone I, Groups IIC, IIB, IIA
 Class II, Div. 1 & 2, Groups E, F, G
 Class III
 Type 4X

UL LISTED File No. E 10514

SP Certified File No. LR11716

FEATURES-SPECIFICATIONS

See page F51 for Standard Materials & Finish

**Outlet Box for in-line
 (multiple) stanchion mount fixtures**

Typical Applications:

Coal Conveyors, Cat Walks, Platform Hand Rails



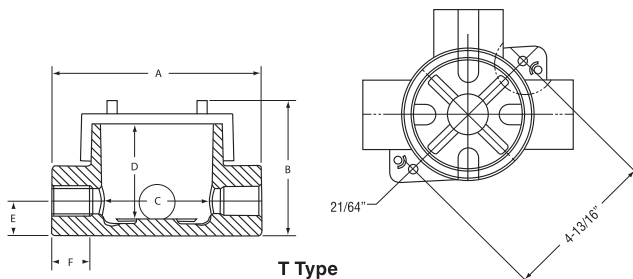
GEBT-25 with two 3/4" feed-thru hubs and one 1-1/2" vertical hub

T TYPE OUTLET BODY									
CATALOG NUMBER	HUB SIZE	DIMENSIONS						COVER OPENING	VOLUME CU. IN.
		A	B	C	D	E	F		
GEBT-2	3/4"	6-1/2" (165)	4-5/16" (110)	3-1/4" (83)	2-15/16" (75)	1-3/32" (28)	1-3/16" (30)	3-1/2" (89)	29
GEBT-3	1"	6-1/2" (165)	4-5/16" (110)	3-1/4" (83)	2-15/16" (75)	1-3/32" (28)	1-3/16" (30)	3-1/2" (89)	29
GEBT-4	1-1/4"	6-1/2" (165)	4-5/16" (110)	3-1/4" (83)	2-15/16" (75)	1-3/32" (28)	1-3/16" (30)	3-1/2" (89)	29
GEBT-5	1-1/2"	6-1/2" (165)	4-5/16" (110)	3-1/4" (83)	2-15/16" (75)	1-3/32" (28)	1-3/16" (30)	3-1/2" (89)	29
GEBT-24	(2) 3/4" (1) 1-1/4"	6-1/2" (165)	4-5/16" (110)	3-1/4" (83)	2-15/16" (75)	1-3/32" (28)	1-3/16" (30)	3-1/2" (89)	29
GEBT-25	(2) 3/4" (1) 1-1/2"	6-1/2" (165)	4-5/16" (110)	3-1/4" (83)	2-15/16" (75)	1-3/32" (28)	1-3/16" (30)	3-1/2" (89)	29

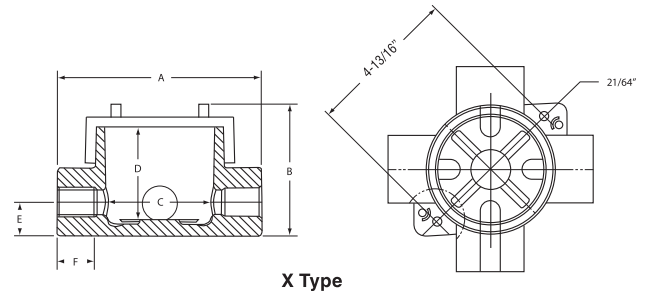
* 1-1/2" hub size requires seal within 24" for group B applications.

X TYPE OUTLET BODY									
CATALOG NUMBER	HUB SIZE	DIMENSIONS						COVER OPENING	VOLUME CU. IN.
		A	B	C	D	E	F		
GEBX-2	3/4"	6-1/2" (165)	4-5/16" (110)	3-1/4" (83)	2-15/16" (75)	1-3/32" (28)	1-3/16" (30)	3-1/2" (89)	29
GEBX-3	1"	6-1/2" (165)	4-5/16" (110)	3-1/4" (83)	2-15/16" (75)	1-3/32" (28)	1-3/16" (30)	3-1/2" (89)	29
GEBX-4	1-1/4"	6-1/2" (165)	4-5/16" (110)	3-1/4" (83)	2-15/16" (75)	1-3/32" (28)	1-3/16" (30)	3-1/2" (89)	29
GEBX-5	1-1/2"	6-1/2" (165)	4-5/16" (110)	3-1/4" (83)	2-15/16" (75)	1-3/32" (28)	1-3/16" (30)	3-1/2" (89)	29
GEBX-25	(3) 3/4" (1) 1-1/2"	6-1/2" (165)	4-5/16" (110)	3-1/4" (83)	2-15/16" (75)	1-3/32" (28)	1-3/16" (30)	3-1/2" (89)	29

Dimensions



T Type



X Type



INSTRUMENT / DEVICE – UL / CSA / ATEX / IECEx



GR with Cover



CLASSIFIED - File E83969

Certified - LR11716

Sira 12ATEX1243U
IECEx SIR 12.0106U

Class I, Div. 1 & 2, Groups B, C, D
Class I, Zone 1 & 2, Groups IIC, IIB, IIA
Class II, Div. 1 & 2, Groups E, F, G
Class III
Enclosure Type 3, 4 & 4X IP66

0518 II 2 G D
Ex d IIC Gb
Ex e IIC Gb
Ex t IIIC Db
Ta = -40°C to +163°C* IP66

FEATURES-SPECIFICATIONS

Applications

GEB-EX SERIES is designed to house small instrumentation or devices for installation in a classified or a zone designated hazardous location anywhere on the **GLOBE** today.

Typical types of instruments are transmitters, monitors, detectors, measurement devices, relays and other control devices.

The **GEB-EX SERIES** enclosures are suitable for a broad range of **GLOBAL APPLICATIONS** meeting both domestic and international electrical code requirements.

Features

- Body opening 3-1/2" Dia. x 3" deep.
- Cover o-ring supplied as standard for **TYPE 4X AND IP66** applications.
- Available in 4 configurations, C, L, T & X with **1/2" THROUGH 1-1/2" NPT TAPER THREADED HUBS** providing ground continuity.
- Smooth integral hub busing to protect conductor insulation when pulling.
- External cover threads on the body protecting conductors from damages during pulling.
- No pinching of conductors during cover installation.
- One internal & two external grounding (earthing) connections
- Boxes have integral mounting lugs.
- Lugs on cover permit easy removal and tightening.

Materials

- Box & cover: Copper free aluminum (less than 4/10 of 1%)
- Finish: Electrostatically applied powder coating – Grey
- O-Ring Gasket Material: Nitrile compound
- Hub Sizes: 1/2 NPT to 1-1/2 NPT
- Stainless steel tamper-proof locking set screw in cover.
- "X" configured cast-in mounting pad. Supplied with 4 corded holes for #8-32 self-tapping screws for mounting devices as standard. Units can also be provided with internal customer specified drilling and tapping for OEM device mounting.

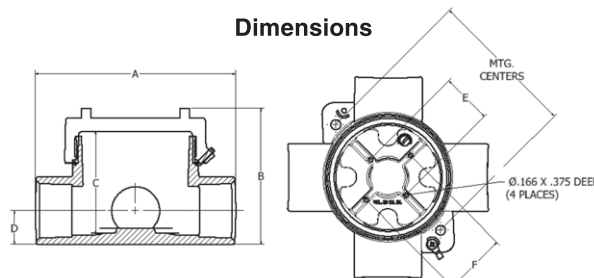


Application Example

HUB TYPE	CATALOG NUMBER	HUB SIZE	HUB TYPE	CATALOG NUMBER	HUB SIZE
C	GEB-1-EX	1/2"	L	GEBL-1-EX	1/2"
	GEB-2-EX	3/4"		GEBL-2-EX	3/4"
	GEB-3-EX	1"		GEBL-3-EX	1"
	GEB-4-EX	1-1/4"		GEBL-4-EX	1-1/4"
	GEB-5-EX	1-1/2"		GEBL-5-EX	1-1/2"
T	GEBT-1-EX	1/2"	X	GEBX-1-EX	1/2"
	GEBT-2-EX	3/4"		GEBX-2-EX	3/4"
	GEBT-3-EX	1"		GEBX-3-EX	1"
	GEBT-4-EX	1-1/4"		GEBX-4-EX	1-1/4"
	GEBT-5-EX	1-1/2"		GEBX-5-EX	1-1/2"
	GEBT-24-EX	3/4 - 1-1/4"		GEBX-24-EX	3/4" - 1-1/2"
	GEBT-25-EX	3/4 - 1-1/2"			

NOTE - 1/2" Hub Size supplied with 3/4"-1-1/2" NPT reducer

Dimensions



DIMENSIONS					
A	B	E	COVER OPENING	VOLUME IN ³ / ML	MOUNTING CENTERS
5.5"	4.31"	1.09"	3.5"	29	4.81"
140mm	110mm	28mm	89mm	48ml	122mm



FITTINGS

ALUMINUM AND IRON OUTLET BODIES



GEC
E Type



GEJ
E Type

- 1/2", 3/4" and 1" Bodies^①
Class I, Div. 1 & 2, Groups B, C & D
Class I, Zone 1, Groups IIB, IIA
- 1-1/4", 1-1/2", and 2" Bodies
Class I, Div. 1 & 2, Group D
Class I, Zone 1, Group IIA
- Class II, Div. 1 & 2, Groups E, F, G
- Class III
- For GEJ Series CSA applications for Class I Group C, seal conduit within 18 inches
- Type 4 & 4X

UL LISTED File No. E 10514

SP Certified File No. LR11716

FEATURES-SPECIFICATIONS

Applications

GE series conduit boxes are installed in conduit systems within hazardous areas to:

- Protect conductors in threaded rigid conduit
- Act as pull and splice boxes
- Interconnect lengths of conduit
- Change conduit direction
- Provide access to conductors for maintenance and future system changes

Features

GE conduit outlet boxes have:

- GEM, GEC and GES have water shedding cover – suitable for wet locations when mounted in upright position
- External cover threads on body protecting conductors from damage during pulling
- No pinching of conductors during cover installation
- Ten different hub arrangements
- Taper threaded hubs to provide ground continuity
- Smooth integral hub bushing to protect conductor insulation when pulling
- Internally threaded cover openings for additional wiring room
- Covers furnished with boxes
- Weather-resistant finish
- Green ground screw standard in all boxes

Material/Finish

Aluminum

- **BODY** Copper-free aluminum (less than 4/10 of 1%)
- **FINISH** Electrostatically applied powder coating
- **COVER** (Aluminum) Copper-free aluminum (less than 4/10 of 1%). Electrostatically applied powder coating

Iron

- **BODY** Duraloy iron alloy
- **FINISH** Tri-coat finish of electrozinc, chromate sealant, and electrostatically applied powder coating

COVER (Aluminum)

Copper-free aluminum (less than 4/10 of 1%). Electrostatically applied powder coating

Size Ranges

- Hub – 1/2" to 2"
- Cover opening – 2-1/16" to 4-7/8" diameter

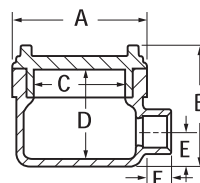
Applicable Third Party Standards

UL Standards: 886 and 1203
CSA Standard: C22.2 No. 30
Fed Spec: W-C-586D
Mil Spec: F-28675

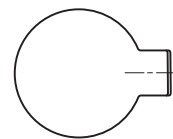
E TYPE OUTLET BODY*										
CATALOG NUMBER		HUB SIZE	DIMENSIONS						COVER OPENINGS	VOLUME CU. IN.
KILLARK ALUM.	DURALOY IRON		A	B	C	D	E	F		
GECET-1	GECET-1M	1/2"	3-11/16" (94)	3-5/8" (92)	2-11/16" (68)	2-3/4" (70)	1" (25)	13/16" (21)	2-11/16" (68)	18
GECET-2	GECET-2M	3/4"	3-11/16" (94)	3-5/8" (92)	2-11/16" (68)	2-3/4" (70)	1" (25)	13/16" (21)	2-11/16" (68)	18
GECET-3	GECET-3M	1"	3-11/16" (94)	3-5/8" (92)	2-11/16" (68)	2-3/4" (70)	1" (25)	1-1/8" (21)	2-11/16" (68)	19
—	—	1-1/4"	—	—	—	—	—	—	—	—
GEJET-5	GEJET-5M	1-1/2"	6-1/4" (159)	4-3/8" (111)	4-7/8" (124)	3-9/16" (90)	1-3/16" (46)	1-3/16" (46)	4-7/8" (124)	75

* For GROUP B applications, contact factory.

Dimensions



GEC Type



E Type

① 1/2", 3/4" and 1" GEC Bodies Listed and Certified for:
Class I, Div. 1 & 2, Groups B, C, D
Class I, Zones 1 & 2, Groups IIB + H₂
Class II, Div. 1 & 2, Groups E, F, G
Class III
Type 4X (NEMA)



ALUMINUM AND IRON OUTLET BODIES



GES
C Type



GEM
L Type

- 1/2", 3/4" and 1" Bodies[Ⓢ]
Class I, Div. 1 & 2, Groups B, C & D
Class I, Zone 1, Groups IIB, IIA
- 1-1/4", 1-1/2", and 2" Bodies
Class I, Div. 1 & 2, Group D
Class I, Zone 1, Group IIA
- Class II, Div. 1 & 2, Groups E, F, G
- Class III
- For GEJ Series CSA applications for Class I Group C, seal conduit within 18 inches
- Type 4 & 4X

UL LISTED File No. E 10514

SP Certified File No. LR11716

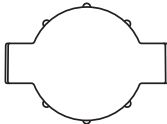
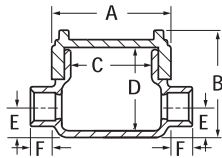
FEATURES-SPECIFICATIONS

See page F51 for Standard Materials & Finish

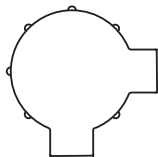
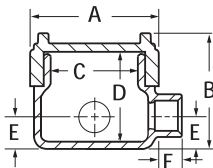
Applicable Third Party Standards

UL Standards: 886 and 1203
CSA Standard: C22.2 No. 30
Fed Spec: W-C-586D
Mil Spec: F-28675

Dimensions



C Type



L Type

C TYPE OUTLET BODY*										
CATALOG NUMBER	HUB SIZE	DIMENSIONS						COVER OPENINGS	VOLUME CU. IN.	
		KILLARK ALUM.	DURALOY IRON	A	B	C	D			E
GEMC-1	—	1/2"	2-13/16" (71)	3" (76)	2-1/16" (52)	2-5/16" (79)	11/16" (17)	13/16" (21)	2-1/16" (52)	8
GEMC-2	—	3/4"	2-13/16" (71)	3" (76)	2-1/16" (52)	2-5/16" (79)	11/16" (17)	13/16" (21)	2-1/16" (52)	8
GECC-1	GECC-1M	1/2"	3-11/16" (94)	3-5/8" (92)	2-11/16" (68)	2-3/4" (70)	1" (25)	13/16" (21)	2-11/16" (68)	18
GECC-2	GECC-2M	3/4"	3-11/16" (94)	3-5/8" (92)	2-11/16" (68)	2-3/4" (70)	1" (25)	13/16" (21)	2-11/16" (68)	18
GECC-3	GECC-3M	1"	3-11/16" (94)	3-5/8" (92)	2-11/16" (68)	2-3/4" (70)	1" (25)	1-1/8" (28)	2-11/16" (68)	19
GESCT-3	GESCT-3M	1"	5-1/16" (128)	4-1/8" (105)	3-9/16" (90)	3-7/16" (87)	1-1/16" (27)	1-1/8" (28)	3-9/16" (90)	42
GESCT-4	GESCT-4M	1-1/4"	5-1/16" (128)	4-1/8" (105)	3-9/16" (90)	3-7/16" (87)	1-1/16" (27)	1-3/16" (30)	3-9/16" (90)	42
GEJCT-5	GEJCT-5M	1-1/2"	6-1/4" (159)	4-3/8" (111)	4-7/8" (124)	3-9/16" (90)	1-3/16" (30)	1-3/16" (30)	4-7/8" (124)	75
GEJCT-6	GEJCT-6M	2"	6-1/4" (159)	4-3/8" (111)	4-7/8" (124)	3-9/16" (90)	1-1/2" (38)	1-3/16" (30)	4-7/8" (124)	75

L TYPE OUTLET BODY*										
CATALOG NUMBER	HUB SIZE	DIMENSIONS						COVER OPENINGS	VOLUME CU. IN.	
		KILLARK ALUM.	DURALOY IRON	A	B	C	D			E
GEML-1	—	1/2"	2-13/16" (71)	3" (76)	2-1/16" (52)	2-5/16" (79)	11/16" (17)	13/16" (21)	2-1/16" (52)	8
GEML-2	—	3/4"	2-13/16" (71)	3" (76)	2-1/16" (52)	2-5/16" (79)	11/16" (17)	13/16" (21)	2-1/16" (52)	8
GECL-1	GECL-1M	1/2"	3-11/16" (94)	3-5/8" (92)	2-11/16" (68)	2-3/4" (70)	1" (25)	13/16" (21)	2-11/16" (68)	18
GECL-2	GECL-2M	3/4"	3-11/16" (94)	3-5/8" (92)	2-11/16" (68)	2-3/4" (70)	1" (25)	13/16" (21)	2-11/16" (68)	18
GECL-3	GECL-3M	1"	3-11/16" (94)	3-5/8" (92)	2-11/16" (68)	2-3/4" (70)	1" (25)	13/16" (28)	2-11/16" (68)	18
GESLT-3	GESLT-3M	1"	5-1/16" (128)	4-1/8" (105)	3-9/16" (90)	3-7/16" (87)	1-1/16" (27)	1-1/8" (28)	3-9/16" (90)	42
GESLT-4	GESLT-4M	1-1/4"	5-1/16" (128)	4-1/8" (105)	3-9/16" (90)	3-7/16" (87)	1-1/16" (27)	1-3/16" (30)	3-9/16" (90)	42
GEJLT-5	GEJLT-5M	1-1/2"	6-1/4" (159)	4-3/8" (111)	4-7/8" (124)	3-9/16" (87)	1-3/16" (30)	1-3/16" (30)	4-7/8" (124)	75
GEJLT-6	GEJLT-6M	2"	6-1/4" (159)	4-3/8" (111)	4-7/8" (124)	3-9/16" (87)	1-1/2" (38)	1-3/16" (30)	4-7/8" (124)	75

* For GROUP B applications, contact factory.

Ⓢ 1/2", 3/4" and 1" GEC Bodies Listed and Certified for:
Class I, Div. 1 & 2, Groups B, C, D
Class I, Zones 1 & 2, Groups IIB + H₂
Class II, Div. 1 & 2, Groups E, F, G
Class III
Type 4X (NEMA)



ALUMINUM AND IRON OUTLET BODIES



GEC
T Type



GES
X Type



GEJ
LB Type

- 1/2", 3/4" and 1" Bodies^①
Class I, Div. 1 & 2, Groups B, C & D
Class I, Zone 1, Groups IIB, IIA
- 1-1/4", 1-1/2", and 2" Bodies
Class I, Div. 1 & 2, Group D
Class I, Zone 1, Group IIA
- Class II, Div. 1 & 2, Groups E, F, G
- Class III
- For GEJ Series CSA applications for Class I
Group C, seal conduit within 18 inches
- Type 4 & 4X

UL LISTED File No. E 10514

SP Certified File No. LR11716

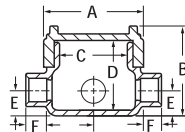
FEATURES-SPECIFICATIONS

See page F51 for Standard Materials & Finish

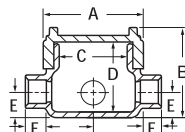
Applicable Third Party Standards

UL Standards: 886 and 1203
CSA Standard: C22.2 No. 30
Fed Spec: W-C-586D
Mil Spec: F-28675

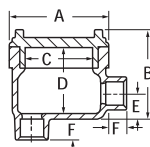
Dimensions



T Type



X Type



LB Type

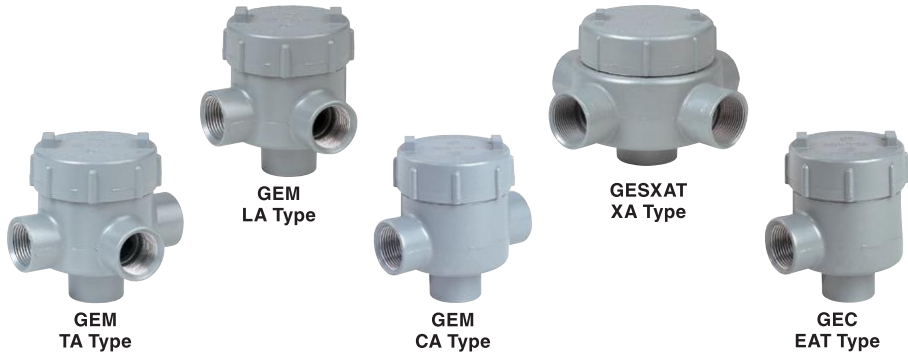
① 1/2", 3/4" and 1" GEC Bodies
Listed and Certified for:
Class I, Div. 1 & 2, Groups B, C, D
Class I, Zones 1 & 2, Groups IIB + H₂
Class II, Div. 1 & 2, Groups E, F, G
Class III
Type 4X (NEMA)

CATALOG NUMBER		HUB SIZE	DIMENSIONS						COVER OPENINGS	VOLUME CU. IN.
KILLARK ALUM.	DURALOY IRON		A	B	C	D	E	F		
GEMT-1	—	1/2"	2-13/16" (56)	3" (76)	2-1/16" (52)	2-5/16" (59)	11/16" (17)	13/16" (21)	2-1/16" (52)	8
GEMT-2	—	3/4"	2-13/16" (56)	3" (76)	2-1/16" (52)	2-5/16" (59)	11/16" (17)	13/16" (21)	2-1/16" (52)	8
GECTT-1	GECTT-1M	1/2"	3-11/16" (93)	3-5/8" (92)	2-11/16" (68)	2-3/4" (70)	1" (25)	13/16" (21)	2-11/16" (68)	19
GECTT-2	GECTT-2M	3/4"	3-11/16" (93)	3-5/8" (92)	2-11/16" (68)	2-3/4" (70)	1" (25)	13/16" (21)	2-11/16" (68)	19
GECTT-3	GECTT-3M	1"	3-11/16" (93)	3-5/8" (92)	2-11/16" (68)	2-3/4" (70)	1" (25)	13/16" (21)	2-11/16" (68)	19
GESTT-3	GESTT-3M	1"	5-1/16" (129)	4-1/8" (105)	3-9/16" (90)	3-7/16" (87)	1-1/16" (27)	1-1/8" (29)	3-9/16" (90)	42
GESTT-4	GESTT-4M	1-1/4"	5-1/16" (129)	4-1/8" (105)	3-9/16" (90)	3-7/16" (87)	1-1/16" (27)	1-1/8" (29)	3-9/16" (90)	42
GEJTT-5	GEJTT-5M	1-1/2"	6-1/4" (159)	4-3/8" (111)	4-7/8" (124)	3-9/16" (90)	1-3/16" (30)	1-3/16" (30)	4-7/8" (124)	75
GEJTT-6	GEJTT-6M	2"	6-1/4" (159)	4-3/8" (111)	4-7/8" (124)	3-9/16" (90)	1-1/2" (38)	1-3/16" (30)	4-7/8" (124)	75
X TYPE OUTLET BODY*										
GEMX-1	—	1/2"	2-13/16" (56)	3" (76)	2-1/16" (52)	2-5/16" (59)	11/16" (17)	13/16" (21)	2-1/16" (52)	8
GEMX-2	—	3/4"	2-13/16" (56)	3" (76)	2-1/16" (52)	2-5/16" (59)	11/16" (17)	13/16" (21)	2-1/16" (52)	8
GECXT-1	GECXT-1M	1/2"	3-11/16" (93)	3-5/8" (92)	2-11/16" (68)	2-3/4" (70)	1" (25)	13/16" (21)	2-11/16" (68)	19
GECXT-2	GECXT-2M	3/4"	3-11/16" (93)	3-5/8" (92)	2-11/16" (68)	2-3/4" (70)	1" (25)	13/16" (21)	2-11/16" (68)	19
GECXT-3	GECXT-3M	1"	3-11/16" (93)	3-5/8" (92)	2-11/16" (68)	2-3/4" (70)	1" (25)	13/16" (21)	2-11/16" (68)	19
GESXT-3	GESXT-3M	1"	5-1/16" (129)	4-1/8" (105)	3-9/16" (90)	3-7/16" (87)	1-1/16" (27)	1-1/8" (29)	3-9/16" (90)	42
GESXT-4	GESXT-4M	1-1/4"	5-1/16" (129)	4-1/8" (105)	3-9/16" (90)	3-7/16" (87)	1-1/16" (27)	1-1/8" (29)	3-9/16" (90)	42
GEJXT-5	GEJXT-5M	1-1/2"	6-1/4" (159)	4-3/8" (111)	4-7/8" (124)	3-9/16" (90)	1-1/2" (38)	1-3/16" (30)	4-7/8" (124)	75
GEJXT-6	GEJXT-6M	2"	6-1/4" (159)	4-3/8" (111)	4-7/8" (124)	3-9/16" (90)	1-1/2" (38)	1-3/16" (30)	4-7/8" (124)	75
LB TYPE OUTLET BODY*										
GEMLB-1	—	1/2"	2-13/16" (56)	3" (76)	2-1/16" (52)	2-5/16" (59)	11/16" (17)	13/16" (21)	2-1/16" (52)	8
GEMLB-2	—	3/4"	2-13/16" (56)	3" (76)	2-1/16" (52)	2-5/16" (59)	11/16" (17)	13/16" (21)	2-1/16" (52)	8
GECLBT-1	GECLBT-1M	1/2"	3-11/16" (93)	3-5/8" (92)	2-11/16" (68)	2-3/4" (70)	1" (25)	13/16" (21)	2-11/16" (68)	19
GECLBT-2	GECLBT-2M	3/4"	3-11/16" (93)	3-5/8" (92)	2-11/16" (68)	2-3/4" (70)	1" (25)	13/16" (21)	2-11/16" (68)	19
GECLBT-3	GECLBT-3M	1"	3-11/16" (93)	3-5/8" (92)	2-11/16" (68)	2-3/4" (70)	1" (25)	13/16" (21)	2-11/16" (68)	19
GESLBT-3	GESLBT-3M	1"	5-1/16" (129)	4-1/8" (105)	3-9/16" (90)	3-7/16" (87)	1-1/16" (27)	1-1/8" (29)	3-9/16" (90)	42
GESLBT-4	GESLBT-4M	1-1/4"	5-1/16" (129)	4-1/8" (105)	3-9/16" (90)	3-7/16" (87)	1-1/16" (27)	1-1/8" (29)	3-9/16" (90)	42
GEJLBT-5	GEJLBT-5M	1-1/2"	6-1/4" (159)	4-3/8" (111)	4-7/8" (124)	3-9/16" (90)	1-1/2" (38)	1-3/16" (30)	4-7/8" (124)	75
GEJLBT-6	GEJLBT-6M	2"	6-1/4" (159)	4-3/8" (111)	4-7/8" (124)	3-9/16" (90)	1-1/2" (38)	1-3/16" (30)	4-7/8" (124)	75

* For GROUP B applications, contact factory.



ALUMINUM AND IRON OUTLET BODIES



- 1/2", 3/4" and 1" Bodies[Ⓢ]
Class I, Div. 1 & 2, Groups B, C & D
Class I, Zone 1, Groups IIB, IIA
- 1-1/4", 1-1/2", and 2" Bodies
Class I, Div. 1 & 2, Group D
Class I, Zone 1, Group IIA
- Class II, Div. 1 & 2, Groups E, F, G
- Class III
- For GEJ Series CSA applications for Class I Group C, seal conduit within 18 inches
- Type 4 & 4X

UL LISTED File No. E 10514

SP Certified File No. LR11716

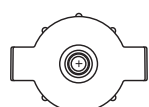
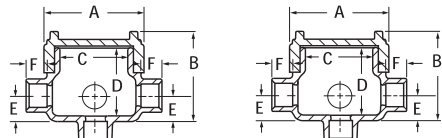
FEATURES-SPECIFICATIONS

See page F53 for Standard Materials & Finish

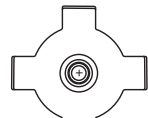
Applicable Third Party Standards

UL Standards: 886 and 1203
CSA Standard: C22.2 No. 30
Fed Spec: W-C-586D
Mil Spec: F-28675

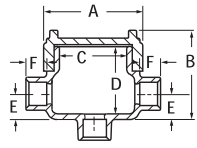
Dimensions



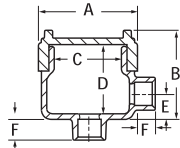
TAT Type



XAT Type



CAT Type



EAT Type

LA TYPE OUTLET BODY*											
CATALOG NUMBER	KILLARK ALUM.	DURALOY IRON	HUB SIZE	DIMENSIONS						COVER OPENINGS	VOLUME CU. IN.
				A	B	C	D	E	F		
GEMLA-1	—	—	1/2"	2-13/16" (56)	3" (76)	2-1/16" (52)	2-5/16" (59)	11/16" (17)	13/16" (21)	2-1/16" (52)	8
GEMLA-2	—	—	3/4"	2-13/16" (56)	3" (76)	2-1/16" (52)	2-5/16" (59)	11/16" (17)	13/16" (21)	2-1/16" (52)	8

TAT TYPE OUTLET BODY*											
CATALOG NUMBER	KILLARK ALUM.	DURALOY IRON	HUB SIZE	DIMENSIONS						COVER OPENINGS	VOLUME CU. IN.
				A	B	C	D	E	F		
GEMTA-1	—	—	1/2"	2-13/16" (56)	3" (76)	2-1/16" (52)	2-5/16" (59)	11/16" (17)	13/16" (21)	2-1/16" (52)	8
GEMTA-2	—	—	3/4"	2-13/16" (56)	3" (76)	2-1/16" (52)	2-5/16" (59)	11/16" (17)	13/16" (21)	2-1/16" (52)	8
GECTAT-2	—	GECTAT-2M	3/4"	3-11/16" (94)	3-5/8" (92)	2-11/16" (68)	2-3/4" (70)	1" (25)	13/16" (21)	2-11/16" (68)	19

XAT TYPE OUTLET BODY*											
CATALOG NUMBER	KILLARK ALUM.	DURALOY IRON	HUB SIZE	DIMENSIONS						COVER OPENINGS	VOLUME CU. IN.
				A	B	C	D	E	F		
GECXAT-1	—	GECXAT-1M	1/2"	3-11/16" (94)	3-5/8" (92)	2-11/16" (68)	2-3/4" (70)	1" (25)	13/16" (21)	2-11/16" (68)	19
GECXAT-2	—	GECXAT-2M	3/4"	3-11/16" (94)	3-5/8" (92)	2-11/16" (68)	2-3/4" (70)	1" (25)	13/16" (21)	2-11/16" (68)	19
GECXAT-3	—	GECXAT-3M	1"	3-11/16" (94)	3-5/8" (92)	2-11/16" (68)	2-3/4" (70)	1" (25)	13/16" (21)	2-11/16" (68)	19
GESXAT-4	—	GESXAT-4M	1-1/4"	5-1/16" (128)	4-1/8" (105)	3-9/16" (90)	3-7/16" (87)	1-1/16" (27)	1-3/16" (30)	3-9/16" (90)	42

CAT TYPE OUTLET BODY*											
CATALOG NUMBER	KILLARK ALUM.	DURALOY IRON	HUB SIZE	DIMENSIONS						COVER OPENINGS	VOLUME CU. IN.
				A	B	C	D	E	F		
GEMCA-1	—	—	1/2"	2-13/16" (56)	3" (76)	2-1/16" (52)	2-5/16" (59)	11/16" (17)	13/16" (21)	2-1/16" (52)	8
GEMCA-2	—	—	3/4"	2-13/16" (56)	3" (76)	2-1/16" (52)	2-5/16" (59)	11/16" (17)	1-3/16" (30)	2-1/16" (52)	8
GECCAT-1	—	GECCAT-1M	1/2"	3-11/16" (94)	3-5/8" (92)	2-11/16" (68)	2-3/4" (70)	1" (25)	13/16" (21)	2-11/16" (68)	19
GESCAT-4	—	GESCAT-4M	1-1/4"	5-11/16" (144)	4-1/8" (105)	3-9/16" (90)	3-7/16" (87)	1-1/16" (27)	1-3/16" (30)	3-9/16" (90)	42

EAT TYPE OUTLET BODY*											
CATALOG NUMBER	KILLARK ALUM.	DURALOY IRON	HUB SIZE	DIMENSIONS						COVER OPENINGS	VOLUME CU. IN.
				A	B	C	D	E	F		
GECEAT-2	—	GECEAT-2M	3/4"	3-11/16" (94)	3-5/8" (92)	2-11/16" (68)	2-3/4" (70)	1" (25)	13/16" (21)	2-11/16" (68)	19

* For GROUP B applications, contact factory.

Ⓢ 1/2", 3/4" and 1" GEC Bodies Listed and Certified for:
Class I, Div. 1 & 2, Groups B, C, D
Class I, Zones 1 & 2, Groups IIB + H₂
Class II, Div. 1 & 2, Groups E, F, G
Class III
Type 4X (NEMA)



FITTINGS

OUTLET BODIES WITH MOUNTING FLANGE



GECXTF
XTF Type Outlet Body
With Mounting Flange



GECUET-2
Outlet Body



GEUEAT-2
Outlet Body

- 1/2", 3/4" and 1" Bodies^①
Class I, Div. 1 & 2, Groups C, D
Class I, Zone 1, Groups IIB, IIA
Class II, Div. 1 & 2, Groups E, F, G
Class III

File No. E 10514

Certified File No. LR11716

FEATURES-SPECIFICATIONS

See page F53 for Standard Materials & Features

Applicable Third Party Standards

UL Standards: 886 and 1203
CSA Standard: C22.2 No. 30
Fed Spec: W-C-586D
Mil Spec: F-28675

Material/Finish

Aluminum

- **BODY** Copper-free aluminum (less than 4/10 of 1%)
- **FINISH** Electrostatically applied powder coating
- **COVER** (Aluminum) Copper-free aluminum (less than 4/10 of 1%). Electrostatically applied powder coating

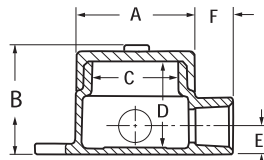
Iron

- **BODY** Duraloy iron alloy
- **FINISH** Tri-Coat Finish of Electro zinc, Chromate Sealant, and electrostatically applied powder coating
- **COVER** (Aluminum) Copper-free aluminum (less than 4/10 of 1%). Electrostatically applied powder coating

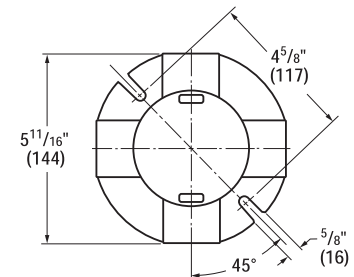
Size Ranges:

- Hub – 3/4" standard
 optional 1/2" to 1" contact factory
- Cover opening – 2-11/16" or 2-1/16"

XTF TYPE OUTLET BODY*										
CATALOG NUMBER		HUB SIZE	DIMENSIONS						COVER OPENINGS	VOLUME CU. IN.
KILLARK ALUM.	DURALOY IRON		A	B	C	D	E	F		
GECXTF-1	GECXTF-1M	1/2"	3-11/16" (94)	3-5/8" (92)	2-11/16" (68)	2-3/4" (70)	1" (25)	13/16" (21)	2-11/16" (68)	19
GECXTF-2	GECXTF-2M	3/4"	3-11/16" (94)	3-5/8" (92)	2-11/16" (68)	2-3/4" (70)	1" (25)	13/16" (21)	2-11/16" (68)	19
GECXTF-3	GECXTF-3M	1"	3-11/16" (94)	3-5/8" (92)	2-11/16" (68)	2-3/4" (70)	1" (25)	13/16" (21)	2-11/16" (68)	19

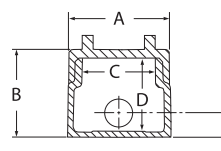
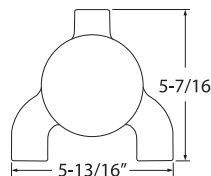


XTF Type
With Mounting Flange

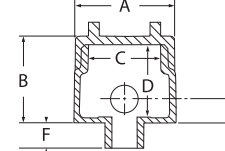
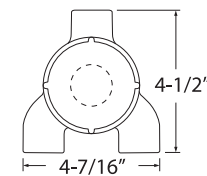


GE TYPE OUTLET BODY*										
CATALOG NUMBER		HUB SIZE	DIMENSIONS						COVER OPENINGS	VOLUME CU. IN.
KILLARK ALUM.	DURALOY IRON		A	B	C	D	E	F		
GECUET-2	GECUET-2M	3/4"	3-11/16" (94)	3-5/8" (92)	2-11/16" (68)	2-3/4" (70)	1" (25)	13/16" (21)	2-11/16" (68)	19
GEUEAT-2	GEUEAT-2M	3/4"	2-13/16" (56)	3" (76)	2-1/16" (52)	2-1/8" (54)	1" (25)	13/16" (21)	2-1/16" (52)	11

* For **GROUP B** applications, contact factory.



GECUET-2
Outlet Body



GEUEAT-2
Outlet Body

① 1/2", 3/4" and 1" GEC Bodies Listed and Certified for:
Class I, Div. 1 & 2, Groups B, C, D
Class I, Zones 1 & 2, Groups IIB + H₂
Class II, Div. 1 & 2, Groups E, F, G
Class III
Type 4X (NEMA)



OUTLET BODIES ACCESSORIES



GECBC
Blank Cover



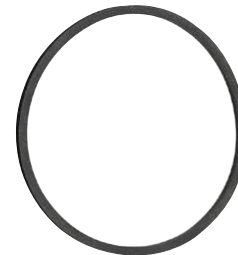
4GOU
Dome Cover



GL-375
Lens Cover



GECEY
Sealing Cover



GEC-RG
Gasket

FEATURES-SPECIFICATIONS

Material/Finish

- Copper-free aluminum (less than 4/10 of 1%)
- Electrostatically applied powder coating
- Blank covers are supplied standard on all GE Series bodies
- Dome covers provide additional wiring room for splicing or accommodating components
- Clear cover lens for viewing
- Sealing cover used to convert body into sealing fitting
- Rubber gasket fits between cover and body to make assembly watertight

BLANK COVER	
CATALOG NUMBER	SERIES
GEMBC	GEM
GECBC*	GEC marked Groups B, C, D, Type 4X
GECBCB	GEC marked Groups B, C, D, Type 4X
GESBC	GES
GRM-BC	GEJ

* Available also in iron GECBCM

DOME COVER		
CATALOG NUMBER	SERIES	VOLUME CUBIC INCH
2GOU	GEC	13.3
4GOU	GEC	47.0
3GRMD	GEJ	55.0
5GRMD	GEJ	80.0

LENS COVER	
CATALOG NUMBER	SERIES
GL-375	GEJ

SEALING COVER [Ⓢ]	
CATALOG NUMBER	SERIES
GEMEY [Ⓢ]	GEM
GECEY [Ⓢ]	GEC
GESEY [Ⓢ]	GES
GEJEY [Ⓢ]	GEJ

[Ⓢ] Sealing Covers CSA only.

Since all Series GE boxes are listed with a blank cover, deduct the price of blank cover and add the price of the desired cover. Outlet bodies listed on preceding page.

GASKET	
CATALOG NUMBER	SERIES
GEM-RG	GEM
GEC-RG	GEC Flat
GEC-ORG	GEC O-Ring
GES-RG	GES
GRM-RG	GEJ



FITTINGS

ALUMINUM AND IRON OUTLET BODIES



GRUE-75A



Class I, Div. 1 & 2, Groups B, C, D
 Class I, Zone I, Groups IIC, IIB, IIA
 Class II, Div. 1 & 2, Groups E, F, G
 Class III
 Type 4X



ATEX/IEC Ex Pending

FEATURES-SPECIFICATIONS

Applications

GRUE Series conduit boxes are installed in conduit systems within hazardous areas to:

- Protect conductors in threaded rigid conduit
- Act as pull and splice boxes
- Interconnect lengths of conduit
- Change conduit direction
- Provide access to conductors for maintenance and future system changes

Features

- Smooth, rounded integral bushing in each hub protects conductor insulation
- Cast in mounting lugs
- Green ground screw
- Cover and gasket furnished with box as standard
- 5 threaded hub locations includes 3 close-up plugs
- External threaded body provides additional wiring room
- Optional drilled and tapped metric threads – contact factory

Size Ranges

- Hub – 1/2", 3/4", 1"
- Cover opening – 3-1/2"

Material/Finish

Aluminum

- **BODY** Copper-free aluminum (less than 4/10 of 1%)
- **FINISH** Electrostatically applied powder coating
- **COVER** (Aluminum) Copper-free aluminum (less than 4/10 of 1%). Electrostatically applied powder coating

Iron

- **BODY** Duraloy iron alloy
- **FINISH** Tri-coat finish of electrozinc, chromate sealant, and electrostatically applied powder coating
- **COVER** (Aluminum) Copper-free aluminum (less than 4/10 of 1%). Electrostatically applied powder coating

GRUE TYPE OUTLET BODY – ALUMINUM

CATALOG NUMBER	HUB SIZE	DIMENSIONS				COVER OPENING	VOLUME CU. IN.
		A	B	C	D		
GRUE-50A	1/2"	4-1/2" (114)	2-3/8" (60)	3-1/2" (89)	11/16" (17)	3-1/2" (89)	25
GRUE-75A	3/4"	4-1/2" (114)	2-3/8" (60)	3-1/2" (89)	11/16" (17)	3-1/2" (89)	25
GRUE-100A	1"	4-1/2" (114)	2-3/8" (60)	3-1/2" (89)	15/16" (24)	3-1/2" (89)	25
GRUC-SCA	N/A	SEALING COVER				N/A	N/A

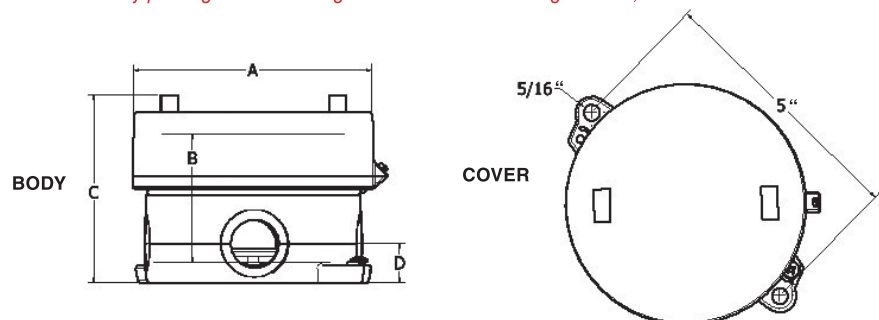
* For outlet body packaged with sealing cover add SC to catalog number, GRUE-50A-SC

GRUE TYPE OUTLET BODY – DURALOY IRON

CATALOG NUMBER	HUB SIZE	DIMENSIONS				COVER OPENING	VOLUME CU. IN.
		A	B	C	D		
GRUE-50	1/2"	4-1/2" (114)	2-3/8" (60)	3-1/2" (89)	11/16" (17)	3-1/2" (89)	25
GRUE-75	3/4"	4-1/2" (114)	2-3/8" (60)	3-1/2" (89)	11/16" (17)	3-1/2" (89)	25
GRUE-100	1"	4-1/2" (114)	2-3/8" (60)	3-1/2" (89)	15/16" (24)	3-1/2" (89)	25
GRUC-SC	N/A	SEALING COVER				N/A	N/A

* For outlet body packaged with sealing cover add SC to catalog number, GRUE-50SC

For ATEX and IEC Ex certified GRUE fittings, contact factory.





OUTLET BODIES



GRSA



GRR



GRCEX-0
(For GRR & GRSS only)

Class I, Div. 1 & 2, Groups C, D
Class II, Div. 1 & 2, Groups E, F, G
Class III

UL LISTED - File E10514

SP Certified - File LR11716
See files for details or call Killark.

FEATURES-SPECIFICATIONS

GRSA

Features

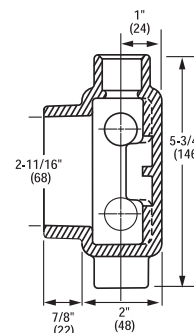
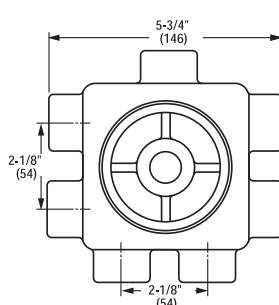
- Cast conduit hubs with integral bushings
- Cover included
- Replacement cover catalog number GECBC
- Five close-up plugs included
- Sealing, hub, dome covers and gaskets available (page F58)

Material/Finish

- Copper-free aluminum (less than 4/10 of 1%)
- Electrostatically applied powder coating

GRSA W/BLANK COVER		
CATALOG NUMBER	HUBS	VOLUME CU. IN.
GRSA	Furnished with eight 3/4" hubs including one 3/4" flush hub in back center	26.5

Dimensions



GRR

Features

- Cast conduit hubs with integral bushings
- Blank cover included
- Replacement cover catalog number GRRBC
- Compact size
- Supplied with five hubs and three close-up plugs

Material/Finish

- Copper-free aluminum (less than 4/10 of 1%)
- Electrostatically applied powder coating

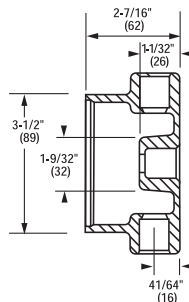
GRR W/ BLANK COVER		
CATALOG NUMBER	HUB SIZE	VOLUME CU. IN.
GRR-1	1/2"	13.0
GRR-2	3/4"	13.0
GRR-3	1"	14.0

Blank Cover-only-GRRBC

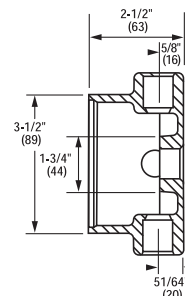
GASKET (RUBBER)
CATALOG NUMBER
GEC-RG

EXTENSION*
CATALOG NUMBER
GRCEX-0

* Adds 2-7/8" to body depth and 16.48 cu. in.



GRR 1 & 2



GRR-3



FITTINGS

OUTLET BODIES



Class I, Div. 1 & 2, Groups C, D
Class II, Div. 1 & 2, Groups E, F, G
Class III

UL LISTED - File E10514

SP Certified - File LR11716
 See files for details or call Killark.

FEATURES-SPECIFICATIONS

GRSS/GRSSA

Features

- Internal hubs
- Blank cover included (Cat. No. GRRBC)
- Compact design and multiple hub configurations
- Furnished with internal ground screw
- Cast-in brackets on cover for use with breaker-bar tools

GRSS TYPE

Furnished with seven internal hubs, two hubs are on the top and bottom, one each on the two sides and one hub in the back. Four close-up plugs supplied. Series GUM unions can be used.

Note: for mounting lugs on GRSS series, contact factory.

- Mounting lug slot 7/16"

GRSSA TYPE

Furnished with 13 hubs, two on each side and five in back. Five close-up plugs are supplied.

Material/Finish – Aluminum Body

- Copper-free aluminum (less than 4/10 of 1%)
- Electrostatically applied powder coating

Material/Finish – Duraloy Iron Body

- Duraloy iron alloy
- Tri-Coat finish of Electro zinc, Chromate Sealant and electrostatically applied powder coating

Material/Finish – GR Series Cover

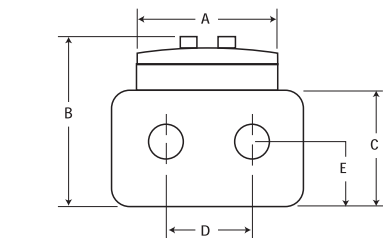
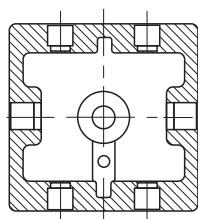
- Copper-free aluminum (less than 4/10 of 1%)
- Electrostatically applied powder coating

GRSS				
KILLARK ALUM.	DURALOY IRON	HUB SIZE	NUMBER OF OPENINGS	NUMBER OF CLOSE-UP PLUGS FURNISHED
GRSS-1	GRSS-1M	1/2"	7	4
GRSS-2	GRSS-2M	3/4"	7	4
GRSS-3	GRSS-3M	1"	7	4
GRSS WITH LUGS				
GRSS-1L	-	1/2"	7	4
GRSS-2L	-	3/4"	7	4
GRSS-3L	-	1"	7	4
GRSSA				
GRSSA-1	-	1/2"	13	5
GRSSA-2	-	3/4"	13	5

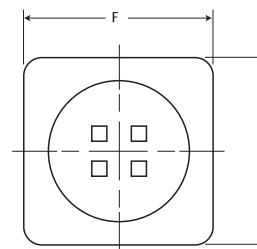
GASKET (RUBBER)	
CATALOG NUMBER	
GEC-RG	

EXTENSION*	
CATALOG NUMBER	
GRCEX-0	

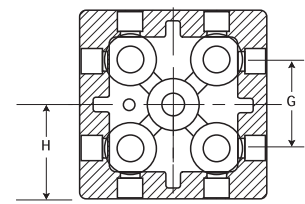
* Adds 2-7/8" to bod depth and 16.48 cu. in.



GRSS Dimensions



GRSSA Dimensions



GRSS/GRSSA DIMENSIONS													
CATALOG NUMBER	HUB SIZE	NO. OF OPENINGS	CLOSE-UP PLUGS FURNISHED	DIMENSIONS IN INCHES								COVER OPENINGS	VOLUME CU. IN.
				A	B	C	D	E	F	G	H		
GRSS-1	1/2"	7	4	3-1/2"	3-1/2"	2-3/8"	2-1/8"	1-3/16"	4-5/8"	N/A	1-1/4"	3-1/8"	29
GRSS-2	3/4"	7	4	3-1/2"	3-1/2"	2-3/8"	2-1/8"	1-3/16"	4-5/8"	N/A	1-1/4"	3-1/8"	29
GRSS-3	1"	7	4	3-1/2"	3-1/2"	2-3/8"	2-1/8"	1-3/16"	4-5/8"	N/A	1-1/4"	3-1/8"	29
GRSSA-1	1/2"	13	5	3-1/2"	3-1/2"	2-3/8"	2-1/8"	1-3/16"	4-5/8"	2-1/8"	1-1/4"	3-1/8"	20
GRSSA-2	3/4"	13	5	3-1/2"	3-1/2"	2-3/8"	2-1/8"	1-3/16"	4-5/8"	2-1/8"	1-1/4"	3-1/8"	20



CONDUIT BODIES



X Series
 Class I, Div. 1 & 2, Groups C, D
 Class II, Div. 1 & 2, Groups E, F, G
 Class III
 Type 3 & 3R with use of Duct Seal DS-1*

XALB Series
 Class I, Div. 1 & 2, Group D
 Class II, Div. 1 & 2, Groups E, F, G
 Class III

LISTED - File E10514

Certified - File LR11716
 See files for details or call Killark.

FEATURES-SPECIFICATIONS

X

Features

- Integral bushings
- Easy access covers
- Six hub styles
- Sizes 1/2", 3/4", 1"

Material/Finish

- Copper-free aluminum (less than 4/10 of 1%)
- Electrostatically applied powder coating

Ⓢ X Series 1" hub size suitable for Class I, Group D

X DIMENSIONS								
	CATALOG NUMBER	HUB SIZE	A LENGTH	B WIDTH	C HEIGHT	D	E	VOLUME CU. IN.
	XC-1	1/2"	5-9/16"	1-17/32"	2-1/8"	5/8"	—	4.3
	XC-2	3/4"	5-13/16"	1-3/4"	2-1/4"	11/16"	—	6.5
	XC-3	1"Ⓢ	6-1/16"	2-3/8"	2-1/2"	7/8"	—	11.5
	XLL-1	1/2"	4-5/8"	2-7/16"	2-1/8"	5/8"	3/4"	4.3
	XLL-2	3/4"	4-29/32"	2-5/8"	2-1/4"	11/16"	7/8"	6.5
	XLL-3	1"Ⓢ	5-9/16"	3-1/2"	2-1/2"	7/8"	7/8"	11.5
	XLB-1	1/2"	4-5/8"	1-17/32"	2-15/16"	5/8"	3/4"	4.3
	XLB-2	3/4"	4-29/32"	1-3/4"	3-1/8"	11/16"	11/16"	6.5
	XLB-3	1"Ⓢ	5-17/32"	2-3/8"	3-5/8"	7/8"	7/8"	11.5
	XLR-1	1/2"	4-5/8"	2-7/16"	2-1/8"	5/8"	3/4"	4.3
	XLR-2	3/4"	4-29/32"	2-5/8"	2-1/4"	11/16"	7/8"	6.5
	XLR-3	1"Ⓢ	5-9/16"	3-1/2"	2-1/2"	7/8"	7/8"	11.5
	XT-1	1/2"	5-9/16"	2-7/16"	2-1/8"	5/8"	—	4.3
	XT-2	3/4"	5-13/16"	2-5/8"	2-1/4"	11/16"	—	6.5
	XT-3	1"Ⓢ	6-11/16"	3-1/2"	2-1/2"	7/8"	—	11.5
	XLRT-21	3/4" Ends 1/2" Side	5-3/4"	2-21/32"	2-1/2"	11/16"	—	7
	XLRT-22	3/4" End 3/4" Side	5-3/4"	2-21/32"	2-1/2"	11/16"	—	7

XALB

Applications

Designed to permit straight pulls of heavy cable.

Features

- Integral bushings
- Easy access covers
- Sizes 1-1/4" thru 3"

Material/Finish

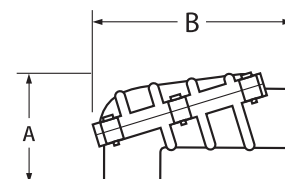
- Copper-free aluminum (less than 4/10 of 1%)
- Electrostatically applied powder coating

Ⓢ X Series 1" hub size suitable for Class 1, Group D

XALB CONDUIT BODIES		
CATALOG NUMBER	HUB SIZE	VOLUME CU. IN.
XALB-4	1-1/4"	27
XALB-5	1-1/2"	27
XALB-6	2"	70
XALB-7	2-1/2"	>100
XALB-8	3"	>100

XALB Series suitable for Class 1, Group D only.

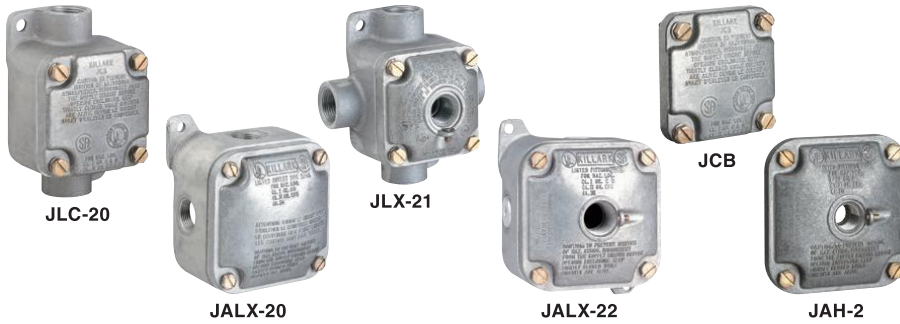
XALB DIMENSIONS			
CONDUIT SIZE	A OVERALL DEPTH	B LENGTH OF BODY	WIDTH OF BODY
1-1/4"	4-1/16"(103)	7-3/4"(197)	3-15/16"(100)
1-1/2"	4-1/16"(103)	7-3/4"(197)	3-15/16"(100)
2"	5-7/8"(149)	11-1/8"(282)	4-3/4"(121)
2-1/2"	8-1/4"(209)	17-1/2"(444)	6-7/16"(163)
3"	8-1/4"(209)	17-1/2"(444)	6-7/16"(163)





FITTINGS

OUTLET BODIES



Class I, Div. 1 & 2, Groups C, D
Class II, Div. 1 & 2, Groups E, F, G
Class III

UL LISTED - File E10514

SP Certified - File LR11716
See files for details or call Killark.

FEATURES-SPECIFICATIONS

Applications

To provide access to conductors for pulling, splicing, and maintenance. May be used as a fixture hanger.

Features

- Option of blank or hub covers
- Cast mounting lugs
- Large wiring area
- Furnished with internal ground screw
- Hub covers include set screws for locking to lighting fixture stems
- JL – Cast external hubs with integral bushings
- JAL – Four drilled and tapped conduit openings in an “x” configuration (three, close-up plugs included to allow five variations from one body)
- Option of blank or hub covers

Material/Finish

- Copper-free aluminum (less than 4/10 of 1%)
- Natural Finish

JL OUTLET BODIES WITH COVER					
CATALOG NUMBER		BOX TYPE	CONDUIT SIZE		BOX ONLY VOL. CU. IN.
WITH BLANK COVER	WITH HUB COVER		BOX ^①	COVER	
JLC-10	JLC-11	C	1/2"	1/2"	12.5
—	JLC-12	C	1/2"	3/4"	12.5
JLC-20	JLC-21	C	3/4"	1/2"	12.5
—	JLC-22	C	3/4"	3/4"	12.5
JLX-10	JLX-11	X	1/2"	1/2"	12.5
—	JLX-12	X	1/2"	3/4"	12.5
JLX-20	JLX-21	X	3/4"	1/2"	12.5
—	JLX-22	X	3/4"	3/4"	12.5

① To order box only omit last digit of catalog number.

JAL OUTLET BODIES WITH COVER					
CATALOG NUMBER		TYPE	CONDUIT SIZE		BOX ONLY VOL. CU. IN.
WITH BLANK COVER	WITH HUB COVER		BOX ^①	COVER	
JALX-10	JALX-11	X	1/2"	1/2"	26.5
—	JALX-12	X	1/2"	3/4"	26.5
JALX-20	JALX-21	X	3/4"	1/2"	26.5
—	JALX-22	X	3/4"	3/4"	26.5
JALX-30	JALX-31	X	1"	1/2"	26.5
—	JALX-32	X	1"	3/4"	26.5
JALX-40	—	X	1-1/4" ^②	1/2"	39

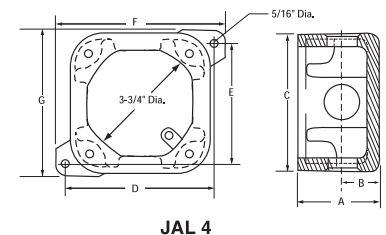
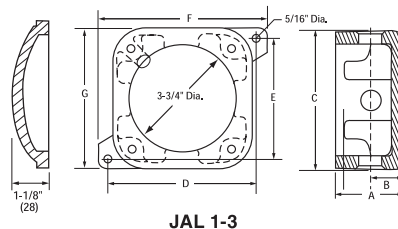
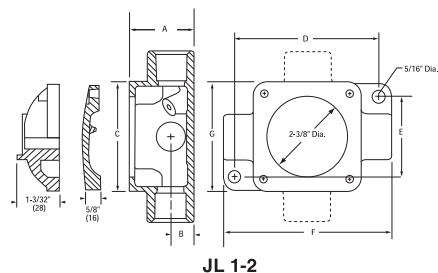
① To order box only omit last digit of catalog number.

② 1-1/4" for Class I, Group D.

REPLACEMENT HUB COVER				
CATALOG NUMBER	SERIES	HUB SIZE	DEPTH	VOLUME CU. IN.
JH-1	JL	1/2"	1-3/32"	1.5
JH-2	JL	3/4"	1-3/32"	1.5
JAH-1	JAL	1/2"	1-1/8"	6.5
JAH-2	JAL	3/4"	1-1/8"	6.5

REPLACEMENT BLANK COVER			
CATALOG NUMBER	SERIES	DEPTH	VOLUME CU. IN.
JCB	JL	5/8"	1.0
JABC	JAL	1-1/8"	7.5

DIMENSIONS							
SERIES	A	B	C	D	E	F	G
JL 1/2", 3/4"	1-15/16"	11/16"	3-1/4"	4-7/32"	2-3/8"	5-1/8"	3-1/4"
JAL 1/2", 3/4", 1"	2-3/8"	1-5/32"	4-3/4"	5-1/4"	4-1/8"	5-7/8"	4-3/4"
JAL 1-1/4"	3-3/16"	1-17/32"	4-5/8"	5-1/4"	4-1/8"	5-7/8"	4-13/16"





UNIONS



- GUF/GUM/UNF/UNY 1/2", 3/4", & 1" Class I, Div. 1 & 2, Groups A,B,C,D Class I, Zone I, IIC, IIB, IIA Class I, Zone 1, Groups IIC, IIB, IIA Class II, Div. 1 & 2, Groups E,F,G Class III
- GUF/GUM/UNF/UNY 1-1/4" through 4" Class I, Div. 1 & 2, Groups C,D Class I, Zone I, IIB, IIA Class I, Zone 1, Groups IIB, IIA Class II, Div. 1 & 2, Groups E,F,G Class III

UL LISTED File No. E 10514

SP Certified File No. LR11716

Female to Female

Male to Female

90° Elbow Union

FEATURES-SPECIFICATIONS

Applications

- GUF/GUM or UNF/UNY unions are used to connect two pieces of conduit or attach conduit to junction boxes, fittings, or devices
- Permits removal of equipment without turning or removal of conduit

Features

- Threaded for rigid conduit or IMC
- Tapered threads (NPT)
- Strong and durable construction

Material/Finish

Copper-free Aluminum
(less than 4/10 of 1%)

- Natural Finish
- 1/2" - 2" screw machine
- 2-1/2" - 4" cast

Iron - 1-1/4" - 4"

Steel - 1/2", 3/4", 1"

- Zinc electro-plate

Third-Party Standards

UL Standards 886 and 1203
CSA Standard C22.2 No. 30

For ATEX and IEC Ex certified Unions, see following page.

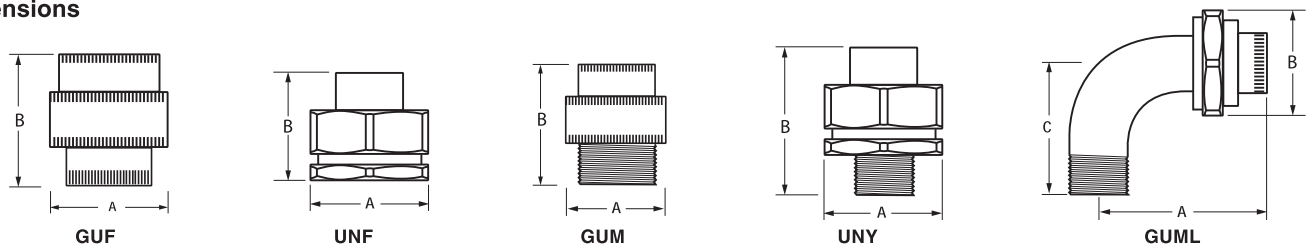
FEMALE TO FEMALE							
CAT. NO. KILLARK ALUM.	HUB SIZE	DIMENSIONS		CAT. NO. STEEL/IRON	HUB SIZE	DIMENSIONS	
		A DIAMETER	B LENGTH			A DIAMETER	B LENGTH
GUF-1⊙	1/2"	1-7/16"(37)	1-7/8"(48)	UNF1⊙	1/2"	1-1/2"(37)	1-55/64"(47)
GUF-2⊙	3/4"	1-5/8"(41)	1-15/16"(49)	UNF2⊙	3/4"	1-3/4"(45)	1-59/64"(49)
GUF-3⊙	1"	2"(51)	2-29/64"(62)	UNF3⊙	1"	2"(51)	2-7/16"(62)
GUF-4	1-1/4"	2-3/8"(60)	2-1/2"(63)	UNF4	1-1/4"	2-27/32"(72)	2-1/4"(57)
GUF-5	1-1/2"	2-5/8"(67)	2-1/2"(63)	UNF5	1-1/2"	3-3/32"(79)	2-7/16"(62)
GUF-6	2"	3-1/4"(82)	2-5/8"(67)	UNF6	2"	3-3/4"(95)	2-5/8"(67)
GUF-7	2-1/2"	4-1/2"(114)	3"(76)	UNF7	2-1/2"	4-1/2"(114)	3"(76)
GUF-8	3"	5-3/8"(136)	3-1/16"(78)	UNF8	3"	5-3/8"(136)	3-1/16"(78)
GUF-9	3-1/2"	6-1/4"(159)	3-9/16"(90)	UNF9	3-1/2"	6-1/4"(159)	3-9/16"(90)
GUF-0	4"	6-1/4"(159)	3-9/16"(90)	UNF0	4"	6-1/4"(159)	3-9/16"(90)

MALE TO FEMALE							
CAT. NO. KILLARK ALUM.	HUB SIZE	DIMENSIONS		CAT. NO. STEEL/IRON	HUB SIZE	DIMENSIONS	
		A DIAMETER	B LENGTH			A DIAMETER	B LENGTH
GUM-1⊙	1/2"	1-7/16"(37)	2-1/2"(64)	UNY1⊙	1/2"	1-1/2"(37)	2-9/16"(65)
GUM-2⊙	3/4"	1-5/8"(41)	2-9/16"(65)	UNY2⊙	3/4"	1-3/4"(45)	2-5/8"(67)
GUM-3⊙	1"	2"(51)	3-3/64"(77)	UNY3⊙	1"	2-1/32"(52)	3-5/64"(78)
GUM-4	1-1/4"	2-3/8"(60)	3-1/4"(83)	UNY4	1-1/4"	2-15/16"(75)	3-1/4"(83)
GUM-5	1-1/2"	2-5/8"(67)	3-1/4"(83)	UNY5	1-1/2"	3-3/16"(81)	3-1/2"(89)
GUM-6	2"	3-1/4"(82)	3-5/8"(92)	UNY6	2"	3-3/4"(95)	4"(102)
GUM-7	2-1/2"	4-1/2"(114)	4-15/16"(125)	UNY7	2-1/2"	4-1/2"(114)	4-15/16"(125)
GUM-8	3"	5-3/8"(136)	5-7/32"(133)	UNY8	3"	5-3/8"(133)	5-7/32"(133)
GUM-9	3-1/2"	6-1/4"(159)	5-13/16"(148)	UNY9	3-1/2"	6-1/4"(159)	5-13/16"(148)
GUM-0	4"	6-1/4"(159)	5-13/16"(148)	UNY0	4"	6-1/4"(159)	5-13/16"(148)

90° ANGLE UNION									
CAT. NO. KILLARK ALUM.	HUB SIZE	DIMENSIONS			CAT. NO. STEEL/IRON	HUB SIZE	DIMENSIONS		
		A DIA.	B LENGTH	C			A DIA.	B LENGTH	C
GUML-1	1/2"	2-1/2" (64)	1-7/16" (37)	1-3/4" (44)	GUML-1M	1/2"	2-1/4" (32)	1-1/2" (38)	1-5/8" (42)
GUML-2	3/4"	2" (51)	1-5/8" (42)	1-5/8" (42)	GUML-2M	3/4"	2-1/4" (32)	1-3/4" (44)	2" (51)

⊙ UL & CSA suitable for Class I, Groups A, B, C, D.

Dimensions





UNIONS - ATEX/IEC Ex CERTIFIED



Global Listings

ATEX / IEC Ex Certified

File nos. CML 16ATEX 1325X
IECEX QPS16.0012X
II2GD
Ex db IIC Gb
Ex tb IIIC Db IP65

UL LISTED File No. E 10514

SP Certified File No. LR11716

See previous page for UL and CSA suitability



FEATURES-SPECIFICATIONS

Applications

- GUF/GUM or UNF/UNY unions are used to connect two pieces of conduit or attach conduit to junction boxes, fittings, or devices
- Permits removal of equipment without turning or removal of conduit

Features

- Threaded for rigid conduit or IMC
- Tapered threads (NPT)
- Strong and durable construction

Material/Finish

Copper-free Aluminum
(less than 4/10 of 1%)

- Natural Finish
- 1/2" - 2" screw machine
- 2-1/2" - 4" cast

Iron - 1-1/4" - 4"

Steel - 1/2", 3/4", 1"

- Zinc electro-plate

Third-Party Standards

UL Standards 886 and 1203
CSA Standard C22.2 No. 30

For NON-ATEX and IEC Ex certified Unions, see previous page.

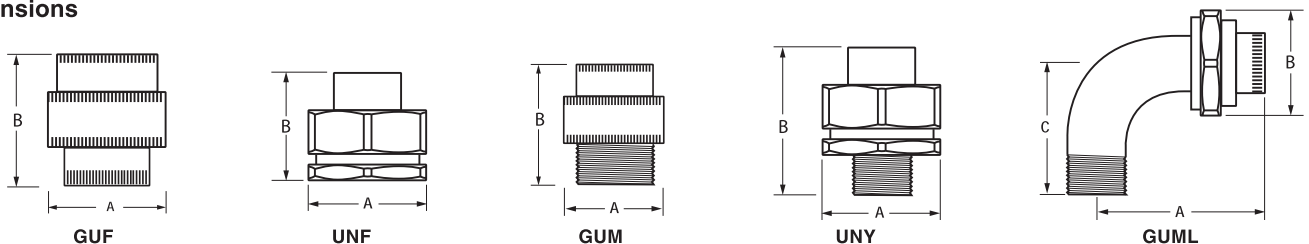
FEMALE TO FEMALE - QUAD LISTED							
CAT. NO. KILLARK ALUM.	HUB SIZE	DIMENSIONS		CAT. NO. STEEL/IRON	HUB SIZE	DIMENSIONS	
		A DIAMETER	B LENGTH			A DIAMETER	B LENGTH
GUF-1-EX	1/2"	1-7/16"(37)	1-7/8"(48)	UNF1-EX	1/2"	1-1/2"(37)	1-55/64"(47)
GUF-2-EX	3/4"	1-5/8"(41)	1-15/16"(49)	UNF2-EX	3/4"	1-3/4"(45)	1-59/64"(49)
GUF-3-EX	1"	2"(51)	2-29/64"(62)	UNF3-EX	1"	2"(51)	2-7/16"(62)
GUF-4-EX	1-1/4"	2-3/8"(60)	2-1/2"(63)	UNF4-EX	1-1/4"	2-27/32"(72)	2-1/4"(57)
GUF-5-EX	1-1/2"	2-5/8"(67)	2-1/2"(63)	UNF5-EX	1-1/2"	3-3/32"(79)	2-7/16"(62)
GUF-6-EX	2"	3-1/4"(82)	2-5/8"(67)	UNF6-EX	2"	3-3/4"(95)	2-5/8"(67)
GUF-7-EX	2-1/2"	4-1/2"(114)	3"(76)	UNF7-EX	2-1/2"	4-1/2"(114)	3"(76)
GUF-8-EX	3"	5-3/8"(136)	3-1/16"(78)	UNF8-EX	3"	5-3/8"(136)	3-1/16"(78)
GUF-9-EX	3-1/2"	6-1/4"(159)	3-9/16"(90)	UNF9-EX	3-1/2"	6-1/4"(159)	3-9/16"(90)
GUF-0-EX	4"	6-1/4"(159)	3-9/16"(90)	UNF0-EX	4"	6-1/4"(159)	3-9/16"(90)

MALE TO FEMALE - QUAD LISTED							
CAT. NO. KILLARK ALUM.	HUB SIZE	DIMENSIONS		CAT. NO. STEEL/IRON	HUB SIZE	DIMENSIONS	
		A DIAMETER	B LENGTH			A DIAMETER	B LENGTH
GUM-1-EX	1/2"	1-7/16"(37)	2-1/2"(64)	UNY1-EX	1/2"	1-1/2"(37)	2-9/16"(65)
GUM-2-EX	3/4"	1-5/8"(41)	2-9/16"(65)	UNY2-EX	3/4"	1-3/4"(45)	2-5/8"(67)
GUM-3-EX	1"	2"(51)	3-3/64"(77)	UNY3-EX	1"	2-1/32"(52)	3-5/64"(78)
GUM-4-EX	1-1/4"	2-3/8"(60)	3-1/4"(83)	UNY4-EX	1-1/4"	2-15/16"(75)	3-1/4"(83)
GUM-5-EX	1-1/2"	2-5/8"(67)	3-1/4"(83)	UNY5-EX	1-1/2"	3-3/16"(81)	3-1/2"(89)
GUM-6-EX	2"	3-1/4"(82)	3-5/8"(92)	UNY6-EX	2"	3-3/4"(95)	4"(102)
GUM-7-EX	2-1/2"	4-1/2"(114)	4-15/16"(125)	UNY7-EX	2-1/2"	4-1/2"(114)	4-15/16"(125)
GUM-8-EX	3"	5-3/8"(136)	5-7/32"(133)	UNY8-EX	3"	5-3/8"(133)	5-7/32"(133)
GUM-9-EX	3-1/2"	6-1/4"(159)	5-13/16"(148)	UNY9-EX	3-1/2"	6-1/4"(159)	5-13/16"(148)
GUM-0-EX	4"	6-1/4"(159)	5-13/16"(148)	UNY0-EX	4"	6-1/4"(159)	5-13/16"(148)

90° ANGLE UNION - QUAD LISTED									
CAT. NO. KILLARK ALUM.	HUB SIZE	DIMENSIONS			CAT. NO. STEEL/IRON	HUB SIZE	DIMENSIONS		
		A DIA.	B LENGTH	C			A DIA.	B LENGTH	C
GUML-1-EX	1/2"	2-1/2" (64)	1-7/16" (37)	1-3/4" (44)	GUML-1M-EX	1/2"	2-1/4" (32)	1-1/2" (38)	1-5/8" (42)
GUML-2-EX	3/4"	2" (51)	1-5/8" (42)	1-5/8" (42)	GUML-2M-EX	3/4"	2-1/4" (32)	1-3/4" (44)	2" (51)

UL & CSA suitable for Class I, Groups A, B, C, D.

Dimensions





EXPANSION CONDUIT UNIONS



UNFS Type Female/Female



UNFL Type Female/Female



UNYS Type Male/Female



UNYL Type Male/Female

Class I, Div. 1 & 2, Groups C,D
 Class I, Zone 1, Groups IIB, IIA
 Class II, Div. 1 & 2, Groups E,F,G
 Class III

UL Standards 886 and 1203
 CSA Standard C22.2 No. 30
 Mil Spec: MIL-F28675

LISTED File No. E 10514

Certified File No. LR11716

FEATURES-SPECIFICATIONS

UNFS & UNYS – Standard Length

UNFL & UNYL – Long Length

Application

- To provide for slight expansion and contraction of conduit runs
- To retrofit sections of conduit runs

Features

- Tapered threaded hubs (NPT) for rigid conduit and IMC
- Telescoping components allows conduit to be inserted between fixed threaded hubs
- Internal zinc plated carbon steel spring with dichromate dip assures positive grounding
- Close tolerance of mating parts eliminates passage of flame
- Compact diameter allows use where conduit is closely spaced
- Available in standard and long style, male and female version

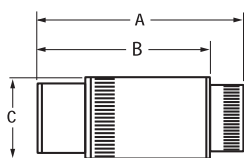
Material/Finish

Body/Sleeve – Steel/Zinc Electroplate

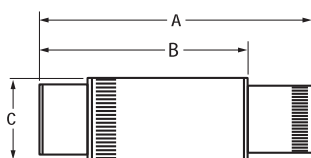
Grounding Spring – Zinc plated carbon steel spring/Natural Finish

FEMALE – SHORT					
CATALOG NUMBER	HUB SIZE	DIMENSIONS			
		MAXIMUM LENGTH "A"	MAXIMUM LENGTH "B"	DIAMETER "C"	MALE THREAD LENGTH "D"
UNFS1	1/2"	3.34" (85)	2.84" (72)	1.19" (30)	-
UNFS2	3/4"	3.53" (90)	2.97" (75)	1.44" (37)	-
UNFS3	1"	3.69" (94)	3.08" (78)	1.69" (43)	-
FEMALE – LONG					
CATALOG NUMBER	HUB SIZE	DIMENSIONS			
		MAXIMUM LENGTH "A"	MAXIMUM LENGTH "B"	DIAMETER "C"	MALE THREAD LENGTH "D"
UNFL1	1/2"	4.34" (110)	3.34" (85)	1.19" (30)	-
UNFL2	3/4"	4.53" (115)	3.47" (88)	1.44" (37)	-
UNFL3	1"	4.69" (119)	3.58" (91)	1.69" (43)	-
MALE – SHORT					
CATALOG NUMBER	HUB SIZE	DIMENSIONS			
		MAXIMUM LENGTH "A"	MAXIMUM LENGTH "B"	DIAMETER "C"	MALE THREAD LENGTH "D"
UNYS1	1/2"	3.48" (88)	2.97" (75)	1.19" (30)	.875" (22)
UNYS2	3/4"	3.60" (91)	3.03" (77)	1.44" (37)	.875" (22)
UNYS3	1"	3.93" (100)	3.15" (80)	1.69" (43)	1.100" (28)
MALE – LONG					
CATALOG NUMBER	HUB SIZE	DIMENSIONS			
		MAXIMUM LENGTH "A"	MAXIMUM LENGTH "B"	DIAMETER "C"	MALE THREAD LENGTH "D"
UNYL1	1/2"	4.48" (114)	3.48" (88)	1.19" (30)	.875" (22)
UNYL2	3/4"	4.60" (117)	3.53" (90)	1.44" (37)	.875" (22)
UNYL3	1"	4.75" (121)	3.65" (93)	1.69" (43)	1.100" (28)

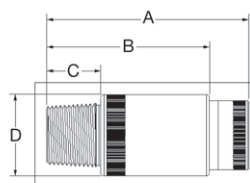
Dimensions



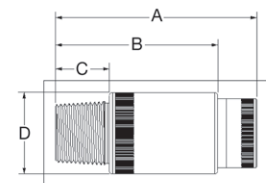
UNFS



UNFL



UNYS



UNYL



FITTINGS

THREADED INSERT PLUGS RECESSED STYLE



Recessed Plug
Cup - 375 to 6
Plug 375 to 3



Recessed Plug
Cup - 7 to 8
Plug 7 to 10



Recessed Plug
Plug 4 to 6



Recessed Plug
Plug - 9 to 0

Class I, Groups A,B,C,D
Class I, Zone 1, Groups IIC, IIB, IA
Class II, Groups E,F,G
Class III

UL Standards 886 and 1203
CSA Standard: C22.2 No. 30

UL LISTED File No. E 10514

SP Certified File No. LR11716

FEATURES-SPECIFICATIONS

Application

- To close up a tapped hole or hub

Features

- Threaded hubs (NPT)

Material/Finish

Copper-free Aluminum – 3/8" - 4"
(less than 4/10 of 1%)

- Natural Finish

Steel – 1/2" - 1"

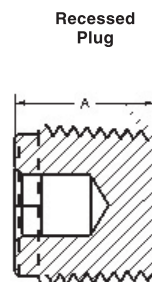
- Zinc Plated

Iron – 1-1/4" - 4"

- Zinc Plated

RECESSED PLUG - KILLARK ALUMINUM				
CATALOG NUMBER	HUB SIZE	THREAD SPECIFICATION	PLUG LENGTH A	RECESS DRIVE SIZE
CUP-375	3/8"	3/8"- 18 NPT	37/64" (14.7)	1/4" Allen key
CUP-1	1/2"	1/2"- 14 NPT	19/32" (15.1)	3/8" Allen key
CUP-2	3/4"	3/4"- 14 NPT	19/32" (15.1)	3/8" Allen key
CUP-3	1"	1"- 11-1/2 NPT	5/8" (15.9)	3/8" Allen key
CUP-4	1-1/4"	1-1/4"- 11-1/2 NPT	1" (25.4)	1/2" Allen key
CUP-5	1-1/2"	1-1/2"- 11-1/2 NPT	1" (25.4)	1/2" Allen key
CUP-6	2"	2"- 11-1/2 NPT	1" (25.4)	1/2" Allen key
CUP-7	2-1/2"	2-1/2"- 8 NPT	1-5/32" (29.4)	1/4" Slot
CUP-8	3"	3"- 8 NPT	1-5/32" (29.4)	1/4" Slot
CUP-9	3-1/2"	3-1/2"- 8 NPT	1-5/16" (33.3)	Pry Tabs
CUP-0	4"	4"- 8 NPT	1-5/16" (33.3)	Pry Tabs

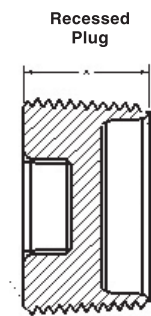
RECESSED PLUG - STEEL/IRON				
CATALOG NUMBER	HUB SIZE	THREAD SPECIFICATION	PLUG LENGTH A	RECESS DRIVE SIZE
PLUG375	3/8"	3/8"- 18 NPT	37/64" (14.7)	1/4" Allen key
PLUG1	1/2"	1/2"- 14 NPT	19/32" (15.1)	1/4" Allen key
PLUG2	3/4"	3/4"- 14 NPT	19/32" (15.1)	5/16" Allen key
PLUG3	1"	1"- 11-1/2 NPT	5/8" (15.9)	3/8" Allen key
PLUG4	1-1/4"	1-1/4"- 11-1/2 NPT	1" (25.4)	3/4" Square
PLUG5	1-1/2"	1-1/2"- 11-1/2 NPT	1" (25.4)	3/4" Square
PLUG6	2"	2"- 11-1/2 NPT	1" (25.4)	3/4" Square
PLUG7	2-1/2"	2-1/2"- 8 NPT	1-5/32" (29.4)	1/4" Slot
PLUG8	3"	3"- 8 NPT	1-5/32" (29.4)	1/4" Slot
PLUG9	3-1/2"	3-1/2"- 8 NPT	1-5/16" (33.3)	1/4" Slot
PLUG10	4"	4"- 8 NPT	1-5/16" (33.3)	1/4" Slot



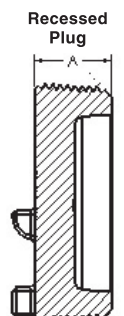
CUP-375 to 6
PLUG 375 to 3



CUP-7 to 8
PLUG 7 to 10



PLUG 4 to 6



CUP-9 to 0



THREADED INSERT PLUGS RECESSED STYLE



Recessed Plug
Cup - 375 to 6
Plug 375 to 3



Recessed Plug
Cup - 7 to 8
Plug 7 to 10



Recessed Plug
Plug 4 to 6



Global Listings

ATEX / IEC Ex Certified

File nos. **SIRA 13ATEX1196U Issue: 1**

- ⊗ II 2 G D
- Ex d IIC Gb
- Ex e IIC Gb
- Ex tb IIIC Db
- Ta = -50°C to +60°C

File nos. **IECEx SIR 13.0073U Issue: 1**

- Ex d IIC Gb
- EX e IIC Gb
- EX tb IIIC Db
- Ta = -50°C to +60°C

LISTED File No. E 10514

Certified File No. LR11716

FEATURES-SPECIFICATIONS

Application

- To close up a tapped hole or hub

Features

- Threaded hubs (NPT)

Material/Finish

Copper-free Aluminum – 3/8" - 4"
(less than 4/10 of 1%)

- Natural Finish

Steel – 1/2" - 1"

- Zinc Plated

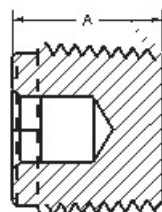
Iron – 1-1/4" - 4"

- Zinc Plated

RECESSED PLUG - KILLARK ALUMINUM				
CATALOG NUMBER	HUB SIZE	THREAD SPECIFICATION	PLUG LENGTH A	RECESS DRIVE SIZE
CUP-1-EX	1/2"	1/2"- 14 NPT	19/32" (15.1)	3/8" Allen key
CUP-2-EX	3/4"	3/4"- 14 NPT	19/32" (15.1)	3/8" Allen key
CUP-3-EX	1"	1"- 11-1/2 NPT	5/8" (15.9)	3/8" Allen key
CUP-4-EX	1-1/4"	1-1/4"- 11-1/2 NPT	1" (25.4)	1/2" Allen key
CUP-5-EX	1-1/2"	1-1/2"- 11-1/2 NPT	1" (25.4)	1/2" Allen key
CUP-6-EX	2"	2"- 11-1/2 NPT	1" (25.4)	1/2" Allen key
CUP-7-EX	2-1/2"	2-1/2"- 8 NPT	1-5/32" (29.4)	1/4" Slot
CUP-8-EX	3"	3"- 8 NPT	1-5/32" (29.4)	1/4" Slot

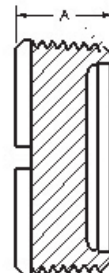
RECESSED PLUG - STEEL/IRON				
CATALOG NUMBER	HUB SIZE	THREAD SPECIFICATION	PLUG LENGTH A	RECESS DRIVE SIZE
PLUG1-EX	1/2"	1/2"- 14 NPT	19/32" (15.1)	1/4" Allen key
PLUG2-EX	3/4"	3/4"- 14 NPT	19/32" (15.1)	5/16" Allen key
PLUG3-EX	1"	1"- 11-1/2 NPT	5/8" (15.9)	3/8" Allen key
PLUG4-EX	1-1/4"	1-1/4"- 11-1/2 NPT	1" (25.4)	3/4" Square
PLUG5-EX	1-1/2"	1-1/2"- 11-1/2 NPT	1" (25.4)	3/4" Square
PLUG6-EX	2"	2"- 11-1/2 NPT	1" (25.4)	3/4" Square
PLUG7-EX	2-1/2"	2-1/2"- 8 NPT	1-5/32" (29.4)	1/4" Slot
PLUG8-EX	3"	3"- 8 NPT	1-5/32" (29.4)	1/4" Slot
PLUG9-EX	3-1/2"	3-1/2"- 8 NPT	1-5/16" (33.3)	1/4" Slot
PLUG10-EX	4"	4"- 8 NPT	1-5/16" (33.3)	1/4" Slot

Recessed Plug



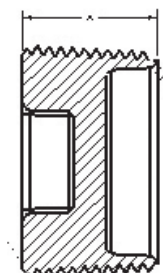
CUP-375 to 6
PLUG 375 to 3

Recessed Plug



CUP-7 to 8
PLUG 7 to 10

Recessed Plug



PLUG 4 to 6



FITTINGS

THREADED INSERT PLUGS SQUARE HEAD STYLE



Square Head Plug
Cup-250 to 0



Square Head Plug
PLUG1-SQ to 10SQ

Class I Groups A,B,C,D
Class I, Zone 1, Groups IIC, IIB, IA
Class II Groups E,F,G
Class III

UL Standards 886 and 1203
CSA Standard: C22.2 No. 30

Listed File No. E 10514

Certified File No. LR11716

FEATURES-SPECIFICATIONS

Application

- To close up a tapped hole or hub

Features

- Threaded hubs (NPT)

Material/Finish

Copper-free Aluminum – 1/4”- 4”
(less than 4/10 of 1%)

- Natural Finish

Steel – 1/2”- 1”

- Zinc Plated

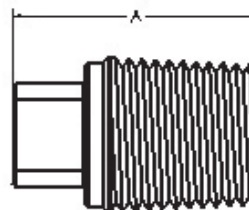
Iron – 1-1/4”- 4”

- Zinc Plated

For recessed style plugs see previous page.

SQUARE HEAD PLUG (EXTERNAL HEAD) - KILLARK ALUMINUM				
CATALOG NUMBER	HUB SIZE	THREAD SPECIFICATION	PLUG LENGTH A	HEAD SIZE
CUPX-250	1/4"	1/4"- 18 NPT	51/64" (20.2)	3/8" (9.5)
CUPX-1	1/2"	1/2"- 14 NPT	1/64" (25.8)	1/2" (12.7)
CUPX-2	3/4"	3/4"- 14 NPT	1-5/32" (29.4)	5/8" (15.9)
CUPX-3	1"	1"- 11-1/2 NPT	21/64" (33.7)	13/16" (20.6)
CUPX-4	1-1/4"	1-1/4"- 11-1/2 NPT	1-3/8" (34.9)	15/16" (23.8)
CUPX-5	1-1/2"	1-1/2"- 11-1/2 NPT	1-13/16" (46.0)	1-1/8" (28.6)
CUPX-6	2"	2"- 11-1/2 NPT	1-49/64" (44.8)	1-5/16" (33.3)
CUPX-7	2-1/2"	2-1/2"- 8 NPT	1-27/32" (46.8)	1-5/8" (41.3)
CUPX-8	3"	3"- 8 NPT	1-27/32" (46.8)	2" (50.8)
CUPX-9	3-1/2"	3-1/2"- 8 NPT	2" (50.8)	2-1/2" (63.5)
CUPX-0	4"	4"- 8 NPT	2" (50.8)	2-1/2" (63.5)

SQUARE HEAD PLUG (EXTERNAL HEAD) - STEEL/IRON				
CATALOG NUMBER	HUB SIZE	THREAD SPECIFICATION	PLUG LENGTH A	RECESS DRIVE SIZE
PLUG1-SQ	1/2"	1/2"- 14 NPT	61/64" (24.2)	35/64" (13.9)
PLUG2-SQ	3/4"	3/4"- 14 NPT	1-3/32" (27.7)	5/8" (15.9)
PLUG3-SQ	1"	1"- 11-1/2 NPT	1-17/64" (32.1)	13/16" (20.6)
PLUG4-SQ	1-1/4"	1-1/4"- 11-1/2 NPT	1-7/16" (36.4)	15/16" (23.8)
PLUG5-SQ	1-1/2"	1-1/2"- 11-1/2 NPT	1-15/32" (37.3)	1-1/8" (28.6)
PLUG6-SQ	2"	2"- 11-1/2 NPT	1-21/32" (42.1)	1-5/16" (33.3)
PLUG7-SQ	2-1/2"	2-1/2"- 8 NPT	1-27/32" (46.8)	1-5/8" (41.3)
PLUG8-SQ	3"	3"- 8 NPT	1-27/32" (46.8)	2" (50.8)
PLUG9-SQ	3-1/2"	3-1/2"- 8 NPT	2" (50.8)	2-1/2" (63.5)
PLUG10-SQ	4"	4"- 8 NPT	2" (50.8)	2-1/2" (63.5)





RIGID CONDUIT NIPPLES



AN-1 to 0



AN - 2B

- Suitable for use in hazardous location applications when installed according to NEC Articles 501.10 (Class I, Div. 1 & 2 Groups A, B, C, D), NEC 502.10 (Class II, Div. 1 & 2, Groups EFG) and NEC 503.10 (Class III).
- UL Standards 886 and 1203

File No. E 311892

FEATURES-SPECIFICATIONS

Application

- To connect threaded rigid or IMC conduit to cast hubs or drilled and tapped conduit openings

Features

- Tapered threads (NPT) meet latest UL 1203 requirements

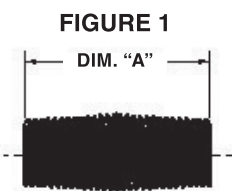
Material/Finish

Copper-free Aluminum
(less than 4/10 of 1%)

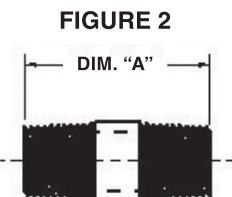
Steel – 1/2”- 6”

- Zinc Plated

For ATEX and IEC Ex certified Rigid Conduit Nipple, see page F75



AN-1 to 0



AN-2B

RIGID CONDUIT NIPPLES - ALUMINUM

CATALOG NUMBER	CONDUIT SIZE	THREAD SPECIFICATION	BODY LENGTH DIMENSION A	FIG.#
AN-1	1/2"	1/2"- 14 NPT	1-9/16" (39.7)	1
AN-2	3/4"	3/4"- 14 NPT	1-37/64" (40.1)	1
AN-3	1"	1"- 11-1/2 NPT	1-31/32" (50.0)	1
AN-4	1-1/4"	1"- 11-1/2 NPT	2-1/64" (51.2)	1
AN-5	1-1/2"	1"- 11-1/2 NPT	2-1/16" (52.4)	1
AN-6	2"	1"- 11-1/2 NPT	2-1/8" (54.0)	1
AN-7	2-1/2"	2-1/2"- 8 NPT	3-9/64" (79.8)	1
AN-8	3"	3"- 8 NPT	3-1/4" (82.6)	1
AN-9	3-1/2"	3-1/2"- 8 NPT	3-23/64" (85.3)	1
AN-10	4"	4"- 8 NPT	3-15/32" (88.1)	1
AN-11	5"	5"- 8 NPT	3-1/2" (88.9)	1
AN-12	6"	6"- 8 NPT	3-1/2" (88.9)	1
AN-1B	1/2"	1/2"- 14 NPT	2" (50.8)	2
AN-2B	3/4"	3/4"- 14 NPT	2" (50.8)	2

RIGID CONDUIT NIPPLES - STEEL

CATALOG NUMBER	CONDUIT SIZE	THREAD SPECIFICATION	BODY LENGTH DIMENSION A	FIG.#
AN-1S	1/2"	1/2"- 14 NPT	1-9/16" (39.7)	1
AN-2S	3/4"	3/4"- 14 NPT	1-37/64" (40.1)	1
AN-3S	1"	1"- 11-1/2 NPT	1-31/32" (50.0)	1
AN-4S	1-1/4"	1"- 11-1/2 NPT	2-1/64" (51.2)	1
AN-5S	1-1/2"	1"- 11-1/2 NPT	2-1/16" (52.4)	1
AN-6S	2"	1"- 11-1/2 NPT	2-1/8" (54.0)	1
AN-7S	2-1/2"	2-1/2"- 8 NPT	3-9/64" (79.8)	1
AN-8S	3"	3"- 8 NPT	3-1/4" (82.6)	1
AN-9S	3-1/2"	3-1/2"- 8 NPT	3-23/64" (85.3)	1
AN-10S	4"	4"- 8 NPT	3-15/32" (88.1)	1
AN-11S	5"	5"- 8 NPT	3-1/2" (88.9)	1
AN-12S	6"	6"- 8 NPT	3-1/2" (88.9)	1
AN-1BS	1/2"	1/2"- 14 NPT	2" (50.8)	2
AN-2BS	3/4"	3/4"- 14 NPT	2" (50.8)	2



FITTINGS

RIGID CONDUIT NIPPLES



AN-1 to 0



AN-2B



Global Listings

ATEX / IEC Ex Certified

SIRA 13ATEX1196U

II 2 G D

Ex d IIC Gb

Ex e IIC Gb

Ex tb IIIC Db

Ta = -50°C to +60°C

IECEX SIR 13.0073U

Ex d IIC Gb

Ex e IIC Gb

EX tb IIIC Db

Ta = -50°C to +60°C

- Suitable for use in hazardous location applications when installed according to NEC Articles 501.10 (Class I, Div. 1 & 2 Groups A, B, C, D), NEC 502.10 (Class II, Div. 1 & 2, Groups EFG) and NEC 503.10 (Class III).

- UL Standard 1203

File No. E 348606 (steel)

File No. E 311892 (aluminum)

FEATURES-SPECIFICATIONS

Application

- To connect threaded rigid or IMC conduit to cast hubs or drilled and tapped conduit openings

Features

- Tapered threads (NPT) meet latest UL 1203 requirements

Material/Finish

Copper-free Aluminum
(less than 4/10 of 1%)

Steel – 1/2"– 6"

- Zinc Plated

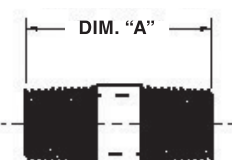
For Non-ATEX and IEC Ex certified Rigid Conduit Nipple, see page F74

FIGURE 1



AN-1 to 0

FIGURE 2



AN-2B

RIGID CONDUIT NIPPLES - ALUMINUM

CATALOG NUMBER	CONDUIT SIZE	THREAD SPECIFICATION	BODY LENGTH DIMENSION A	FIG.#
AN-1-EX	1/2"	1/2"- 14 NPT	1-9/16" (39.7)	1
AN-2-EX	3/4"	3/4"- 14 NPT	1-37/64" (40.1)	1
AN-3-EX	1"	1"- 11-1/2 NPT	1-31/32" (50.0)	1
AN-4-EX	1-1/4"	1"- 11-1/2 NPT	2-1/64" (51.2)	1
AN-5-EX	1-1/2"	1"- 11-1/2 NPT	2-1/16" (52.4)	1
AN-6-EX	2"	1"- 11-1/2 NPT	2-1/8" (54.0)	1
AN-7-EX	2-1/2"	2-1/2"- 8 NPT	3-9/64" (79.8)	1
AN-8-EX	3"	3"- 8 NPT	3-1/4" (82.6)	1
AN-9-EX	3-1/2"	3-1/2"- 8 NPT	3-23/64" (85.3)	1
AN-10-EX	4"	4"- 8 NPT	3-15/32" (88.1)	1
AN-1B-EX	1/2"	1/2"- 14 NPT	2" (50.8)	2
AN-2B-EX	3/4"	3/4"- 14 NPT	2" (50.8)	2

RIGID CONDUIT NIPPLES - STEEL

CATALOG NUMBER	CONDUIT SIZE	THREAD SPECIFICATION	BODY LENGTH DIMENSION A	FIG.#
AN-1S-EX	1/2"	1/2"- 14 NPT	1-9/16" (39.7)	1
AN-2S-EX	3/4"	3/4"- 14 NPT	1-37/64" (40.1)	1
AN-3S-EX	1"	1"- 11-1/2 NPT	1-31/32" (50.0)	1
AN-4S-EX	1-1/4"	1"- 11-1/2 NPT	2-1/64" (51.2)	1
AN-5S-EX	1-1/2"	1"- 11-1/2 NPT	2-1/16" (52.4)	1
AN-6S-EX	2"	1"- 11-1/2 NPT	2-1/8" (54.0)	1
AN-7S-EX	2-1/2"	2-1/2"- 8 NPT	3-9/64" (79.8)	1
AN-8S-EX	3"	3"- 8 NPT	3-1/4" (82.6)	1
AN-9S-EX	3-1/2"	3-1/2"- 8 NPT	3-23/64" (85.3)	1
AN-10S-EX	4"	4"- 8 NPT	3-15/32" (88.1)	1
AN-1BS-EX	1/2"	1/2"- 14 NPT	2" (50.8)	2
AN-2BS-EX	3/4"	3/4"- 14 NPT	2" (50.8)	2



KDB/KB SERIES



DRAINS / BREATHERS / FLAME ARRESTORS



KDB-1 KB1B KB1D

ATEX/IEC Ex Certified

- ① See chart below for suitability
- ② Warning – not for use in acetylene atmosphere

Class I, Div. 1 & 2, Groups B[Ⓛ], C, D
 Class I, Zones 1 & 2, Groups IIB + H₂[Ⓛ]
 Class II, Div. 1 & 2, Groups E, F, G
 Class III, NEMA Type 3
 II 2 G Ex d IIB IIC[Ⓛ] T226C Gb IP44
 Ta = -50°C to +60°C



UL LISTED - File E10514
 cULus Certified - File LR11716
 FM APPROVED Certified File 25215
 IEC Ex CSA 10.0007U
 SIRA 10ATEX1351U

KB/KD SERIES DRAIN & BREATHERS

Applications

When installed in the top of an enclosure, these fittings act as breathers which allows air flow through the enclosure. Bottom installations permit water from condensation

to drain from the enclosure continuously. The drains and breathers are offered in a variety of hub sizes, 1/4, 3/8 & 1/2 inch NPT and metric M16 & M20.

Body Material

Aluminum with optional stainless steel or brass available for special orders.

Volume

For use in enclosures with a maximum internal volume to 9526 cubic inches or 160 liters.

CATALOG NUMBER	THREAD SIZE	BODY MATERIAL	THIRD PARTY	SUITABILITY USA	THIRD PARTY	SUITABILITY CANADA	THIRD PARTY	SUITABILITY ATEX/IEC Ex
KB1B BREATHER KB1D DRAIN KB1BCEN BREATHER KB1DCEN DRAIN KBM20BCEN BREATHER KBM20DCEN DRAIN	1/2 NPT 1/2 NPT 1/2 NPT 1/2 NPT M20 M20	ALUMINUM ALUMINUM ALUMINUM ALUMINUM ALUMINUM ALUMINUM	UL, FM & CSAus UL, FM & CSAus CSAus CSAus CSAus CSAus	CLASS I GROUPS B, C & D CLASS I, ZONES 1 & 2 GR IIB+H ₂ CLASS II GROUPS E, F, & G CLASS III ENCL TYPE 3	c CSA c CSA c CSA c CSA c CSA c CSA	CLASS I GROUPS C & D CLASS I, ZONES 1 & 2 GR IIB CLASS II GROUPS E, F & G CLASS III ENCL TYPE 3	SIRA/CSA SIRA/CSA SIRA/CSA SIRA/CSA	II 2 G Ex d IIC T226C Gb IP44 [Ⓛ]
KDB-1 DRAIN / BREATHER KDB-250 DRAIN / BREATHER KDB-375 DRAIN / BREATHER KDB-250CEN DRAIN / BREATHER KDB-375CEN DRAIN / BREATHER KDB-M16CEN DRAIN / BREATHER	1/2 NPT 1/4 NPT 3/8 NPT 1/4 NPT 3/8 NPT M16	STAINLESS STEEL ALUMINUM ALUMINUM ALUMINUM ALUMINUM ALUMINUM	UL, FM & CSAus CSAus CSAus CSAus CSAus CSAus	CLASS I GROUPS C & D CLASS I, ZONES 1 & 2 GR IIB CLASS II GROUPS E, F & G CLASS III ENCL TYPE 3	c CSA c CSA c CSA c CSA c CSA c CSA	CLASS I GROUPS C & D CLASS I, ZONES 1 & 2 GR IIB CLASS II GROUPS E, F & G CLASS III ENCL TYPE 3	SIRA/CSA SIRA/CSA SIRA/CSA SIRA/CSA	II 2 G Ex d IIB T3 Gb IP44

KB SERIES FLAME ARRESTOR

Applications

The flame arrestor provides a means to connect gas analysis equipment and electro pneumatic devices' pipe or tubing system through the wall of an explosion-proof enclosure.

ATEX/IEC Ex Certified



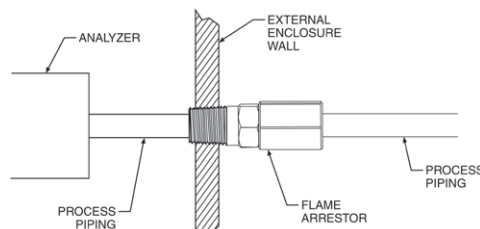
Class I, Div. 1 & 2, Groups B[Ⓛ], C, D
 Class I, Zones 1 & 2, Groups IIB + H₂[Ⓛ]
 Class II, Div. 1 & 2, Groups E, F, G
 Class III, NEMA Type 3, 4[Ⓛ]
 II 2 G Ex d IIB IICk T3 Gb IP66[Ⓛ]
 Ta = -50°C to +60°C

Ex
 cULus Certified - File LR11716
 IEC Ex CSA 10.0007U
 SIRA 10ATEX1351U
 ① See chart below for suitability
 ② Warning – not for use in acetylene atmospheres

BODY MATERIAL: 6061-T6 series aluminum provided as standard. Optional stainless steel or brass for special orders.

CATALOG NUMBER	EXTERNAL HUB THREAD SIZE	INTERNAL & EXTERNAL PROCESS PIPING THREAD SIZE	THIRD PARTY	SUITABILITY USA	THIRD PARTY	SUITABILITY CANADA	THIRD PARTY	SUITABILITY ATEX/IEC Ex
KB1FA25 KB1FA25SS6	1/2 NPT 1/2 NPT	1/4 NPT 1/4 NPT	CSAus CSAus	CLASS I GROUPS B, C & D CLASS I, ZONES 1 & 2 GR IIB+H ₂ CLASS II GROUPS E, F, & G CLASS III TYPE 3 & 4	c CSA c CSA	CLASS I GROUPS C & D CLASS I, ZONES 1 & 2 GR IIB CLASS II GROUPS E, F & G CLASS III TYPE 3 & 4	SIRA/CSA	II 2 G Ex d IIC [Ⓛ] T3 Gb IP66
KB1FAM16 KBM20FA25 KBM20FA25SS6 KBM20FAM16 KBM20FAM16SS6	1/2 NPT M20 M20 M20 M20	M16 1/4" NPT 1/4" NPT M16 M16	CSAus CSAus CSAus	CLASS I GROUPS B, C & D CLASS I ZONES 1 & 2 GR IIB+H ₂ CLASS II GROUPS E, F & G CLASS III TYPE 3	c CSA c CSA c CSA	CLASS I GROUPS C & D CLASS I, ZONES 1 & 2 GR IIB CLASS II GROUPS E, F & G CLASS III TYPE 3	SIRA/CSA SIRA/CSA SIRA/CSA	II 2 G Ex d IIC T3 Gb IP65

TYPICAL INSTALLATION



Specifications

Air flow = 83 + 15 / - 25 SCFH at 5PSI
 Pressure drop = 1.3 PSI at 100 PSI
 Maximum flow pressure = 800 PSI
 Volume = For use in enclosures with a maximum internal volume of 9526 cubic inches or 160 liters.



FITTINGS

EXPLOSIONPROOF, DUST-IGNITIONPROOF AND TYPE 4X UNIVERSAL DRAIN OR BREATHER



KB1-4X

Class I, Div. 1 & 2, Groups B[Ⓢ], C, D
 Class I, Zones 1 & 2, Groups IIB + H₂
 Class II, Div. 1 & 2, Groups E, F, G
 Class III
 Type 3, 4, 4X

Certified File - LR11716

Certified File - LR11716

File E10514

Certified File - LR11716

FEATURES-SPECIFICATIONS

Applications:

When installed in the top of an enclosure, this fitting acts as a breather to allow air flow through the enclosure. Bottom installation permits water from condensation to drain from the enclosure continuously.

Features

- Suitable for Explosionproof and Dust-Ignitionproof environments
- Type 3, 4, 4X Rating
- Machined 1/2" NPT Thread

Standard Materials

- Copper-Free Aluminum
- 316 Stainless Steel

Finish

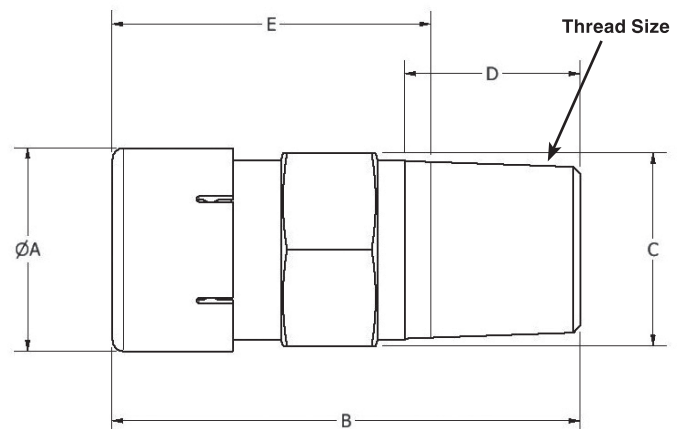
- Anodized Lightblue - Aluminum
- Natural - 316 Stainless Steel

[Ⓢ] Canadian suitability

Class I, Div. 1 & 2, Groups C, D
 Class I, Zones 1 & 2, Groups IIB
 Class II, Div. 1 & 2, Groups E, F, G
 Class III
 Type 3, 4, 4X (NEMA)

KB EXPLOSIONPROOF, DUST-IGNITIONPROOF AND TYPE 4X UNIVERSAL DRAIN OR BREATHER				
CATALOG NUMBER	THREAD SIZE	BODY MATERIAL	FINISH	SHIP CTN QTY
KB1-4X	1/2" NPT	Aluminum	ANODIZED LIGHTBLUE	5
KB1-4XS6	1/2" NPT	316 Stainless Steel	NATURAL	5

DIMENSIONS						
CATALOG NUMBER	A	B	C		D	E +/- 1/8" TYPICAL
			A/C	A/F		
KB1-4X	13/16"	2-1/8"	1"	7/8"	51/64"	1-19/32"
KB1-4XS6	13/16"	2-1/8"	1"	7/8"	51/64"	1-19/32"





KDE SERIES DRAIN BREATHER



KDES60M20



KDEGF0M20

Class I, Div. 2, Groups A, B, C, D
 Class I, Zone 1 & 2, Ex e / AEx e IIC, A/Ex tb
 Class II, Div. 1 ① & 2, Groups E, F, G
 Class III, Ambient Temperature Range
 -55°C to +80°C
 Enclosure Type 3, 4 & 4X② IP66



SP 2714851

II 2 G D CE 0518

Ex e IIC Gb

Ex tb IIIC Db IP66

Ta = -55°C to +80°C

IEC IEx 15.0154X

CML 15ATEX3028X

IECex QPS 15.0002X

PATENT PENDING

FEATURES-SPECIFICATIONS

Applications

When installed in the bottom of a thin wall enclosure the KDE allows water from condensation to drain continuously out of the enclosure. The drain breathers are installed through clearance holes and held secured with a internal locknut. The silicone external o ring makes a hose down tight seal.

Features

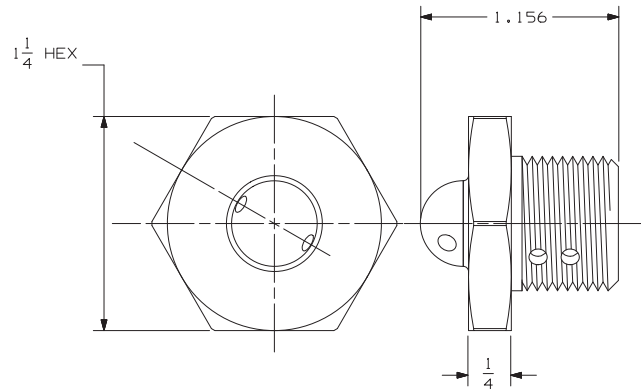
- Silicone o-ring supplied as standard and suitable for use in a -55°C to +80°C temperature range.
- Variety of thread sizes 1/2 & 3/4 NPT, 1/2 & 3/4 NPSM, M20 & M25.
- Available in 300 series stainless steel, 316 stainless steel, aluminum and 30% glass filled nylon.
- Internal 316 stainless steel locknut supplied as standard. When tighten to the proper torque the joint makes a hose down tight seal for type 4, 4X & IP66 application.

Materials

- 303 or 304 stainless steel, 316 stainless steel, brass, aluminum or 30% glass filled nylon.
- Internal locknut 316 stainless steel.
- High temp silicone o-ring

MATERIAL / CATALOG NUMBER					
ENTRY THREAD SIZE & TYPE	GLASS FILLED PA6 NYLON	ALUMINUM	316 STAINLESS STEEL	BRASS	NICKEL PLATED BRASS
M20	KDEGF0M20	KDEAL0M20	KDES60M20	KDEBR0M20	KDEBR1M20
M25	KDEGF0M25	KDEAL0M25	KDES60M25	KDEBR0M25	KDEBR1M25
1/2" NPT	KDEGF0050	KDEAL0050	KDES60050	KDEBR0050	KDEBR1050
3/4" NPT	KDEGF0075	KDEAL0075	KDES60075	KDEBR0075	KDEBR1075

Note: Other thread forms and materials available upon request.



① Class II Div. 1 Canada only, Div. 2 in the U.S.

② Type 4X in 316 & 304 SS, Aluminum & Nylon materials only.



FITTINGS

REDUCING BUSHINGS AND ADAPTERS



R- 31



R- 65



ADUP-12

- R-10 through R-65
- RE21S through RE65S
Class I, Div. 1 & 2, Groups A, B, C, D
Class I, Zone 1, Groups IIC, IIB, IIA
Class II, Div. 1 & 2, Groups E, F, G
- R-73 through R-109
Class I, Div. 1 & 2, Groups A, B, C, D
Class I, Zone 1, Groups IIC, IIB, IIA
Class II, Div. 1 & 2, Groups E, F, G

UL Standard: 1203
CSA Standard: C22.2 No. 30

LISTED File No. E 10514

Certified File No. LR11716

FEATURES-SPECIFICATIONS

Application

- To reduce the trade size of a taped hole or hub.

Features

- Tapered threads (NPT)
- Smooth internal bushing protects conductors
- Threaded for Rigid Conduit or IMC

Material/Finish

Copper-free Aluminum

(less than 4/10 of 1%)
(R-10 through R-109)

Natural Finish

Steel/Zinc Plated

(RE21S through RE65S)

For ATEX and IEC Ex certified Reducing Bushings and Adapters, see page F80

REDUCING BUSHINGS			
CATALOG NUMBER		HUB SIZE	DIMENSIONS BODY LENGTH
KILLARK ALUM.	STEEL		
R-10	RE10S	1/2" — 3/8"	3/4"(19)
R-20	RE20S	3/4" — 3/8"	11/16"(18)
R-21	RE21S	3/4" — 1/2"	13/16"(21)
R-30	RE30S	1" — 3/8"	11/16"(18)
R-31	RE31S	1" — 1/2"	13/16"(21)
R-32	RE32S	1" — 3/4"	13/16"(21)
R-41	RE41S	1-1/4" — 1/2"	13/16"(21)
R-42	RE42S	1-1/4" — 3/4"	13/16"(21)
R-43	RE43S	1-1/4" — 1"	1"(25)
R-51	RE51S	1-1/2" — 1/2"	13/16"(21)
R-52	RE52S	1-1/2" — 3/4"	13/16"(21)
R-53	RE53S	1-1/2" — 1"	1"(25)
R-54	RE54S	1-1/2" — 1-1/4"	1-1/64"(28)
R-61	RE61S	2" — 1/2"	13/16"(21)
R-62	RE62S	2" — 3/4"	13/16"(21)
R-63	RE63S	2" — 1"	1"(25)
R-64	RE64S	2" — 1-1/4"	1/64"(28)
R-65	RE65S	2" — 1-1/2"	1/32"(31)
R-73	—	2-1/2" — 1"	1"(25)
R-74	—	—	—
R-75	—	2-1/2" — 1-1/2"	1"(25)
R-76	—	2-1/2" — 2"	1"(25)
R-84	—	—	—
R-85	—	3" — 1-1/2"	1-1/4"(32)
R-86	—	3" — 2"	1-1/4"(32)
R-87	—	3" — 2-1/2"	1-1/4"(32)
R-96	—	3-1/2" — 2-1/2"	1-3/8"(35)
R-97	—	3-1/2" — 2-1/2"	1-3/8"(35)
R-98	—	3-1/2" — 3"	1-3/8"(35)
R-106	—	4" — 2"	1-1/2"(38)
R-107	—	4" — 2-1/2"	1-1/2"(38)
R-108	—	4" — 3"	1-1/2"(38)
R-109	—	4" — 3-1/2"	1-1/2"(38)

ADUP ADAPTERS	
CATALOG NUMBER ^①	DESCRIPTION
ADUP-01	Male 3/8" Female 1/2"
ADUP-12	Male 1/2" Female 3/4"

^① Series ADUP suitable for Class I, Groups A, B, C, D

Material/Finish

Copper-free Aluminum

(less than 4/10 of 1%)

Natural Finish



REDUCING BUSHINGS



R - 31



R - 65



Global Listings

ATEX / IEC Ex Certified

File nos. SIRA 13ATEX1196U Issue: 1

Ex II 2 G D

Ex d IIC Gb

Ex e IIC Gb

Ex tb IIIC Db

Ta = -50°C to +60°C

File nos. IECEx SIR 13.0073U Issue: 1

Ex d IIC Gb

EX e IIC Gb

EX tb IIIC Db

Ta = -50°C to +60°C

UL LISTED File No. E 10514

SP Certified File No. LR11716

See page XX for UL and CSA suitabilities

FEATURES-SPECIFICATIONS

Application

- To reduce the trade size of a taped hole or hub.

Features

- Tapered threads (NPT)
- Smooth internal bushing protects conductors
- Threaded for Rigid Conduit or IMC

Material/Finish

Copper-free Aluminum

(less than 4/10 of 1%)
(R-10 through R-109)

Natural Finish

Steel/Zinc Plated

(RE21S through RE65S)

For Non-ATEX and IEC Ex certified Reducing Bushings and Adapters, see page F79

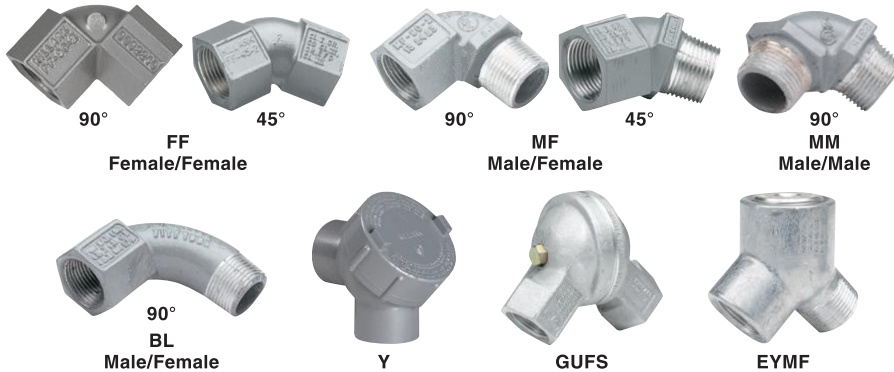
REDUCING BUSHINGS			
CATALOG NUMBER		HUB SIZE	DIMENSIONS
KILLARK ALUM.	STEEL		BODY LENGTH
R-10-EX	—	1/2" — 3/8"	3/4"(19)
R-20-EX	—	3/4" — 3/8"	11/16"(18)
R-21-EX	RE21S-EX	3/4" — 1/2"	13/16"(21)
R-30-EX	—	1" — 3/8"	11/16"(18)
R-31-EX	RE31S-EX	1" — 1/2"	13/16"(21)
R-32-EX	RE32S-EX	1" — 3/4"	13/16"(21)
R-41-EX	RE41S-EX	1-1/4" — 1/2"	13/16"(21)
R-42-EX	RE42S-EX	1-1/4" — 3/4"	13/16"(21)
R-43-EX	RE43S-EX	1-1/4" — 1"	1"(25)
R-51-EX	RE51S-EX	1-1/2" — 1/2"	13/16"(21)
R-52-EX	RE52S-EX	1-1/2" — 3/4"	13/16"(21)
R-53-EX	RE53S-EX	1-1/2" — 1"	1"(25)
R-54-EX	RE54S-EX	1-1/2" — 1-1/4"	1-1/64"(28)
R-61-EX	RE61S-EX	2" — 1/2"	13/16"(21)
R-62-EX	RE62S-EX	2" — 3/4"	13/16"(21)
R-63-EX	RE63S-EX	2" — 1"	1"(25)
R-64-EX	RE64S-EX	2" — 1-1/4"	1/64"(28)
R-65-EX	RE65S-EX	2" — 1-1/2"	1/32"(31)
R-73-EX	—	2-1/2" — 1"	1"(25)
R-74-EX	—	—	—
R-75-EX	—	2-1/2" — 1-1/2"	1"(25)
R-76-EX	—	2-1/2" — 2"	1"(25)
R-84-EX	—	—	—
R-85-EX	—	3" — 1-1/2"	1-1/4"(32)
R-86-EX	—	3" — 2"	1-1/4"(32)
R-87-EX	—	3" — 2-1/2"	1-1/4"(32)
R-96-EX	—	3-1/2" — 2-1/2"	1-3/8"(35)
R-97-EX	—	3-1/2" — 2-1/2"	1-3/8"(35)
R-98-EX	—	3-1/2" — 3"	1-3/8"(35)
R-106-EX	—	4" — 2"	1-1/2"(38)
R-107-EX	—	4" — 2-1/2"	1-1/2"(38)
R-108-EX	—	4" — 3"	1-1/2"(38)
R-109-EX	—	4" — 3-1/2"	1-1/2"(38)

FITTINGS

FF/MF/MM/BL/GUFS/Y/EYMF SERIES



ELBOWS



Class I, Div. 1 & 2, Groups C, D
Class II, Div. 1 & 2, Groups E, F, G
Class III

UL LISTED - File E10514

SP Certified - File LR11716

FM APPROVED File 25215
See files for details or call Killark.

FEATURES-SPECIFICATIONS

Applications

- Elbows: To change direction in rigid or IMC conduit systems
- Capped Elbows: To change direction 90° in rigid or IMC conduit systems where space is limited and access is needed for pulling conductors or maintenance
- Swivel Elbows: Allows conduit to be joined at angles ranging between 90° to 180°. A screwdriver is the only tool needed
- 90° Plugged Elbows: To change direction 90° in rigid or IMC conduit systems where space is limited and access is needed for pulling conductors or maintenance

Features

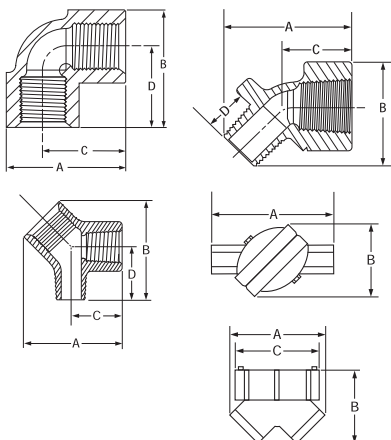
- Threaded for rigid conduit or IMC
- Smooth integral bushings to prevent damage to wires

Material/Finish

Copper-free Aluminum
(less than 4/10 of 1%)

- Electrostatically applied powder coating

Iron Zinc electro-plate



ELBOWS							
CATALOG NUMBER		HUB SIZE	TYPE	A	B	C	D
ALUMINUM	IRON						
FF-90-1①	FF-90-1M③	1/2"	FF 90°	2"	2"	1-3/8"	1-3/8"
FF-90-2①	FF-90-2M③	3/4"	FF 90°	2-1/4"	2-1/4"	1-1/2"	1-1/2"
FF-90-3①	FF-90-3M③	1"	FF 90°	2-15/16"	2-15/16"	2"	2"
FF-45-1①	FF-45-1M③	1/2"	FF 45°	2-3/8"	2"	1-1/8"	—
FF-45-2①	FF-45-2M③	3/4"	FF 45°	2-11/16"	2-3/16"	1-1/4"	—
FF-45-3①	FF-45-3M③	1"	FF 45°	3-3/8"	2-11/16"	1-5/8"	—
FF-45-6①	FF-45-6M③	2"	FF 45°	4-3/4"	3-7/8"	2-1/4"	—
FF-45-8①	FF-45-8M③	3"	FF 45°	5-1/4"	5-17/64"	2-17/64"	—
MF-90-1①	MF-90-1M③	1/2"	MF 90°	2-7/32"	2"	1-3/8"	1-1/16"
MF-90-2①	MF-90-2M③	3/4"	MF 90°	2-1/2"	2-1/4"	1-1/2"	1-1/16"
MF-45-1①	MF-45-1M③	1/2"	MF 45°	2-35/64"	1-55/64"	1-1/8"	1-1/16"
MF-45-2①	MF-45-2M③	3/4"	MF 45°	2-3/4"	2"	1-9/32"	1-1/16"
MM-90-1①	MM-90-1M③	1/2"	MM 90°	2-15/32"	2-15/32"	1-49/64"	1-1/16"
MM-90-2①	MM-90-2M③	3/4"	MM 90°	2-5/8"	2-5/8"	1-57/64"	1-1/16"
BL-90-1①	BL-90-1M③	1/2"	BL 90°	2-1/4"	2-3/8"	1-7/8"	1-3/4"
BL-90-2①	BL-90-2M③	3/4"	BL 90°	2-5/8"	3"	2-1/8"	2-1/4"
BL-90-3①	BL-90-3M③	1"	BL 90°	2-1/4"	3-7/16"	2-5/8"	2-1/2"

CAPPED ELBOWS							
CATALOG NUMBER		HUB SIZE	TYPE	A	B	C	D
ALUMINUM	IRON						
Y-1①	Y-1M④	1/2"	90°	2-7/8"	2-3/4"	1-7/8"	—
Y-2①	Y-2M④	3/4"	90°	3-1/16"	3-3/4"	2-1/8"	—
Y-3①	Y-3M④	1"	90°	4"	3-1/4"	2-5/8"	—
Y-4①	Y-4M④	1-1/4"	90°	5-1/16"	4-1/8"	3-7/8"	—
Y-5①	Y-5M④	1-1/2"	90°	5-1/16"	4-1/4"	3-7/8"	—

SWIVEL ELBOWS							
CATALOG NUMBER		HUB SIZE	TYPE	A	B	C	D
ALUMINUM	IRON						
GUFS-1②	GUFS-1M③	1/2"	180°	4-1/2"	2-1/4"	—	—
GUFS-2②	GUFS-2M③	3/4"	180°	4-1/2"	2-1/4"	—	—
GUMFS-1②	GUMFS-1M③	1/2"	180°	5-1/8"	2-1/4"	—	—
GUMFS-2②	GUMFS-2M③	3/4"	180°	5-1/4"	2-1/4"	—	—

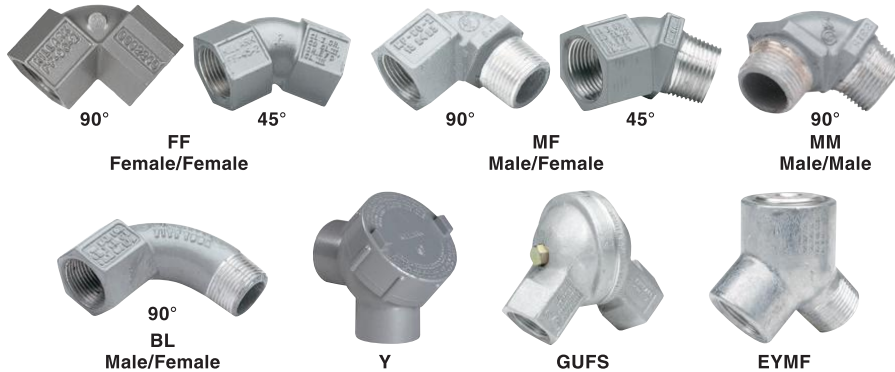
90° PLUGGED ELBOWS							
CATALOG NUMBER		HUB SIZE	TYPE	A	B	C	D
ALUMINUM	IRON						
EYMF-1②	—	1/2"	90°	2-5/8"	2-5/8"	1-3/8"	1-3/8"
EYMF-2②	—	3/4"	90°	2-3/4"	2-3/4"	1-1/2"	1-1/2"

- ① Copper-free aluminum - Electrostatically applied powder coating
- ② Aluminum - Natural finish
- ③ Iron - Zinc electroplate
- ④ Iron - Duraloy finish
- ⑤ Furnished with 1" close-up plug in top.

For ATEX and IEC Ex certified Elbows, see following page.



ELBOWS – ATEX/IEC Ex CERTIFIED



Global Listings

ATEX / IEC Ex Certified

File nos. CML 16ATEX 1325X
IECEx QPS16.0012X
II2GD
Ex db IIC Gb or Ex db IIB Gb
Ex tb IIIC Db IP65/IP66

UL LISTED File No. E 10514

SP Certified File No. LR11716



Class I, Div. 1 & 2, Groups C, D
Class II, Div. 1 & 2, Groups E, F, G
Class III

FEATURES-SPECIFICATIONS

Applications

- Elbows: To change direction in rigid or IMC conduit systems
- Capped Elbows: To change direction 90° in rigid or IMC conduit systems where space is limited and access is needed for pulling conductors or maintenance
- Swivel Elbows: Allows conduit to be joined at angles ranging between 90° to 180°. A screwdriver is the only tool needed
- 90° Plugged Elbows: To change direction 90° in rigid or IMC conduit systems where space is limited and access is needed for pulling conductors or maintenance

Features

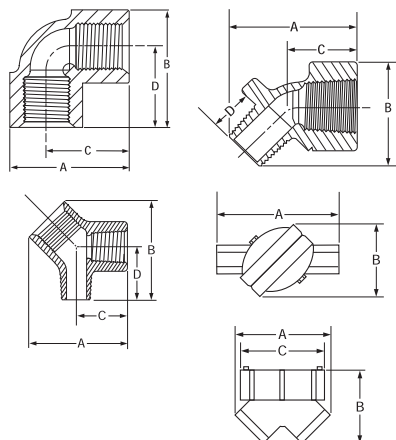
- Threaded for rigid conduit or IMC
- Smooth integral bushings to prevent damage to wires

Material/Finish

Copper-free Aluminum
(less than 4/10 of 1%)

- Electrostatically applied powder coating

Iron Zinc electro-plate



ELBOWS - QUAD LISTED

CATALOG NUMBER		HUB SIZE	TYPE	A	B	C	D
ALUMINUM	IRON						
FF-90-1-EX	FF-90-1M-EX	1/2"	FF 90°	2"	2"	1-3/8"	1-3/8"
FF-90-2-EX	FF-90-2M-EX	3/4"	FF 90°	2-1/4"	2-1/4"	1-1/2"	1-1/2"
FF-90-3-EX	FF-90-3M-EX	1"	FF 90°	2-15/16"	2-15/16"	2"	2"
FF-45-1-EX	FF-45-1M-EX	1/2"	FF 45°	2-3/8"	2"	1-1/8"	—
FF-45-2-EX	FF-45-2M-EX	3/4"	FF 45°	2-11/16"	2-3/16"	1-1/4"	—
FF-45-3-EX	FF-45-3M-EX	1"	FF 45°	3-3/8"	2-11/16"	1-5/8"	—
FF-45-6-EX	FF-45-6M-EX	2"	FF 45°	4-3/4"	3-7/8"	2-1/4"	—
FF-45-8-EX	FF-45-8M-EX	3"	FF 45°	5-1/4"	5-17/64"	2-17/64"	—
MF-90-1-EX	MF-90-1M-EX	1/2"	MF 90°	2-7/32"	2"	1-3/8"	1-1/16"
MF-90-2-EX	MF-90-2M-EX	3/4"	MF 90°	2-1/2"	2-1/4"	1-1/2"	1-1/16"
MF-45-1-EX	MF-45-1M-EX	1/2"	MF 45°	2-35/64"	1-55/64"	1-1/8"	1-1/16"
MF-45-2-EX	MF-45-2M-EX	3/4"	MF 45°	2-3/4"	2"	1-9/32"	1-1/16"
MM-90-1-EX	MM-90-1M-EX	1/2"	MM 90°	2-15/32"	2-15/32"	1-49/64"	1-1/16"
MM-90-2-EX	MM-90-2M-EX	3/4"	MM 90°	2-5/8"	2-5/8"	1-57/64"	1-1/16"
BL-90-1-EX	BL-90-1M-EX	1/2"	BL 90°	2-1/4"	2-3/8"	1-7/8"	1-3/4"
BL-90-2-EX	BL-90-2M-EX	3/4"	BL 90°	2-5/8"	3"	2-1/8"	2-1/4"
BL-90-3-EX	BL-90-3M-EX	1"	BL 90°	2-1/4"	3-7/16"	2-5/8"	2-1/2"

CAPPED ELBOWS

CATALOG NUMBER		HUB SIZE	TYPE	A	B	C	D
ALUMINUM	IRON						
Y-1-EX	Y-1M-EX	1/2"	90°	2-7/8"	2-3/4"	1-7/8"	—
Y-2-EX	Y-2M-EX	3/4"	90°	3-1/16"	3-3/4"	2-1/8"	—
Y-3-EX	Y-3M-EX	1"	90°	4"	3-1/4"	2-5/8"	—
Y-4-EX	Y-4M-EX	1-1/4"	90°	5-1/16"	4-1/8"	3-7/8"	—
Y-5-EX	Y-5M-EX	1-1/2"	90°	5-1/16"	4-1/4"	3-7/8"	—

SWIVEL ELBOWS

CATALOG NUMBER		HUB SIZE	TYPE	A	B	C	D
ALUMINUM	IRON						
GUFS-1-EX	GUFS-1M-EX	1/2"	180°	4-1/2"	2-1/4"	—	—
GUFS-2-EX	GUFS-2M-EX	3/4"	180°	4-1/2"	2-1/4"	—	—
GUMFS-1-EX	GUMFS-1M-EX	1/2"	180°	5-1/8"	2-1/4"	—	—
GUMFS-2-EX	GUMFS-2M-EX	3/4"	180°	5-1/4"	2-1/4"	—	—

90° PLUGGED ELBOWS

CATALOG NUMBER		HUB SIZE	TYPE	A	B	C	D
ALUMINUM	IRON						
EYMF-1-EX	—	1/2"	90°	2-5/8"	2-5/8"	1-3/8"	1-3/8"
EYMF-2-EX	—	3/4"	90°	2-3/4"	2-3/4"	1-1/2"	1-1/2"

① Copper-free aluminum - Electrostatically applied powder coating

② Aluminum - Natural finish

③ Iron - Zinc electroplate

④ Iron - Duraloy finish

⑤ Furnished with 1" close-up plug in top.



BRONZE FLEXIBLE COUPLINGS



Class I, Div. 1 & 2, Groups A,B,C,D[Ⓛ]
 Class I, Zone 1, Groups IIC, IIB, IIA
 Class II, Div. 1 & 2, Groups E,F,G
 Class III
 Raintight
 ATEX Certificate



UL LISTED - File E10514

SP Certified - File LR11716

See files for details or call Killark.

FEATURES-SPECIFICATIONS

Applications

For use in hazardous areas where movement or vibration requires a flexible connection or a difficult bend is required in a conduit system.

Features

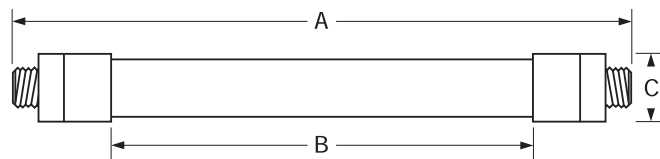
- Bronze flexible metal construction
- An inner liner of asphaltum impregnated jute fibre tubing to protect conductors
- Female ends with removable zinc plated steel nipples standard on all couplings
- Union type couplings may be assembled by adding a GUF Series union to the nipple
- Special lengths available-consult factory
- All 1/2", 3/4" & 1" EKJ couplings are furnished with a setscrew (for use as a fixture hanging coupling)

[Ⓛ] ECF & EKJ 1/2" and 3/4" couplings suitable for Class I, Groups A, B, C, D Class I, Zone 1, Groups IIC, IIB, IIA EKJ 1" thru 2" and ECF 1" couplings suitable for Class I, Groups C, D. Class I, Zone 1, Groups IIB, IIA All ECF and EKJ are suitable for Class II and III.

ECF/EKJ FLEXIBLE COUPLINGS					
CATALOG NUMBER		DESCRIPTION			
ECF SERIES	EKJ SERIES	CONDUIT SIZE	A OVERALL LENGTH	B FLEX. LENGTH	C DIA.
ECF-14	EKJ-14	1/2"	8-13/16"	4"	1-5/16"
ECF-16	EKJ-16	1/2"	10-13/16"	6"	1-5/16"
ECF-18	EKJ-18	1/2"	12-13/16"	8"	1-5/16"
ECF-110	EKJ-110	1/2"	14-13/16"	10"	1-5/16"
ECF-112	EKJ-112	1/2"	16-13/16"	12"	1-5/16"
ECF-115	EKJ-115	1/2"	19-13/16"	15"	1-5/16"
ECF-118	EKJ-118	1/2"	22-13/16"	18"	1-5/16"
ECF-121	—	1/2"	25-13/16"	21"	1-5/16"
ECF-124	—	1/2"	28-13/16"	24"	1-5/16"
ECF-130	—	1/2"	34-13/16"	30"	1-5/16"
ECF-136	—	1/2"	40-13/16"	36"	1-5/16"
ECF-24	EKJ-24	3/4"	8-3/4"	4"	1-5/8"
ECF-26	EKJ-26	3/4"	10-3/4"	6"	1-5/8"
ECF-28	EKJ-28	3/4"	12-3/4"	8"	1-5/8"
ECF-210	EKJ-210	3/4"	14-3/4"	10"	1-5/8"
ECF-212	EKJ-212	3/4"	16-3/4"	12"	1-5/8"
ECF-215	EKJ-215	3/4"	19-3/4"	15"	1-5/8"
ECF-218	EKJ-218	3/4"	22-3/4"	18"	1-5/8"
ECF-221	—	3/4"	25-3/4"	21"	1-5/8"
ECF-224	—	3/4"	28-3/4"	24"	1-5/8"
ECF-230	—	3/4"	34-3/4"	30"	1-5/8"
ECF-236	—	3/4"	40-3/4"	36"	1-5/8"
ECF-36	EKJ-36	1"	11-3/4"	6"	1-15/16"
ECF-38	EKJ-38	1"	13-3/4"	8"	1-15/16"
ECF-310	EKJ-310	1"	15-3/4"	10"	1-15/16"
ECF-312	EKJ-312	1"	17-3/4"	12"	1-15/16"
ECF-315	EKJ-315	1"	20-3/4"	15"	1-15/16"
ECF-318	EKJ-318	1"	23-3/4"	18"	1-15/16"
ECF-321	EKJ-321	1"	26-3/4"	21"	1-15/16"
ECF-324	EKJ-324	1"	29-3/4"	24"	1-15/16"
ECF-330	EKJ-330	1"	35-3/4"	30"	1-15/16"
ECF-336	EKJ-336	1"	41-3/4"	36"	1-15/16"

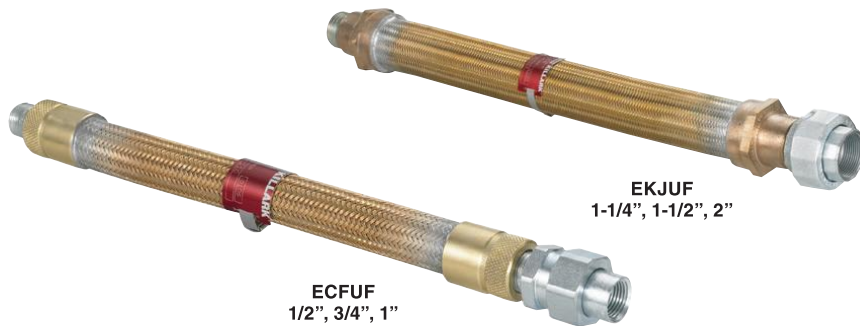
ECF/EKJ FLEXIBLE COUPLINGS				
CAT. NO.	DESCRIPTION			
EKJ SERIES	CONDUIT SIZE	A OVERALL LENGTH	B FLEX. LENGTH	C DIA.
EKJ-412	1-1/4"	18-5/8"	12"	2-15/16"
EKJ-415	1-1/4"	21-5/8"	15"	2-15/16"
EKJ-418	1-1/4"	24-5/8"	18"	2-15/16"
EKJ-421	1-1/4"	27-5/8"	21"	2-15/16"
EKJ-424	1-1/4"	30-5/8"	24"	2-15/16"
EKJ-430	1-1/4"	36-5/8"	30"	2-15/16"
EKJ-436	1-1/4"	42-5/8"	36"	2-15/16"
EKJ-512	1-1/2"	18-15/16"	12"	3-21/32"
EKJ-515	1-1/2"	21-15/16"	15"	3-21/32"
EKJ-518	1-1/2"	24-15/16"	18"	3-21/32"
EKJ-521	1-1/2"	27-15/16"	21"	3-21/32"
EKJ-524	1-1/2"	30-15/16"	24"	3-21/32"
EKJ-530	1-1/2"	36-15/16"	30"	3-21/32"
EKJ-536	1-1/2"	42-15/16"	36"	3-21/32"
EKJ-612	2"	19-5/16"	12"	4-9/64"
EKJ-615	2"	22-5/16"	15"	4-9/64"
EKJ-618	2"	25-5/16"	18"	4-9/64"
EKJ-624	2"	31-5/16"	24"	4-9/64"
EKJ-630	2"	37-5/16"	30"	4-9/64"
EKJ-636	2"	43-5/16"	36"	4-9/64"

MINIMUM BEND RADIUS						
SERIES	1/2"	3/4"	1"	1-1/4"	1-1/2"	2"
ECF	10"	12"	14"	—	—	—
EKJ	10"	12"	14"	14"	16"	18"





BRONZE FLEXIBLE COUPLINGS WITH FEMALE STEEL UNION



ECFUF
1/2", 3/4", 1"

EKJUF
1-1/4", 1-1/2", 2"

Class I, Div. 1 & 2, Groups A,B,C,D[Ⓛ]
 Class I, Zone 1, Groups IIC, IIB, IIA
 Class II, Div. 1 & 2, Groups E,F,G
 Class III
 Raintight

UL LISTED - File E10514

SP Certified - File LR11716

See files for details or call Killark.

FEATURES-SPECIFICATIONS

Applications

For use in hazardous areas where movement or vibration requires a flexible connection or a difficult bend is required in a conduit system.

Features

- Bronze flexible metal construction
- An inner liner of asphaltum impregnated jute fibre tubing to protect conductors
- Provided with one zinc plated steel nipple and one zinc plated steel female union
- Special lengths available – consult factory

1/2" and 3/4" couplings suitable for:

- Class I, Groups A,B,C,D Class I, Zone 1, Groups IIC, IIB, IIA.
- 1" couplings suitable for: Class I, Groups C,D. Class I, Zone 1, Groups IIB, IIA

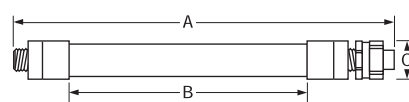
Ⓛ All ECF/EKJ couplings are suitable for: Class II and III.

ECF/EKJ FLEXIBLE COUPLINGS				
CAT. NO.	DESCRIPTION			
	CONDUIT SIZE	A OVERALL LENGTH	B FLEX. LENGTH	C DIA.
ECFUF-14	1/2"	10-1/8" (257)	4" (102)	1-1/2" (38)
ECFUF-16	1/2"	12-1/8" (310)	6" (152)	1-1/2" (38)
ECFUF-18	1/2"	14-1/8" (359)	8" (203)	1-1/2" (38)
ECFUF-110	1/2"	16-1/8" (410)	10" (254)	1-1/2" (38)
ECFUF-112	1/2"	18-1/8" (460)	12" (305)	1-1/2" (38)
ECFUF-115	1/2"	21-1/8" (537)	15" (381)	1-1/2" (38)
ECFUF-118	1/2"	24-1/8" (613)	18" (457)	1-1/2" (38)
ECFUF-121	1/2"	27-1/8" (689)	21" (533)	1-1/2" (38)
ECFUF-124	1/2"	30-1/8" (765)	24" (610)	1-1/2" (38)
ECFUF-130	1/2"	36-1/8" (918)	30" (762)	1-1/2" (38)
ECFUF-136	1/2"	42-1/8" (1070)	36" (914)	1-1/2" (38)
ECFUF-24	3/4"	10-1/4" (260)	4" (102)	1-3/4" (44)
ECFUF-26	3/4"	12-1/4" (311)	6" (152)	1-3/4" (44)
ECFUF-28	3/4"	14-1/4" (362)	8" (203)	1-3/4" (44)
ECFUF-210	3/4"	16-1/4" (413)	10" (254)	1-3/4" (44)
ECFUF-212	3/4"	18-1/4" (464)	12" (305)	1-3/4" (44)
ECFUF-215	3/4"	21-1/4" (540)	15" (381)	1-3/4" (44)
ECFUF-218	3/4"	24-1/4" (616)	18" (457)	1-3/4" (44)
ECFUF-221	3/4"	27-1/4" (692)	21" (533)	1-3/4" (44)
ECFUF-224	3/4"	30-1/4" (768)	24" (610)	1-3/4" (44)
ECFUF-230	3/4"	36-1/4" (921)	30" (762)	1-3/4" (44)
ECFUF-236	3/4"	42-1/4" (1073)	36" (914)	1-3/4" (44)
ECFUF-36	1"	13-3/16" (335)	6" (102)	2" (51)
ECFUF-38	1"	15-3/16" (386)	8" (152)	2" (51)
ECFUF-310	1"	17-3/16" (437)	10" (254)	2" (51)
ECFUF-312	1"	19-3/16" (487)	12" (305)	2" (51)
ECFUF-315	1"	22-3/16" (564)	15" (381)	2" (51)
ECFUF-318	1"	25-3/16" (640)	18" (457)	2" (51)
ECFUF-321	1"	28-3/16" (716)	21" (533)	2" (51)
ECFUF-324	1"	31-3/16" (792)	24" (610)	2" (51)
ECFUF-330	1"	37-3/16" (945)	30" (762)	2" (51)
ECFUF-336	1"	43-3/16" (1097)	36" (914)	2" (51)

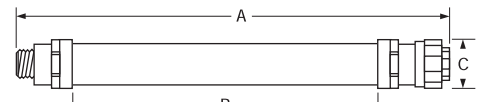
ECF/EKJ FLEXIBLE COUPLINGS				
CAT. NO.	DESCRIPTION			
	CONDUIT SIZE	A OVERALL LENGTH	B FLEX. LENGTH	C DIA.
EKJUF-412	1-1/4"	20-1/4" (514)	12" (305)	2-7/8" (73)
EKJUF-415	1-1/4"	21-1/4" (591)	15" (381)	2-7/8" (73)
EKJUF-418	1-1/4"	24-1/4" (667)	18" (457)	2-7/8" (73)
EKJUF-421	1-1/4"	27-1/4" (743)	21" (533)	2-7/8" (73)
EKJUF-424	1-1/4"	30-1/4" (819)	24" (610)	2-7/8" (73)
EKJUF-430	1-1/4"	36-1/4" (972)	30" (762)	2-7/8" (73)
EKJUF-436	1-1/4"	42-1/4" (1124)	36" (914)	2-7/8" (73)
EKJUF-512	1-1/2"	21-15/16" (557)	12" (305)	3-21/32" (93)
EKJUF-515	1-1/2"	24-15/16" (633)	15" (381)	3-21/32" (93)
EKJUF-518	1-1/2"	27-15/16" (710)	18" (457)	3-21/32" (93)
EKJUF-521	1-1/2"	30-15/16" (786)	21" (533)	3-21/32" (93)
EKJUF-524	1-1/2"	33-15/16" (862)	24" (610)	3-21/32" (93)
EKJUF-530	1-1/2"	39-15/16" (1014)	30" (762)	3-21/32" (93)
EKJUF-536	1-1/2"	45-15/16" (1167)	36" (914)	3-21/32" (93)
EKJUF-612	2"	21-9/16" (548)	12" (305)	4-9/64" (105)
EKJUF-615	2"	24-9/16" (624)	15" (381)	4-9/64" (105)
EKJUF-618	2"	27-9/16" (700)	18" (457)	4-9/64" (105)
EKJUF-624	2"	33-9/16" (852)	24" (610)	4-9/64" (105)
EKJUF-630	2"	39-9/16" (1005)	30" (762)	4-9/64" (105)
EKJUF-636	2"	45-9/16" (1157)	36" (914)	4-9/64" (105)

MINIMUM BEND RADIUS						
SERIES	1/2"	3/4"	1"	1-1/4"	1-1/2"	2"
ECF	10"	12"	14"	-	-	-
EKJ	10"	12"	14"	14"	16"	18"

For ATEX and IEC Ex certified Flexible Couplings, see page F86.



ECFUF 1/2", 3/4", 1"



EKJUF 1-1/4", 1-1/2", 2"



FITTINGS

STAINLESS STEEL FLEXIBLE COUPLINGS



EKJ
1/2"-2"

EKJ
2-1/2"-4"

Class I, Div. 1 & 2, Groups D
Class I, Zone 1, Group IIA
Class II, Div. 1 & 2, Groups E, F, G
Class III

Contact KILLARK® for Certification Information



sizes 1-7 Groups A, B, C, D
sizes 8 & 10 Groups C, D



sizes 1, 2 Groups A, B, C, D
sizes 3-6 Groups C, D



sizes 7, 8 & 10 Group D

FEATURES-SPECIFICATIONS

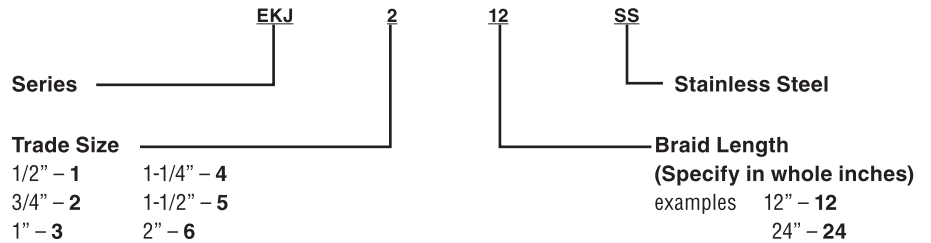
Features

- Available in custom lengths. See catalog logic to order
- Stainless steel wirebraid construction
- Annular corrugated seamless hose
- Cast in ribs for easy installation
- 1/2" – 2" sizes furnished with two zinc plated steel nipples
- 2-1/2" – 4" sizes furnished with two aluminum nipples

No Max Length restrictions

Catalog Number Logic

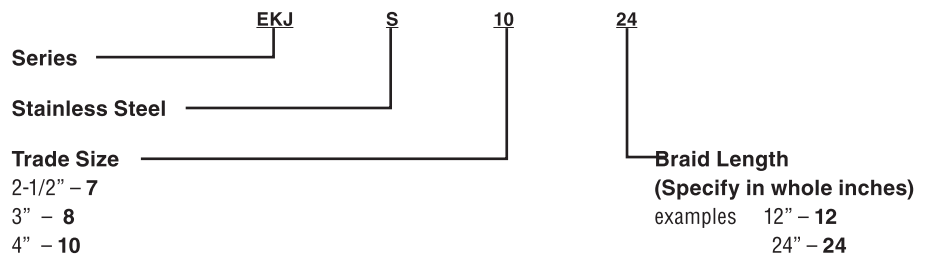
Sizes 1/2" Thru 2"



Ordering Example - EKJ-212 SS

(3/4" trade size, 24" length)

Sizes 2-1/2" Thru 4"



Ordering Example - EKJS-1024

(4" trade size, 24" length)



STAINLESS STEEL FLEXIBLE COUPLINGS – ATEX/IEC Ex CERTIFIED



EKJ-211SS-EX

Global Listings

ATEX / IEC Ex Certified

**IECEx SIR 10.0057U
SIRA 10ATEX11068U 0539**

Ex II 2GD

Ex db IIC Gb, Ex tb IIIC Db IP66

Class I, Div. 1 & 2, Groups A,B,C, D

Class I, Zone 1, Groups IIB, IIA

Class II, Div. 1 & 2, Groups E, F, G

Class III



FEATURES-SPECIFICATIONS

Applications

For use in hazardous areas where movement or vibration requires a flexible connection or a difficult bend is required in a conduit system

Features

- Stainless Steel flexible metal construction
- NPT male fitting (316SS) welded to each end
- Outer Braid (304SS) with inner flex hose of 321SS
- Inner liner of silicone coated fabric

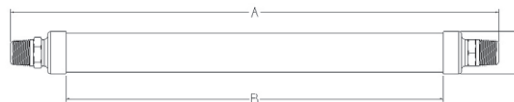
MINIMUM BEND RADIUS

SERIES	1/2"	3/4"	1"	1-1/4"	1-1/2"	2"
EKJ	10"	12"	14"	14"	16"	18"

No Max Length restrictions

EKJ FLEXIBLE COUPLINGS - QUAD LISTED

CATALOG NUMBER	CONDUIT SIZE	OVERALL LENGTH A	FLEXIBLE LENGTH B	DIAMETER C
EKJ-14SS-EX	1/2"	8-9/64" (207)	4" (102)	1-1/8" (34)
EKJ-18SS-EX	1/2"	12-9/64" (308)	8" (203)	1-1/8" (34)
EKJ-112SS-EX	1/2"	16-9/64" (410)	12" (305)	1-1/8" (34)
EKJ-116SS-EX	1/2"	20-9/64" (512)	16" (406)	1-1/8" (34)
EKJ-120SS-EX	1/2"	24-9/64" (613)	20" (508)	1-1/8" (34)
EKJ-124SS-EX	1/2"	28-9/64" (715)	24" (610)	1-1/8" (34)
EKJ-128SS-EX	1/2"	32-9/64" (816)	28" (711)	1-1/8" (34)
EKJ-132SS-EX	1/2"	36-9/64" (918)	32" (813)	1-1/8" (34)
EKJ-136SS-EX	1/2"	40-9/64" (1020)	36" (914)	1-1/8" (34)
EKJ-27SS-EX	3/4"	11-1/2" (292)	7" (178)	1-11/16" (43)
EKJ-211SS-EX	3/4"	15-1/2" (394)	11" (279)	1-11/16" (43)
EKJ-215SS-EX	3/4"	19-1/2" (495)	15" (381)	1-11/16" (43)
EKJ-124SS-EX	3/4"	23-1/2" (597)	19" (483)	1-11/16" (43)
EKJ-223SS-EX	3/4"	27-1/2" (699)	23" (584)	1-11/16" (43)
EKJ-227SS-EX	3/4"	31-1/2" (800)	27" (686)	1-11/16" (43)
EKJ-231SS-EX	3/4"	35-1/2" (902)	31" (788)	1-11/16" (43)
EKJ-235SS-EX	3/4"	39-1/2" (1003)	35" (889)	1-11/16" (43)
EKJ-37SS-EX	1"	12" (305)	7" (178)	2" (50)
EKJ-311SS-EX	1"	16" (406)	11" (279)	2" (50)
EKJ-315SS-EX	1"	20" (508)	15" (381)	2" (50)
EKJ-319SS-EX	1"	24" (610)	19" (483)	2" (50)
EKJ-323SS-EX	1"	28" (711)	23" (584)	2" (50)
EKJ-327SS-EX	1"	32" (813)	27" (686)	2" (50)
EKJ-331SS-EX	1"	36" (914)	31" (788)	2" (50)
EKJ-335SS-EX	1"	40" (1016)	35" (889)	2" (50)
EKJ-513SS-EX	1-1/2"	18-1/8" (460)	13" (330)	2-25/32" (71)
EKJ-517SS-EX	1-1/2"	23-1/8" (587)	17" (432)	2-25/32" (71)
EKJ-521SS-EX	1-1/2"	27-1/8" (689)	21" (533)	2-25/32" (71)
EKJ-525SS-EX	1-1/2"	31-1/8" (791)	25" (635)	2-25/32" (71)
EKJ-529SS-EX	1-1/2"	35-1/8" (892)	29" (737)	2-25/32" (71)
EKJ-533SS-EX	1-1/2"	39-1/8" (994)	33" (838)	2-25/32" (71)
EKJ-614SS-EX	2"	21-17/64" (540)	14" (356)	3-19/32" (91)
EKJ-618SS-EX	2"	25-17/64" (642)	18" (457)	3-19/32" (91)
EKJ-622SS-EX	2"	29-17/64" (743)	22" (559)	3-19/32" (91)
EKJ-626SS-EX	2"	33-17/64" (845)	26" (660)	3-19/32" (91)
EKJ-630SS-EX	2"	37-17/64" (947)	30" (762)	3-19/32" (91)
EKJ-634SS-EX	2"	41-17/64" (1048)	34" (864)	3-19/32" (91)





FITTINGS

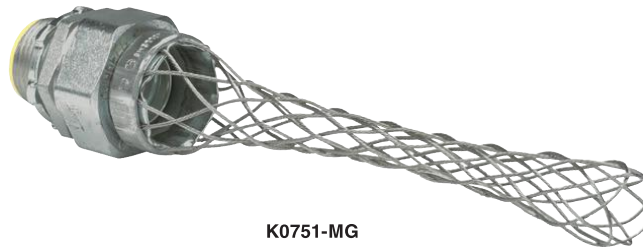
LIQUIDTIGHT CONNECTORS

LISTED - File E22699

Certified - File LR70873
See files for details or call Killark.



K2001



K0751-MG

FEATURES-SPECIFICATIONS LIQUIDTIGHT®

Applications

Use with metallic and non-metallic conduit to seal out water, oil and dust in applications for food processors, beverage & chemical plants, plastics fabricators, machine shops, etc.

Liquidtight connectors are also suitable for use in hazardous locations per National Electrical Code (Articles 501-4(b), 502-4(a&b), 503-3(a&b)). Consult these articles for sealing requirements that may apply.

Liquidtight mesh grips provide a liquidtight seal and enhanced strain relief in flexible liquidtight conduit applications.

Features

- Split nylon gland ring – split for easy installation and greater compression
- Digging locknut
- Sealing 'O'-rings included
- Reusable

Materials/Finish

- Steel/malleable iron
- Zinc electro-plated

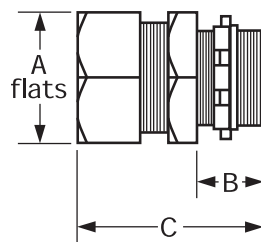
Mesh Grips

- Stainless steel mesh grips are corrosion resistant and prevent conduit pull-out in high stress installations

K LIQUIDTIGHT CONNECTORS – STRAIGHT					
CATALOG NUMBER	NPT SIZE	CONNECTOR STYLE	DIMENSIONS		
			A	B	C
K038	3/8"	Straight non-insulated	1-7/16"	19/32"	1-1/16"
K050	1/2"	Straight non-insulated	1-7/16"	19/32"	1-13/16"
K075	3/4"	Straight non-insulated	1-9/16"	19/32"	1-3/8"
K100	1"	Straight non-insulated	1-11/16"	21/32"	1-11/16"
K125	1-1/4"	Straight non-insulated	2-1/32"	11/16"	2-1/16"
K150	1-1/2"	Straight non-insulated	2-7/32"	11/16"	2-3/8"
K200	2"	Straight non-insulated	2-9/32"	23/32"	2-7/8"
K250	2-1/2"	Straight non-insulated	3-1/2"	1"	3-5/8"
K300	3"	Straight non-insulated	3-3/4"	1"	4-5/16"
K350	3-1/2"	Straight non-insulated	3-3/4"	1"	4-3/4"
K400	4"	Straight non-insulated	3-3/4"	1"	5-5/16"
K0381*	3/8"	Straight insulated	1-7/16"	21/32"	1-1/16"
K0501*	1/2"	Straight insulated	1-7/16"	21/32"	1-3/16"
K0751*	3/4"	Straight insulated	1-5/8"	21/32"	1-3/8"
K1001*	1"	Straight insulated	1-3/4"	23/32"	1-11/16"
K1251*	1-1/4"	Straight insulated	2-3/32"	3/4"	2-1/16"
K1501*	1-1/2"	Straight insulated	2-9/32"	3/4"	2-3/8"
K2001*	2"	Straight insulated	2-11/32"	25/32"	2-7/8"
K2501*	2-1/2"	Straight insulated	3-1/2"	1"	3-5/8"
K3001*	3"	Straight insulated	3-3/4"	1"	4-5/16"
K3501	3-1/2"	Straight insulated	3-3/4"	1"	4-3/4"
K4001*	4"	Straight insulated	3-3/4"	1"	5-5/16"

* For mesh grip, add - MG to Catalog Number. Example **K0381-MG**.

Dimensions





LIQUIDTIGHT CONNECTORS



UL LISTED - File E22699
SP Certified - File LR70873
 See files for details or call Killark.

FEATURES-SPECIFICATIONS LIQUIDTIGHT®

Applications

Use with metallic and non-metallic conduit to seal out water, oil and dust in applications for food processors, beverage & chemical plants, plastics fabricators, machine shops, etc.

Liquidtight connectors are also suitable for use in hazardous locations per National Electrical Code (Articles 501-4(b), 502-4(a&b), 503-3(a&b). Consult these articles for sealing requirements that may apply.

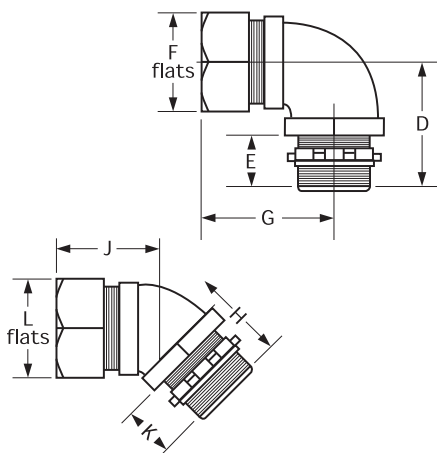
Features

- Split nylon gland ring – split for easy installation and greater compression
- Digging locknut
- Sealing 'O'-rings included
- Reusable

Materials/Finish

- Steel/malleable iron
- Zinc electro-plated

Dimensions



K LIQUIDTIGHT CONNECTORS – 90° BEND						
CATALOG NUMBER	NPT SIZE	CONNECTOR STYLE	DIMENSIONS			
			D	E	F	G
K0389	3/8"	90° non-insulated	1-1/2"	5/8"	1"	1-3/4"
K0509	1/2"	90° non-insulated	1-1/2"	5/8"	1-1/8"	1-3/4"
K0759	3/4"	90° non-insulated	1-19/32"	5/8"	1-3/8"	1-15/16"
K1009	1"	90° non-insulated	1-3/16"	5/8"	1-5/8"	2-3/16"
K1259	1-1/4"	90° non-insulated	2"	11/16"	2-1/16"	2-9/16"
K1509	1-1/2"	90° non-insulated	2-3/16"	11/16"	2-3/8"	3"
K2009	2"	90° non-insulated	2-17/32"	23/32"	2-7/8"	3-5/8"
K2509**	2-1/2"	90° non-insulated	3-3/8"	1"	3-5/8"	4-1/4"
K3009	3"	90° non-insulated	3-11/16"	1"	4-5/16"	4-7/8"
K4009	4"	90° non-insulated	4-3/16"	1"	5-5/16"	5-5/8"
K03891*	3/8"	90° Insulated	1-9/16"	11/16"	1"	1-3/4"
K05091*	1/2"	90° Insulated	1-9/16"	11/16"	1-1/8"	1-3/4"
K07591*	3/4"	90° Insulated	1-21/32"	11/16"	1-3/8"	1-15/16"
K10091*	1"	90° Insulated	1-7/8"	11/16"	1-5/8"	2-3/16"
K12591*	1-1/4"	90° Insulated	2-1/16"	3/4"	2-1/16"	2-9/16"
K15091*	1-1/2"	90° Insulated	2-1/4"	3/4"	2-3/8"	3"
K20091*	2"	90° Insulated	2-19/32"	25/32"	2-7/8"	3-5/8"
K25091*	2-1/2"	90° Insulated	3-3/8"	1"	3-5/8"	4-1/4"
K30091*	3"	90° Insulated	3-11/16"	1"	4-5/16"	4-7/8"
K40091*	4"	90° Insulated	4-3/16"	1"	5-5/16"	5-5/8"
K LIQUIDTIGHT CONNECTORS – 45° BEND						
CATALOG NUMBER	NPT SIZE	CONNECTOR STYLE	DIMENSIONS			
			H	J	K	L
K0384	3/8"	45° non-insulated	1-5/32"	1-9/32"	19/32"	1"
K0504	1/2"	45° non-insulated	1-5/32"	1-9/32"	19/32"	1-1/8"
K0754	3/4"	45° non-insulated	1-11/64"	1-7/16"	19/32"	1-3/8"
K1004	1"	45° non-insulated	1-13/32"	1-23/32"	21/32"	1-5/8"
K1254	1-1/4"	45° non-insulated	1-27/64"	2-1/32"	5/8"	2-1/16"
K1504	1-1/2"	45° non-insulated	1-21/32"	1-15/16"	21/32"	2-3/8"
K2004	2"	45° non-insulated	1-11/16"	2-7/16"	21/32"	2-7/8"
K03841*	3/8"	45° Insulated	1-7/32"	1-9/32"	21/32"	1"
K05041*	1/2"	45° Insulated	1-7/32"	1-9/32"	21/32"	1-1/8"
K07541*	3/4"	45° Insulated	1-15/64"	1-7/16"	21/32"	1-3/8"
K10041*	1"	45° Insulated	1-15/32"	1-23/32"	23/32"	1-5/8"
K12541*	1-1/4"	45° Insulated	1-31/64"	2-1/32"	11/16"	2-1/16"
K15041*	1-1/2"	45° Insulated	1-23/32"	1-15/16"	23/32"	2-3/8"
K20041*	2"	45° Insulated	1-3/4"	2-7/16"	23/32"	2-7/8"

* For mesh grip, add -MG to Catalog Number. Example K03891-MG.

** Use K25091 insulated.



FITTINGS

GROUNDED LIQUIDTIGHT CONNECTORS



Straight

90°

45°

UL LISTED - File E152165, E22699

SP Certified - File LR70873
See files for details or call Killark.

FEATURES-SPECIFICATIONS LIQUIDTIGHT®

K Grounding style Application & Installation

Liquidtight Connectors with grounding lug are for use where an external, visible equipment bonding jumper is desired and where permitted by the National Electrical Code. The Code specifies length limitations and that the bonding jumper must be parallel to the conduit itself.

Features

- Lay-in grounding lug
- Fittings are plated steel for excellent durability
- Insulated throat fittings protect conductors from insulation damage

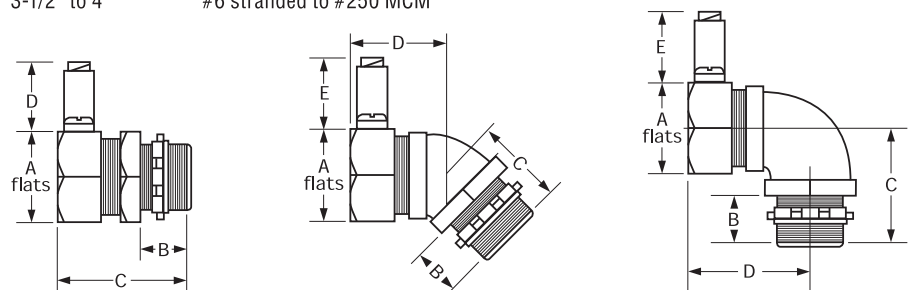
Materials/Finish

- Steel/malleable iron
- Zinc electro-plated

K LIQUIDTIGHT GROUNDING STYLE & MESH GRIPS							
CATALOG NUMBER CONNECTOR ONLY	NPT SIZE	DESC.	DIMENSIONS				
			A	B	C	D	E
K0381-G	3/8"	Straight Insulated	1-1/16"	19/32"	1-7/16"	25/32"	-
K0501-G	1/2"		1-3/16"	19/32"	1-7/16"	25/32"	-
K0751-G	3/4"		1-3/8"	19/32"	1-9/16"	25/32"	-
K1001-G	1"		1-11/16"	21/32"	1-11/16"	25/32"	-
K1251-G	1-1/4"		2-1/16"	5/8"	2-1/32"	25/32"	-
K1501-G	1-1/2"		2-3/8"	5/8"	2-7/32"	25/32"	-
K2001-G	2"		2-7/8"	21/32"	2-9/32"	25/32"	-
K2501-G	2-1/2"		3-5/8"	1"	3-1/2"	1-11/64"	-
K3001-G	3"		4-15/16"	1"	3-3/4"	1-11/64"	-
K3501-G	3-1/2"		4-3/4"	1"	3-3/4"	1-57/64"	-
K4001-G	4"	5-5/16"	1"	3-3/4"	1-57/64"	-	
K03891-G	3/8"	90° Insulated	1-1/16"	19/32"	1-5/16"	1-7/16"	25/32"
K05091-G	1/2"		1-3/16"	19/32"	1-5/16"	1-7/16"	25/32"
K07591-G	3/4"		1-3/8"	19/32"	1-7/16"	1-5/8"	25/32"
K10091-G	1"		1-11/16"	21/32"	1-25/32"	2-3/16"	25/32"
K12591-G	1-1/4"		2-1/16"	5/8"	1-31/32"	2-1/2"	25/32"
K15091-G	1-1/2"		2-3/8"	5/8"	2-3/16"	2-11/16"	25/32"
K20091-G	2"		2-7/8"	21/32"	2-17/32"	3-1/4"	25/32"
K25091-G	2-1/2"		3-5/8"	1"	3-3/8"	4-1/4"	1-11/64"
K30091-G	3"		4-15/16"	1"	3-11/16"	4-7/8"	1-11/64"
K40091-G	4"		5-5/16"	1"	4-3/16"	5-5/8"	1-57/64"
K03841-G	3/8"	45° Insulated	1-1/16"	19/32"	1-3/16"	1-9/32"	25/32"
K05041-G	1/2"		1-3/16"	19/32"	1-3/16"	1-9/32"	25/32"
K07541-G	3/4"		1-3/8"	19/32"	1-3/16"	1-7/16"	25/32"
K10041-G	1"		1-11/16"	21/32"	1-3/8"	1-17/32"	25/32"
K12541-G	1-1/4"		2-1/16"	5/8"	1-27/64"	1-11/16"	25/32"
K15041-G	1-1/2"		2-3/8"	5/8"	1-21/32"	2"	25/32"
K20041-G	2"		2-7/8"	21/32"	1-11/16"	2-1/4"	25/32"

GROUNDING STYLE Wire Capacity

- | | |
|--------------|----------------------------|
| 3/8" to 2" | #14 solid to #4 Stranded |
| 2-1/2" to 3" | #14 solid to #1/0 Stranded |
| 3-1/2" to 4" | #6 stranded to #250 MCM |





ALUMINUM CORD CONNECTORS



ZS108



Locknut
(See page F92)

Type 4, 4X, 12 & 13

UL LISTED - File E22698

SP Certified - File LR73478
See files for details or call Killark.

FEATURES-SPECIFICATIONS

Applications

Use to secure and seal cords or cables entering enclosures or race-ways.

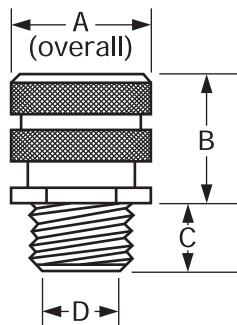
Z Series connectors are also suitable for use in hazardous locations per National Electrical Code (Articles 501-4(b), 502-4(a&b), 503-3(a&b)). Consult these articles for sealing requirements that may apply.

Materials/Finish

- Copper-free aluminum (less than 4/10 of 1%)
- Natural finish

Features

- Aluminum construction resists corrosion
- Neoprene grommet seals out oil and moisture
- Nylon retention ring ensures superior holding power
- Wide range of sizes and configurations



Z CORD CONNECTORS – STRAIGHT							
CATALOG NUMBER	NPT SIZE	CORD RANGES	COLOR CODE	DIMENSIONS			
				A	B	C	D
ZS001	3/8"	.062-.125	Green	.99	.425	.90	.453
ZS002	3/8"	.125-.187	Orange	.99	.425	.90	.453
ZS003	3/8"	.187-.250	Red	.99	.425	.90	.453
ZS004	3/8"	.250-.312	Black	.99	.425	.90	.453
ZS006	3/8"	.312-.375	White	.99	.425	.90	.453
ZS007	3/8"	.375-.437	Blue	.99	.425	.90	.453
ZS101	1/2"	.062-.125	Green	1.13	1.10	.55	.635
ZS102	1/2"	.125-.187	Orange	1.13	1.10	.55	.635
ZS103	1/2"	.187-.250	Red	1.13	1.10	.55	.635
ZS105	1/2"	.250-.375	White	1.13	1.10	.55	.635
ZS108	1/2"	.375-.500	Blue	1.13	1.10	.55	.635
ZS109	1/2"	.500-.625	Brown	1.13	1.10	.55	.635
ZS110*	1/2"	.625-.750	Yellow	1.40	1.50	.55	.635
ZS111*	1/2"	.750-.875	Purple	1.40	1.50	.55	.635
ZS201	3/4"	.062-.125	Green	1.29	1.10	.55	.635
ZS202	3/4"	.125-.187	Orange	1.29	1.10	.55	.635
ZS203	3/4"	.187-.250	Red	1.29	1.10	.55	.635
ZS205	3/4"	.250-.375	White	1.29	1.10	.55	.635
ZS208	3/4"	.375-.500	Blue	1.29	1.10	.55	.635
ZS209	3/4"	.500-.625	Brown	1.29	1.10	.55	.635
ZS210	3/4"	.625-.750	Yellow	1.40	1.50	.55	.815
ZS211*	3/4"	.750-.875	Purple	1.40	1.50	.55	.815
ZS308	1"	.375-.500	Blue	1.81	1.60	.71	1.015
ZS309	1"	.500-.625	Brown	1.81	1.60	.71	1.015
ZS310	1"	.625-.750	Yellow	1.81	1.60	.71	1.015
ZS311	1"	.750-.875	Purple	1.81	1.60	.71	1.015
ZS312	1"	.875-1.000	Gray	1.81	1.60	.71	1.015
ZS313*	1"	1.000-1.125	Pink	2.31	1.70	.66	1.015
ZS314*	1"	1.125-1.250	-	2.31	1.70	.66	1.015
ZS315*	1"	1.250-1.375	-	2.31	1.70	.66	1.015
ZS411	1-1/4"	.750-.875	-	2.31	1.70	.74	1.255
ZS412	1-1/4"	.875-1.000	-	2.31	1.70	.74	1.255
ZS413	1-1/4"	1.000-1.125	-	2.31	1.70	.74	1.255
ZS414	1-1/4"	1.125-1.250	-	2.31	1.70	.74	1.255
ZS415*	1-1/4"	1.250-1.375	-	2.31	1.70	.74	1.255

Z CORD CONNECTORS – STRAIGHT							
CATALOG NUMBER	NPT SIZE	CORD RANGES	DIMENSIONS				
			A	B	C	D	
ZS511	1-1/2"	.750-.875	2.31	1.70	.75	1.38	
ZS512	1-1/2"	.875-1.000	2.31	1.70	.75	1.38	
ZS513	1-1/2"	1.000-1.125	2.31	1.70	.75	1.38	
ZS514	1-1/2"	1.125-1.250	2.31	1.70	.75	1.38	
ZS515	1-1/2"	1.250-1.375	2.31	1.70	.75	1.38	
ZS516	1-1/2"	1.375-1.500	3.00	2.20	.75	1.50	
ZS517*	1-1/2"	1.500-1.625	3.00	2.20	.75	1.50	
ZS518	1-1/2"	1.625-1.750	3.00	2.20	.75	1.50	
ZS520*	1-1/2"	1.750-1.875	3.00	2.20	.75	1.50	
ZS615	2"	1.250-1.375	3.25	2.20	.80	1.92	
ZS616	2"	1.375-1.500	3.25	2.20	.80	1.92	
ZS617	2"	1.500-1.625	3.25	2.20	.80	1.92	
ZS618	2"	1.625-1.750	3.25	2.20	.80	1.92	
ZS620	2"	1.750-1.875	3.25	2.20	.80	1.92	
ZS619	2"	1.688-1.812	4.06	2.70	1.27	1.94	
ZS621	2"	1.812-1.937	4.06	2.70	1.27	1.94	
ZS622*	2"	1.937-2.062	4.06	2.70	1.27	1.94	
ZS623*	2"	2.062-2.188	4.06	2.70	1.27	1.94	
ZS624*	2"	2.188-2.312	4.06	2.70	1.27	1.94	
ZS719	2-1/2"	1.688-1.812	4.33	2.70	1.27	2.34	
ZS721	2-1/2"	1.812-1.937	4.33	2.70	1.27	2.34	
ZS722	2-1/2"	1.937-2.062	4.33	2.70	1.27	2.34	
ZS723	2-1/2"	2.062-2.188	4.33	2.70	1.27	2.34	
ZS724	2-1/2"	2.188-2.312	4.33	2.70	1.27	2.34	
ZS725*	2-1/2"	2.312-2.437	4.33	2.70	1.27	2.34	
ZS819	3"	1.688-1.812	4.33	2.70	1.30	2.54	
ZS822	3"	1.937-2.062	4.33	2.70	1.30	2.54	
ZS823	3"	2.062-2.188	4.33	2.70	1.30	2.54	
ZS824	3"	2.188-2.312	4.33	2.70	1.30	2.54	
ZS825	3"	2.312-2.437	4.33	2.70	1.30	2.54	
ZS826	3"	2.437-2.625	4.87	2.70	1.38	3.00	
ZS827	3"	2.625-2.812	4.87	2.70	1.38	3.00	
ZS828	3"	2.812-3.000	4.87	2.70	1.38	3.00	
ZS829*	3"	3.000-3.250	4.87	2.70	1.38	3.00	

* Cable jacket may have to be stripped to pass through connector body on all sizes.



FITTINGS

STRAIGHT STEEL CORD CONNECTORS

Type 4, 4X, 12 & 13



ZS002ZP

UL LISTED - File E22698

SP Certified - File LR73478

FEATURES-SPECIFICATIONS

Applications

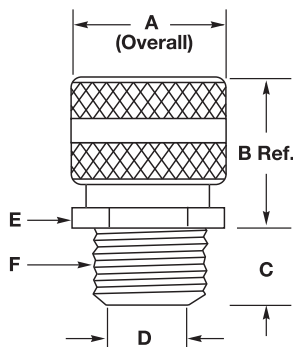
Z Series Steel Cord Connectors are used to secure and seal cords or cables entering enclosures or race-ways. Z Series connectors are also suitable for use in hazardous locations per National Electrical Code (Articles 501.10(B), 502.10(A)(B) and 505.15(C)). Consult these articles for sealing requirements that may apply.

Materials/Finish

- Steel/malleable iron
- Zinc electro-plated
- Natural Finish

Features

- Neoprene grommet seals out oil and moisture
- Nylon retention ring incorporates a split hinge design to prevent friction and provide strain relief, also color-coded for sizing identification
- These heavy-duty connectors hold up to most manufacturing chemicals including, acid solutions, solvents and other corrosive materials
- Machined steel nut and body allows for tightening the compression nut and NPT hub without worrying about stripping the threads
- Wide range of sizes and configurations



Z CORD CONNECTORS - STRAIGHT										
CATALOG NUMBER	NPT SIZE	CORD RANGES INCHES (MM)	COLOR CODE	DIMENSIONS INCHES (MM)						
				A		B	C	D	E	
				A/C	A/F				A/C	A/F
ZS002ZP	3/8"	.125"-.187" (3.175-4.75)	Orange	.98" (24.9)	.88" (22.4)	.90" (22.9)	.42" (10.7)	.45" (11.4)	.99" (25.1)	.88" (22.4)
ZS004ZP	3/8"	.250"-.312" (6.35-9.525)	Black	.98" (24.9)	.88" (22.4)	.90" (22.9)	.42" (10.7)	.45" (11.4)	.99" (25.1)	.88" (22.4)
ZS007ZP	3/8"	.375"-.437" (9.525-12.7)	Blue	.98" (24.9)	.88" (22.4)	.90" (22.9)	.42" (10.7)	.45" (11.4)	.99" (25.1)	.98" (22.4)
ZS102ZP	1/2"	.125"-.187" (3.175-4.75)	Orange	1.27" (32.3)	1.13" (28.7)	1.20" (30.5)	.55" (14.0)	.64" (16.3)	1.10" (28.2)	1.00" (25.4)
ZS103ZP	1/2"	.187"-.250" (4.75-6.35)	Red	1.27" (32.3)	1.13" (28.7)	1.20" (30.5)	.55" (14.0)	.64" (16.3)	1.10" (28.2)	1.00" (25.4)
ZS105ZP	1/2"	.250"-.375" (6.35-9.525)	White	1.27" (32.3)	1.13" (28.7)	1.20" (30.5)	.55" (14.0)	.64" (16.3)	1.10" (28.2)	1.00" (25.4)
ZS108ZP	1/2"	.375"-.500" (9.525-12.7)	Blue	1.27" (32.3)	1.13" (28.7)	1.20" (30.5)	.55" (14.0)	.64" (16.3)	1.10" (28.2)	1.00" (25.4)
ZS109ZP	1/2"	.500"-.625" (12.7-15.88)	Brown	1.27" (32.3)	1.13" (28.7)	1.20" (30.5)	.55" (14.0)	.64" (16.3)	1.10" (28.2)	1.00" (25.4)
ZS110ZP*	1/2"	.625"-.750" (15.88-19.05)	Yellow	1.55" (39.4)	1.38" (35.1)	1.50" (38.1)	.55" (14.0)	.64" (16.3)	1.40" (35.6)	1.25" (31.7)
ZS111ZP*	1/2"	.750"-.875" (19.05-22.23)	Purple	1.55" (39.4)	1.38" (35.1)	1.50" (38.1)	.55" (14.0)	.64" (16.3)	1.40" (35.6)	1.25" (31.7)
ZS202ZP	3/4"	.125"-.187" (3.175-4.75)	Orange	1.27" (32.3)	1.13" (28.7)	1.20" (30.5)	.55" (14.0)	.64" (16.3)	1.29" (32.8)	1.13" (28.7)
ZS203ZP	3/4"	.187"-.250" (4.75-6.35)	Red	1.27" (32.3)	1.13" (28.7)	1.20" (30.5)	.55" (14.0)	.64" (16.3)	1.29" (32.8)	1.13" (28.7)
ZS205ZP	3/4"	.250"-.375" (6.35-9.525)	White	1.27" (32.3)	1.13" (28.7)	1.20" (30.5)	.55" (14.0)	.64" (16.3)	1.29" (32.8)	1.13" (28.7)
ZS208ZP	3/4"	.375"-.500" (9.525-12.7)	Blue	1.27" (32.3)	1.13" (28.7)	1.20" (30.5)	.55" (14.0)	.64" (16.3)	1.29" (32.8)	1.13" (28.7)
ZS209ZP	3/4"	.500"-.625" (12.7-15.88)	Brown	1.27" (32.3)	1.13" (28.7)	1.20" (30.5)	.55" (14.0)	.64" (16.3)	1.29" (32.8)	1.13" (28.7)
ZS210ZP	3/4"	.625"-.750" (15.88-19.05)	Yellow	1.55" (39.4)	1.38" (35.1)	1.40" (35.6)	.55" (14.0)	.82" (20.8)	1.40" (35.6)	1.25" (31.7)
ZS211ZP*	3/4"	.750"-.875" (19.05-22.23)	Purple	1.55" (39.4)	1.38" (35.1)	1.40" (35.6)	.55" (14.0)	.82" (20.8)	1.40" (35.6)	1.25" (31.7)
ZS312ZP	1"	.875"-1.000" (22.23-25.4)	Gray	1.92" (48.8)	1.69" (42.9)	1.60" (40.6)	.70" (17.8)	1.02" (25.9)	1.95" (49.5)	1.69" (42.9)
ZS413ZP	1-1/4"	1.000"-1.125" (25.4-28.7)	-	2.40" (61.0)	-	1.70" (43.2)	.73" (18.5)	1.27" (32.3)	2.48" (63.0)	2.19" (55.6)
ZS414ZP	1-1/4"	1.125"-1.250" (28.7-31.75)	-	2.40" (61.0)	-	1.70" (43.2)	.73" (18.5)	1.27" (32.3)	2.48" (63.0)	2.19" (55.6)
ZS415ZP	1-1/4"	1.250"-1.375" (31.75-35.05)	-	2.40" (61.0)	-	1.70" (43.2)	.73" (18.5)	1.27" (32.3)	2.48" (63.0)	2.19" (55.6)
ZS513ZP	1-1/2"	1.000"-1.125" (25.4-28.7)	-	2.40" (61.0)	-	1.70" (43.2)	.74" (18.8)	1.39" (35.3)	2.48" (63.0)	2.19" (55.6)
ZS514ZP	1-1/2"	1.125"-1.250" (28.7-31.75)	-	2.40" (61.0)	-	1.70" (43.2)	.74" (18.8)	1.39" (35.3)	2.48" (63.0)	2.19" (55.6)
ZS515ZP	1-1/2"	1.250"-1.375" (31.75-35.05)	-	2.40" (61.0)	-	1.70" (43.2)	.74" (18.8)	1.39" (35.3)	2.48" (63.0)	2.19" (55.6)

- Locknuts sold separately

* Cable jacket may have to be stripped to pass through connector body



ALUMINUM CORD CONNECTORS



ZN310



Locknut

Type 4, 4X, 12 & 13

LISTED - File E22698

Certified - File LR73478

FEATURES-SPECIFICATIONS

Applications

Use to secure and seal cords or cables entering enclosures or race-ways.

Z Series connectors are also suitable for use in hazardous locations per National Electrical Code (Articles 501-4(b), 502-4(a&b), 503-3(a&b). Consult these articles for sealing requirements that may apply.

Materials/Finish

- Copper-free aluminum (less than 4/10 of 1%)
- Natural finish

Features

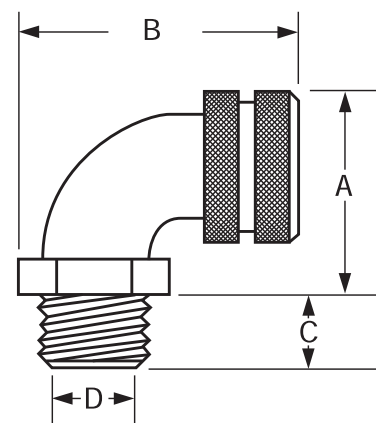
- Aluminum construction resists corrosion
- Neoprene grommet seals out oil and moisture
- Nylon retention ring ensures superior holding power
- Wide range of sizes and configurations

Z CORD CONNECTORS – 90°							
CATALOG NUMBER	NPT SIZE	CORD RANGES	COLOR CODE	DIMENSIONS			
				A	B	C	D
ZN102	1/2"	.125-.187	Orange	1.56	2.30	.50	.546
ZN103	1/2"	.187-.250	Red	1.56	2.30	.50	.546
ZN105	1/2"	.250-.375	White	1.56	2.30	.50	.546
ZN108	1/2"	.375-.500	Blue	1.56	2.30	.50	.546
ZN109*	1/2"	.500-.625	Brown	1.56	2.30	.50	.546
ZN208	3/4"	.375-.500	Blue	1.79	2.80	.562	.765
ZN209	3/4"	.500-.625	Brown	1.79	2.80	.562	.765
ZN210*	3/4"	.625-.750	Yellow	1.79	2.80	.562	.765
ZN211*	3/4"	.750-.875	Purple	1.79	2.80	.562	.765
ZN309	1"	.500-.625	Brown	2.08	3.20	.703	1.00
ZN310	1"	.625-.750	Yellow	2.08	3.20	.703	1.00
ZN311	1"	.750-.875	Purple	2.08	3.20	.703	1.00
ZN312*	1"	.875-1.000	Gray	2.08	3.20	.703	1.00
ZN313*	1"	1.000-1.125	Pink	2.08	3.20	.703	1.00
ZN412	1-1/4"	.875-1.000	-	3.18	4.30	.73	1.26
ZN413	1-1/4"	1.000-1.125	-	3.18	4.30	.73	1.26
ZN414*	1-1/4"	1.125-1.250	-	3.18	4.30	.73	1.26
ZN415*	1-1/4"	1.250-1.375	-	3.18	4.30	.73	1.26
ZN515	1-1/2"	1.000-1.125	-	3.18	4.30	.75	1.50
ZN515	1-1/2"	1.250-1.375	-	3.18	4.30	.75	1.50
ZN616	2"	1.375-1.500	-	3.50	5.50	.80	1.92

* Cable jacket may have to be stripped to pass through connector body.

OPTIONAL LOCKNUTS AND SEALING WASHERS		
CATALOG NUMBER		NPT SIZES
STEEL LOCKNUTS ^①	SEALING WASHERS ^②	
KILLN375	-	3/8"
KILLN1	KOR-1	1/2"
KILLN2	KOR-2	3/4"
KILLN3	KOR-3	1"
KILLN4	KOR-4	1-1/4"
KILLN5	KOR-5	1-1/2"
KILLN6	KOR-6	2"
KILLN7	-	2-1/2"
KILLN8	-	3"

① 2-1/2" through 3" are malleable, with hexhead flats.
 ② Neoprene washers are mounted on steel reinforcing bands.





FITTINGS

90° STEEL CORD CONNECTORS



ZN208ZP

Type 4, 4X, 12 & 13

UL LISTED - File E22698

SP Certified - File LR73478

FEATURES-SPECIFICATIONS

Applications

Z Series Steel Cord Connectors are used to secure and seal cords or cables entering enclosures or race-ways. Z Series connectors are also suitable for use in hazardous locations when installed according to National Electrical Code (Articles 501.10(B), 502.10(A)(B) and 505.15(C)). Consult these articles for sealing requirements that may apply.

Materials/Finish

- Steel/malleable iron
- Zinc electro-plated
- Natural Finish

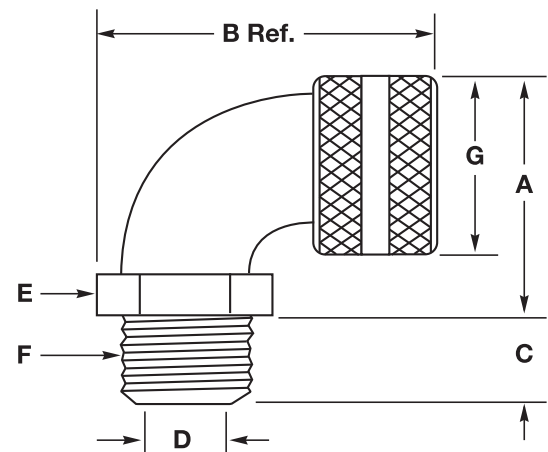
Features

- Neoprene grommet seals out oil and moisture
- Nylon retention ring incorporates a split hinge design to prevent friction and provide strain relief, also color-coded for sizing identification
- These heavy-duty connectors hold up to most manufacturing chemicals including, acid solutions, solvents and other corrosive materials
- Machined steel nut and malleable iron body allows for tightening the compression nut and NPT hub without worrying about stripping the threads
- Wide range of sizes and configurations

Z CORD CONNECTORS - 90° Δ											
CATLOG NUMBER ^Δ	NPT SIZE	CORD RANGES INCHES (MM)	COLOR CODE	DIMENSIONS INCHES (MM)							
				A	B	C	D	E		G	
								A/C	A/F	A/C	A/F
ZN103ZP	1/2"	.187"-.250" (4.75-6.35)	Red	1.65" (41.9)	2.38" (60.5)	.55" (14.0)	.55" (13.8)	1.29" (32.8)	1.13" (28.7)	1.27" (32.3)	1.13" (28.6)
ZN105ZP	1/2"	.250"-.375" (6.35-9.525)	White	1.65" (41.9)	2.38" (60.5)	.55" (14.0)	.55" (13.8)	1.29" (32.8)	1.13" (28.7)	1.27" (32.3)	1.13" (28.6)
ZN108ZP	1/2"	.375"-.500" (9.525-12.7)	Blue	1.65" (41.9)	2.38" (60.5)	.55" (14.0)	.55" (13.8)	1.29" (32.8)	1.13" (28.7)	1.27" (32.3)	1.13" (28.6)
ZN109ZP*	1/2"	.500"-.625" (12.7-15.88)	Brown	1.65" (41.9)	2.38" (60.5)	.55" (14.0)	.55" (13.8)	1.29" (32.8)	1.13" (28.7)	1.27" (32.3)	1.13" (28.6)
ZN208ZP	3/4"	.375"-.500" (9.525-12.7)	Blue	1.88" (47.8)	2.90" (73.7)	.56" (14.2)	.77" (19.4)	1.52" (38.6)	1.33" (33.8)	1.55" (39.2)	1.38" (34.9)
ZN209ZP	3/4"	.500"-.625" (12.7-15.88)	Brown	1.88" (47.8)	2.90" (73.7)	.56" (14.2)	.77" (19.4)	1.52" (38.6)	1.33" (33.8)	1.55" (39.2)	1.38" (34.9)
ZN210ZP	3/4"	.625"-.750" (15.88-19.05)	Yellow	1.88" (47.8)	2.90" (73.7)	.56" (14.2)	.77" (19.4)	1.52" (38.6)	1.33" (33.8)	1.55" (39.2)	1.38" (34.9)
ZN211ZP	3/4"	.750"-.875" (19.05-22.23)	Purple	1.88" (47.8)	2.90" (73.7)	.56" (14.2)	.77" (19.4)	1.52" (38.6)	1.33" (33.8)	1.55" (39.2)	1.38" (34.9)
ZN310ZP	1"	.625"-.750" (15.88-19.05)	Yellow	2.16" (54.9)	3.20" (81.3)	.70" (17.8)	1.00" (25.4)	1.72" (43.7)	1.50" (38.1)	1.92" (48.8)	1.69" (42.8)

Δ Compression nuts are machined zinc-plated steel and bodies are zinc-plated malleable iron

* Cable jacket may have to be stripped to pass through connector body





ALUMINUM CORD CONNECTORS WITH MESH GRIP



UL LISTED - File E22698
 SP Certified - File LR73478
 See files for details or call Killark.

FEATURES-SPECIFICATIONS

Applications

Z Series cord connector grips combine aluminum cord connectors with stainless steel mesh grips to provide superior cord pull-out prevention in indoor and outdoor applications. These grips provide enclosure terminations where cords are subjected to moisture or splashing water.

They are also suitable for use in hazardous locations per National Electrical Code (Articles 501-4(b), 502-4(a&b), 503-3(a&b)). Consult these article for sealing requirements that may apply.

Features

- Aluminum fittings are strong, durable and corrosion resistant
- Internal grommet provides liquidtight seal
- Stainless steel mesh grips resist corrosion, prevent cord pull-out and control arc-of-bend

Material/Finish

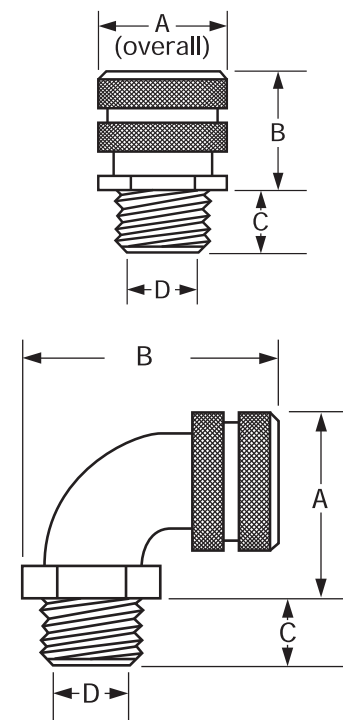
- Copper-free aluminum (less than 4/10 of 1%)
- Natural finish
- Stainless steel mesh grip

Z CORD CONNECTORS — STRAIGHT							
CATALOG NUMBER	NPT SIZE	CORD RANGES	COLOR CODE	DIMENSIONS			
				A	B	C	D
ZS004-MG	3/8"	.250-.312	Black	.99	.90	.425	.453
ZS006-MG	3/8"	.312-.375	White	.99	.90	.425	.453
ZS007-MG	3/8"	.375-.437	Blue	.99	.90	.425	.453
ZS103-MG	1/2"	.187-.250	Red	1.13	1.10	.55	.635
ZS105-MG	1/2"	.250-.375	White	1.13	1.10	.55	.635
ZS108-MG	1/2"	.375-.500	Blue	1.13	1.10	.55	.635
ZS109-MG	1/2"	.500-.625	Brown	1.13	1.10	.55	.635
ZS110-MG	1/2"	.625-.750	Yellow	1.40	1.50	.55	.635
ZS111-MG	1/2"	.750-.875	Purple	1.40	1.50	.55	.635
ZS203-MG	3/4"	.187-.250	Red	1.29	1.10	.55	.635
ZS205-MG	3/4"	.250-.375	White	1.29	1.10	.55	.635
ZS208-MG	3/4"	.375-.500	Blue	1.29	1.10	.55	.635
ZS209-MG	3/4"	.500-.625	Brown	1.29	1.10	.55	.635
ZS210-MG	3/4"	.625-.750	Yellow	1.40	1.50	.55	.815
ZS211-MG	3/4"	.750-.875	Purple	1.40	1.50	.55	.815
ZS308-MG	1"	.375-.500	Blue	1.81	1.60	.71	1.015
ZS309-MG	1"	.500-.625	Brown	1.81	1.60	.71	1.015
ZS310-MG	1"	.625-.750	Yellow	1.81	1.60	.71	1.015
ZS311-MG	1"	.750-.875	Purple	1.81	1.60	.71	1.015
ZS312-MG	1"	.875-1.00	Gray	1.81	1.60	.71	1.015
ZS313-MG	1"	1.00-1.125	Pink	2.31	1.70	.66	1.015

Z CORD CONNECTORS — 90°							
CATALOG NUMBER	NPT SIZE	CORD RANGES	COLOR CODE	DIMENSIONS			
				A	B	C	D
ZN103-MG	1/2"	.187-.250	Red	1.56	2.30	.50	.546
ZN105-MG	1/2"	.250-.375	White	1.56	2.30	.50	.546
ZN108-MG	1/2"	.375-.500	Blue	1.56	2.30	.50	.546
ZN109-MG	1/2"	.500-.625	Brown	1.56	2.30	.50	.546
ZN208-MG	3/4"	.375-.500	Blue	1.79	2.80	.562	.765
ZN209-MG	3/4"	.500-.625	Brown	1.79	2.80	.562	.765
ZN210-MG	3/4"	.625-.750	Yellow	1.79	2.80	.562	.765
ZN211-MG	3/4"	.750-.875	Purple	1.79	2.80	.562	.765

OPTIONAL LOCKNUTS AND SEALING WASHERS		
CATALOG NUMBER		
STEEL LOCKNUTS ^①	SEALING WASHERS ^②	NPT SIZES
KILLN375	-	3/8"
KILLN1	KOR-1	1/2"
KILLN2	KOR-2	3/4"
KILLN3	KOR-3	1"
KILLN4	KOR-4	1-1/4"
KILLN5	KOR-5	1-1/2"
KILLN6	KOR-6	2"
KILLN7	-	2-1/2"
KILLN8	-	3"

① 2-1/2" through 3" are malleable, with hexhead flats.
 ② Neoprene washers are mounted on steel reinforcing bands.



FITTINGS

Z SERIES



CORROSION RESISTANT NYLON CORD CONNECTORS



ZS210CR



ZN210CR

UL LISTED - File E22698

SP Certified - File LR73478
See files for details or call Killark.

FEATURES-SPECIFICATIONS

Applications

Durable nylon construction makes these connectors perfectly suited to corrosive environments.

Typical applications for nylon cord connectors include food processing facilities, chemical and sewage treatment plants and off-shore and dockside installations.

Features

- Nylon retention ring for increased holding power
- Neoprene bushing seals against moisture
- Nylon connectors obtain approximately the same cord retention values with hand tightening that can be produced only by wrench tightening of metal cord connectors

Material

- Nylon

Z NYLON CORD CONNECTORS – STRAIGHT

CATALOG NUMBER*	NPT SIZE	CORD RANGES	COLOR CODE
ZS002CR	3/8"	.125-.187	Orange
ZS003CR	3/8"	.187-.250	Red
ZS004CR	3/8"	.250-.312	Black
ZS006CR	3/8"	.312-.375	White
ZS007CR	3/8"	.375-.437	Blue
ZS101CR	1/2"	.062-.125	Green
ZS102CR	1/2"	.125-.187	Orange
ZS103CR	1/2"	.187-.250	Red
ZS105CR	1/2"	.250-.375	White
ZS108CR	1/2"	.375-.500	Blue
ZS109CR	1/2"	.500-.625	Brown
ZS208CR	3/4"	.375-.500	Blue
ZS209CR	3/4"	.500-.625	Brown
ZS210CR	3/4"	.625-.750	Yellow
ZS211CR*	3/4"	.750-.875	Purple
ZS308CR	1"	.375-.500	Blue
ZS309CR	1"	.500-.625	Brown
ZS310CR	1"	.625-.750	Yellow
ZS311CR	1"	.750-.875	Purple
ZS312CR	1"	.875-1.000	Gray
ZS313CR*	1"	1.000-1.125	Pink

* Cable Jacket may have to be stripped to pass through connector body.

Z NYLON CORD CONNECTORS – 90°

CATALOG NUMBER*	NPT SIZE	CORD RANGES	COLOR CODE
ZN102CR	1/2"	.125-.187	Orange
ZN103CR	1/2"	.187-.250	Red
ZN105CR	1/2"	.250-.375	White
ZN108CR	1/2"	.375-.500	Blue
ZN109CR	1/2"	.500-.625	Brown
ZN208CR	3/4"	.375-.500	Blue
ZN209CR	3/4"	.500-.625	Brown
ZN210CR*	3/4"	.625-.750	Yellow
ZN211CR*	3/4"	.750-.875	Purple
ZN310CR	1"	.625-.750	Yellow
ZN311CR	1"	.750-.875	Purple
ZN312CR*	1"	.875-1.000	Gray

OPTIONAL LOCKNUTS

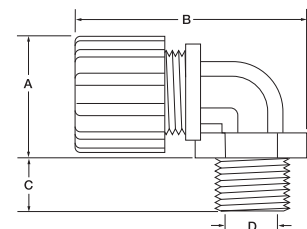
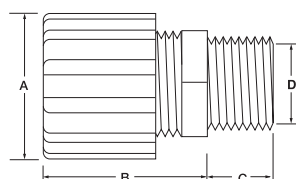
CATALOG NUMBER	NPT SIZE
LN-375CR	3/8"
LN-1CR	1/2"
LN-2CR	3/4"
LN-3CR	1"

Z 90° DIMENSIONS

NPT SIZE	DIMENSIONS			
	A	B	C	D
1/2"	1-13/32"	2-1/2"	17/32"	1-1/2"
3/4"	1-21/32"	2-51/64"	35/64"	49/64"
1"	1-63/64"	3-19/64"	11/16"	1-1/16"

Z STRAIGHT DIMENSIONS

NPT SIZE	DIMENSIONS			
	A	B	C	D
3/8"	63/64"	1-3/32"	7/16"	7/16"
1/2"	1-1/4"	1-1/2"	17/32"	37/64"
3/4"	1-31/64"	1-5/8"	35/64"	49/64"
1"	1-27/32"	1-3/4"	11/16"	1-1/16"





INCREASED SAFETY ALUMINUM CORD CONNECTORS



ZS108-EX



Locknut
(See page F86)

CSA US AEx (Class I, Zone 1) Ex e II[†]
Type 4**

UL LISTED - File E22698

SP Certified - File LR73478
See files for details or call Killark.

FEATURES-SPECIFICATIONS

Applications

Use to secure and seal cords or cables entering enclosures or raceways.

Z Series connectors are also suitable for use in hazardous locations per National Electrical Code Articles 501-4(b), 502-4(a&b), 503-3(a&b), 505-15 (c); Canadian Electrical Code 18-106, 18-122, 18-156, 18-218, 18-252, 18-302 and 18-352; International Electrotechnical Commission (IEC) 60079-7 Increased Safety (Ex e II). Consult these articles for appropriate installation requirements.

Features

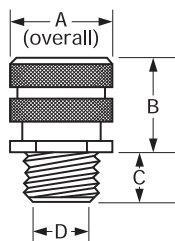
- Aluminum construction resists corrosion
- Neoprene grommet seals out oil and moisture
- Nylon retention ring ensures superior holding power
- Wide range of sizes and configurations

Material/Finish

- Copper-free aluminum (less than 4/10 of 1%)
- Natural finish

[†] Listed by CSA for Class I, Zone 1 in Canada. Listed by CSA as a Nationally recognized test lab (NRTL) for Class I, Div. 2, Class I, Zone 2 in the United States.

** Type 4 when installed with a proper gasket.



Z CORD CONNECTORS – STRAIGHT							
CATALOG NUMBER	NPT SIZE	CORD RANGES	COLOR CODE	DIMENSIONS			
				A	B	C	D
ZS001-EX	3/8"	.062-.125	Green	.99	.425	.90	.453
ZS002-EX	3/8"	.125-.187	Orange	.99	.425	.90	.453
ZS003-EX	3/8"	.187-.250	Red	.99	.425	.90	.453
ZS004-EX	3/8"	.250-.312	Black	.99	.425	.90	.453
ZS006-EX	3/8"	.312-.375	White	.99	.425	.90	.453
ZS007-EX	3/8"	.375-.437	Blue	.99	.425	.90	.453
ZS101-EX	1/2"	.062-.125	Green	1.13	1.10	.55	.635
ZS102-EX	1/2"	.125-.187	Orange	1.13	1.10	.55	.635
ZS103-EX	1/2"	.187-.250	Red	1.13	1.10	.55	.635
ZS105-EX	1/2"	.250-.375	White	1.13	1.10	.55	.635
ZS108-EX	1/2"	.375-.500	Blue	1.13	1.10	.55	.635
ZS109-EX	1/2"	.500-.625	Brown	1.13	1.10	.55	.635
ZS110-EX*	1/2"	.625-.750	Yellow	1.40	1.50	.55	.635
ZS111-EX*	1/2"	.750-.875	Purple	1.40	1.50	.55	.635
ZS201-EX	3/4"	.062-.125	Green	1.29	1.10	.55	.635
ZS202-EX	3/4"	.125-.187	Orange	1.29	1.10	.55	.635
ZS203-EX	3/4"	.187-.250	Red	1.29	1.10	.55	.635
ZS205-EX	3/4"	.250-.375	White	1.29	1.10	.55	.635
ZS208-EX	3/4"	.375-.500	Blue	1.29	1.10	.55	.635
ZS209-EX	3/4"	.500-.625	Brown	1.29	1.10	.55	.635
ZS210-EX	3/4"	.625-.750	Yellow	1.40	1.50	.55	.815
ZS211-EX*	3/4"	.750-.875	Purple	1.40	1.50	.55	.815
ZS308-EX	1"	.375-.500	Blue	1.81	1.60	.71	1.015
ZS309-EX	1"	.500-.625	Brown	1.81	1.60	.71	1.015
ZS310-EX	1"	.625-.750	Yellow	1.81	1.60	.71	1.015
ZS311-EX	1"	.750-.875	Purple	1.81	1.60	.71	1.015
ZS312-EX	1"	.875-1.000	Gray	1.81	1.60	.71	1.015
ZS313-EX*	1"	1.000-1.125	Pink	2.31	1.70	.66	1.015
ZS314-EX*	1"	1.125-1.250	-	2.31	1.70	.66	1.015
ZS315-EX*	1"	1.250-1.375	-	2.31	1.70	.66	1.015
ZS411-EX	1-1/4"	.750-.875	-	2.31	1.70	.74	1.255
ZS412-EX	1-1/4"	.875-1.000	-	2.31	1.70	.74	1.255
ZS413-EX	1-1/4"	1.000-1.125	-	2.31	1.70	.74	1.255
ZS414-EX	1-1/4"	1.125-1.250	-	2.31	1.70	.74	1.255
ZS415-EX*	1-1/4"	1.250-1.375	-	2.31	1.70	.74	1.255

Z CORD CONNECTORS — STRAIGHT							
CATALOG NUMBER	NPT SIZE	CORD RANGES	DIMENSIONS				
			A	B	C	D	
ZS511-EX	1-1/2"	.750-.875	2.31	1.70	.75	1.38	
ZS512-EX	1-1/2"	.875-1.000	2.31	1.70	.75	1.38	
ZS513-EX	1-1/2"	1.000-1.125	2.31	1.70	.75	1.38	
ZS514-EX	1-1/2"	1.125-1.250	2.31	1.70	.75	1.38	
ZS515-EX	1-1/2"	1.250-1.375	2.31	1.70	.75	1.38	
ZS516-EX	1-1/2"	1.375-1.500	3.00	2.20	.75	1.50	
ZS517-EX*	1-1/2"	1.500-1.625	3.00	2.20	.75	1.50	
ZS518-EX*	1-1/2"	1.625-1.750	3.00	2.20	.75	1.50	
ZS520-EX*	1-1/2"	1.750-1.875	3.00	2.20	.75	1.50	
ZS615-EX	2"	1.250-1.375	3.25	2.20	.80	1.92	
ZS616-EX	2"	1.375-1.500	3.25	2.20	.80	1.92	
ZS617-EX	2"	1.500-1.625	3.25	2.20	.80	1.92	
ZS618-EX	2"	1.625-1.750	3.25	2.20	.80	1.92	
ZS620-EX	2"	1.750-1.875	3.25	2.20	.80	1.92	
ZS619-EX	2"	1.688-1.812	4.06	2.70	1.27	1.94	
ZS621-EX	2"	1.812-1.937	4.06	2.70	1.27	1.94	
ZS622-EX*	2"	1.937-2.062	4.06	2.70	1.27	1.94	
ZS623-EX*	2"	2.062-2.188	4.06	2.70	1.27	1.94	
ZS624-EX*	2"	2.188-2.312	4.06	2.70	1.27	1.94	
ZS719-EX	2-1/2"	1.688-1.812	4.33	2.70	1.27	2.34	
ZS721-EX	2-1/2"	1.812-1.937	4.33	2.70	1.27	2.34	
ZS722-EX	2-1/2"	1.937-2.062	4.33	2.70	1.27	2.34	
ZS723-EX	2-1/2"	2.062-2.188	4.33	2.70	1.27	2.34	
ZS724-EX	2-1/2"	2.188-2.312	4.33	2.70	1.27	2.34	
ZS725-EX*	2-1/2"	2.312-2.437	4.33	2.70	1.27	2.34	
ZS819-EX	3"	1.688-1.812	4.33	2.70	1.30	2.54	
ZS822-EX	3"	1.937-2.062	4.33	2.70	1.30	2.54	
ZS823-EX	3"	2.062-2.188	4.33	2.70	1.30	2.54	
ZS824-EX	3"	2.188-2.312	4.33	2.70	1.30	2.54	
ZS825-EX	3"	2.312-2.437	4.33	2.70	1.30	2.54	
ZS826-EX	3"	2.437-2.625	4.87	2.70	1.38	3.00	
ZS827-EX	3"	2.625-2.812	4.87	2.70	1.38	3.00	
ZS828-EX	3"	2.812-3.000	4.87	2.70	1.38	3.00	
ZS829-EX*	3"	3.000-3.250	4.87	2.70	1.38	3.00	

* Cable jacket may have to be stripped to pass through connector body on all sizes.

FITTINGS

Z SERIES



INCREASED SAFETY ALUMINUM CORD CONNECTORS



ZN310-EX



Locknut

CSA **US** **AEx (Class I, Zone 1) Ex e II†**
Type 4**

UL LISTED - File E22698

CSA Certified - File LR73478
See files for details or call Killark.

FEATURES-SPECIFICATIONS

Applications

Use to secure and seal cords or cables entering enclosures or raceways.

Z Series connectors are also suitable for use in hazardous locations per National Electrical Code Articles 501-4(b), 502-4(a&b), 503-3(a&b), 505-15 (c); Canadian Electrical Code 18-106, 18-122, 18-156, 18-218, 18-252, 18-302 and 18-352; International Electrotechnical Commission (IEC) 60079-7 Increased Safety (Ex e II). Consult these articles for appropriate installation requirements.

Features

- Aluminum construction resists corrosion
- Neoprene grommet seals out oil and moisture
- Nylon retention ring ensures superior holding power
- Wide range of sizes and configurations

Material/Finish

- Copper-free aluminum (less than 4/10 of 1%)
- Natural finish

† Listed by CSA for Class I, Zone 1 in Canada. Listed by CSA as a Nationally recognized test lab (NRTL) for Class I, Div. 2, Class I, Zone 2 in the United States.

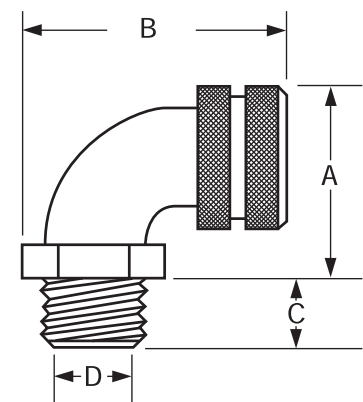
** Type 4 when installed with a proper gasket.

Z CORD CONNECTORS – 90°							
CATALOG NUMBER	NPT SIZE	CORD RANGES	COLOR CODE	DIMENSIONS			
				A	B	C	D
ZN102-EX	1/2"	.125-.187	Orange	1.56	2.30	.50	.546
ZN103-EX	1/2"	.187-.250	Red	1.56	2.30	.50	.546
ZN105-EX	1/2"	.250-.375	White	1.56	2.30	.50	.546
ZN108-EX	1/2"	.375-.500	Blue	1.56	2.30	.50	.546
ZN109-EX*	1/2"	.500-.625	Brown	1.56	2.30	.50	.546
ZN208-EX	3/4"	.375-.500	Blue	1.79	2.80	.562	.765
ZN209-EX	3/4"	.500-.625	Brown	1.79	2.80	.562	.765
ZN210-EX*	3/4"	.625-.750	Yellow	1.79	2.80	.562	.765
ZN211-EX*	3/4"	.750-.875	Purple	1.79	2.80	.562	.765
ZN309-EX	1"	.500-.625	Brown	2.08	3.20	.703	1.00
ZN310-EX	1"	.625-.750	Yellow	2.08	3.20	.703	1.00
ZN311-EX	1"	.750-.875	Purple	2.08	3.20	.703	1.00
ZN312-EX*	1"	.875-1.000	Gray	2.08	3.20	.703	1.00
ZN313-EX*	1"	1.000-1.125	Pink	2.08	3.20	.703	1.00
ZN412-EX	1-1/4"	.875-1.000	—	3.18	4.30	.73	1.26
ZN413-EX	1-1/4"	1.000-1.125	—	3.18	4.30	.73	1.26
ZN414-EX*	1-1/4"	1.125-1.250	—	3.18	4.30	.73	1.26
ZN415-EX*	1-1/4"	1.250-1.375	—	3.18	4.30	.73	1.26
ZN513-EX	1-1/2"	1.000-1.125	—	3.18	4.30	.75	1.50
ZN515-EX	1-1/2"	1.250-1.375	—	3.18	4.30	.75	1.50
ZN616-EX	2"	1.375-1.500	—	3.50	5.50	.80	1.92

* Cable jacket may have to be stripped to pass through connector body.

OPTIONAL LOCKNUTS AND SEALING WASHERS		
CATALOG NUMBER		NPT SIZES
STEEL LOCKNUTS①	SEALING WASHERS②	
KILLN375	—	3/8"
KILLN1	KOR-1	1/2"
KILLN2	KOR-2	3/4"
KILLN3	KOR-3	1"
KILLN4	KOR-4	1-1/4"
KILLN5	KOR-5	1-1/2"
KILLN6	KOR-6	2"
KILLN7	—	2-1/2"
KILLN8	—	3"

① 2-1/2" through 3" are malleable, with hexhead flats.
② Neoprene washers are mounted on steel reinforcing bands.





INCREASED SAFETY ALUMINUM CORD CONNECTOR WITH MESH GRIP



CSA US AEx (Class I, Zone 1) Ex e II†
Type 4**

UL LISTED - File E22698

SP Certified - File LR73478
See files for details or call Killark.

FEATURES-SPECIFICATIONS

Applications

Z Series cord connector grips combine aluminum cord connectors with stainless steel mesh grips to provide superior cord pull-out prevention in indoor and outdoor applications. These grips provide enclosure terminations where cords are subjected to moisture or splashing water.

They are also suitable for use in hazardous locations per National Electrical Code (Articles 501-4(b), 502-4(a&b), 503-3(a&b), 505-15 (c); Canadian Electrical Code 18-106, 18-122, 18-156, 18-218, 18-252, 18-302 and 18-352; International Electrotechnical Commission (IEC) 60079-7 Increased Safety (Ex e II). Consult these articles for appropriate installation requirements.

Features

- Aluminum fittings are strong, durable and corrosion resistant
- Internal grommet provides liquidtight seal
- Stainless steel mesh grips resist corrosion, prevent cord pull-out and control arc-of-bend

Material/Finish

- Copper-free aluminum (less than 4/10 of 1%)
- Natural finish
- Stainless steel mesh grip

† Listed by CSA for Class I, Zone 1 in Canada. Listed by CSA as a Nationally recognized test lab (NRTL) for Class I, Div. 2, Class I, Zone 2 in the United States.

** Type 4 when installed with a proper gasket.

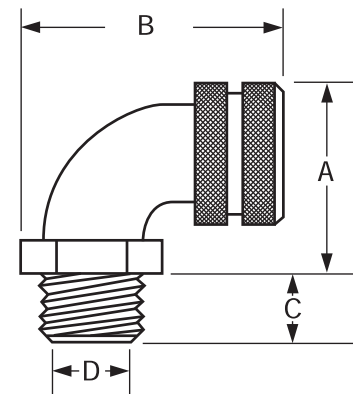
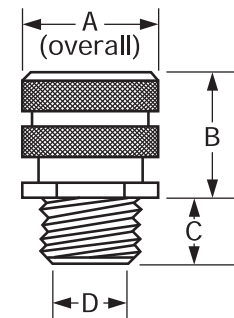
Z CORD CONNECTORS – STRAIGHT							
CATALOG NUMBER	NPT SIZE	CORD RANGES	COLOR CODE	DIMENSIONS			
				A	B	C	D
ZS004-EX-MG	3/8"	.250-.312	Black	.99	.90	.425	.453
ZS006-EX-MG	3/8"	.312-.375	White	.99	.90	.425	.453
ZS007-EX-MG	3/8"	.375-.437	Blue	.99	.90	.425	.453
ZS103-EX-MG	1/2"	.187-.250	Red	1.13	1.10	.55	.635
ZS105-EX-MG	1/2"	.250-.375	White	1.13	1.10	.55	.635
ZS108-EX-MG	1/2"	.375-.500	Blue	1.13	1.10	.55	.635
ZS109-EX-MG	1/2"	.500-.625	Brown	1.13	1.10	.55	.635
ZS110-EX-MG*	1/2"	.625-.750	Yellow	1.40	1.50	.55	.635
ZS111-EX-MG*	1/2"	.750-.875	Purple	1.40	1.50	.55	.635
ZS203-EX-MG	3/4"	.187-.250	Red	1.29	1.10	.55	.635
ZS205-EX-MG	3/4"	.250-.375	White	1.29	1.10	.55	.635
ZS208-EX-MG	3/4"	.375-.500	Blue	1.29	1.10	.55	.635
ZS209-EX-MG	3/4"	.500-.625	Brown	1.29	1.10	.55	.635
ZS210-EX-MG	3/4"	.625-.750	Yellow	1.40	1.50	.55	.815
ZS211-EX-MG*	3/4"	.750-.875	Purple	1.40	1.50	.55	.815
ZS308-EX-MG	1"	.375-.500	Blue	1.81	1.60	.71	1.015
ZS309-EX-MG	1"	.500-.625	Brown	1.81	1.60	.71	1.015
ZS310-EX-MG	1"	.625-.750	Yellow	1.81	1.60	.71	1.015
ZS311-EX-MG	1"	.750-.875	Purple	1.81	1.60	.71	1.015
ZS312-EX-MG*	1"	.875-1.00	Gray	1.81	1.60	.71	1.015
ZS313-EX-MG*	1"	1.00-1.125	Pink	2.31	1.70	.66	1.015

Z CORD CONNECTORS – 90°							
CATALOG NUMBER	NPT SIZE	CORD RANGES	COLOR CODE	DIMENSIONS			
				A	B	C	D
ZN103-EX-MG	1/2"	.187-.250	Red	1.56	2.30	.50	.546
ZN105-EX-MG	1/2"	.250-.375	White	1.56	2.30	.50	.546
ZN108-EX-MG	1/2"	.375-.500	Blue	1.56	2.30	.50	.546
ZN109-EX-MG*	1/2"	.500-.625	Brown	1.56	2.30	.50	.546
ZN208-EX-MG	3/4"	.375-.500	Blue	1.79	2.80	.562	.765
ZN209-EX-MG	3/4"	.500-.625	Brown	1.79	2.80	.562	.765
ZN210-EX-MG*	3/4"	.625-.750	Yellow	1.79	2.80	.562	.765
ZN211-EX-MG*	3/4"	.750-.875	Purple	1.79	2.80	.562	.765

OPTIONAL LOCKNUTS AND SEALING WASHERS		
CATALOG NUMBER		NPT SIZES
STEEL LOCKNUTS①	SEALING WASHERS②	
KILLN375	—	3/8"
KILLN1	KOR-1	1/2"
KILLN2	KOR-2	3/4"
KILLN3	KOR-3	1"
KILLN4	KOR-4	1-1/4"
KILLN5	KOR-5	1-1/2"
KILLN6	KOR-6	2"
KILLN7	—	2-1/2"
KILLN8	—	3"

① 2-1/2" through 3" are malleable, with hexhead flats.

② Neoprene washers are mounted on steel reinforcing bands.



FITTINGS

Z SERIES



INCREASED SAFETY CORROSION RESISTANT NYLON CORD CONNECTORS



ZS210CR-EX



ZN210CR-EX

CSA US AEx (Class I, Zone 1) Ex e II† Type 4**

UL LISTED - File E22698

SP Certified - File LR73478
See files for details or call Killark.

FEATURES-SPECIFICATIONS

Applications

Durable nylon construction makes these connectors perfectly suited to corrosive environments.

Typical applications for nylon cord connectors include food processing facilities, chemical and sewage treatment plants and off-shore and dockside installations.

Features

- Nylon retention ring for increased holding power
- Neoprene bushing seals against moisture
- Nylon connectors obtain approximately the same cord retention values with hand tightening that can be produced only by wrench tightening of metal cord connectors

Material

- Nylon

Z NYLON CORD CONNECTORS – STRAIGHT

CATALOG NUMBER*	NPT SIZE	CORD RANGES	COLOR CODE
ZS002CR-EX	3/8"	.125-.187	Orange
ZS003CR-EX	3/8"	.187-.250	Red
ZS004CR-EX	3/8"	.250-.312	Black
ZS006CR-EX	3/8"	.312-.375	White
ZS007CR-EX	3/8"	.375-.437	Blue
ZS101CR-EX	1/2"	.062-.125	Green
ZS102CR-EX	1/2"	.125-.187	Orange
ZS103CR-EX	1/2"	.187-.250	Red
ZS105CR-EX	1/2"	.250-.375	White
ZS108CR-EX	1/2"	.375-.500	Blue
ZS109CR-EX	1/2"	.500-.625	Brown
ZS208CR-EX	3/4"	.375-.500	Blue
ZS209CR-EX	3/4"	.500-.625	Brown
ZS210CR-EX	3/4"	.625-.750	Yellow
ZS211CR-EX*	3/4"	.750-.875	Purple
ZS308CR-EX	1"	.375-.500	Blue
ZS309CR-EX	1"	.500-.625	Brown
ZS310CR-EX	1"	.625-.750	Yellow
ZS311CR-EX	1"	.750-.875	Purple
ZS312CR-EX	1"	.875-1.000	Gray
ZS313CR-EX*	1"	1.000-1.125	Pink

* Cable Jacket may have to be stripped to pass through connector body.

Z NYLON CORD CONNECTORS – 90°

CATALOG NUMBER*	NPT SIZE	CORD RANGES	COLOR CODE
ZN102CR-EX	1/2"	.125-.187	Orange
ZN103CR-EX	1/2"	.187-.250	Red
ZN105CR-EX	1/2"	.250-.375	White
ZN108CR-EX	1/2"	.375-.500	Blue
ZN109CR-EX	1/2"	.500-.625	Brown
ZN208CR-EX	3/4"	.375-.500	Blue
ZN209CR-EX	3/4"	.500-.625	Brown
ZN210CR-EX*	3/4"	.625-.750	Yellow
ZN211CR-EX*	3/4"	.750-.875	Purple
ZN310CR-EX	1"	.625-.750	Yellow
ZN311CR-EX	1"	.750-.875	Purple
ZN312CR-EX*	1"	.875-1.000	Gray

OPTIONAL LOCKNUTS

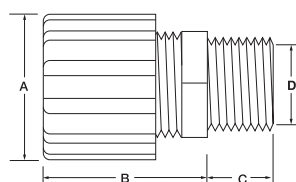
CATALOG NUMBER	NPT SIZE
LN-375CR	3/8"
LN-1CR	1/2"
LN-2CR	3/4"
LN-3CR	1"

† Listed by CSA for Class I, Zone 1 in Canada. Listed by CSA as a Nationally recognized test lab (NRTL) for Class I, Div. 2, Class I, Zone 2 in the United States.

** Type 4 when installed with a proper gasket.

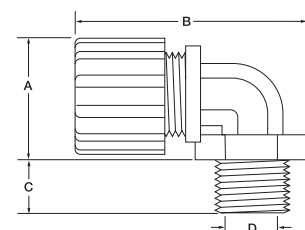
Z STRAIGHT DIMENSIONS

NPT SIZE	DIMENSIONS			
	A	B	C	D
3/8"	63/64"	1-3/32"	7/16"	7/16"
1/2"	1-1/4"	1-1/2"	17/32"	37/64"
3/4"	1-31/64"	1-5/8"	35/64"	49/64"
1"	1-27/32"	1-3/4"	11/16"	1-1/16"



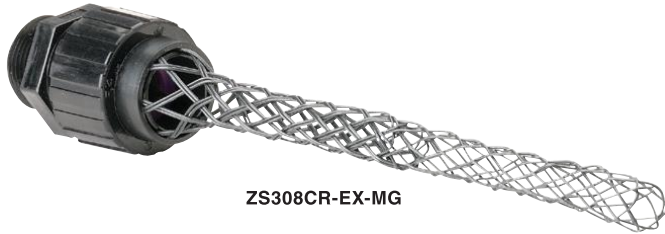
Z 90° DIMENSIONS

NPT SIZE	DIMENSIONS			
	A	B	C	D
1/2"	1-13/32"	2-1/2"	17/32"	1-1/2"
3/4"	1-21/32"	2-51/64"	35/64"	49/64"
1"	1-63/64"	3-19/64"	11/16"	1-1/64"





INCREASED SAFETY CORROSION RESISTANT NYLON CORD CONNECTORS



ZS308CR-EX-MG

AEx (Class I, Zone 1) Ex e II†
Type 4**

- File E22698

- File LR73478
See files for details or call Killark.

FEATURES-SPECIFICATIONS

Applications

Durable nylon construction makes these connectors perfectly suited to corrosive environments.

Typical applications for nylon cord connectors include food processing facilities, chemical and sewage treatment plants and off-shore and dockside installations.

Features

- Nylon retention ring for increased holding power
- Neoprene bushing seals against moisture
- Nylon connectors obtain approximately the same cord retention values with hand tightening that can be produced only by wrench tightening of metal cord connectors

Material

- Nylon
- Kevlar mesh grip

Z NYLON CORD CONNECTORS – STRAIGHT

CATALOG NUMBER*	NPT SIZE	CORD RANGES	COLOR CODE
ZS003CR-EX-MG	3/8"	.187-.250	Red
ZS004CR-EX-MG	3/8"	.250-.312	Black
ZS006CR-EX-MG	3/8"	.312-.375	White
ZS103CR-EX-MG	1/2"	.187-.250	Red
ZS105CR-EX-MG	1/2"	.250-.375	White
ZS108CR-EX-MG	1/2"	.375-.500	Blue
ZS208CR-EX-MG	3/4"	.375-.500	Blue
ZS209CR-EX-MG	3/4"	.500-.625	Brown
ZS210CR-EX-MG	3/4"	.625-.750	Yellow
ZS309CR-EX-MG	1"	.500-.625	Brown
ZS310CR-EX-MG	1"	.625-.750	Yellow
ZS311CR-EX-MG	1"	.750-.875	Purple
ZS312CR-EX-MG	1"	.875-1.000	Gray

Z STRAIGHT DIMENSIONS

NPT SIZE	DIMENSIONS			
	A	B	C	D
3/8"	63/64"	1-3/32"	7/16"	7/16"
1/2"	1-1/4"	1-1/2"	17/32"	37/64"
3/4"	1-31/64"	1-5/8"	35/64"	49/64"
1"	1-27/32"	1-3/4"	11/16"	1-1/16"

Z NYLON CORD CONNECTORS – 90°

CATALOG NUMBER*	NPT SIZE	CORD RANGES	COLOR CODE
ZN105CR-EX-MG	1/2"	.250-.375	White
ZN108CR-EX-MG	1/2"	.375-.500	Blue
ZN208CR-EX-MG	3/4"	.375-.500	Blue
ZN209CR-EX-MG	3/4"	.500-.625	Brown
ZN210CR-EX-MG	3/4"	.625-.750	Yellow
ZN310CR-EX-MG	1"	.625-.750	Yellow
ZN311CR-EX-MG	1"	.750-.875	Purple

OPTIONAL LOCKNUTS

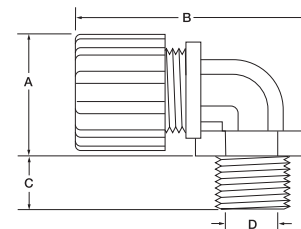
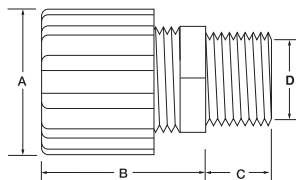
CATALOG NUMBER	NPT SIZE
LN-375CR	3/8"
LN-1CR	1/2"
LN-2CR	3/4"
LN-3CR	1"

Z 90° DIMENSIONS

NPT SIZE	DIMENSIONS			
	A	B	C	D
1/2"	1-13/32"	2-1/2"	17/32"	1-1/2"
3/4"	1-21/32"	2-51/64"	35/64"	49/64"
1"	1-63/64"	3-19/64"	11/16"	1-1/64"

† Listed by CSA for Class I, Zone 1 in Canada. Listed by CSA as a Nationally recognized test lab (NRTL) for Class I, Div. 2, Class I, Zone 2 in the United States.

** Type 4 when installed with a proper gasket.





FITTINGS

BARRIER TYPE FOR USE WITH UNARMORED CABLES



CTCA

Class I, Div. 2, Groups A, B, C, D
 Class I, Zone 2, AEx d IIC
 Class I, Zone 2, AEx e II
 Class II, Div. 2, Groups F, G
 Class III
 IP66
 NEMA 4X



FEATURES-SPECIFICATIONS

Applications

- Outdoor or Indoor use.
- For use with non armored cable, as permitted by the NEC.

Features

- Provides a barrier seal between the individual insulated conductors within the cable and prevents entry of the products of an explosion into the cable.

- Assembly of the cable gland compresses and distributes the compound evenly to effect a barrier seal at the point of entry into the enclosure.
- Provides an outer deluge seal to prevent moisture ingress to the cable armor and enclosure. Deluge seal is colored red to indicate Hazardous Area product.
- Provides a cable retention and low smoke and fume, zero halogen seal onto the cables outer sheath.

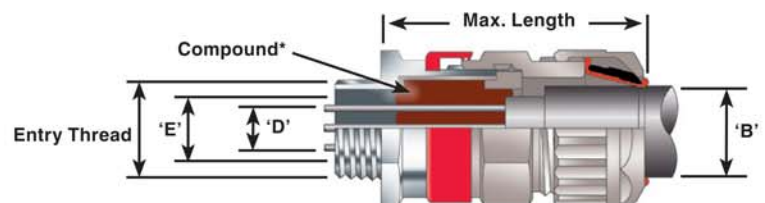
Materials

- Copper free aluminum (less than 4/10 of 1%)

Operating Temperature Range

- -50°C to +60°C

CATALOG NUMBER	SIZE REF.	ENTRY THREAD SIZE		CABLE ACCEPTANCE DETAILS					'G'	HEXAGON DIMENSIONS	
		NPT SIZE	METRIC	INNER SHEATH/ CORES			OUTER JACKET 'B'			ACROSS FLATS	ACROSS CORNERS
				'D' MAX. OVER CORES	'E' MAX. INNER SHEATH	MAX. NO. OF CORES	MIN.	MAX.			
CTCAS050S	Os	1/2"	M20	0.35"	0.39"	6	0.22"	0.47"	2.81"	1.125"	1.25"
CTCA0050	O	1/2"	M20	0.35"	0.39"	6	0.37"	0.63"	2.81"	1.125"	1.25"
CTCAA050L	A	1/2"	M20	0.43"	0.64"	10	0.49"	0.81"	2.84"	1.375"	1.50"
CTCAB075	B	3/4"	M25	0.64"	0.93"	21	0.66"	1.02"	2.95"	1.625"	1.75"
CTCAC100	C	1"	M32	0.86"	1.23"	42	0.87"	1.30"	3.11"	2.00"	2.13"
CTCAC2125	C2	1 1/4"	M40	1.04"	1.59"	60	1.10"	1.61"	3.26"	2.375"	2.53"
CTCAD200	D	2"	M50	1.46"	1.96"	80	1.42"	2.07"	3.36"	2.55"	2.83"
CTCAE250	E	2 1/2"	M63	1.88"	2.55"	100	1.81"	2.57"	3.56"	3.15"	3.46"
CTCAF300	F	3"	M75	2.32"	2.98"	120	2.24"	3.07"	3.76"	3.74"	4.00"





ALUMINUM CABLE CONNECTORS



CMCA

Class I, Div. 2†, Groups A, B, C, D
 Class I, Zone 1, AEx e II
 Class II, Div. 1 & 2, Groups E, F, G
 Class III
 Class I, Zones 1 & 2†
 Suitable for wet locations
 Types 3, 4, 4X
 IP66



CLENCHER®

FEATURES-SPECIFICATIONS

Applications

Designed for use with jacketed interlocked and continuously welded/corrugated armor cable where it is essential to provide positive grounding of cable armor and a NEMA 3, 4, 4X connection. e.g. TECK® or MC type cable. Use outdoors or indoors.

Features

- Provides 360° armor grounding which is fully inspectable.
- Grounding Device remains in contact with cable when disassembled for inspection.

- Provides cable retention and a low smoke and fume, zero halogen seal onto the cables outer sheath.
- Provides an outer deluge seal to prevent moisture ingress to the cable armor and enclosure.

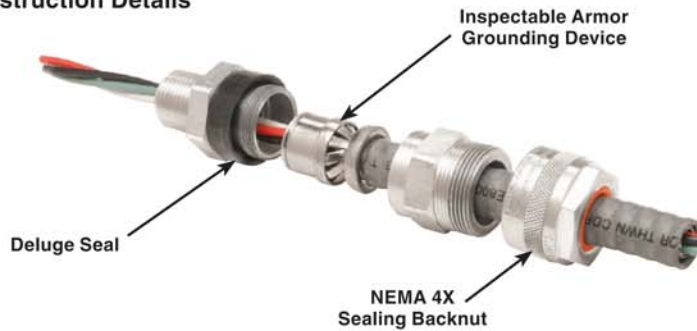
Materials

- Copper free aluminum (less than 4/10 of 1%)

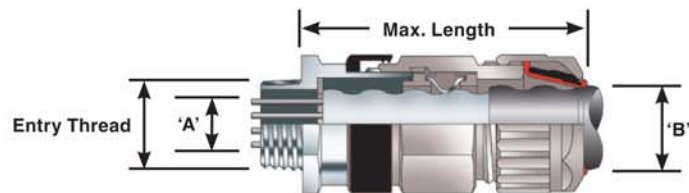
Operating Temperature Range

- -50°C to +60°C

Construction Details



CATALOG NUMBER	SIZE REF.	ENTRY THREAD SIZE		CABLE ACCEPTANCE DETAILS				MAX. LENGTH	HEXAGON DIMENSIONS	
		NPT SIZE	METRIC	INNER SHEATH/CORES		OUTER JACKET 'B'			ACROSS FLATS	ACROSS CORNERS
				ARMOR SHEATH 'A'		MIN.	MAX.			
				MIN.	MAX.					
CMCAA050	A	1/2"	M20	0.41"	0.64"	0.49"	0.80"	3.35"	1.375"	1.50"
CMCAB075	B	3/4"	M25	0.49"	0.93"	0.66"	1.02"	3.61"	1.625"	1.75"
CMCAC100	C	1"	M32	0.85"	1.23"	0.87"	1.29"	3.90"	2.00"	2.13"
CMCAC2125	C2	1 1/4"	M40	1.17"	1.59"	1.10"	1.61"	4.01"	2.375"	2.53"
CMCAD150	D	1 1/2"	M50	1.37"	1.96"	1.42"	2.07"	4.94"	2.55"	2.83"
CMCAD200	D	2"	M50	1.37"	1.96"	1.42"	2.07"	4.94"	2.55"	2.83"
CMCAE250	E	2 1/2"	M63	1.76"	2.55"	1.81"	2.57"	5.15"	3.15"	3.46"
CMCAF300	F	3"	M75	2.29"	2.98"	2.24"	3.07"	5.17"	3.74"	4.00"
CMCAH350	H	3 1/2"	M90	2.92"	3.47"	3.18"	3.52"	5.17"	4.19"	4.53"





FITTINGS

ALUMINUM CABLE CONNECTORS



Class I, Div. 2†, Groups A, B, C, D
 Class II, Div. 1 & 2, Groups E, F, G
 Class III
 Class I, Zone 2†, Group IIC, Zone 20
 Suitable for wet locations
 Types 3, 4
 IP66



CLENCHE[®]

FEATURES-SPECIFICATIONS

Applications

Designed for use with jacketed interlocked, continuously corrugated and welded armor cable (all types shown in chart below). Install where it is essential to provide positive grounding to the cable and for a Type 3,4 connection.

Features

- 360° armor grounding spring is reusable.
- Robust threads and world class seal enables easy installation with minimal torque required.
- Design meets and exceeds third party requirements for cable retention.
- Provides sealing back nut plus inner o-ring seal to prevent moisture ingress to the cable armor and enclosure.
- Copper free aluminum construction for hostile, corrosive and certain hazardous locations

Materials

- Body – Copper free aluminum (less than 4/10 of 1%)
- Ground Spring – Stainless Steel
- Backnut Seal – Thermoplastic elastomer (silicone)

- Backnut Clamp – Nylon

- Inner and Outer O-rings – Nitrile

Operating Temperature Range

- -50°C to +60°C

Construction Details



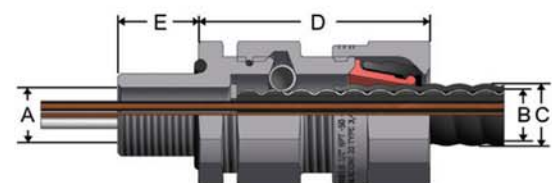
SUITABLE ARMORED/METAL CLAD CABLE TYPES	
AC-	AC90, ACWU90, AC90-HL, ACWU90-HL, ACG90, ACGWU90
MC-	MCC, MCI, MCI-A, MC-HL
RA-	RA90, RA90-HL
TECK-	TECK90, TECK90-HL

CATALOG NUMBER	ENTRY THREAD SIZE (NPT)	CABLE ACCEPTANCE DETAILS						MAX LENGTH 'D'	NPT LENGTH 'E'	HEXAGON DIMENSIONS	
		MAX NUMBER OF CORES	THROUGH DIAMETER 'A'	ARMOR DIAMETER 'B'		DIAMETER 'C'				ACROSS FLATS	ACROSS CORNERS
				MIN.	MAX.	MIN.	MAX.				
MC1C	1/2"	10	0.56" (14.2)	0.52" (13.2)	0.74" (18.8)	0.60" (15.2)	0.82" (20.8)	2.3" (58)	0.83" (21.1)	1.42" (36)	1.50" (38.1)
MC2	3/4"	21	0.80" (20.3)	0.65" (16.5)	0.95" (24.1)	0.73" (18.5)	1.03" (26.2)	2.5" (64)	0.84" (21.3)	1.61" (41)	1.69" (42.9)
MC3	1"	42	1.04" (26.4)	0.89" (22.6)	1.23" (31.2)	0.97" (24.6)	1.31" (33.3)	2.6" (66)	1.03" (26.2)	1.97" (50)	2.13" (54.1)
MC4	1 1/4"	73	1.28" (32.5)	1.15" (29.5)	1.48" (37.6)	1.23" (31.2)	1.56" (39.6)	3.1" (79)	1.05" (26.7)	2.36" (60)	2.50" (63.5)

Cable armor diameter and cable jacket diameter refer to the dimensions across the crest.

† Where explosion proof/flameproof enclosures are being used the MC must be installed in conjunction with an approved sealing fitting. In Division 2 areas the MC can be fitted directly to an enclosure which has no source of ignition.

* For metric sizes, consult factory.





ALUMINUM CABLE CONNECTORS



CMCXA

Class I, Div. 1 & 2, Groups A, B, C, D
 Class I, Zone 1, AEx d IIC
 Class I, Zone 1, AEx e II
 Class II, Div. 1 & 2, Groups E, F, G
 Class III
 Suitable for wet locations
 Types 3, 4, 4X
 IP66



CLENCHEE®

FEATURES-SPECIFICATIONS

Applications

Designed for use with jacketed interlocked and continuously welded/corrugated armor cable where it is necessary to provide a complete gas block/explosion proof seal to the cable, plus a NEMA 3, 4, 4X connection. Example: TECK® or MC-HL type cable. Use outdoors or indoors.

Features

- Provides 360° armor grounding which is fully inspectable.
- Grounding Device remains in contact with cable when disassembled for inspection.
- Provides a barrier seal between the individual insulated cores within the cable and prevents entry of the products of an explosion into the cable.
- Assembly of the cable gland compresses and distributes the compound evenly to create a barrier seal at the point of entry into the enclosure

- Provides cable retention and a low smoke and fume, zero halogen seal onto the cables outer sheath.
- Provides an outer deluge seal to prevent moisture ingress to the cable armor and enclosure. Deluge seal is colored red to indicate Hazardous Area product.

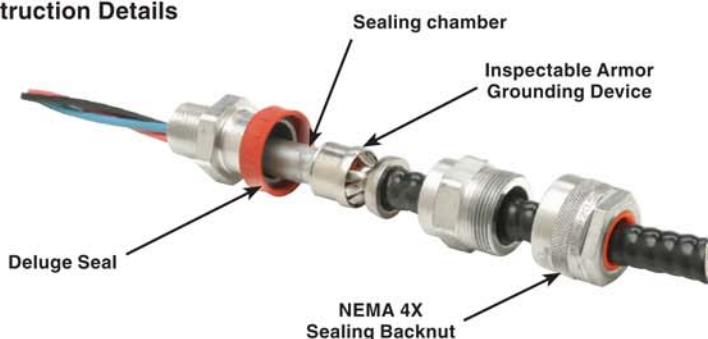
Materials

- Copper free aluminum (less than 4/10 of 1%)

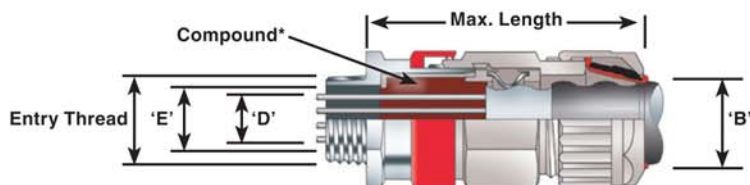
Operating Temperature Range

- -50°C to +60°C

Construction Details



CATALOG NUMBER	SIZE REF.	ENTRY THREAD SIZE		CABLE ACCEPTANCE DETAILS						MAX. LENGTH	HEXAGON DIMENSIONS	
		NPT SIZE	METRIC	'D' MAX. OVER CORES	INNER SHEATH/ CORES		MAX. NO. OF CORES	OUTER JACKET 'B'			ACROSS FLATS	ACROSS CORNERS
					MIN.	MAX.		MIN.	MAX.			
CMCXA050	A	1/2"	M20	0.43"	0.41"	0.64"	10	0.49"	0.80"	2.95"	1.375"	1.50"
CMCXAB075	B	3/4"	M25	0.64"	0.49"	0.93"	21	0.66"	1.02"	3.20"	1.625"	1.75"
CMCXAC100	C	1"	M32	0.86"	0.85"	1.23"	42	0.87"	1.29"	3.54"	2.00"	2.13"
CMCXAC2125	C2	1 1/4"	M40	1.04"	1.17"	1.59"	60	1.10"	1.61"	3.73"	2.375"	2.53"
CMCXAD150	D	1 1/2"	M50	1.46"	1.37"	1.96"	80	1.42"	2.07"	5.08"	2.55"	2.83"
CMCXAD200	D	2"	M50	1.46"	1.37"	1.96"	80	1.42"	2.07"	5.08"	2.55"	2.83"
CMCXAE250	E	2 1/2"	M63	1.88"	1.76"	2.55"	100	1.81"	2.57"	5.11"	3.15"	3.46"
CMCXAF300	F	3"	M75	2.32"	2.29"	2.98"	120	2.24"	3.07"	4.88"	3.74"	4.00"
CMCXAH350	H	3 1/2"	M90	2.79"	2.92"	3.47"	120	3.18"	3.52"	5.02"	4.19"	4.53"





FITTINGS

ALUMINUM CABLE CONNECTORS



MCX

Class I, Div. 1 & 2, Groups A, B, C, D
 Class II, Div. 1 & 2, Groups E, F, G
 Class III
 Class I, Zones 1 & 2, Group IIC, Zone 20
 Suitable for wet locations
 Types 3, 4
 IP66



CLENCHEER®

FEATURES-SPECIFICATIONS

Applications

Designed for use with jacketed interlocked, continuously corrugated and welded armor cable (all types shown in chart below). Install where it is essential to provide positive grounding to the cable with a complete gas block/explosion proof seal. Also for a Type 3,4 connection.

Features

- 360° armor grounding spring is reusable.
- Robust threads and world class seal enables easy installation with minimal torque required.
- Provides a barrier seal between the individual insulated cores within the cable and prevents entry of the products of an explosion into the cable.
- Assembly of the cable gland compresses and distributes the compound evenly to create a barrier seal at the point of entry into the enclosure.

- Provides cable retention and a low smoke and fume, zero halogen seal onto the cables outer sheath.
- Design meets and exceeds third party requirements for cable retention
- Provides sealing back nut plus inner o-ring seal to prevent moisture ingress to the cable armor and enclosure
- Copper free aluminum construction for harsh, corrosive and hazardous duty
- Back nut is RED to indicate HAZARDOUS area product.

Materials

- Body – Copper free aluminum (less than 4/10 of 1%)
- Ground Spring – Stainless Steel
- Backnut Seal – Thermoplastic elastomer (silicone)
- Backnut Clamp – Nylon
- Inner and Outer O-rings – Nitrile

Operating Temperature Range

- -50°C to +60°C

Construction Details

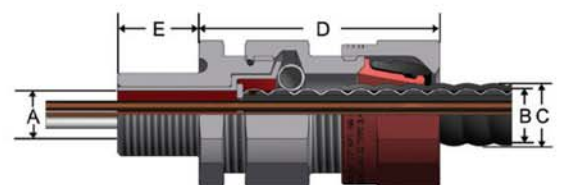


SUITABLE ARMORED/METAL CLAD CABLE TYPES	
AC-	AC90, ACWU90, AC90-HL, ACWU90-HL, ACG90, ACGWU90
MC-	MCC, MCI, MCI-A, MC-HL
RA-	RA90, RA90-HL
TECK-	TECK90, TECK90-HL

CATALOG NUMBER	ENTRY THREAD SIZE (NPT)	CABLE ACCEPTANCE DETAILS						MAX LENGTH 'D'	NPT LENGTH 'E'	HEXAGON DIMENSIONS	
		MAX NUMBER OF CORES	THROUGH DIAMETER 'A'	ARMOR DIAMETER 'B'		DIAMETER 'C'				ACROSS FLATS	ACROSS CORNERS
				MIN.	MAX.	MIN.	MAX.				
MCX1C	1/2"	10	0.48" (12.2)	0.52" (13.2)	0.74" (18.8)	0.60" (15.2)	0.82" (20.8)	2.4" (61)	0.83" (21.1)	1.42" (36)	1.50" (38.1)
MCX2	3/4"	21	0.71" (18.1)	0.65" (16.5)	0.95" (24.1)	0.73" (18.5)	1.03" (26.2)	2.6" (66)	0.84" (21.3)	1.61" (41)	1.69" (42.9)
MCX3	1"	42	0.96" (26.4)	0.89" (22.6)	1.23" (31.2)	0.97" (24.6)	1.31" (33.3)	2.7" (69)	1.03" (26.2)	1.97" (50)	2.13" (54.1)
MCX4	1 1/4"	73	1.16" (29.5)	1.15" (29.5)	1.48" (37.6)	1.23" (31.2)	1.56" (39.6)	3.2" (81)	1.05" (26.7)	2.36" (60)	2.50" (63.5)

Cable armor diameter and cable jacket diameter refer to the dimensions across the crest.

*For metric sizes, consult factory.





SEALING WASHERS AND LOCKNUTS



SWZ60-050NPT



LNZ10-050NPT



ZHLN-170

FEATURES-SPECIFICATIONS

SEALING (IP) WASHERS

Sealing washers are commonly used with cable glands or similar fittings entering an enclosure. While these products are not threaded, they are available with clearance holes to accommodate NPT threads. Sealing washers are available in nylon.

LOCKNUTS

These fittings are commonly used to secure cable glands or similar products entering an enclosure. These products are available in NPT threads. These products are available in nickel plated brass.

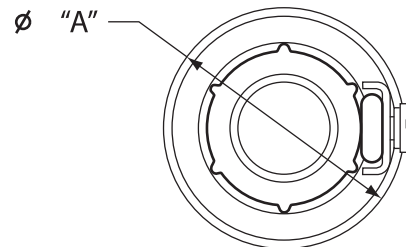
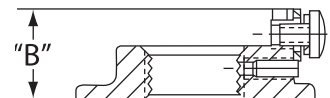
INCREASED SAFETY LOCKNUTS

Used to secure conduit hubs or similar products entering an enclosure, these zinc locknuts have an increased safety terminal for grounding purposes.

SWZ NYLON WASHERS	
NPT	
SIZE	CATALOG NUMBER
1/2"	SWZ60-050NPT
3/4"	SWZ60-075NPT
1"	SWZ60-100NPT
1-1/4"	SWZ60-125NPT
1-1/2"	SWZ60-150NPT
2"	SWZ60-200NPT
2-1/2"	SWZ60-250NPT
3"	SWZ60-300NPT
3-1/2"	SWZ60-350NPT

LNZ BRASS LOCKNUTS	
NPT	
SIZE	CATALOG NUMBER
1/2"	LNZ10-050NPT
3/4"	LNZ10-075NPT
1"	LNZ10-100NPT
1-1/4"	LNZ10-125NPT
1-1/2"	LNZ10-150NPT
2"	LNZ10-200NPT
2-1/2"	LNZ10-250NPT
3"	LNZ10-300NPT

ZHLN ZINC LOCKNUTS			
NPT		DIMENSIONS	
SIZE	CATALOG NUMBER	DIAMETER A	HEIGHT B
1/2"	ZHLN-170	1.5"	11/16"
3/4"	ZHLN-270	1.7"	3/4"
1"	ZHLN-370	2.0"	3/4"
1-1/4"	ZHLN-470	2.4"	53/64"
1-1/2"	ZHLN-570	2.8"	31/32"
2"	ZHLN-670	3.3"	31/32"
2-1/2"	ZHLN-770	3.7"	1-1/4"
3"	ZHLN-870	4.4"	1-1/4"
3-1/2"	ZHLN-970	5.0"	1-5/16"



FITTINGS

PCC/ECC/RACC SERIES



CONDUIT CLAMPS



PARALLEL TYPE



EDGE TYPE



RIGHT ANGLE TYPE

Listed - File E213669

FEATURES-SPECIFICATIONS

Applications

- Designed to secure rigid metal conduit, IMC or EMT across, parallel or perpendicular to channel, beam and angle supports.

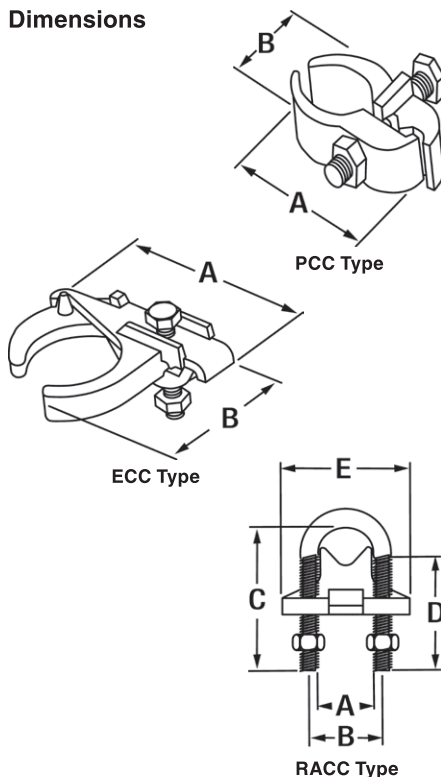
Features

- Three styles meet every installation need
- Heavy duty U-bolts, hex bolts and hex nuts
- Capable of supporting heavy loads

Material/Finish

- Malleable iron (hot dipped galvanized) with steel U-bolts and nuts (mechanically galvanized).

Dimensions



PCC PARALLEL TYPE CLAMPS

CATALOG NUMBER	CONDUIT SIZE	A	B
PCC050	1/2"	2-7/8" (73)	1-7/16" (36)
PCC075	3/4"	3-1/16" (78)	1-11/16" (43)
PCC100	1"	3-1/4" (83)	2" (51)
PCC125	1-1/4"	3-5/8" (92)	2-1/8" (53)
PCC150	1-1/2"	3-7/8" (98)	2-3/16" (56)
PCC200	2"	4-5/8" (117)	2-7/8" (73)
PCC250	2-1/2"	5-1/4" (133)	3-1/4" (83)
PCC300	3"	5-1/8" (149)	3-1/8" (98)
PCC350	3-1/2"	6-5/16" (160)	4-5/16" (110)
PCC400	4"	6-13/16" (173)	4-13/16" (122)

ECC EDGE TYPE CLAMPS

CATALOG NUMBER	CONDUIT SIZE	A	B
ECC050	1/2"	2-13/16" (71)	2-1/8" (54)
ECC075	3/4"	2-15/16" (75)	2-3/8" (60)
ECC100	1"	3-1/16" (78)	2-5/8" (67)
ECC125	1-1/4"	3-1/16" (78)	3-1/16" (78)
ECC150	1-1/2"	3-15/16" (100)	3-1/4" (83)
ECC200	2"	4-1/2" (114)	4-1/16" (103)
ECC250	2-1/2"	5-1/8" (130)	4-5/8" (117)
ECC300	3"	5-3/4" (146)	5-1/4" (133)

RACC RIGHT ANGLE TYPE CLAMPS

CATALOG NUMBER	CONDUIT SIZE	A	B	C	D	E
RACC050	1/2"	1" (25)	1-1/4" (32)	2-1/2" (64)	1-13/16" (46)	2-1/16" (52)
RACC075	3/4"	1-1/8" (29)	1-3/8" (35)	2-13/16" (72)	1-13/16" (46)	2-1/4" (57)
RACC100	1"	1-3/8" (35)	1-5/8" (41)	3-1/16" (78)	1-13/16" (46)	2-9/16" (65)
RACC125	1-1/4"	1-3/4" (44)	2" (51)	3-3/16" (81)	1-13/16" (46)	2-7/8" (73)
RACC150	1-1/2"	2" (51)	2-3/8" (60)	3-1/2" (89)	1-13/16" (46)	3-1/4" (83)
RACC200	2"	2-1/2" (64)	2-1/2" (64)	4-1/2" (114)	2-5/8" (67)	4-1/16" (103)
RACC250	2-1/2"	2-1/2" (64)	3" (76)	3-1/4" (83)	4-7/8" (124)	2-5/8" (67)
RACC300	3"	3-5/8" (92)	3-7/8" (98)	5-3/8" (137)	2-5/8" (67)	5-1/8" (130)
RACC350	3-1/2"	4-1/16" (103)	4-9/16" (116)	5-7/8" (149)	2-5/8" (67)	5-5/8" (143)
RACC400	4"	4-11/16" (119)	5-1/16" (129)	6-11/16" (170)	2-5/8" (67)	6-1/8" (156)



NOTES

A series of horizontal lines for taking notes, consisting of 33 lines in total.



LIGHTING








LIGHTING INDEX





PRODUCT	PAGE NO.	NEMA 4 (or 4X or IP66)	Class I, Div. 2 / Zone 2	Class I, Zone 2 Ex nR	Class II / III Div. 1	Class II / III Div. 2	Class I, Div. 1 C, D / Zone 1	Class I, Div. 1 A, B, C, D / Zone 1	IECEX Zone 1	ATEX Zone 1	IECEX Zone 2	ATEX Zone 2
LED LIGHTING SECTION												
 LAL Series	2-7	X	X		X	X					X	X
 LALFP Series	8-13											
 LZ2NL/LZ2SL	14-15	X	X		X	X						
 HLLX Series	16-17	X	X		X	X						
 MBL Series	19-23	X	X		X	X						
 VM1L Series	24-30	X	X		X	X						
 VM2L & VM4L Series	31-37	X	X		X	X				X	X	
 EML Series	38-41	X	X		X	X	X					
 EZL Series	42-44	X	X		X	X	X					
 EAC/EACH Series	45											

PRODUCT	PAGE NO.	NEMA 4 (or 4X or IP66)	Class I, Div. 2 / Zone 2	Class I, Zone 2 Ex nR	Class II / III Div. 1	Class II / III Div. 2	Class I, Div. 1 C, D / Zone 1	Class I, Div. 1 A, B, C, D / Zone 1	IECEX Zone 1	ATEX Zone 1	IECEX Zone 2	ATEX Zone 2
 KFLC Series	47-48	X	X		X	X						
 KFL Series	49-50	X	X		X	X					X	X
 KFLH Series	51-52	X	X		X	X					X	X
 KFL2H Series	53-54	X	X		X	X					X	X
 KF1L Series	55-56	X	X		X	X	X		X	X	X	X
 KWPL Series	57-58											
 NEBS Series	60-62											
 EBS Series	63-68	X	X		X	X	X					
 LLS2 Series	69											
 VSL SERIES	70-74	X	X			X						



LIGHTING INDEX


















PRODUCT	PAGE NO.	NEMA 4 (or 4X or IP66)	Class I, Div. 2 / Zone 2	Class I, Zone 2 Ex nR	Class II / III Div. 1	Class II / III Div. 2	Class I, Div. 1 C, D / Zone 1	Class I, Div. 1 A, B, C, D / Zone 1	IECEX Zone 1	ATEX Zone 1	IECEX Zone 2	ATEX Zone 2
 DVL Series	75	X		X	X							
 Fixture Hangers	76-79											
 Floodlight Mounts	80											
CONVENTIONAL LIGHTING SECTION												
 MB Series	82-87	X	X	X	X	X						
Ordering Logic.....	82											
 VQ1F & VQ2F Series	88-94	X	X	X	X	X						
 CERTILITE V Series	95-154											
Accessories.....	135											
Components.....	136-138											
Dimensions.....	139-142											
Application Data.....	143-152											
Ballast Fuse Kit Data.....	153-154											
 VM1 & VM2	102-110											
Ordering Logic.....	102											
35-150W HPS.....	103-106	X	X	X	X	X						
50-175W Metal Halide & MH Pulse.....	107-110	X	X	X	X	X						

PRODUCT	PAGE NO.	NEMA 4 (or 4X or IP66)	Class I, Div. 2 / Zone 2	Class I, Zone 2 Ex nR	Class II / III Div. 1	Class II / III Div. 2	Class I, Div. 1 C, D / Zone 1	Class I, Div. 1 A, B, C, D / Zone 1	IECEX Zone 1	ATEX Zone 1	IECEX Zone 2	ATEX Zone 2
 VM3 & VM4 Series	111-123											
Ordering Logic.....	111											
50-150W HPS.....	112-115	X	X	X	X	X						
70-250W Metal Halide.....	116-119	X	X	X	X	X						
150-200W Metal Halide Pulse.....	120-123	X	X	X	X	X						
 VM5 Series	124-134											
Ordering Logic.....	124											
200-600W HPS.....	125-128	X	X	X	X	X						
250-400W Metal Halide Pulse.....	129-134	X	X	X	X	X						
 EM & EQ	155-163											
Ordering Logic.....	155											
Incandescent.....	156	X	X		X	X	X					
13-84W Fluorescent.....	156	X	X		X	X	X					
35-150W HPS.....	157	X	X		X	X	X					
Components.....	158-159											
Ballast Data.....	160											
Dimensions.....	161											
Application Data.....	162-163											
 EZ Series	164-173											
Ordering Logic.....	164											
50-400W HPS.....	165	X	X		X	X	X					
70-400W Metal Halide.....	166	X	X		X	X	X					
150-400W Metal Halide Pulse.....	167	X	X		X	X	X					
Components.....	168-170											
Dimensions.....	171											
Application Data.....	172-173											












LIGHTING






LIGHTING INDEX

PRODUCT	PAGE NO.	NEMA 4 (or 4X or IP66)							IECEx Zone 1	ATEX Zone 1	IECEx Zone 2	ATEX Zone 2
		Class I, Div. 2 / Zone 2	Class I, Zone 2 Ex nR	Class II / III Div. 1	Class II / III Div. 2	Class I, Div. 1 C, D / Zone 1	Class I, Div. 1 A, B, C, D / Zone 1	Class I, Div. 1 A, B, C, D / Zone 1				
 DBF Series	174	X	X	X	X							
 LZ Series	175-178											
 LZ2S	175	X	X	X	X							
 LZ2N	176-178	X	X	X	X							
 HFXT (Biaxial)	179-180	X	X	X	X	X						
Fluorescent	181-182	X	X	X	X	X						
Ballast Data	183-184											
 QL Series	185											
 KF Series	186-188	X	X									
Application Data	188											
 KFSS Series	189-190	X	X									
 KWP Series	191-192	X	X									
 EZ Flood	193-194	X	X									
 NV2	195-197	X	X	X	X							
 V Series	198-205											
Incandescent NEMA 4	201-202	X	X									
Component	203-204											
Dimensions	205											
 DV/XHL/XHLF	206											
DV			X	X								
XHL		X						X				
XHLF		X	X	X	X			X	X			
 NVPI & NVPF	207	X			X							
 E Series	208	X		X	X	X	X					
 VE3Q & VE4Q	209-216	X	X	X	X	X						
Ordering Logic	210											
Components	213-215											
Application Data	216											
 NWP	217-218	X	X	X	X							



LIGHTING INDEX

PRODUCT	PAGE NO.	NEMA 4 (or 4X or IP66)	Class I, Div. 2 / Zone 2	Class I, Zone 2 Ex nR	Class II / III Div. 1	Class II / III Div. 2	Class I, Div. 1 C, D / Zone 1	Class I, Div. 1 A, B, C, D / Zone 1	IECEX Zone 1	ATEX Zone 1	IECEX Zone 2	ATEX Zone 2
 DBFE	219	X	X		X	X						
 LZ2NE & LZ2SE	220	X	X		X	X						
 HFXE	221	X	X		X	X	X					
 EEQ	222	X	X		X	X	X					
 EBB	223-224	X	X		X	X	X					
 ESX	225-226	X	X		X	X	X					
 NVS Series	227-229	X	X		X	X						
 Fixture Hangers	230-233											
 Competative Adapters	234-235											

PRODUCT	PAGE NO.	NEMA 4 (or 4X or IP66)	Class I, Div. 2 / Zone 2	Class I, Zone 2 Ex nR	Class II / III Div. 1	Class II / III Div. 2	Class I, Div. 1 C, D / Zone 1	Class I, Div. 1 A, B, C, D / Zone 1	IECEX Zone 1	ATEX Zone 1	IECEX Zone 2	ATEX Zone 2	
Victor LIGHTING VICTOR LIGHTING SECTION													
 TRIDENT	236-243									X	X	X	X
Emergency	240-243									X	X	X	X
 PATHFINDER	244-245									X	X	X	X
 TITAN	246-251									X	X	X	X
VL38	246-247									X	X	X	X
VL39	248-249									X	X	X	X
VL147	250-251									X	X	X	X
 VL100	252-253											X	X
 VL64 EQUAL PLUS	254-257									X	X	X	X

LIGHTING

LINEAR LIGHTING



LINEAR LIGHTING



LAL

LALxE



LALFP



LZ2NL & LZ2SL



HLLX



LAL/LALxE/LALC SERIES

KILLARK

LOW PROFILE LINEAR ALUMINUM LED • EXCLUSIVE DESIGN FEATURES

High temperature rated silicone gasketing provides Type 4X & IP66 sealing.



Diffused

Clear

2 Lens Choices:

- Clear for maximum lumens
- Diffused for glare control

Looping Terminal Blocks under Wiring Access Plate(s).



Optional Through Wiring

2 Access Plates for feed through wiring

Battery

E5, E13 and E26 models include internal Emergency battery systems to 50°C suitability

Surge

Standard with internal 20kA/10kA Supplemental Surge Protection

Endcaps standard with 1 x 3/4" hub. 1/2" NPT and M20 available.

End Caps include feet for direct ceiling mounting and safety cable connection



Shown with LAL-SB Height adjustable Swivel Brackets



Mounting Slots on back and at 45°

Earth

External Earth Ground for IECEx requirement

LIGHTING

LAL/LALxE/LALC SERIES



LINEAR LED TECHNOLOGY



Segurança
NIEx



LINEARLITE®*

* marca registrada MEXICO

FEATURES-SPECIFICATIONS

Applications

Linear LED Luminaires are designed for installations where moisture, dirt, dust, corrosion and vibration may be present, and Type 3, 4X, IP66 areas where wind, water, snow or high ambients can be expected. They can be used in locations made hazardous by the presence of flammable vapors or gases or combustible dusts as defined by the NEC/CEC/IECEX & INMETRO.

Typical applications include land based oil rigs, offshore oil platforms, dockside installations, chemical and petrochemical processing facilities, sewage treatment plants, garages, storage facilities, tunnels, and grain/food facilities.

ABS (American Bureau of Shipping) type approval for use on decks, vessels, platforms, barges, ships and boats. Also suitable for docks and marinas.

Compliances

- UL-8750 for LED lighting
- ANSI/UL 1598(A)
- UL-844 Standard for lighting fixtures for hazardous locations, Class I, Division 2; Class II, Divisions 1 and 2; Class III
- CSA G22.2 no. 137-M1981 electric luminaires for use in hazardous locations
- IEC suffix Zone 2/21 to IEC 60079-0, 60079-15, 60079-31 Standards
- Enclosed and gasketed
- Type 3, 4X
- IP66

Supplemental **20KA/10KV Surge Protection** is **standard** (for 120-277 VAC models)
10KA/10KV Surge Protection (for 347-480 VAC)

Materials

- Housing – one piece natural finish \leq .1% copper-free aluminum extrusion
- Endcaps & wiring – Access covers are copper-free (\leq .4%) aluminum with gray baked powder epoxy-polyester finish, electrostatically applied for complete uniform corrosion resistance.
- External screws are 316 stainless steel
- Lens – Impact resistant polycarbonate lens available in diffuse or clear

LAL & LALxE Product Features

- LALxE models have “built-in” battery backup for 90 or 180 minute emergency exit
- Shallow design minimizes profile in work areas with low ceiling heights
- Diffuse Lens Standard to minimize glare; Clear Lens available
- Polycarbonate Single Lens 18W to 60W; Double Lens model 80W & 120W
- Slot Back Design allows multiple mounting access points across length – slots can also be used with 5/16” or 8mm bolts & nuts, 3 housing slots, 1 center back and 2 at 45°.
- Variety of mounting options including swivel brackets, wall, ceiling brackets, or beam clamps
- End Caps each have 2 mounting feet built-in plus a safety strap attachment point

Class I, Div. 2, Groups A, B, C, D
Class I, Zone 2, Groups IIC, IIB, IIA
Class II, Div. 1 & 2, Groups E, F, G
AEx nAII, Ex nAII
Wet Locations
Type 4X
IP66

Certified - File LR11713

IECEX Rated
Zone 2 and Zone 21 areas
Ex nA IIC T6 to T3, Gc
Ex tb IIC T95°C Db
Tamb -50°C < Tz < +65°C, IP66

IECEX Certificate
QPS 15.0010

ATEX Certificate
CML 15ATEX4081X (nA)
&
CML15ATEX3082X (tb)

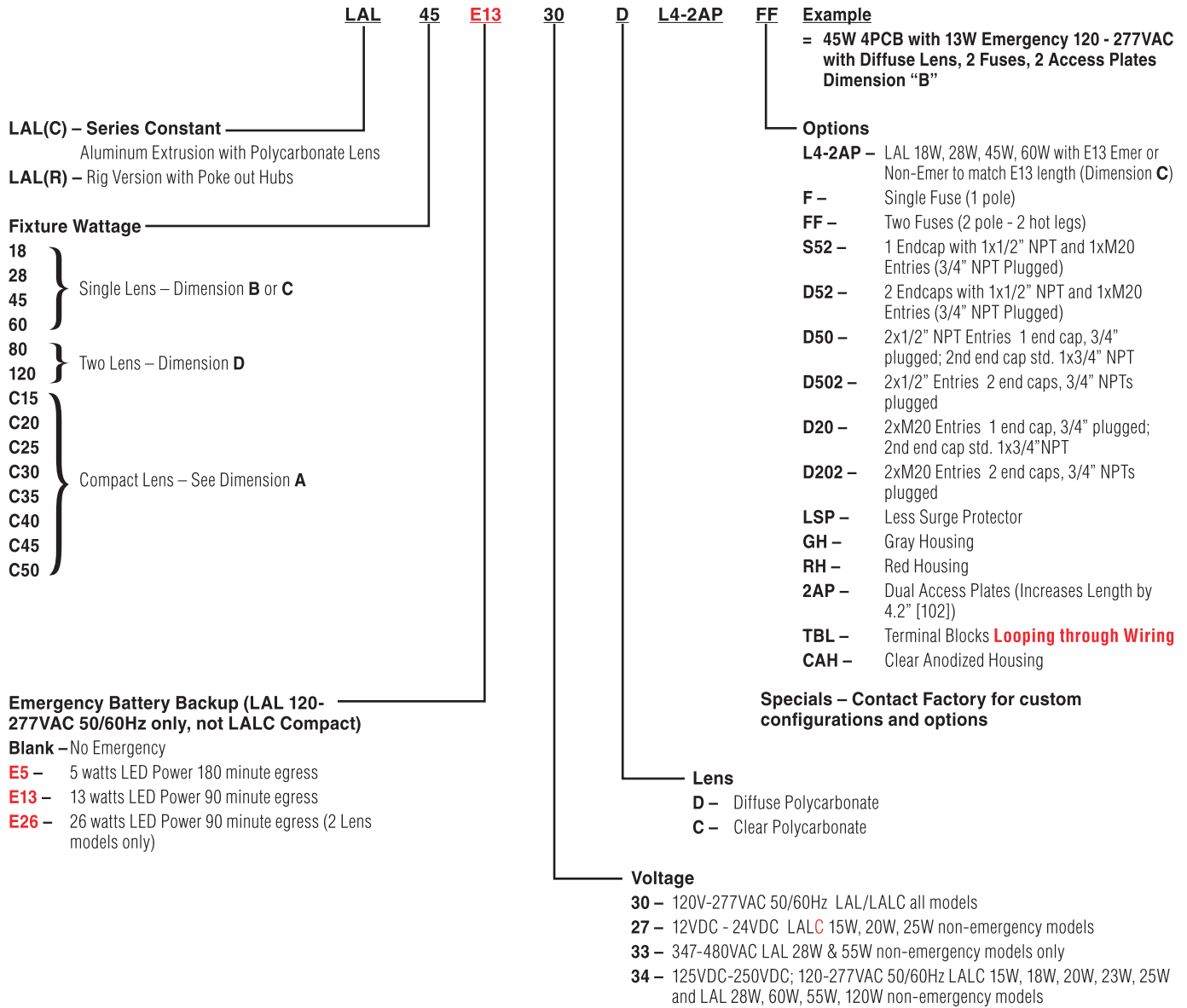
- Standard unit End Caps each have single a 3/4” NPT hub, and fixture is furnished with one 3/4” close-up plug and two 3/4” to 1/2” reducers – provides out of the box 1/2” dead-end to 3/4” feed-through flexibility. Metric openings are available.
- Standard LALs have one wiring Access Plate for easy access to driver leads.

LED Features and Standards

- Many Midpower LEDs blend light to simulate fluorescent tubes
- Crisp White Light for Excellent Color Rendering – Chromaticity 5000K (CCT); approx. 70 CRI
- Energy Savings – High lumens per watt
- LED Array Life – 100,000+ hours with 70% initial lumens
- Long Fixture Life – 50,000 - 55,000 maintenance free hours
- Ambient suitability -40°C to 65°C (see tables). **-20°C to 50°C Ambient suitability for Emergency models.**
- Instant On – Including after power interruption
- World Voltage 120 - 277VAC 50/60Hz
- Solder-LESS LED Board Connections – Vibration Resistant



CATALOG LOGIC



Energy Savings

LED VS FLUORESCENT WATTAGE & DELIVERED LUMENS					
CATALOG NUMBER	LUMENS	L/W	FLUORESCENT		L/W
LAL1830C	2479	138	40W	1x40W BX	63
LAL2830C	3624	129	55W	1x55W BX	65
LAL4530C	5515	122	56W	2x28T5	71
			64W	2x32T8	80
LAL6030C	7709	128	108W	2x54T5HO	67
			120W	2x60T12HO	56
LAL8030C	11032	138	162W	3x54T5HO	65

LIGHTING

LAL/LALxE/LALC SERIES

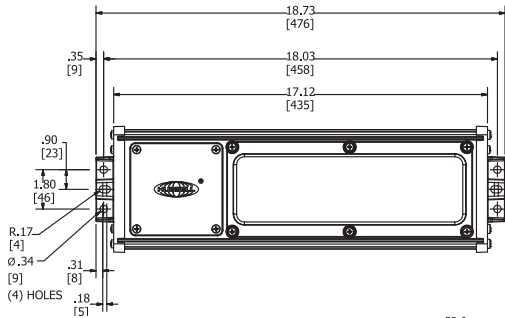


ORDERING INFORMATION

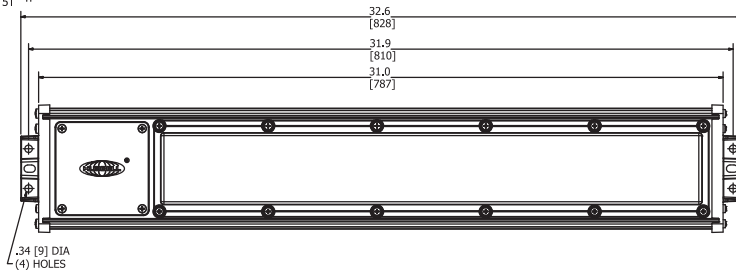
ORDERING INFORMATION AND AMBIENT SUITABILITY							C1D2 ABCD/ ZONE 2 IIC, IIB, IIA			C1D2 GRPS. EFG SIMULTANEOUS			C2D1 GRPS. EFG			IEC ZONE 2			IEC ZONE 21				
CATALOG NUMBER W/ DIFFUSE LENS	WEIGHT LBS./KG	WATTS STD. POWER	LENGTH STYLE - INCHES (MM)	VOLTAGE	AMPS	DELIVERED LUMENS Diffuse/ Clear	40°C	55°C	65°C	40°C	55°C	65°C	40°C	55°C	65°C	40°C	55°C	65°C	40°C	55°C	65°C		
LAL1830D	17.9 / 8.1	18	B-32.6 (828)	120-277VAC	0.15 - 0.06	2272 / 2479	T6	T6	T5	T4A	T4A	T4A	T4A	T4A	T4A	T6	T6	T5	T4	T4	T4		
LAL1830D-L4-2AP	21.9 / 9.9		C-51 (1295)				T6	T6	T5	T4A	T4A	T4A	T4A	T4A	T4A	T6	T6	T5	T4	T4	T4		
LAL18E1330D-L4-2AP	31.9 / 14.5		C-51 (1295)				T6	T6	T5	T4A	T4A	T4A	T4A	T4A	T4A	T6	T6	T5	T4	T4	T4		
LAL2830D	17.9 / 8.1	28	B-32.6 (828)		120-277VAC	0.23 - 0.10	3321 / 3624	T6	T6	T5	T4A	T4A	T4A	T4A	T4A	T4A	T6	T6	T5	T4	T4	T4	
LAL2830D-L4-2AP	21.9 / 9.9		C-51 (1295)					T6	T6	T5	T4A	T4A	T4A	T4A	T4A	T4A	T6	T6	T5	T4	T4	T4	
LAL28E1330D-L4-2AP	31.9 / 14.5		C-51 (1295)					T6	T6	T5	T4A	T4A	T4A	T4A	T4A	T4A	T6	T6	T5	T4	T4	T4	
LAL4530D	17.9 / 8.1	45	B-32.6 (828)			120-277VAC	0.38 - 0.16	5054 / 5515	T6	T5	-	T4A	T4A	T4A	T4A	T4A	T4A	T6	T5	T5	T4	T4	T4
LAL4530D-L4-2AP	21.9 / 9.9		C-51 (1295)						T6	T5	-	T4A	T4A	T4A	T4A	T4A	T4A	T6	T5	T5	T4	T4	T4
LAL45E1330D-L4-2AP	31.9 / 14.5		C-51 (1295)						T6	T5	-	T4A	T4A	T4A	T4A	T4A	T4A	T6	T5	T5	T4	T4	T4
LAL6030D	18.9 / 8.6	60	B-32.6 (828)				120-277VAC	0.50 - 0.22	7064 / 7709	T6	T5	-	T4A	T4A	-	T4A	T4A	-	T6	T5	-	T4	T4
LAL6030D-L4-2AP	22.9 / 10.4		C-51 (1295)	T6						T5	-	T4A	T4A	-	T4A	T4A	-	T6	T5	-	T4	T4	-
LAL60E1330D-L4-2AP	32.9 / 14.9		C-51 (1295)	T6						T5	-	T4A	T4A	-	T4A	T4A	-	T6	T5	-	T4	T4	-
LAL8030D	34.5 / 15.6	80	D-57.9 (1471)	120-277VAC				0.67 - 0.29	10110 / 11032	T6	T5	-	T4A	T4A	-	T4A	T4A	-	T6	T5	-	T4	T4
LAL80E1330D	44.5 / 20.2		D-57.9 (1471)		T6					T5	-	T4A	T4A	-	T4A	T4A	-	T6	T5	-	T4	T4	-
LAL80E2630D	54.5 / 24.7		D-57.9 (1471)		T6					T5	-	T4A	T4A	-	T4A	T4A	-	T6	T5	-	T4	T4	-
LAL12030D	36.5 / 16.6	120	D-57.9 (1471)		120-277VAC			1.00 - 0.43	15090 / 16467	T6	T5	-	T4A	T4A	-	T4A	T4A	-	T6	T5	-	T4	T4
LAL120E1330D	46.5 / 21.1		D-57.9 (1471)			T6				T5	-	T4A	T4A	-	T4A	T4A	-	T6	T5	-	T4	T4	-
LAL120E2630D	56.5 / 25.6		D-57.9 (1471)			T6				T5	-	T4A	T4A	-	T4A	T4A	-	T6	T5	-	T4	T4	-
LALC1527D	12.03 / 4.49	15	A-18.73 (476)			12-24VDC		1.3-0.6	1503 / 1640	T5	T4A	-	T4A	T4A	-	T4A	T4A	-	T5	T4	-	T4	T4
LALC1530D						120-277VAC	0.15-0.06	T5		T4A	-	T4A	T4A	-	T4A	T4A	-	T5	T4	-	T4	T4	-
LALC1534D						120-250VDC	0.2-0.1	T5		T4A	-	T4A	T4A	-	T4A	T4A	-	T5	T4	-	T4	T4	-
LALC2027D		20	A-18.73 (476)			12-24VDC	1.7-0.8	2337 / 2550	T5	T5	-	T4A	T4A	-	T4A	T4A	-	T5	T5	-	T4	T4	-
LALC2030D				120-277VAC		0.17-0.08	T5		T5	-	T4A	T4A	-	T4A	T4A	-	T5	T5	-	T4	T4	-	
LALC2034D				120-250VDC		0.2-0.1	T5		T5	-	T4A	T4A	-	T4A	T4A	-	T5	T5	-	T4	T4	-	
LALC2527D		25	A-18.73 (476)	12-24VDC		2.1-1.0	3019 / 3294	T5	T4A	-	T4A	T4A	-	T4A	T4A	-	T5	T4	-	T4	T4	-	
LALC2530D				120-277VAC	0.18-0.08	T5		T4A	-	T4A	T4A	-	T4A	T4A	-	T5	T4	-	T4	T4	-		
LALC2534D				120-250VDC	0.2-0.1	T5		T4A	-	T4A	T4A	-	T4A	T4A	-	T5	T4	-	T4	T4	-		
LALC3030D		30	A-18.73 (476)	120-277VAC	0.26-0.11	2726 / 2974	T5	T4A	-	T4A	T4A	-	T4A	T4A	-	T5	T4	-	T4	T4	-		
LALC3530D		35	A-18.73 (476)		0.30-0.13	3261 / 3558	T5	T4A	-	T4A	T4A	-	T4A	T4A	-	T5	T4	-	T4	T4	-		
LALC4030D		40	A-18.73 (476)		0.34-0.15	4152 / 4530	T5	T5	-	T4A	T4A	-	T4A	T4A	-	T5	T5	-	T4	T4	-		
LALC4530D		45	A-18.73 (476)		0.38-0.17	5136 / 5604	T5	T5	-	T4A	T4A	-	T4A	T4A	-	T5	T5	-	T4	T4	-		
LALC5030D		50	A-18.73 (476)		0.42-0.18	6039 / 6590	T5	-	-	T4A	-	-	T4A	-	-	T5	-	-	T4	-	-		



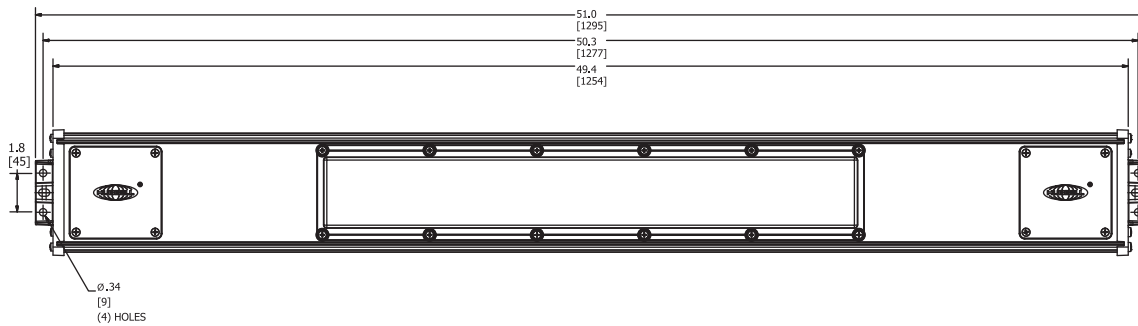
DIMENSIONS AND ACCESSORIES



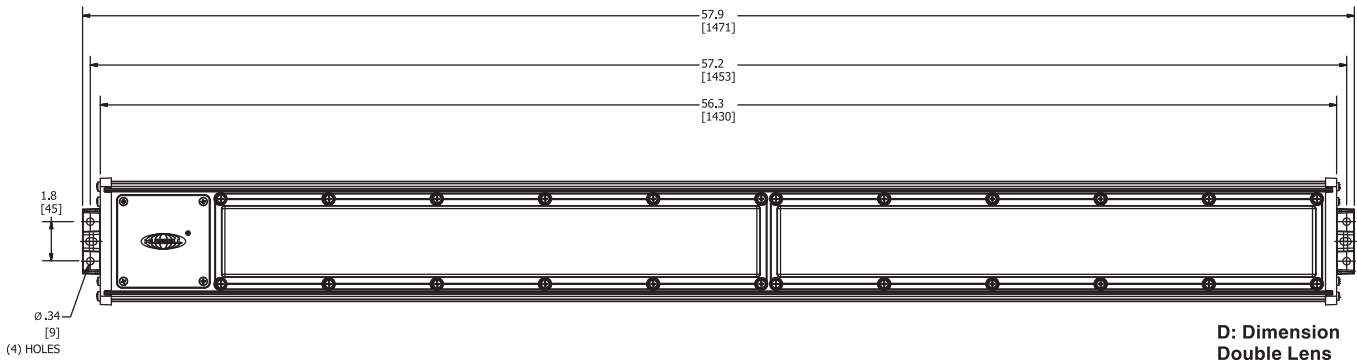
A: Dimensions for LALC



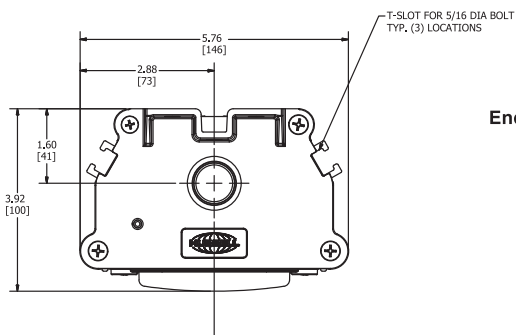
B: Dimension for Single Lens



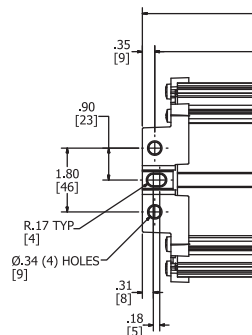
C: Dimension Single Lens with Emergency Battery or Extended Model to Match Emergency Length



D: Dimension Double Lens with or without Emergency Battery



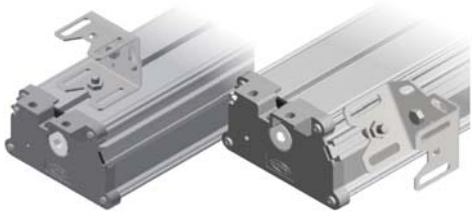
End Views





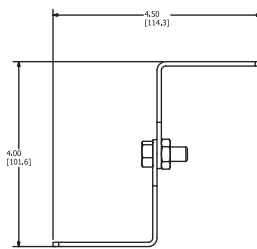
ACCESSORIES AND REPLACEMENT PARTS

ACCESSORIES AND REPLACEMENT PARTS	
LAL-SB	Swivel Bracket Set w/ Adjustable Height; includes 5/16" bolts/nuts/lock-washers for attachment to LAL(C) "slots"; can also be attached to end cap mounting feet with FBO bolts.
LZCB	Ceiling Bracket Set with Stainless Steel Bolts to attach to LAL(C) "slots"
LZWB	Wall Bracket Set with Stainless Steel Bolts to attach to LAL(C) "slots"
LAL-BC	Steel/malleable Iron with Zinc electroplate for corrosion resistance; includes Stainless Steel Bolts to attach to LAL(C) "slots"
LAL-EB	Eyebolt Set with Stainless Steel Bolts to attach to LAL(C) "slots"
VMSC10	10' Stainless Steel Safety Cable with loop grip
LALG	Stainless Guard for 1 LAL Lens, order two for 2 lens models
LALCG	LALC Stainless Guard
LAL-LENSCLR	Single Clear Lens with Gasket for LAL Series
LAL-LENSDIF	Single Diffuse Lens with Gasket for LAL Series
LALC-LENSCLR	Single Clear Lens with Gasket for LALC Series
LALC-LENSDIF	Single Diffuse Lens with Gasket for LALC Series
LAL-RIG-CB	Rig Mounting Style Ceiling Bracket
LAL-RIG-WB	Rig Mounting Style Wall Bracket
RIG-LALC	Rig End Caps for LALC

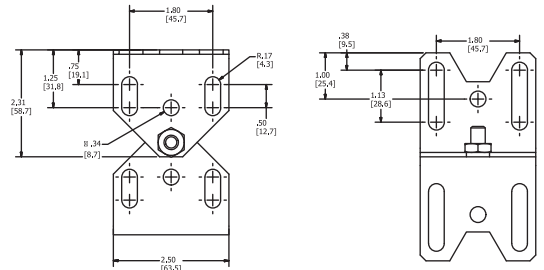


LAL-SB on Center Slot

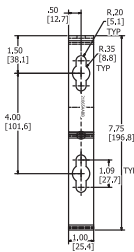
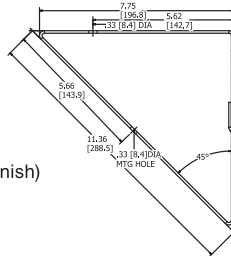
LAL-SB on 45° Slot



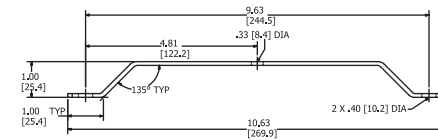
LAL-SB Dimensions – extended shown



Wall Bracket Set
Part Number LZWB
Stainless Steel (natural finish)



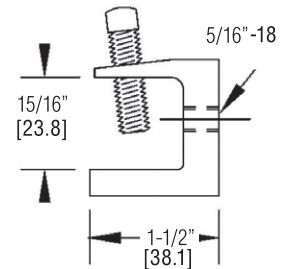
Ceiling Bracket Set
Part Number LZCB
Stainless Steel (natural finish)



VMSC10 Safety Cable



LAL-BC Beam Clamp





LALFP

Linear LED Food Processing Fixture

- Maintenance free long-lasting LEDs

- NSF Certified with Impact Resistant polycarbonate lens

- All exterior stainless steel hardware

- Large wiring access for ease of installation

- Extremely durable copper-free aluminum mounting feet & access plate with anodized aluminum housing

- 90 or 180 minute emergency with Self-diagnostics in accordance with NFPA 101® Life Safety Code



LIGHTING

LINEAR LED TECHNOLOGY



Approved

LINEAR^{ITE}® *

* marca registrada MEXICO

FEATURES-SPECIFICATIONS

Applications

Linear LED Luminaires are designed for food processing installations where moisture, corrosion and vibration may be present, and Type 3, 4X, IP66/IP67. They can be used in locations made hazardous by the presence of flammable vapors or gases or combustible dusts as defined by the NEC/CEC.

Typical applications include non-food zones, splash zones, hazardous food processing areas, high and low ambient areas, and hose-down zones.

NSF (National Sanitation Foundation) approved for "Food Handling" areas, typically requiring non-glass lighting.

ABS (American Bureau of Shipping) type approval for use on decks, vessels, platforms, barges, ships and boats. Also suitable for docks and marinas.

Compliances

- UL-8750 for LED lighting
- ANSI/UL 1598(A)
- UL-844 Standard for lighting fixtures for hazardous locations, Class I, Division 2; Class II, Divisions 1 and 2; Class III
- CSA G22.2 no. 137-M1981 electric luminaires for use in hazardous locations
- Enclosed and gasketed
- Type 3, 4X
- IP66/IP67

Supplemental **20KA/10KV Surge Protection** is **standard** (for 120-277 VAC models)
10KA/10KV Surge Protection (for 347-480 VAC)

Materials

- Housing – one piece clear anodized $\leq .1\%$ copper-free aluminum extrusion
- Endcaps & wiring – Access covers are copper-free ($\leq .4\%$) aluminum with natural finish.
- External screws are 316 stainless steel
- Lens – Impact resistant polycarbonate lens available in diffuse or clear

LALFP & LALFPxiE Product Features

- LALFPxiE models have "built-in" battery backup for 90 or 180 minute battery backup
- Shallow design minimizes profile in work areas with low ceiling heights
- Diffuse Lens Standard to minimize glare; Clear Lens available
- Polycarbonate Single Lens L1 & L3; Double Lens model L5
- Variety of mounting options including swivel brackets, wall, ceiling brackets, or beam clamps
- End Caps each have 2 mounting feet built-in plus a safety strap attachment point
- Standard unit End Caps each have single a $\frac{3}{4}$ " NPT hub, and fixture is furnished with one $\frac{3}{4}$ " close-up plug and two $\frac{3}{4}$ " to $\frac{1}{2}$ " reducers – provides out of the box $\frac{1}{2}$ " dead-end to $\frac{3}{4}$ " feed-through flexibility. Metric openings are available.
- Standard LALFPs have one wiring Access Plate for easy access to terminal block.

Class I, Div. 2, Groups A, B, C, D
Class I, Zone 2, Groups IIC, IIB, IIA
Class II, Div. 1 & 2, Groups E, F, G
AEx nAll, Ex nAll
Wet Locations
Type 4X
IP66/IP67

ABS Type Approval
NSF Food Handling

Certified - File LR11713

IECEx Rated
Zone 2 and Zone 21 areas
Ex nA IIC T6 to T3, Gc
Ex tb IIC T95°C Db
Tamb -50°C < Tz < +65°C, IP66

IECEx Certificate
QPS 15.0010

ATEX Certificate
CML 15ATEX4081X (nA)
&
CML15ATEX3082X (tb)

Electronics Includes:

- Self-diagnostics monitors LED status, LED driver circuit, battery capacity and charger function and displays any fault detection by means of a flashing code
- Self-Test feature automatically runs a 1 minute test once a month and an alternating 30-60 minute test once every 6 months. LED indicator provides visible fault detection and charging status
- User initiated 1, or 90-minute system test feature
- 15 minute re-transfer delay
- Automatic unit transfer in brown-out conditions (below 80% of nominal AC input voltage)

LED Features and Standards

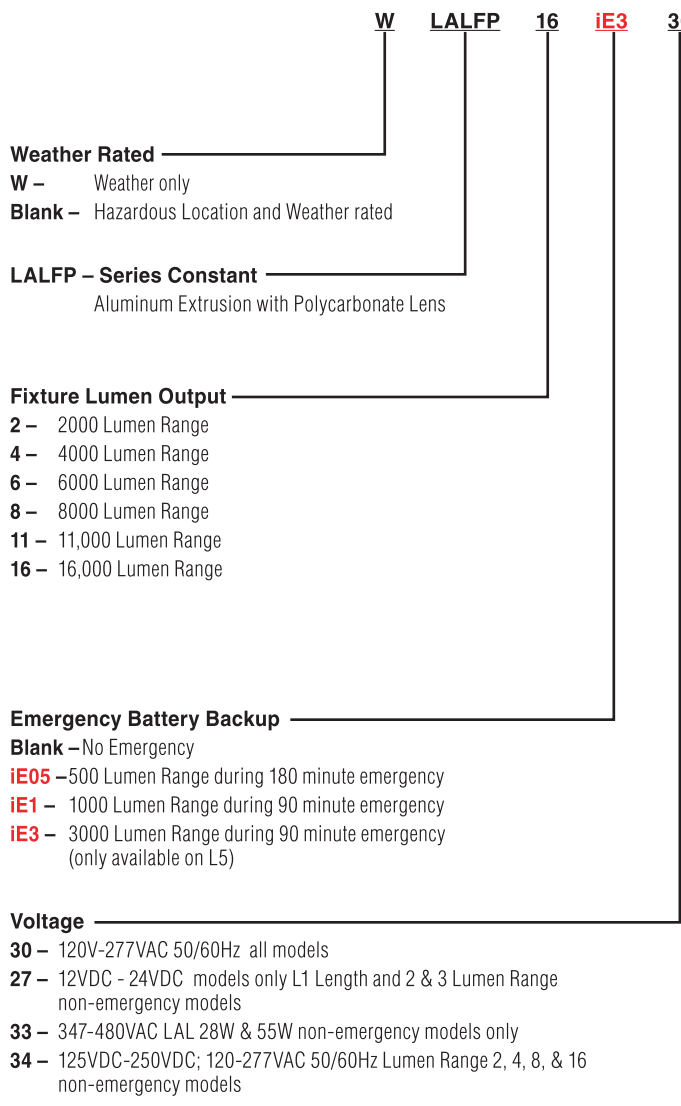
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- Crisp White Light for Excellent Color Rendering – Chromaticity 5000K (CCT); approx. 70 CRI
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- Ambient suitability -40°C to 65°C (see tables). **-20°C to 50°C Ambient suitability for Emergency models.**
- Instant On – Including after power interruption
- World Voltage 120 - 277VAC 50/60Hz
- Solder-LESS LED Board Connections – Vibration Resistant

INTELLIGENT EMERGENCY SERVICE CODES

INDICATOR STATUS SIGNAL	DESCRIPTION OF STATUS SIGNAL
0.5s ON and 0.5s OFF	Battery disconnected.
2.5s ON and 2.5s OFF	LED load disconnected.
4.5s ON and 0.5s OFF	Driver in self-diagnostic mode.
1.5s ON and 3.5s OFF	Battery needs to be replaced.
0.5s ON and 4.5s OFF	Damaged driver. Replace
ON	Normal/Charging.
OFF (LED Load ON)	Discharging / Emergency Operation



CATALOG LOGIC



Example
 = Weather only rated, 16,000 Lumen output with 3,000 Lumen output during 90 minute emergency operation, 120-277 VAC, approximately 5 foot length Diffuse Lens, 2 fuses

Options

- F – Single Fuse (1 pole)
- FF – Two Fuses (2 pole - 2 hot legs)
- S52 – 1 Endcap with 1x1/2" NPT and 1xM20 Entries (3/4" NPT Plugged)
- D52 – 2 Endcaps with 1x1/2" NPT and 1xM20 Entries (3/4" NPT Plugged)
- D50 – 2x1/2" NPT Entries 1 end cap, 3/4" plugged; 2nd end cap std. 1x3/4" NPT
- D502 – 2x1/2" Entries 2 end caps, 3/4" NPTs plugged
- D20 – 2xM20 Entries 1 end cap, 3/4" plugged; 2nd end cap std. 1x3/4" NPT
- D202 – 2xM20 Entries 2 end caps, 3/4" NPTs plugged
- LSP – Less Surge Protector
- GH – Gray Housing
- RH – Red Housing
- TBL – Terminal Blocks **Looping through Wiring**
- NAP – No Access Plate (only available on L1)

Specials – Contact Factory for custom configurations and options

Lens

- D – Diffuse Polycarbonate
- C – Clear Polycarbonate

Length

- L1 – Approximately 1 foot (2, 4, 6 Lumen Outputs)
- L3 – Approximately 3 feet (2, 4, 6, 8 Lumen Outputs)
- L5 – Approximately 5 feet (11, 16 Lumen Outputs)

Energy Savings

LED VS FLUORESCENT WATTAGE & DELIVERED LUMENS					
CATALOG NUMBER	LUMENS	L/W	FLUORESCENT		L/W
LALFP230CL3	2479	138	40W	1x40W BX	63
LALFP430CL3	3624	129	55W	1x55W BX	65
LALFP630CL1	5515	122	64W	2x32T8	80
LALFP830CL3	7709	128	120W	2x60T12HO	56
LALFP1130CL5	11032	138	162W	3x54T5HO	65



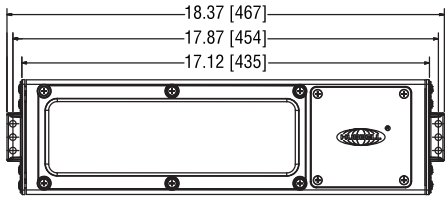
ORDERING INFORMATION

ORDERING INFORMATION AND AMBIENT SUITABILITY						C1D2 A,B,C,D/ ZONE 2 IIC, IIB, IIA			C1D2 E, F, G SIMULTANEOUS			C2D1 E, F, G		
CATALOG NUMBER	WATTS	LENGTH IN / MM	VOLTAGE	AMPS	LUMENS DIFFUSE/CLEAR	40°C	55°C	65°C	40°C	55°C	65°C	40°C	55°C	65°C
LALFP230L1D	15	18.73 / 476	120/277 VAC 50/60 Hz	0.15-0.06	1503 / 1640	T5	T4A	-	T4A	T4A	-			
LALFP230L3D	18	32.6 / 828		0.15 - 0.06	2272 / 2479	T6	T6	T6	T4A	T4A	T4A	T4A	T4A	T4A
LALFP430L1D	35	18.73 / 476		0.30-0.13	3261 / 3558	T5	T4A	-	T4A	T4A	-	T4A	T4A	-
LALFP430L3D	28	32.6 / 828		0.23 - 0.10	3321 / 3624	T6	T6	T5	T4A	T4A	T4A	T4A	T4A	T4A
LALFP630L1D	45	18.73 / 476		0.38-0.17	5136 / 5604	T5	T4A	-	T4A	T4A	-	T4A	T4A	-
LALFP630L3D	45	32.6 / 828		0.38 - 0.16	5054 / 5515	T6	T5	-	T4A	T4A	-	T4A	T4A	-
LALFP830L3D	60	32.6 / 828		0.50 - 0.22	7064 / 7709	T6	T5	-	T4A	T4A	-	T4A	T4A	-
LALFP1130L5D	80	57.9 / 1471		0.67 - 0.29	10110 / 11032	T6	T5	-	T4A	T4A	-	T4A	T4A	-
LALFP1630L5D	120	57.9 / 1471		1.00 - 0.43	15090 / 16467	T6	T5	-	T4A	T4A	-	T4A	T4A	-

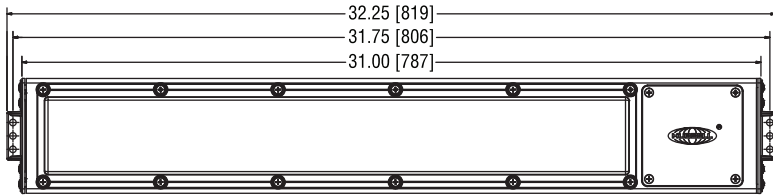
ORDERING INFORMATION AND AMBIENT SUITABILITY					
CATALOG NUMBER	WATTS	LENGTH IN / MM	VOLTAGE	AMPS	LUMENS DIFFUSE/CLEAR
WLALFP230L1D	15	18.73 / 476	120/277 VAC 50/60 Hz	0.15-0.06	1503 / 1640
WLALFP230L3D	18	32.6 / 828		0.15 - 0.06	2272 / 2479
WLALFP430L1D	35	18.73 / 476		0.30-0.13	3261 / 3558
WLALFP430L3D	28	32.6 / 828		0.23 - 0.10	3321 / 3624
WLALFP630L1D	45	18.73 / 476		0.38-0.17	5136 / 5604
WLALFP630L3D	45	32.6 / 828		0.38 - 0.16	5054 / 5515
WLALFP830L3D	60	32.6 / 828		0.50 - 0.22	7064 / 7709
WLALFP1130L5D	80	57.9 / 1471		0.67 - 0.29	10110 / 11032
WLALFP1630L5D	120	57.9 / 1471		1.00 - 0.43	15090 / 16467



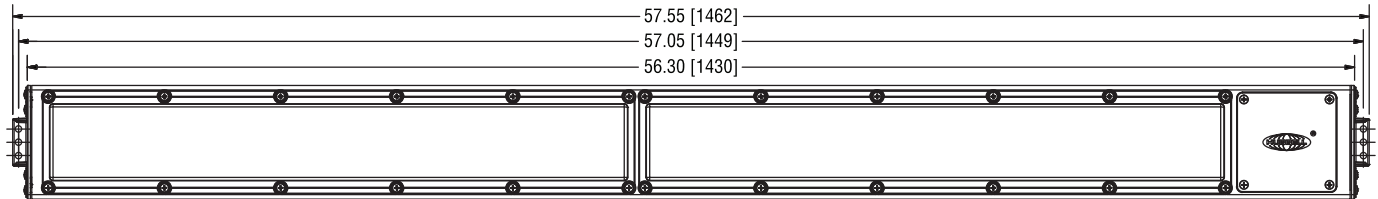
DIMENSIONS



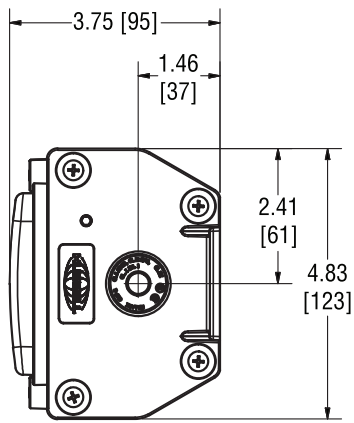
LALFP-L1 Single Access Panel



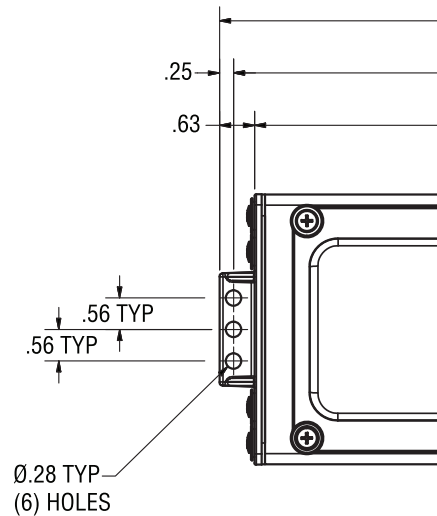
LALFP-L3 Single Access Panel



LALFP-L5 Single Access Panel



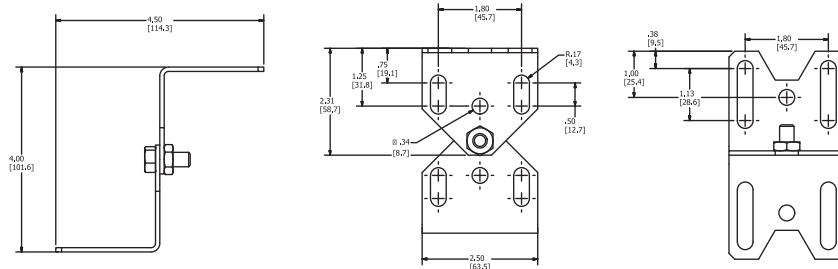
End View





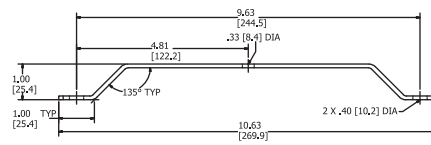
ACCESSORIES AND REPLACEMENT PARTS

ACCESSORIES AND REPLACEMENT PARTS	
LAL-SB	Swivel Bracket Set w/ Adjustable Height; includes 5/16" bolts/nuts/lock-washers for attachment to LAL(C) "slots"; can also be attached to end cap mounting feet with FBO bolts.
LZCB	Ceiling Bracket Set with Stainless Steel Bolts to attach to LAL(C) "slots"
LZWB	Wall Bracket Set with Stainless Steel Bolts to attach to LAL(C) "slots"
LAL-BC	Steel/malleable Iron with Zinc electroplate for corrosion resistance; includes Stainless Steel Bolts to attach to LAL(C) "slots"
LAL-EB	Eyebolt Set with Stainless Steel Bolts to attach to LAL(C) "slots"
VMSC10	10' Stainless Steel Safety Cable with loop grip
LALG	Stainless Guard for 1 LAL Lens, order two for 2 lens models
LALCG	LALC Stainless Guard
LAL-LENSCLR	Single Clear Lens with Gasket for LAL Series
LAL-LENSDIF	Single Diffuse Lens with Gasket for LAL Series
LALC-LENSCLR	Single Clear Lens with Gasket for LALC Series
LALC-LENSDIF	Single Diffuse Lens with Gasket for LALC Series



LAL-SB Dimensions – extended shown

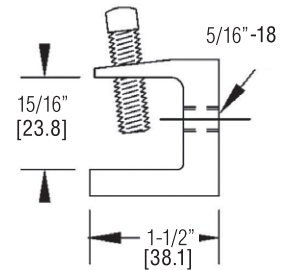
Ceiling Bracket Set Part Number LZCB Stainless Steel (natural finish)



VMSC10 Safety Cable



LAL-BC Beam Clamp





LZ2NL/LZ2SL SERIES

KILLARK

LZ LED INTRODUCTION & LOGIC

4' styles shown



Class I, Div. 2, Groups A, B, C, D
Class I, Zone 2, Groups IIC, IIB, IIA
Class II, Div. 1 & 2, Groups E, F, G
AEx nAll, Ex nAll
Wet Locations
Type 4X, IP66

Certified - File LR11713

ABS Type Approval (L32NL, L32SL)
NSF Food Handling (LZ2NL)

LINEAR^{lite}® *

* marca registrada MEXICO

FEATURES-SPECIFICATIONS

Applications

Linear LED Luminaires are designed for installations where moisture, dirt, dust, corrosion and vibration may be present, and Type 3, 4X IP66 areas where wind, water, snow or high ambients can be expected. They can be used in locations made hazardous by the presence of flammable vapors or gases or combustible dusts as defined by the NEC/CEC.

ABS (American Bureau of Shipping) type approval for use on decks, vessels, platforms, barges, ships and boats. Also suitable for docks and marinas.

NSF (National Sanitation Foundation) approved for "Food Handling" areas, typically requiring non-glass lighting.

Typical applications include manufacturing plants, and certain chemical and petrochemical processing facilities, sewage treatment plants, off-shore and dockside installations, garages, storage facilities, tunnels, and grain/food facilities.

Compliances

- UL-8750 for LED lighting
- ANSI/UL 1598(A)
- UL-844 Standard for lighting fixtures for hazardous locations, Class I, Division 2; Class II, Divisions 1 and 2; Class III
- CSA C22.2 no. 137-M1981 electric luminaires for use in hazardous locations
- Enclosed and gasketed
- Type 3, 4X, IP66

Materials

- Housing – one piece fiberglass reinforced polyester or 316 Stainless Steel
- Lens – Clear Lexan® impact resistant polycarbonate lens (Lexan is a registered trademark of SABIC)
- Two 3/4" NTP hubs – one at each end (includes one 3/4" close-up plug and two 3/4"x1/2" reducers for maximum user flexibility – LZ2NL hubs aluminum; LZ2SL hubs 316 Stainless Steel)

LED Features and Standards

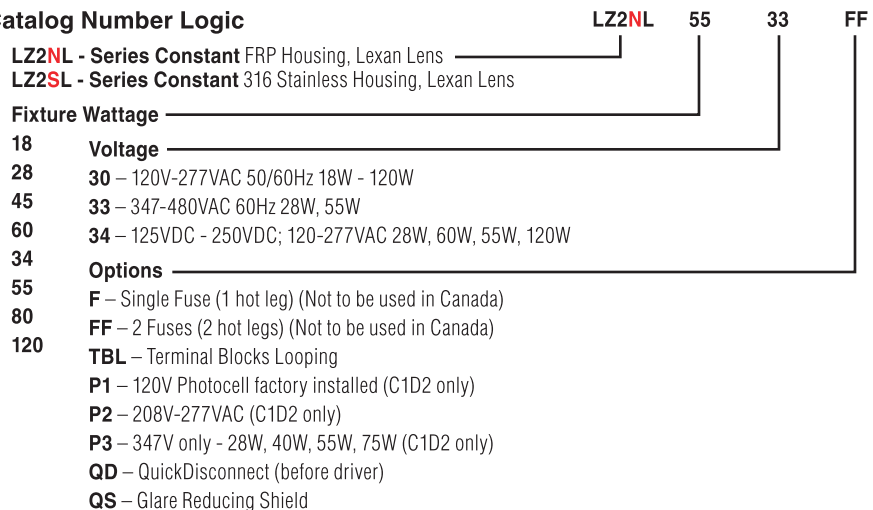
Supplemental **20KA/10KV Surge Protection** is standard (for 120-277 VAC models)
10KA/10KV Surge Protection (for 347-480 VAC)

- Many Midpower LEDs blend light to simulate fluorescent tube
- Crisp White Light for Excellent Color Rendering – Chromaticity 5000K (CCT); approx. 70 CRI
- Energy Savings – High lumens per watt
- LED Array Life – 100,000+ hours with 70% initial lumens

- Long Fixture Life – 50,000 - 55,000 maintenance free hours
- Ambient suitability -40°C to 55°C up to 120W
- Instant On – Including after power interruption
- World Voltage 120 - 277VAC 50/60Hz
- Solder-LESS LED Board Connections – Vibration Resistant

LED VS FLUORESCENT WATTAGE & DELIVERED LUMENS						
LED WATT	LUMENS	L/W	FLUORESCENT	LUMENS	L/W	
18W	2557	150	40W 1x40W BX	2471	63	
28W	3775	144	55W 1x55W BX	3766	65	
34W	5075	149	56W 2x28T5	4676	71	
45W	5562	137	64W 2x32T8	4772	80	
55W	7577	144	108W 2x54T5HO	8088	67	
60W	7618	132	120W 2x60T12HO	6965	56	
80W	11140	137	162 3x54T5HO	11619	65	

Catalog Number Logic

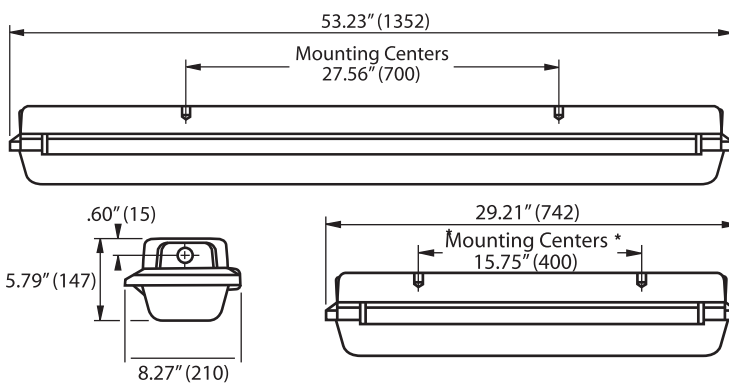




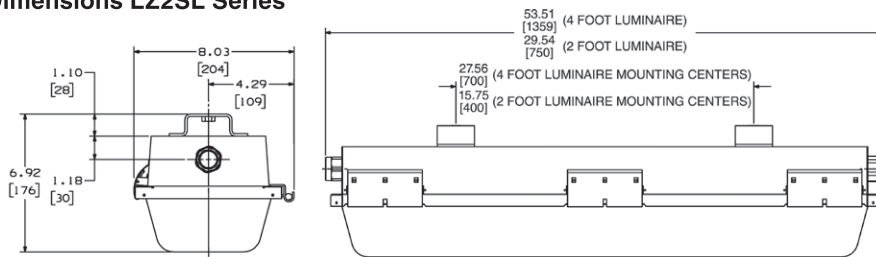
LZ SERIES – ORDERING INFORMATION & TECHNICAL DATA

ORDERING INFORMATION AND AMBIENT SUITABILITY									C1D2		C2D1 LZ2 NL GRPS. FG LZ2 SL GRPS. FFG		C1Z2 AEx nA Ex nA	
CATALOG NUMBER			WEIGHT	WATTS	LENGTH	VOLTAGE	AMPS	DELIVERED LUMENS	40°C	55°C	40°C	55°C	40°C	55°C
FIBERGLASS	WEIGHT LBS/KG	STAINLESS	WEIGHT LBS/KG											
LZ2NL1830	12/5.4	LZ2SL1830	13/5.9	18	2'	120-277VAC	0.15 - 0.06	2557	T5	T4A	≤ 135°C	≤ 135°C	T5	T4
LZ2NL2830	12/5.4	LZ2SL2830	13/5.9	28	2'	120-277VAC	0.23 - 0.10	3775	T5	T4A	≤ 135°C	≤ 135°C	T5	T4
LZ2NL4530	12/5.4	LZ2SL4530	13/5.9	45	2'	120-277VAC	0.38 - 0.16	5562	T5	T4A	≤ 135°C	≤ 135°C	T5	T4
LZ2NL6030	14/6.4	LZ2SL6030	15/6.8	60	2'	120-277VAC	0.50 - 0.22	7618	T4A	-	≤ 135°C	-	T4	-
LZ2NL3430	23/10.4	LZ2SL3430	24/10.9	34	4'	120-277VAC	0.28 - 0.12	5075	T5	T4A	≤ 135°C	≤ 135°C	T5	T4
LZ2NL5530	23/10.4	LZ2SL5530	24/10.9	55	4'	120-277VAC	0.46 - 0.20	7577	T5	T4A	≤ 135°C	≤ 135°C	T5	T4
LZ2NL8030	23/10.4	LZ2SL8030	24/10.9	80	4'	120-277VAC	0.67 - 0.29	11140	T5	T4A	≤ 135°C	≤ 135°C	T5	T4
LZ2NL12030	25/11.3	LZ2SL12030	26/11.8	120	4'	120-277VAC	1.00 - 0.43	16010	T4A	-	≤ 135°C	-	T4	-

Dimensions LZ2NL Series



Dimensions LZ2SL Series



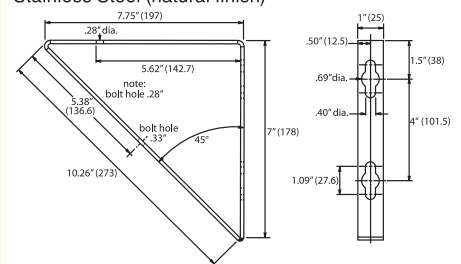
REPLACEMENT PARTS:	
LZ2N4LENS	4' Lens only LZ2NL/LZ2SL
LZ2N2LENS	2' Lens only LZ2NL/LZ2SL
LZ2N4BAR	4' Locking Bar only LZ2NL
LZ2N2BAR	2' Locking Bar only LZ2NL
LZ2S-LATCH	Latch and Spring LZ2SL

*Mounting Centers are 1/4-20" tapped for user all thread rod or below accessories.

Mounting Accessories

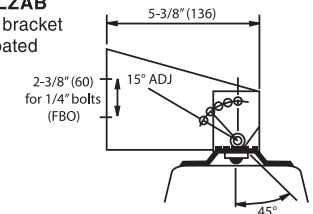
Wall Bracket Set

Part Number LZWB
Stainless Steel (natural finish)



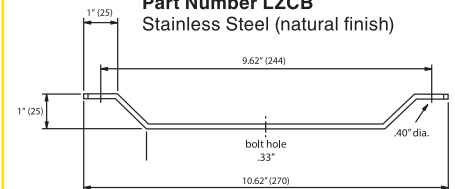
Adjustable Wall Bracket Set

Part Number LZAB
Stainless Steel bracket with ceramic coated pivot bolt



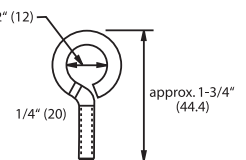
Ceiling Bracket Set

Part Number LZCB
Stainless Steel (natural finish)



Eyebolt Set

Part Number LZEB
Stainless Steel bolt with lockwasher & nut (natural finish)



Suspension Chains (2 required)

Part Number HFX-SC

36" length plated steel chain with snap link ends
For use with LZEB



HLLX SERIES

KILLARK

LED FIXTURES



LINEAR^{ITE}® *

* marca registrada MEXICO

FEATURES-SPECIFICATIONS

Applications

HLLX Series LED fixtures are designed for installations where moisture, dirt, dust, corrosion and vibration may be present, or Type 3 and 4X areas where wind, water and snow can be expected. They can also be used in locations made hazardous due to the presence of flammable or explosive gases, vapors and combustible ducts as defined by the NEC.

Typical applications include classified areas such as inside paint spray booths, paint manufacturing plants, ammunition facilities, oil and gas producing and refining plants, off-shore and dockside installations, tank farms, pipeline pumping stations and marine loading and fuel transfer terminals.

LED Features and Standards

- UL Listed and labeled for use inside paint spray booths and rooms
- Construction is strong lightweight corrosion resistant copper-free aluminum alloy, less than 4/10 of 1%
- Energy Savings – High efficiency LED chips
- All external hardware is corrosion resistant 316 stainless steel to provide maintenance free long life

Supplemental **20KA/10KV Surge Protection** is **standard** (for 120-277 VAC models) **10KA/10KV Surge Protection** (for 347-480 VAC)

- UL factory sealed construction (no external seals required). Saves installation time and cost
- Extruded aluminum reflectors are easily removable for cleaning. White baked enamel finish
- Optional 316 stainless steel wire guard for added protection
- Threaded O-Ring gasketed covers provide easy access to driver and wiring compartment
- Suitable for use in both indoor and outdoor wet locations
- Many Midpower LEDs blend light to simulate fluorescent tubes
- Crisp White Light for Excellent Color Rendering – Chromaticity 5000K (CCT); approx. 70 CRI

- Class I, Div. 1 & 2, Groups C,D
- Class I, Zones 1 & 2, Groups IIB, IIA
- Class II, Div. 1 & 2, Groups E,F,G
- Class III, Div. 1 & 2
- Type 3, 4X, 7(C,D) 9(E,F,G)
- Suitable for wet locations
- Suitable for paint spray booths

UL LISTED - File E12976 and E89665 (Marine)

SP Certified - File LR11713

- Energy Savings – High lumens per watt
- LED Array Life – 100,000+ hours with 70% initial lumens
- Long Fixture Life – 50,000 - 55,000 maintenance free hours
- Instant On – Including after power interruption
- World Voltage 120-277VAC 50/60Hz

Compliances

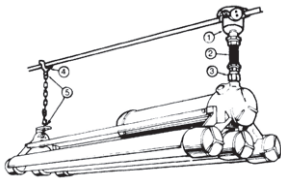
- UL-8750 for LED lighting
- UL-844, Electric Lighting Fixtures for use in Hazardous Locations
- UL Marine Type Electric Lighting Fixtures
- CSA C22.2 no. 137-M1981 Electric Luminaires for use in Hazardous Locations
- Type 3, 4X, 7(C,D), 9 (E,F,G)

Catalog Number Logic	HLLX	22	304	00	Options
Constant for HLLX Series	_____				Options
Lumen Outputs	_____				F – Single Fuse (1 pole) (Not to be used in Canada)
4 – 4000 lumens	11 – 11,000 lumens				FF – Two Fuses (2 pole) (Not to be used in Canada)
6 – 6000 lumens	15 – 15,000 lumens				LSP – Less Surge Protector
7 – 7000 lumens	22 – 22,000 lumens				Length
Voltage	_____				2 – 2 foot (Lumen outputs 4-11)
27 – 12-24VDC	33 – 347-480VAC 50/60 Hz				4 – 4 foot (Lumen outputs 15-22)
30 – 120-277V 50/60 Hz	34 – 120-250VDC				

ORDERING INFORMATION AND AMBIENT SUITABILITY						C1D1		C2D1		L70			
CATALOG NO.	WEIGHT LBS./KG	WATTS	VOLTAGE	AMPS	DELIVERED LUMENS	40°C	55°C	40°C	55°C	TM-21	CALCULATED		
HLLX4272	32.00 / 14.52	24	12-24VDC	2.0 - 4.0	3829	T6	T6	T4A	T4A	60300	199000		
HLLX4302			120-277VAC	0.2 - 0.09									
HLLX4342			108-250VDC	0.2 - 0.1									
HLLX6272		35	24	12-24VDC	2.91 - 5.83	5756	T6	T6	T4A	T4A	60300	19900	
HLLX6302				120-277VAC	0.29 - 0.67								
HLLX6342				108-250VDC	0.29 - 0.14								
HLLX7302			55	24	120-277VAC	0.44 - 1.02	7644	T6	T6	T4A	T4A	60300	199000
HLLX7342					108-250VDC	0.44 - 0.21							
HLLX11302					120-277VAC	0.71 - 1.64							
HLLX11342		108-250VDC	0.71 - 1.48										
HLLX15304	50.00 / 22.6	110	120-277VAC	0.92 - 0.40	15288	T6	T6	T4A	T4A	60300	199000		
HLLX15344			108-250VDC	1.02 - 0.44									
HLLX22304		170	120-277VAC	1.38 - 3.18	22540	T6	T6	T4A	T4A	60300	128000 @40C		
HLLX22344				108-250VDC								1.57 - 0.68	

LIGHTING

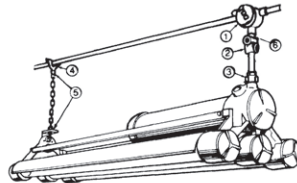
HLLX SERIES



Flexible mounting provides free swing and impact protection.

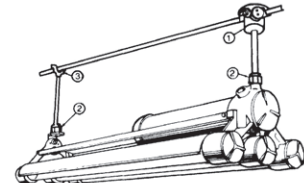
1. Splice Box/Fixture Hanger (HXB)
2. Flexible Pendant Hanger (EKJ)
3. Union (GUM)
4. Rigid Support Saddle Bracket (KFHS)
5. Support Hook (KEFHM)

Note: Chain furnished by others.



1. Splice Box/Fixture Hanger (XFH)
2. Swivel Hanger (KESD)
3. Union (GUM)
4. Rigid Support Saddle Bracket (KFHS)
5. Support Hook (KEFHM)
6. 3/4" Rigid Threaded Nipple

Note: Chain furnished by others.



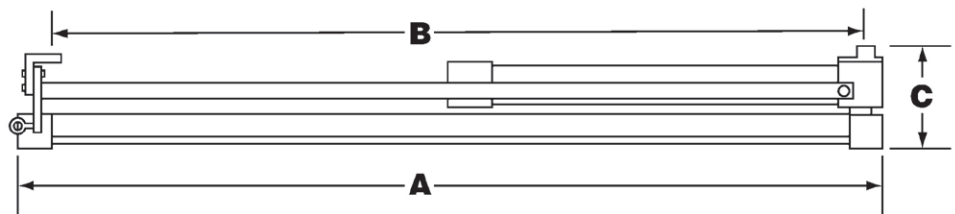
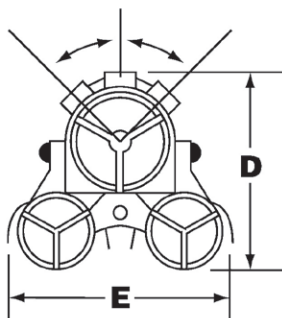
Rigid mounted

1. Splice Box/Fixture Hanger (HXB)
2. Union (GUM)
3. Rigid Support Saddle Bracket (KFHS)

For wall mounting, use securely fastened 3/4" pipe 6" or less in length. Floor flange (furnished by others) recommended for dummy end as well as chain or cable providing vertical strain relief from above fixture. Chain furnished by others.

MOUNTING HARDWARE			
CATALOG NUMBER	HUB SIZE	LENGTH	DESCRIPTION
HXB-12	1/2"	—	HXB SERIES Splice Box/ 3/4" Fixture Hanger
HXB-22	3/4"	—	
EKJ-24	3/4"	4	EKJ SERIES Flexible Pendant Hanger
EKJ-26	3/4"	6	
EKJ-28	3/4"	8	
EKJ-210	3/4"	10	
EKJ-212	3/4"	12	
EKJ-215	3/4"	15	
EKJ-218	3/4"	18	
GUM-2	3/4"		GU SERIES Male Union

MOUNTING HARDWARE		
CATALOG NUMBER	HUB SIZE	DESCRIPTION
XFH-22	3/4"	XFH SERIES Splice box/fixture hanger
KESD-75	3/4"	KESD SERIES Swivel Hanger 15° swivel drop from center and full 360° free swing
KFHS-5075	3/4"	KFHS SERIES Rigid support saddle bracket for fluorescent fixtures (dummy end) Will support 350 lbs. and straddle Max. 1-1/4" conduit
KEFHM-75	3/4"	KEFHM SERIES Safety support hook with 3/4" male end For dummy end of fixture Will support 200 lbs. screw closed 3/8" jaw opening
HFX-SC	—	HFX SERIES Safety chain (36" length plated steel), standard on 4-tube fixture



HLLX DIMENSIONS								
HLLX MODEL	CONDUIT SIZE	CONDUIT SIZE	DIMENSIONS					NET WEIGHT
			A	B	C	D	E	
Nominal 2'	2 Tubes	3/4-14 NPT	28-15/16" (735)	24-3/8" (619)	9-3/32" (231)	9-3/32" (231)	11" (279)	36.0 Lbs.
Nominal 4'	2 Tubes	3/4-14 NPT	52-13/16" (1367)	48-3/8" (1229)	9-3/32" (231)	9-3/32" (231)	11" (279)	47.7 Lbs.



LOWBAY & HIGHBAY LIGHTING



MBL



VM2L & VM4L



VM1L



EML



EZL



LIGHTING

COMPACT SIZE – INTRODUCTION & LOGIC



Luminaire w/Glass Refractor and Guard



Luminaire w/Flat Lens



Wall Mount w/VZRF8PR Pathway Reflector

Class I, Div. 2, Groups A,B,C,D
 Class I, Zone 2, Groups IIC,IIB,IIA
 Class II, Div. 1 & 2, Groups E,F,G
 Class III
 Suitable for wet locations
 Marine Rated (US only)
 Type 3, 4X

Certified - File LR11713

CERTILITE® LED

FEATURES-SPECIFICATIONS Applications

CERTILITE® MBL LED fixtures are designed for installations where moisture, dirt, dust, corrosion and vibration may be present, or Type 3 and 4X areas where wind, water, snow or high ambients can be expected. They can be used in locations made hazardous by the presence of flammable vapors or gases or combustible dusts as defined by the NEC/CEC.

Typical applications can low ceiling areas in manufacturing plants, and certain chemical and petrochemical processing facilities, sewage treatment plants, off-shore and dockside installations, garages and storage facilities.

Compliances

- UL-8750 for LED lighting; UL 1598A
- UL Marine type lighting fixtures
- UL-844 Standard for lighting fixtures for hazardous locations, Class I, Division 2; Class II, Divisions 1 and 2; Class III
- CSA C22.2 no. 137-M1981 electric luminaries for use in hazardous locations
- Enclosed and gasketed
- Type 3, 4X

Materials

- Housing, splice box and guards (MBAG, VMAG) corrosion resistant copper-free aluminum alloy
- Baked powder epoxy/polyester finish, electrostatically applied for complete, uniform corrosion protection
- All external hardware - stainless steel
- Reflectors - Polyester reinforced fiberglass

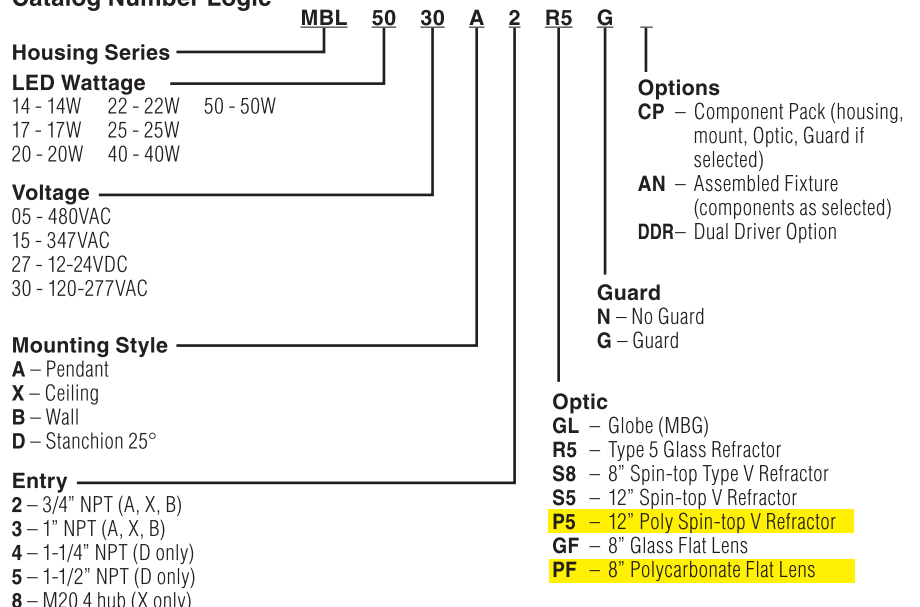
LED Luminaire Features and Standards

Supplemental **20KA/10KV Surge Protection** is **standard** (for 120-277 VAC models)
10KA/10KV Surge Protection (for 347-480 VAC)

- Compact in Size with Traditional Industrial Appearance and Suitability
- Wide variety of optics including globes, globes with reflectors, all-glass refractors, and spin-top refractors
- Optional Mounting arrangements including Pendant, Wall, Ceiling, and Stanchion
- MBL LED Housings can be retrofitted to existing MB splice boxes; upgrade from Fluorescent or HID

- Energy Savings – Less than 50 Watts of Power
- LED Array Life – 100,000+ hours with 70% initial lumens
- Long Fixture Life – 50,000 - 55,000 maintenance free hours
- Crisp White Light for Excellent Color Rendering - Chromaticity 5000°K (CCT); 70 CRI
- Ambient suitability -40°C to 40°C (to 55°C for 14W to 22W)
- Instant on – Including after power interruption
- “World Voltage” 120-277VAC 50/60Hz
- Solder-LESS LED Board Connections – Vibration Resistant

Catalog Number Logic





COMPACT SIZE – ORDERING INFORMATION



PENDANT

CEILING

WALL

STANCHION

ORDERING INFORMATION

MBL SERIES PENDANT WITH OPTIC AND GUARD							
WATTS	HUB SIZE	VOLTAGE	GLOBE & GUARD	8" SPIN-TOP POLYCARBONATE FLAT LENS	TYPE V GLASS REFRACTOR & GUARD	8" SPIN-TOP TYPE V REFRACTOR & GUARD	12" SPIN-TOP TYPE V REFRACTOR & GUARD
14	3/4"	120-277VAC	MBL1430A2GLG	MBL1430A2PFN	MBL1430A2R5G	MBL1430A2S8G	MBL1430A2S5G
17	3/4"	120-277VAC	MBL1730A2GLG	MBL1730A2PFN	MBL1730A2R5G	MBL1730A2S8G	MBL1730A2S5G
20	3/4"	120-277VAC	MBL2030A2GLG	MBL2030A2PFN	MBL2030A2R5G	MBL2030A2S8G	MBL2030A2S5G
22	3/4"	120-277VAC	MBL2230A2GLG	MBL2230A2PFN	MBL2230A2R5G	MBL2230A2S8G	MBL2230A2S5G
25	3/4"	120-277VAC	MBL2530A2GLG	MBL2530A2PFN	MBL2530A2R5G	MBL2530A2S8G	MBL2530A2S5G
40	3/4"	120-277VAC	MBL4030A2GLG	-	MBL4030A2R5G	MBL4030A2S8G	MBL4030A2S5G
50	3/4"	120-277VAC	MBL5030A2GLG	-	MBL5030A2R5G	MBL5030A2S8G	MBL5030A2S5G
MBL SERIES CEILING WITH OPTIC AND GUARD							
14	3/4"	120-277VAC	MBL1430X2GLG	MBL1430X2PFN	MBL1430X2R5G	MBL1430X2S8G	MBL1430X2S5G
17	3/4"	120-277VAC	MBL1730X2GLG	MBL1730X2PFN	MBL1730X2R5G	MBL1730X2S8G	MBL1730X2S5G
20	3/4"	120-277VAC	MBL2030X2GLG	MBL2030X2PFN	MBL2030X2R5G	MBL2030X2S8G	MBL2030X2S5G
22	3/4"	120-277VAC	MBL2230X2GLG	MBL2230X2PFN	MBL2230X2R5G	MBL2230X2S8G	MBL2230X2S5G
25	3/4"	120-277VAC	MBL2530X2GLG	MBL2530X2PFN	MBL2530X2R5G	MBL2530X2S8G	MBL2530X2S5G
40	3/4"	120-277VAC	MBL4030X2GLG	-	MBL4030X2R5G	MBL4030X2S8G	MBL4030X2S5G
50	3/4"	120-277VAC	MBL5030X2GLG	-	MBL5030X2R5G	MBL5030X2S8G	MBL5030X2S5G
MBL SERIES WALL WITH OPTIC AND GUARD							
14	3/4"	120-277VAC	MBL1430B2GLG	MBL1430B2PFN	MBL1430B2R5G	MBL1430B2S8G	MBL1430B2S5G
17	3/4"	120-277VAC	MBL1730B2GLG	MBL1730B2PFN	MBL1730B2R5G	MBL1730B2S8G	MBL1730B2S5G
20	3/4"	120-277VAC	MBL2030B2GLG	MBL2030B2PFN	MBL2030B2R5G	MBL2030B2S8G	MBL2030B2S5G
22	3/4"	120-277VAC	MBL2230B2GLG	MBL2230B2PFN	MBL2230B2R5G	MBL2230B2S8G	MBL2230B2S5G
25	3/4"	120-277VAC	MBL2530B2GLG	MBL2530B2PFN	MBL2530B2R5G	MBL2530B2S8G	MBL2530B2S5G
40	3/4"	120-277VAC	MBL4030B2GLG	-	MBL4030B2R5G	MBL4030B2S8G	MBL4030B2S5G
50	3/4"	120-277VAC	MBL5030B2GLG	-	MBL5030B2R5G	MBL5030B2S8G	MBL5030B2S5G
MBL SERIES 25° STANCHION WITH OPTIC AND GUARD							
14	1-1/4"	120-277VAC	MBL1430D4GLG	MBL1430D4PFN	MBL1430D4R5G	MBL1430D4S8G	MBL1430D4S5G
17	1-1/4"	120-277VAC	MBL1730D4GLG	MBL1730D4PFN	MBL1730D4R5G	MBL1730D4S8G	MBL1730D4S5G
20	1-1/4"	120-277VAC	MBL2030D4GLG	MBL2030D4PFN	MBL2030D4R5G	MBL2030D4S8G	MBL2030D4S5G
22	1-1/4"	120-277VAC	MBL2230D4GLG	MBL2230D4PFN	MBL2230D4R5G	MBL2230D4S8G	MBL2230D4S5G
25	1-1/4"	120-277VAC	MBL2530D4GLG	MBL2530D4PFN	MBL2530D4R5G	MBL2530D4S8G	MBL2530D4S5G
40	1-1/4"	120-277VAC	MBL4030D4GLG	-	MBL4030D4R5G	MBL4030D4S8G	MBL4030D4S5G
50	1-1/4"	120-277VAC	MBL5030D4GLG	-	MBL5030D4R5G	MBL5030D4S8G	MBL5030D4S5G

LIGHTING

MBL SERIES



COMPACT SIZE – COMPONENTS



Pendant

Ceiling

Wall

Stanchion

MB MOUNTING BRACKETS				
CATALOG NUMBER				HUB SIZE
PENDANT	CEILING	WALL	STANCHION	
MBA-2	MBX-2	MBB-2	—	3/4"
MBA-3	MBX-3	MBB-3	—	1"
—	MBX-8	—	—	M20
—	—	—	MBD-4	1-1/4"
—	—	—	MBD-5	1-1/2"



Non-Glass Polycarbonate 8" Flat Lens or Spin-top



Patented Design

MBL LED OPTICS AND ACCESSORIES		
DESCRIPTION	OPTIC LOGIC	GUARD
Globe (glass)	MBG (GL)	MBAG
Reflector (all glass) Type V	VMR175 (R5)	VMAG17
Reflector (spin top) 8" Type V	VZRG1550 (S8)	VMRWG8
Reflector (spin top) 12" Type V	VZRG2550 (S5)	VMRWGS
8" Spin-top flat lens (glass) 14-24W	VZRGF8 (GF)	VZRF8GRD
8" Spin-top flat lens (polycarbonate) 14-24W	VZRPF8 (PF)	VZRF8GRD
Reflector polycarbonate (spin -top) 12" Type V	VZRP175 (P5)	VMRWGS
Pathway Reflector 14-24W	VZRF8PR	NA
Reflector for MBG Globe - DOME	VMPD-17	NA
Reflector for MBG Globe - ANGLE	VMPA-17	NA
120VAC Photocell with FS Style Cover	VMFSPC1	NA
208-277VAC Photocell with FS Style Cover	VMFSPC2	NA
3-sided EXIT Accessory (use without guard)	VEXA100B	NA



COMPACT SIZE – RATINGS, SPECIAL AIMING ANGLES

ORDERING INFORMATION AND AMBIENT SUITABILITY					C1D2 OPTIC ONLY		ABCD W/ REFLECTOR		C2D1 OPTIC ONLY		EFG W/ REFLECTOR	
CATALOG NO.	WEIGHT LBS./KG	WATTS	VOLTAGE	AMPS	40°C	55°C	40°C	55°C	40°C	55°C	40°C	55°C
MBL1427	10.00 / 4.54	14	12-24VDC	1.17-0.58	T5	T4A	T4	T3B	T4A	T4A	T4A	T4A
MBL1430			120-277VAC	0.12-0.05								
MBL1434			120-250VDC	0.12-0.04								
MBL1727		17	12-24VDC	1.42-0.71	T5	T5	T5	T5	T4	T4	T4	T4
MBL1730			120-277VAC	0.14-0.06								
MBL1734			120-250VDC	0.14-0.06								
MBL2027		20	12-24VDC	1.67-0.83	T5	T5	T5	T5	T4	T4	T4	T4
MBL2030			120-277VAC	0.17-0.07								
MBL2034			120-250VDC	0.17-0.06								
MBL2227		22	12-24VDC	1.83-0.92	T4A	T4	T4A	T4	T4	T4	T4	T4
MBL2230			120-277VAC	0.18-0.08								
MBL2234			120-250VDC	0.18-0.07								
MBL2527		25	12-24VDC	2.08-1.04	T5	T5	T5	T5	T4	T4	T4	T4
MBL2530			120-277VAC	0.21-0.09								
MBL2534	120-250VDC		0.21-0.08									
MBL4027	15.5 / 7.03	40	12-24VDC	3.33-1.67	T5	-	T5	-	T4	-	T4	-
MBL4030			120-277VAC	0.33-0.14								
MBL5027		50	12-24VDC	4.17-2.08	T5	-	T5	-	T4	-	T4	-
MBL5030			120-277VAC	0.42-0.18								

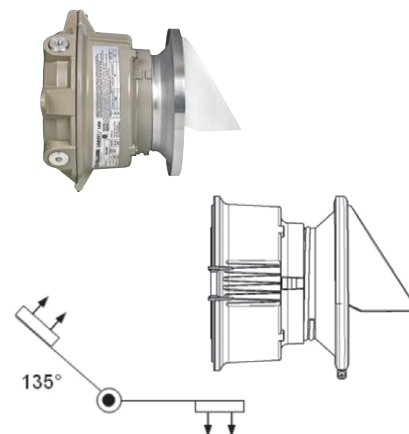
TYPICAL WEIGHTS (LBS.) W/STANDARD GLOBE AND GUARD - MBL SERIES

WATTAGE	WEIGHT (LBS.)	WEIGHT (LBS.)	WEIGHT (LBS.)	WEIGHT (LBS.)
14-25W	Pendant 14.96	Ceiling 15.96	Wall 19.30	Stanchion 16.83
40-50W	Pendant 20.96	Ceiling 21.69	Wall 25.30	Stanchion 22.83

DELIVERED LUMENS

WATTS	MBL + MBG	MBL + VMR	MBL + VZRXF8	L70	
				TM-21	CALCULATED
14	910	800	980	60100	270000
20	1785	1570	2009	60100	270000
22	1365	1201	1427	60100	270000
25	2485	2236	3186	72600	278000
40	3625	3821	-	60100	270000
50	5824	6139	-	72600	278000

Special Aiming Angles Wall Mount MBL with Pathway Reflector

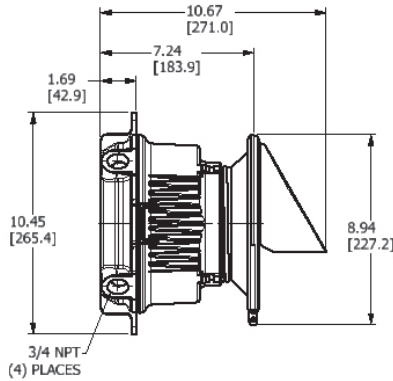


14W-25W MBL Housings with 8" Flat Spin-Top Lens may be aimed from 135° to 0° with or without the VZRF8PF Pathway Reflector. Pathway Reflector must NOT be aimed upwards in a Class II (Dust) environment, or where any contaminant may be collected. Applications include lighting dark spots around ceiling piping or pathways near handrails.

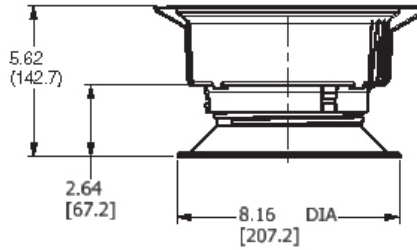


LIGHTING

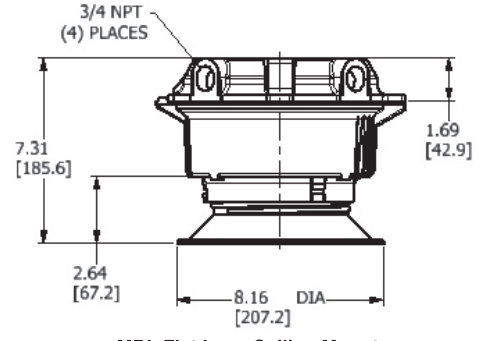
COMPACT SIZE – DIMENSIONS & WEIGHTS



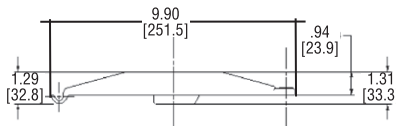
MBL Flat Lens, Pathway Reflector Wall Mount



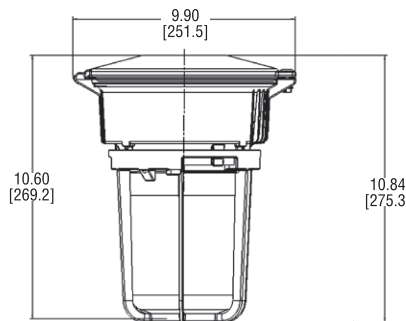
MBL Tank with Flat Lens



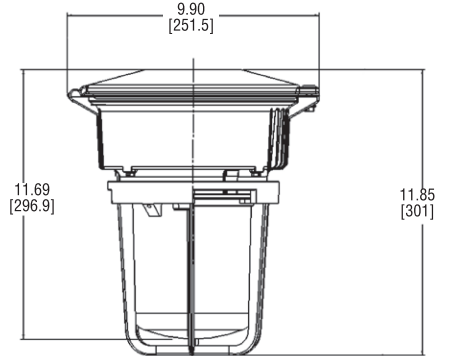
MBL Flat Lens Ceiling Mount



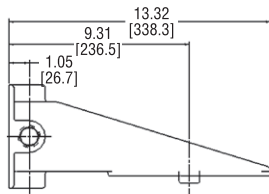
MBA Pendant



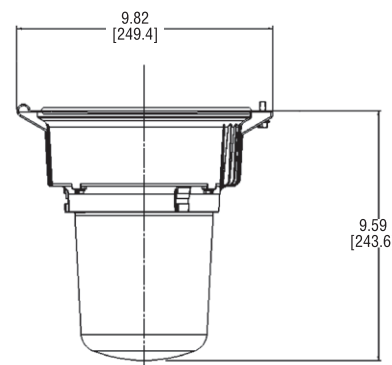
MBL Pendant, Globe, Guard



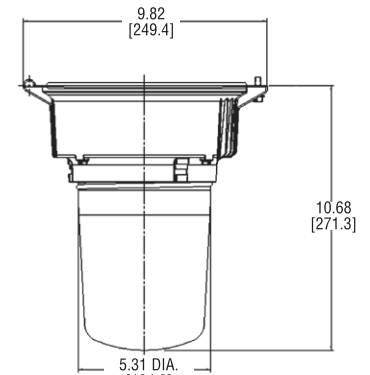
MBL Pendant, Refractor, Guard



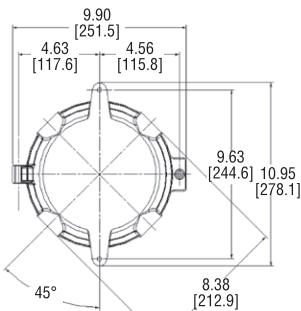
MBB Wall Mount



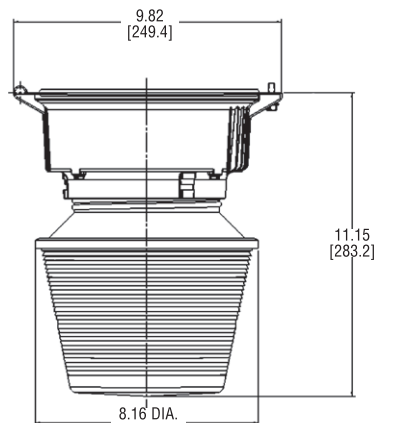
MBL & MBG Globe Only



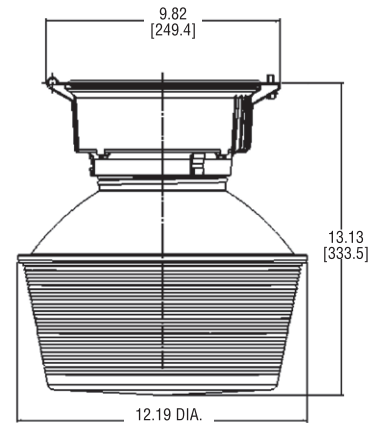
MBL & VMR Refractor



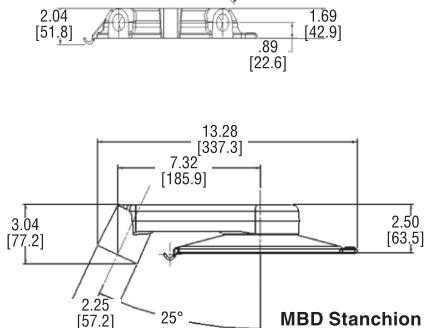
MBX Ceiling



MBL & 8" Type V Spin-top



MBL & 12" Type V Spin-top



MBD Stanchion



REDUCED PROFILE – INTRODUCTION



Class I, Div. 2, Groups A,B,C,D
 Class I, Zone 2, Groups IIC, IIB, IIA
 Class II, Div. 1 & 2, Groups E,F,G
 Class III
 Suitable for wet locations
 Marine Rated (US only)
 Type 3, 4X

Certified - File LR11713

CERTILite[®]V LED

FEATURES-SPECIFICATIONS

Applications

CertiLite[®]V VM1L LED fixtures are designed for installations where moisture, dirt, dust, corrosion and vibration may be present, or Type 3 and 4X areas where wind, water, snow, or high ambients can be expected. They can be used in locations made hazardous by the presence of flammable vapors or gases or combustible dusts as defined by the NEC.

Typical applications include manufacturing plants, and certain chemical and petrochemical processing facilities, sewage treatment plants, off-shore and dockside installations, garages and storage facilities.

Compliances

- UL-8750 for LED lighting
- UL-844 Standard for lighting fixtures for hazardous locations, Class I, Division 2; Class II, Divisions 1 and 2; Class III
- CSA C22.2 no. 137-M1981 electric luminaries for use in hazardous locations
- Enclosed and gasketed
- Type 3, 4X

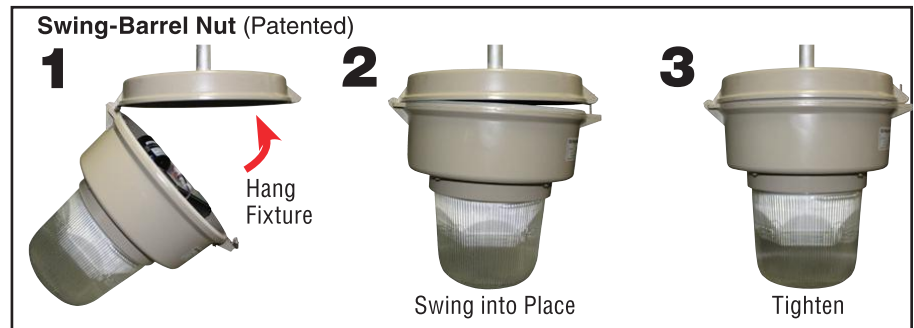
Materials

- Housing, splice box and cast guards corrosion resistant copper-free aluminum alloy
- Baked powder epoxy/polyester finish, electrostatically applied for complete, uniform corrosion protection
- All external hardware - stainless steel
- Reflectors - Polyester reinforced fiberglass

LED Luminaire Features and Standards

Supplemental **20KA/10KV Surge Protection** is **standard** (for 120-277 VAC models)
10KA/10KV Surge Protection (for 347-480 VAC)

- Reduced profile with Traditional Industrial Appearance and Suitability
- Wide variety of optics including globes, globes with reflectors, all-glass refractors, and spin-top refractors
- Swing-Barrel Nut patented tank mounting system
- Optional Mounting arrangements including Pendant, Wall, Ceiling, Stanchion and others
- VM1L LED Housings can be retrofitted to existing VM splice boxes; upgrade from HID sources
- Energy Savings – less than 55 Watts of Power
- LED Array Life – 100,000+ hours with 70% initial lumens
- Long Fixture Life – 50,000 - 55,000 maintenance free hours
- Crisp White Light for Excellent Color Rendering – Chromaticity 5000°K (CCT); 70 CRI
- Ambient suitability -40°C to 55°C
- Instant on – including after power interruption
- “World Voltage” 120-277VAC 50/60Hz
- Solder-LESS LED Board Connections – Vibration Resistant
- Dual Driver Option (DDR) – For additional energy savings, half of the fixture can be turned off



Polycarbonate 12"
Spin-top
Refractor VZRG2550



Photo controls – Class I Div. 2 / N4X areas

Available as Field or Factory Installed to save energy when light not required.



Earthquake Tab –

Built-in attachment point for safety cables.

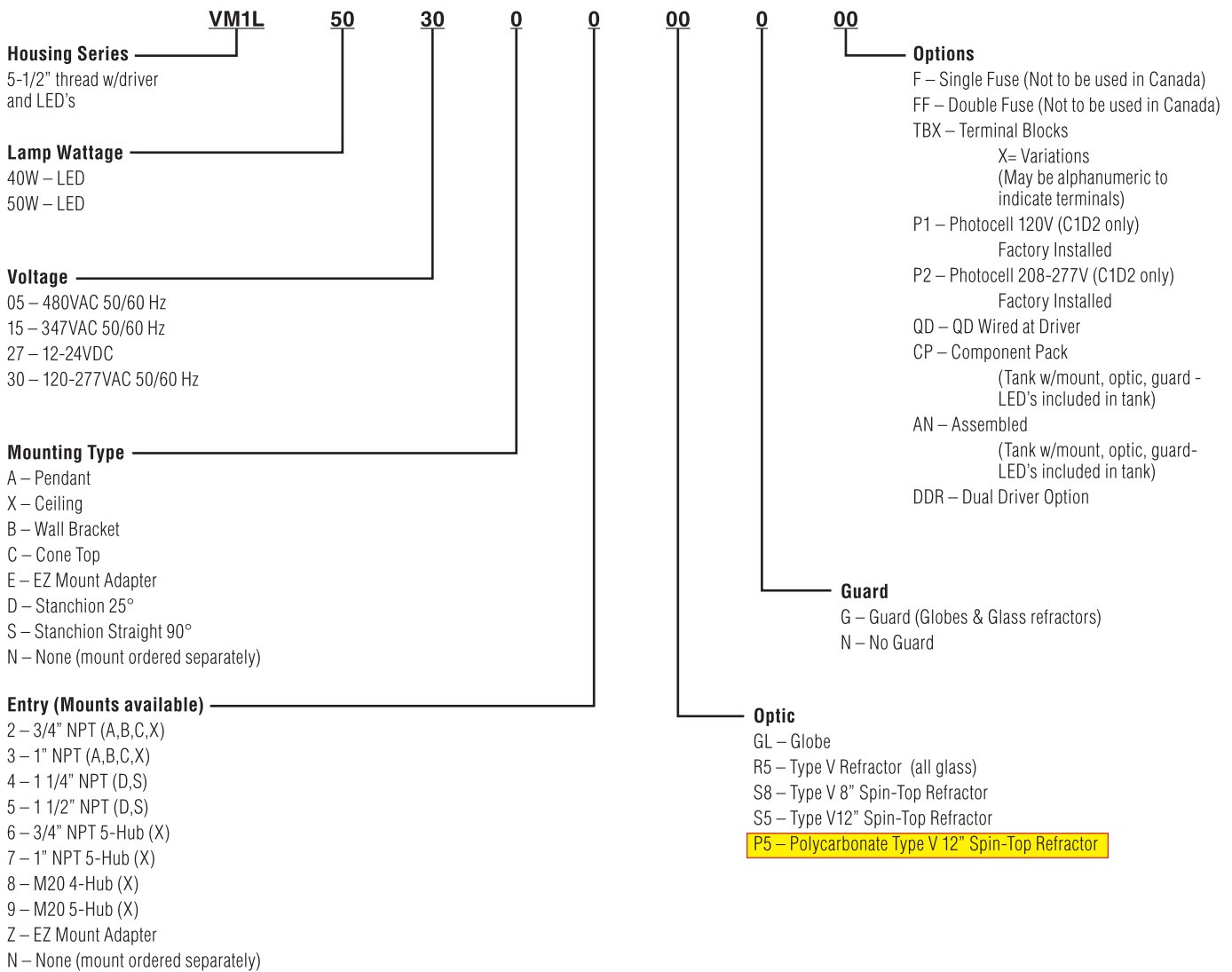
Safety: Secures fixture to structure in case of conduit failure.



REDUCED PROFILE – CATALOG LOGIC

CERTILITE[®]V LED

CertiLite[®]V LED Catalog Number Logic





VM1L SERIES

KILLARK

REDUCED PROFILE – ORDERING INFORMATION



PENDANT

CEILING

WALL

CONE

ORDERING INFORMATION

VM1L SERIES PENDANT WITH OPTIC AND GUARD

WATTS	HUB SIZE	VOLTAGE	GLOBE & GUARD	TYPE V GLASS REFRACTOR & GUARD	8" SPIN-TOP TYPE V REFRACTOR & GUARD	12" SPIN-TOP TYPE V REFRACTOR & GUARD
40	3/4"	120-277VAC	VM1L4030A2GLG	VM1L4030A2R5G	VM1L4030A2S8G	VM1L4030A2S5G
50	3/4"	120-277VAC	VM1L5030A2GLG	VM1L5030A2R5G	VM1L5030A2S8G	VM1L5030A2S5G

VM1L SERIES CEILING WITH OPTIC AND GUARD

WATTS	HUB SIZE	VOLTAGE	GLOBE & GUARD	TYPE V GLASS REFRACTOR & GUARD	8" SPIN-TOP TYPE V REFRACTOR & GUARD	12" SPIN-TOP TYPE V REFRACTOR & GUARD
40	3/4"	120-277VAC	VM1L4030X2GLG	VM1L4030X2R5G	VM1L4030X2S8G	VM1L4030X2S5G
50	3/4"	120-277VAC	VM1L5030X2GLG	VM1L5030X2R5G	VM1L5030X2S8G	VM1L5030X2S5G

VM1L SERIES WALL WITH OPTIC AND GUARD

WATTS	HUB SIZE	VOLTAGE	GLOBE & GUARD	TYPE V GLASS REFRACTOR & GUARD	8" SPIN-TOP TYPE V REFRACTOR & GUARD	12" SPIN-TOP TYPE V REFRACTOR & GUARD
40	3/4"	120-277VAC	VM1L4030B2GLG	VM1L4030B2R5G	VM1L4030B2S8G	VM1L4030B2S5G
50	3/4"	120-277VAC	VM1L5030B2GLG	VM1L5030B2R5G	VM1L5030B2S8G	VM1L5030B2S5G

VM1L SERIES CONE WITH OPTIC AND GUARD

WATTS	HUB SIZE	VOLTAGE	GLOBE & GUARD	TYPE V GLASS REFRACTOR & GUARD	8" SPIN-TOP TYPE V REFRACTOR & GUARD	12" SPIN-TOP TYPE V REFRACTOR & GUARD
40	3/4"	120-277VAC	VM1L4030C2GLG	VM1L4030C2R5G	VM1L4030C2S8G	VM1L4030C2S5G
50	3/4"	120-277VAC	VM1L5030C2GLG	VM1L5030C2R5G	VM1L5030C2S8G	VM1L5030C2S5G

LIGHTING

VM1L SERIES



REDUCED PROFILE – ORDERING INFORMATION



STANCHION 25°



STANCHION STRAIGHT



EZ ADAPTER

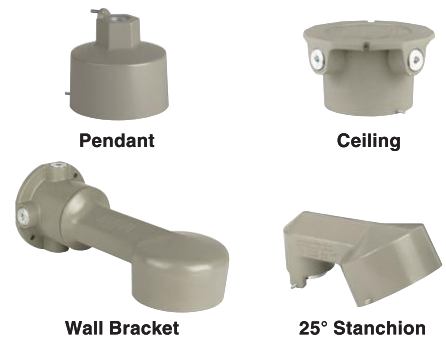
ORDERING INFORMATION

VM1L SERIES 25° STANCHION WITH OPTIC AND GUARD						
WATTS	HUB SIZE	VOLTAGE	GLOBE & GUARD	TYPE V GLASS REFRACTOR & GUARD	8" SPIN-TOP TYPE V REFRACTOR & GUARD	12" SPIN-TOP TYPE V REFRACTOR & GUARD
40	1-1/2"	120-277VAC	VM1L4030D5GLG	VM1L4030D5R5G	VM1L4030D5S8G	VM1L4030D5S5G
50	1-1/2"	120-277VAC	VM1L5030D5GLG	VM1L5030D5R5G	VM1L5030D5S8G	VM1L5030D5S5G

VM1L SERIES STRAIGHT STANCHION WITH OPTIC AND GUARD						
WATTS	HUB SIZE	VOLTAGE	GLOBE & GUARD	TYPE V GLASS REFRACTOR & GUARD	8" SPIN-TOP TYPE V REFRACTOR & GUARD	12" SPIN-TOP TYPE V REFRACTOR & GUARD
40	1-1/2"	120-277VAC	VM1L4030S5GLG	VM1L4030S5R5G	VM1L4030S5S8G	VM1L4030S5S5G
50	1-1/2"	120-277VAC	VM1L5030S5GLG	VM1L5030S5R5G	VM1L5030S5S8G	VM1L5030S5S5G

VM1L SERIES EZ ADAPTER WITH OPTIC AND GUARD						
WATTS	HUB SIZE	VOLTAGE	GLOBE & GUARD	TYPE V GLASS REFRACTOR & GUARD	8" SPIN-TOP TYPE V REFRACTOR & GUARD	12" SPIN-TOP TYPE V REFRACTOR & GUARD
40	NA	120-277VAC	VM1L4030EZGLG	VM1L4030EZR5G	VM1L4030Ezs8G	VM1L4030Ezs5G
50	NA	120-277VAC	VM1L5030EZGLG	VM1L5030EZR5G	VM1L5030Ezs8G	VM1L5030Ezs5G

MOUNTING BOXES FOR EZ ADAPTER				
CATALOG NUMBER				HUB SIZE
PENDANT	CEILING	BRACKET	STANCHION	
EZA2	EZX2	EZB2	—	3/4"
EZA3	EZX3	EZB3	—	1"
—	—	—	EZD4A	1-1/4"/1-1/2"

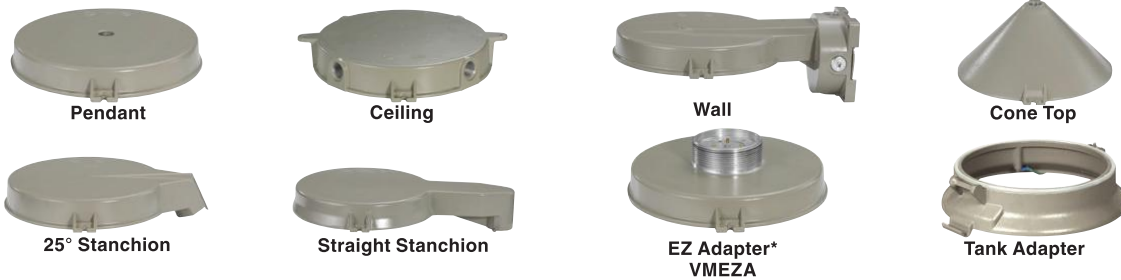




VM1L SERIES

KILLARK

REDUCED PROFILE – COMPONENTS



CERTILITE® VM MOUNTING SPLICE BOXES							
HUB SIZE	CATALOG NUMBER						
	PENDANT	CEILING 4 HUB	CEILING 5 HUB	WALL	CONE TOP	25 DEGREE STANCHION	90 DEGREE STANCHION
3/4"	VMA2B	VMX2B	VMX6B	VMB2B	VMC2B	—	—
1"	VMA3B	VMX3B	VMX7B	VMB3B	VMC3B	—	—
1-1/4"	—	—	—	—	—	VMD4B	VMS4B
1-1/2"	—	—	—	—	—	VMD5B	VMS5B
M-20	—	VMX8B**	VMX9B**	VMB8B**	—	—	—

* VMEZA is used between a driver tank and an EZ mount-ordered separately.

** Furnished with non-metallic plugs. Also available: VMB10B wall 4xM25 hubs, and VMB810B 2xM20 side hubs and 2xM25 top/bottom

VM1L LED OPTICS AND ACCESSORIES		
DESCRIPTION	OPTIC LOGIC	GUARD
Globe (glass)	VMG17 (GL)	VMAG17
Refractor (all glass) Type V	VMR175 (R5)	VMAG17
Refractor (spin top) 8" Type V	VZRG1550 (S8)	VMRWG8
Refractor (spin top) 12" Type V	VZRG2550 (S5)	VMRWGS
Refractor polycarbonate (spin-top) 12" Type V	VZRP175 (P5)	VMRWGS
DOME REFLECTOR (Polyester reinforced fiberglass)	VMPSD40	NA
ANGLE REFLECTOR (Polyester reinforced fiberglass)	VMPA40	NA
120VAC Photocell with FS Style Cover	VMFSPC1	NA
208-277VAC Photocell with FS Style Cover	VMFSPC2	NA
3-sided EXIT Accessory (use without guard)	VEXA100B	NA
Tank adapter to Crouse-Hinds® VM Series mounts*	VMCHVM	NA

ORDERING INFORMATION AND AMBIENT SUITABILITY							C1D2		C2D1		L70	
CATALOG NO.	WEIGHT LBS./KG	WATTS	VOLTAGE	AMPS	VMG15 LUMENS	VMR175 LUMENS	40°C	55°C	40°C	55°C	TM-21	CALCULATED
VM1L4005	15.50 / 7.03	40	480 VAC	0.09	5267	5060	T6	T5	T4 (EFG)	60100	270,000	
VM1L4015			347 VAC	0.13								
VM1L4027			12-24VDC	3.33-1.67								
VM1L4030			120-277VAC	0.36-0.16								
VM1L5005	15.50 / 7.03	50	480 VAC	0.10	6162	6427	T5	T4A	T4 (EFG)	72600	278,000	
VM1L5015			347 VAC	0.14								
VM1L5027			12-24VDC	4.17-2.08								
VM1L5030			120-277VAC	0.43-0.18								

OPTICS



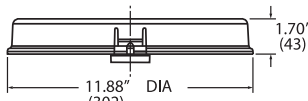
ACCESSORIES



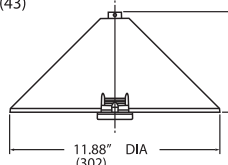
TYPICAL WEIGHTS (LBS.) W/ STANDARD GLOBE AND GUARD - VM1L SERIES			
Pendant 23.00	Ceiling 24.10	Wall 27.50	Stanchion 23.90



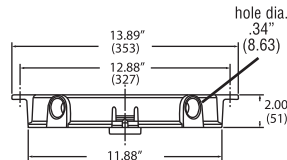
REDUCED PROFILE – DIMENSIONS & WEIGHTS



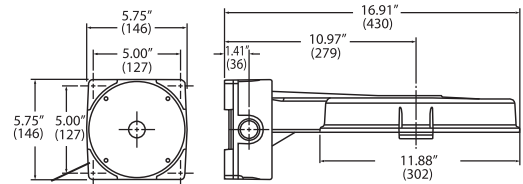
Pendant Mount



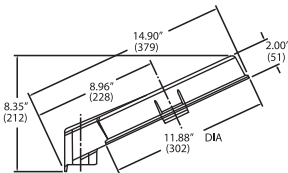
Cone Mount



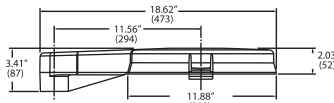
Ceiling Mount



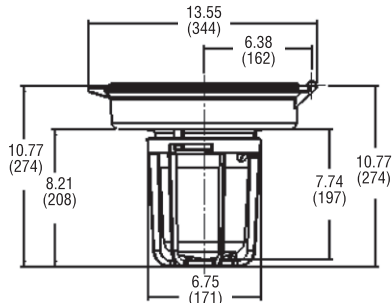
Wall Bracket Mount



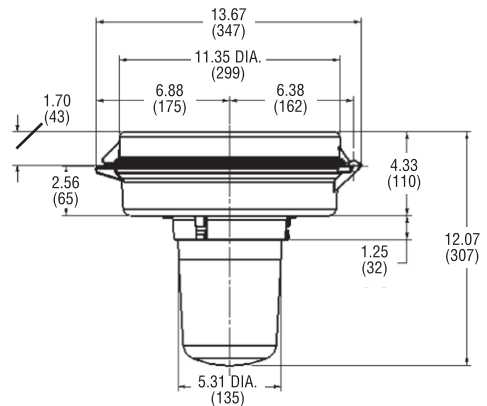
Stanchion (25°) Mount



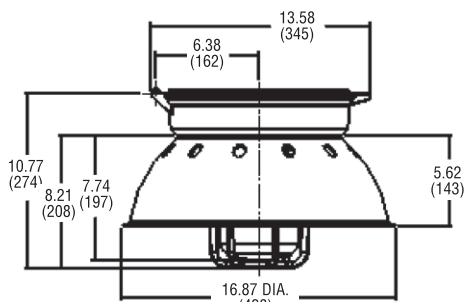
Stanchion (0°) Mount



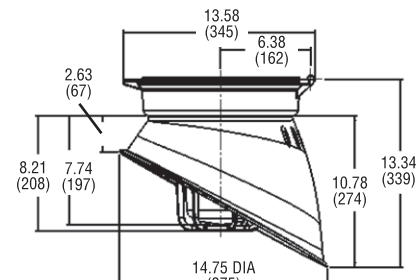
VM1L Tank Globe & Guard



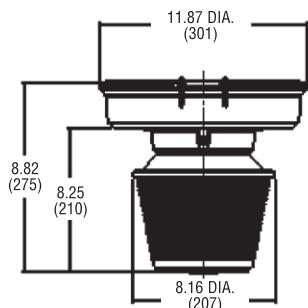
VM1L Tank w/Pendant Mount & Globe



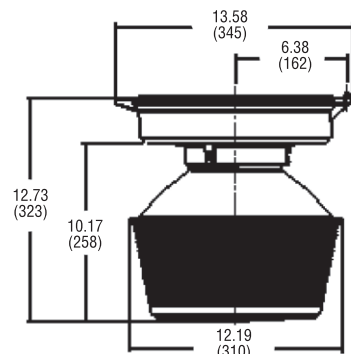
VM1L Tank with Dome Refractor



VM1L Tank with Angle Refractor



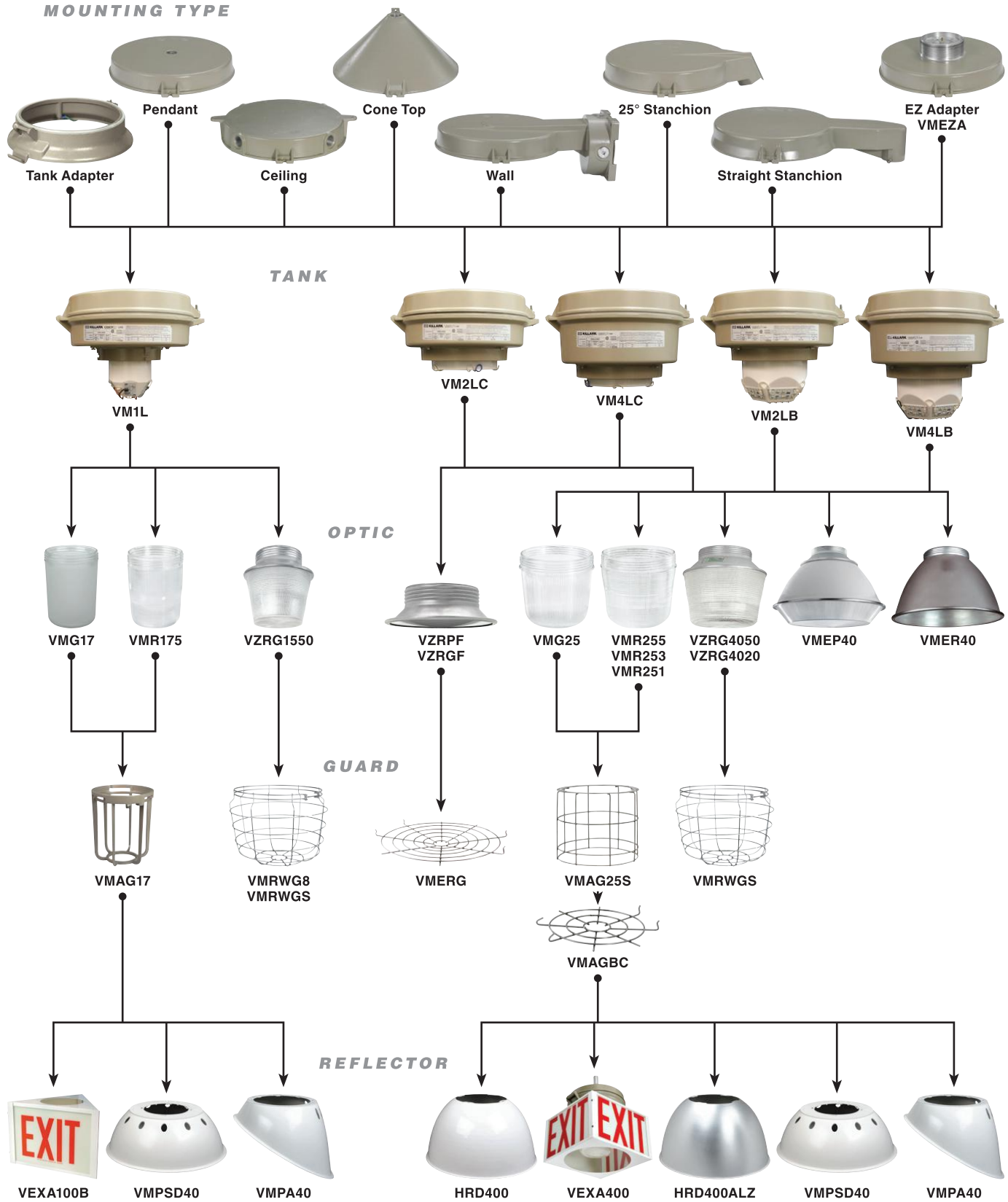
VM1L Tank with 8" Spin-top Refractor



VM1L Tank with 12" Spin-top Refractor



HOUSING FIXTURE ASSEMBLY GUIDE



LIGHTING

VM2&4LB, VM2&4LC SERIES



HIGH WATTAGE – INTRODUCTION



VM2LB with Globe/
Guard



VM4LB with Globe/
Guard



VM4LC with Flat Lens



Class I, Div. 2, Groups A,B,C,D
Class I, Zone 2, Groups IIC, IIB, IIA
Class II, Div. 1 & 2, Groups E,F,G
Class III
 Suitable for wet locations
 Type 3, 4X
 IP66
 Marine Rated (US only)

Certified - File LR11713

IECEX Rated Models (VM4L with IEx suffix)
 Ex nA IIC T4, Gc / Ex tb IIIC T83°C Db
 Tamp -40°C ≤Ta≤+65°C, IP66

IECEX Certificate
 QPS 15.0006

INMETRO Certificate
 IEx 16.0137

ATEX Certificate
CML 15ATEX4101X(nA)
&
CML 15ATEX3102X(tb)

Contact Factory for other certification details



Consult website
 for current list of
 approved luminaires

CERTILITE[®] V LED

FEATURES-SPECIFICATIONS

Applications

CERTILITE[®] V VM4L LED fixtures are designed for installations where moisture, dirt, dust, corrosion and vibration may be present, or Type 3 and 4X areas where wind, water, snow or high ambients can be expected. They can be used in locations made hazardous by the presence of flammable vapors or gases or combustible dusts as defined by the NEC/CEC/IECEX/ATEX & INMETRO.

Typical applications include manufacturing plants, food processing, certain chemical and petrochemical processing facilities, sewage treatment plants, off-shore and dockside installations, garages and storage facilities.

Compliances

- UL-8750 for LED lighting
- UL-844 Standard for lighting fixtures for hazardous locations, Class I, Division 2; Class II, Divisions 1 and 2; Class III
- CSA C22.2 no. 137-M1981 electric luminaires for use in hazardous locations
- Enclosed and gasketed
- Type 3, 4X
- IP66 & Marine
- Self-testing per NFPA 101® Life Safety Code

Materials

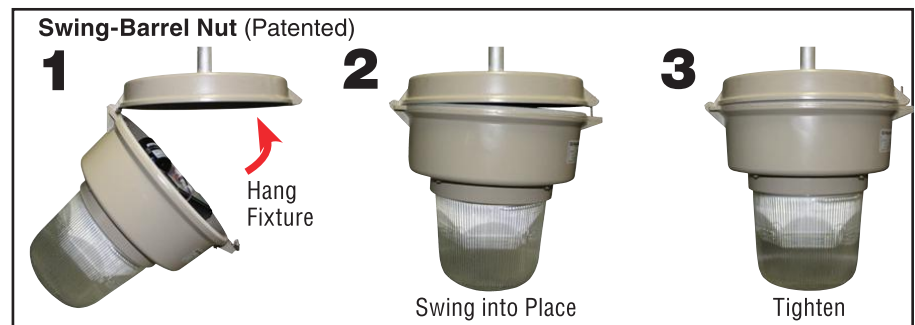
- Housing, splice box and cast guards corrosion resistant copper-free aluminum alloy
- Baked powder epoxy/polyester finish, electrostatically applied for complete, uniform corrosion protection
- All external hardware – stainless steel
- Reflectors – Polyester reinforced fiber glass or aluminum

LED Luminaire Features and Standards

Supplemental **20KA/10KV Surge Protection** is **standard** (for 120-277 VAC models)
10KA/10KV Surge Protection (for 347-480 VAC)

- Traditional Industrial Appearance, Suitability, and Photometric Performance
- Wide variety of optics including globes, globes with reflectors, all-glass refractors, spin-top refractors and flat lens
- Swing-Barrel Nut patented tank mounting system
- Optional Mounting arrangements including Pendant, Wall, Ceiling, Stanchion and others
- VM4L LED Housings can be retrofitted to existing VM splice boxes; upgrade from HID sources
- **VM2Lx housing is 1.56" shallower for low ceilings**
- Crisp White Light for Excellent Color Rendering – Chromaticity 5000 K (CCT range); approx. 70 CRI
- Energy Savings – less than 130 Watts of Power
- LED Array Life – 100,000+ hours with 70% initial lumens
- Long Fixture Life – 50,000 - 55,000 maintenance free hours
- Ambient suitability -40°C to 65°C (see tables). **-20°C to 50°C Ambient suitability for Emergency models.**

- Instant On – Including after power interruption
- World Voltage 120 – 277VAC 50/60Hz
- Solder-LESS LED Board Connections – Vibration Resistant
- Dual Driver Option (DDR) – For additional energy savings, half of the fixture can be turned off.
- Two LED internal heat sink styles
 - » Bulb VM2LB/VM4LB
 - » Concave VM2LC/VM4LC





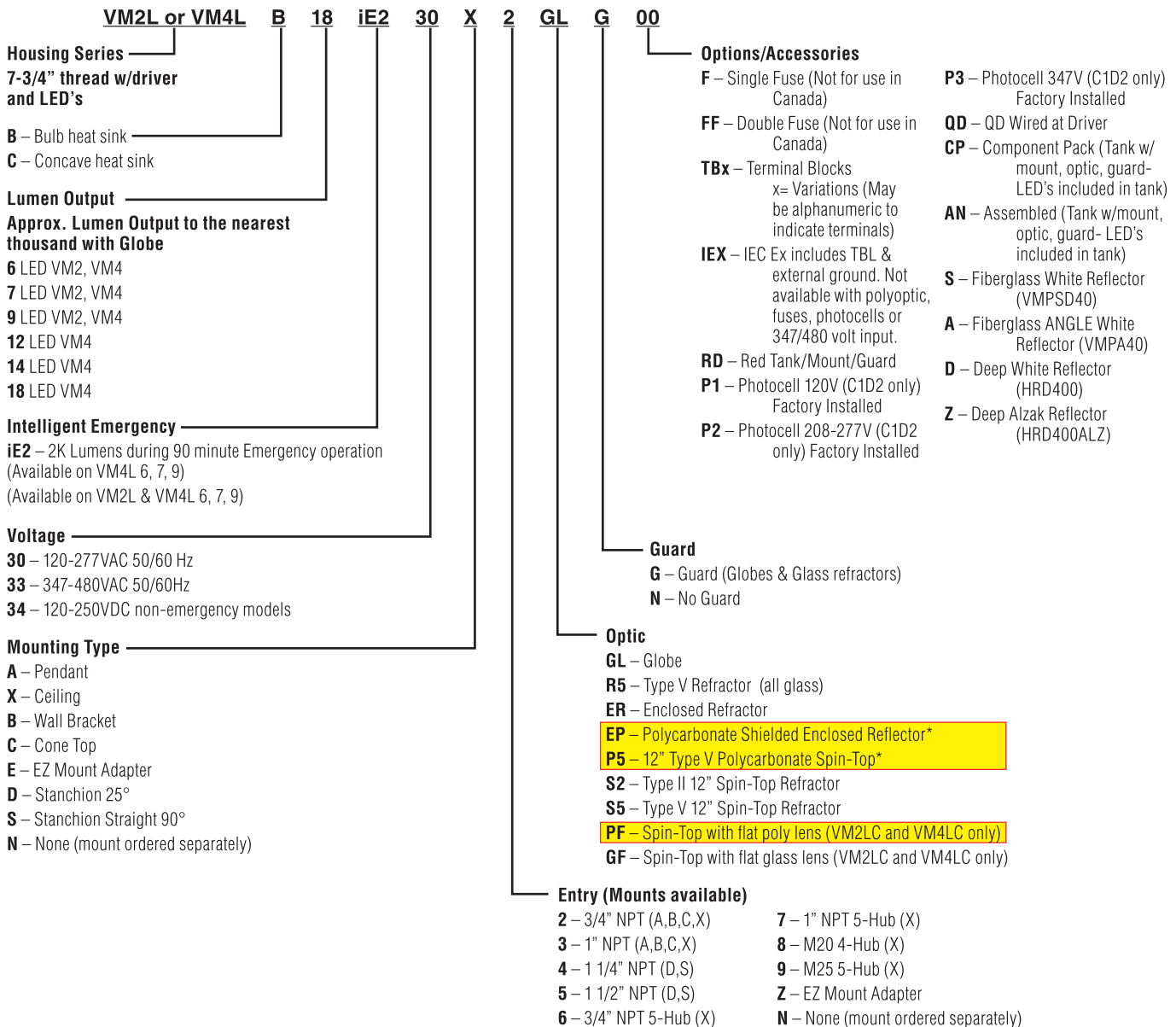
HIGH WATTAGE – CATALOG LOGIC

CERTILITE[®]V LED

Killark high efficiency LED Luminaries require NO external heat sink which adds weight and collects dust and other contaminants



CertiLite[®]V LED Catalog Number Logic



*Non-glass Group G Food Processing Suitability

LIGHTING

VM2&4LB, VM2&4LC SERIES



HIGH WATTAGE – OPTICS AND ACCESSORIES

CATALOG NUMBER	DELIVERED LUMENS								
	VMG25 GL	VMR255 R5	VMER40 ER	VMEP40 EP	VZRP175B P5	VZRG4020 S2	VZRG4050 S5	VZRP12 PF	VZRG12 GF
VM4LB6(XX)(YY)N	6278	5915	4575	4336	4692	4771	4879		
VM4LC6(XX)(YY)N	6223	5127	4645	4041	4880	4989	4914	5570	5644
VM4LB7(XX)(YY)N	7437	6996	5589	5210	5846	5968	5973		
VM4LC7(XX)(YY)N	7344	6026	5491	4776	5757	5892	5830	6563	6679
VM4LB9(XX)(YY)N	9692	9084	7465	6933	7928	8090	8078		
VM4LC9(XX)(YY)N	9453	7746	6973	6093	7420	7671	7482	8492	8647
VM4LB12(XX)(YY)N	12750	12020	9804	9168	10410	10550	9168		
VM4LC12(XX)(YY)N	12300	10380	9470	8165	9969	10190	10030	11370	11570
VM4LB14(XX)(YY)N	14760	13810	11240	10430	11890	12110	12010		
VM4LC14(XX)(YY)N	14120	11980	10910	9417	11460	11810	11520	13080	13300
VM4LB18(XX)(YY)N	17710	16700	14080	13050	14910	15050	15140		
VM4LC18(XX)(YY)N	17820	14530	13380	11480	13970	14390	14190	15940	16270

(XX) = VOLTAGE
(YY) = MOUNT



VMG25



VMR255



VMER40



VMEP40



VZRP175B



VZRG4020



VZRG4050



VZRP12/VZRG12

TYPICAL WEIGHTS (LBS./KG) W/STANDARD GLOBE AND GUARD - VM4LB/C SERIES			
Pendant 33.4/15.2	Ceiling 33.0/15.0	Wall 37.9/17.2	Stanchion 34.3/15.6

ORDERING INFORMATION AND AMBIENT SUITABILITY					C1D2			C2D1		
CATALOG NO. ②	TYPICAL TANK ONLY WEIGHT LBS./KG	WATTS	VOLTAGE	AMPS ①	40°C	55°C	65°C	40°C	55°C	65°C
VM4L(Y)630	18.90 / 8.57	40	120-277 VAC	0.35-0.16	T4A	T4A	T4	EFG		
VM4L(Y)633		40	347-480VAC	0.12-0.09						
VM4L(Y)634		40	120-250VDC	0.33-0.16						
VM4L(Y)730		50	120-277 VAC	0.43-0.21	T4A	T4A	T4	EFG		
VM4L(Y)733		50	347-480VAC	0.15-0.12						
VM4L(Y)734		50	120-250VDC	0.42-0.20						
VM4L(Y)930		65	120-277 VAC	0.56-0.24	T4A	T4A	T4	EFG		
VM4L(Y)933		65	347-480VAC	0.19-0.14						
VM4L(Y)934		65	120-250VDC	0.54-0.26						
VM4L(Y)1230		90	120-277 VAC	0.77-0.33	T4A	T4	-	EFG	-	
VM4L(Y)1233		90	347-480VAC	0.27-0.19						
VM4L(Y)1234		90	120-250VDC	0.75-0.36	T4A	T4	-	EFG	-	
VM4L(Y)1430		105	120-277 VAC	0.89-0.39						
VM4L(Y)1433		105	347-480VAC	0.31-0.23	T4A	T4	-	EFG	-	
VM4L(Y)14834		105	120-250VDC	0.88-0.42						
VM4L(Y)1830		130	120-277 VAC	1.10-0.46	T4A	T4	-	EFG	-	
VM4L(Y)1833		130	347-480 VAC	0.38-0.27						

ORDERING INFORMATION AND AMBIENT SUITABILITY					C1D2			C2D1		
CATALOG NO. ②	TYPICAL TANK ONLY WEIGHT LBS./KG	WATTS	VOLTAGE	AMPS ①	40°C	55°C	65°C	40°C	55°C	65°C
VM2L(Y)630	17.65 / 8.00	40	120-277 VAC	0.35-0.16	T4A	T4A	T4	EFG		
VM2L(Y)633		40	347-480VAC	0.12-0.09						
VM2L(Y)634		40	120-250VDC	0.33-0.16						
VM2L(Y)730		50	120-277 VAC	0.43-0.21	T4A	T4A	T4	EFG		
VM2L(Y)733		50	347-480VAC	0.15-0.12						
VM2L(Y)734		50	120-250VDC	0.42-0.20						
VM2L(Y)930		65	120-277 VAC	0.56-0.24	T4A	T4A	T4	EFG		
VM2L(Y)933		65	347-480VAC	0.19-0.14						
VM2L(Y)934		65	120-250VDC	0.54-0.26						

① For a given wattage current values are the same, regardless of tank type VM2LB/C or VM4LB/C.
② Replace (Y) with heat sink style B or C.



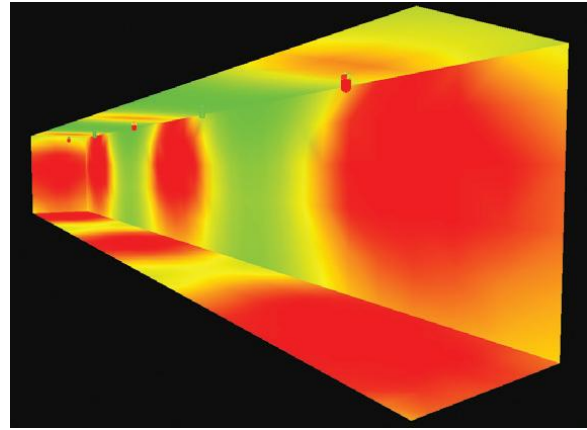
HIGH WATTAGE SELF-TESTING EMERGENCY

Electronics Includes:

- Self-diagnostics monitors LED status, LED driver circuit, battery capacity and charger function and displays any fault detection by means of a flashing code
- Self-Test feature automatically runs a 1 minute test once a month and an alternating 30-60 minute test once every 6 months. LED indicator provides visible fault detection and charging status
- User initiated 1, or 90-minute system test feature
- 15 minute re-transfer delay
- Automatic unit transfer in brown-out conditions (below 80% of nominal AC input voltage)

INDICATOR STATUS SIGNAL	DESCRIPTION OF STATUS SIGNAL
0.5s ON and 0.5s OFF	Battery disconnected.
2.5s ON and 2.5s OFF	LED load disconnected.
4.5s ON and 0.5s OFF	Driver in self-diagnostic mode.
1.5s ON and 3.5s OFF	Battery needs to be replaced.
0.5s ON and 4.5s OFF	Damaged driver. Replace
ON	Normal/Charging.
OFF (LED Load ON)	Discharging / Emergency Operation

LED Emergency Lighting Design



HIGH WATTAGE – COMPONENTS



CERTILITE® VM MOUNTING SPLICE BOXES							
CATALOG NUMBER							
HUB SIZE	PENDANT	CEILING 4 HUB	CEILING 5 HUB	WALL	CONE TOP	25 DEGREE STANCHION	STRAIGHT STANCHION
3/4"	VMA2B	VMX2B	VMX6B	VMB2B	VMC2B	—	—
1"	VMA3B	VMX3B	VMX7B	VMB3B	VMC3B	—	—
1-1/4"	—	—	—	—	—	VMD4B	VMS4B
1-1/2"	—	—	—	—	—	VMD5B	VMS5B
M-20	—	VMX8B	VMX9B	VMB8B	—	—	—
M-25	—	—	—	VMB10B	—	—	—

LIGHTING

VM2&4LB, VM2&4LC SERIES



HIGH WATTAGE – COMPONENTS & RATINGS



“EZ” Mount Adapter
For easy fixture relocation or to repair fixture on 'bench top'.

VMEZA adapter is used between a driver tank and EZ mount ordered separately.



Pendant



Ceiling



Wall Bracket



25° Stanchion

MOUNTING BOXES				
CATALOG NUMBER				HUB SIZE
PENDANT	CEILING	BRACKET	STANCHION	
EZA2	EZX2	EZB3	—	3/4"
EZA3	EZX3	EZB3	—	1"
—	—	—	EZD4A	1-1/4" / 1/2"*

*1-1/2" furnished with 1-1/2"-1-1/4" reducer and extension.

Competitive Adapters

Designed to ease upgrading of other manufacturer's fixtures to KILLARK LEDs where removal of existing mounting screws and conduit would be difficult and time consuming.

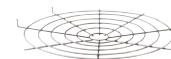
VM2L/VM4L LED OPTICS AND ACCESSORIES		
DESCRIPTION	OPTIC LOGIC	GUARD
Flat Lens (glass spin top) "C" tank only	VZRGF12 (GF)	VZRF12GRD
Flat Lens (polycarbonate spin top) "C" tank only	VZRPF12 (PF)	VZRF12GRD
Globe (glass)	VMG25 (GL)	VMAG25S
Reflector (all glass) Type V	VMR255 (R5)	VMAG25S
Enclosed Reflector	VMER40 (ER)	VMERG
Enclosed Reflector with polycarbonate Lens	VMEP40 (EP)	—
Reflector (polycarbonate spin top) 12" Type V	VZRP175B (P5)	VMRWGS
Reflector (glass spin top) 12" Type V	VZRG4050 (S5)	VMRWGS



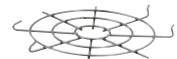
VMAG25S



VMR255



VMERG



VMAGBC



VMPD40
Standard Dome, Fiberglass
White Reflector, Dia: 16"



VMPA40
30° Angle, Fiberglass
White Reflector, Dia:16"



HRD400
Deep Aluminum, White
Reflector, Dia: 21"



HRD400ALZ
Deep Aluminum, Anodized
Reflector, Dia: 21"

VM2L/VM4L LED REFLECTORS AND ACCESSORIES	
DOME REFLECTOR (Polyester reinforced fiberglass)	VMPD40
ANGLE REFLECTOR (Polyester reinforced fiberglass)	VMPA40
DEEP DOME REFLECTOR (White Painted Aluminum)	HRD400
DEEP DOME REFLECTOR (Anodized Aluminum)	HRD400ALZ
120VAC Photocell with FS Style Cover	VMFSPC1
208-277VAC Photocell with FS Style Cover	VMFSPC2
Bottom Closure for VMAG25S	VMAGBC
4-sided EXIT Accessory (use without guard)	VEXA400



VEXA400
Fixture not included



VMFSPC



FIXTURE ADAPTERS



VMCHVM-DEEP



VMCHVM



VMGEH2

CERTiTE^V LED

FEATURES-SPECIFICATIONS

Applications

The Killark VM adapters are designed to ease upgrading of other manufacturer's fixtures to KILLARK LEDs where removal of existing mounting screws and conduit would be difficult and time consuming.

Adapters are used with the Killark Fixture Housing, Globe, guard (if applicable) and the competitive fixture splicebox. The Killark fixtures when used with the Killark adapters and appropriate competitive adapter.

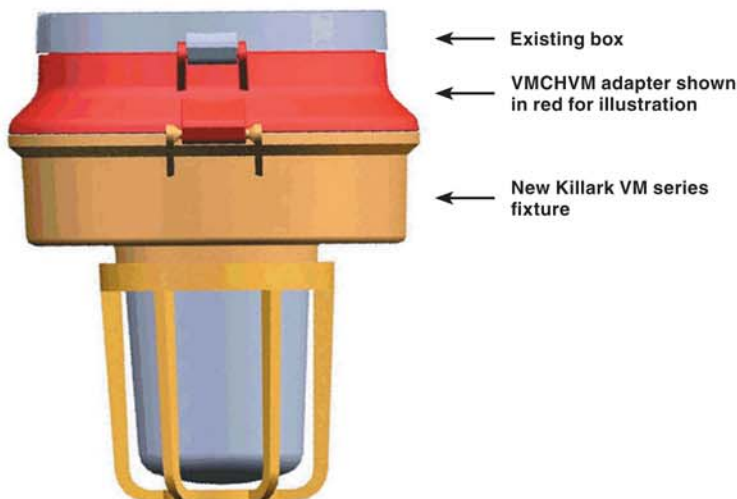
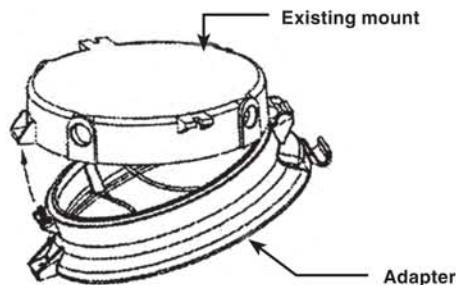
Features

- Fixture and competitive mount are certified together
- Baked powder epoxy/polyester finish, electrostatically applied to match the Killark VM tank
- All external hardware – Stainless Steel

Class I, Div. 2, Groups A, B, C, D
Class II, Div. 1, Groups E, F, G
Class III
Type 4X



VM SERIES COMPETITIVE ADAPTERS		
CATALOG NUMBER	DESCRIPTION	EXAMPLE OF MODEL UTILIZED OR REPLACED
VMCHVM	Tank adapter to Crouse-Hinds® VM Series mounts	VMV S2 C 050 R5
VMCHVM-DEEP	Tank adapter to CH (70's era wall mount with deep box)	VMV S2 TW 050 R5
VMM2LP	Tank adapter to Appleton® MERCMaster II mounts	LPCL 50 75 J
VMM3KP	Tank adapter to Appleton® MERCMaster III mounts	KPCL 50 75 J5 MT
VMHLDS	Tank adapter to Hazlux®3 mounts	DS015 H040-TGL-P2 E1 F
VMHPP2	Tank adapter mount to Holophane® Petrolux™	PETL 250HP 27 S25 CD
VMGEH2	Tank adapter H2 mount to GE® H2 Filtr-gard™	H2 4 05L 3C GG

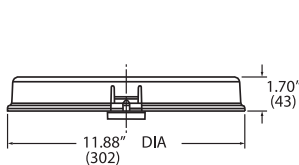


LIGHTING

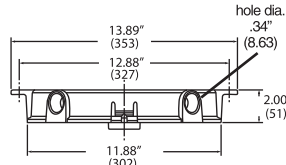
VM2&4LB, VM2&4LC SERIES



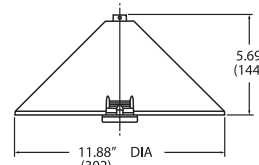
HIGH WATTAGE – DIMENSIONS & WEIGHTS



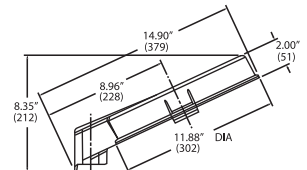
Pendant Mount



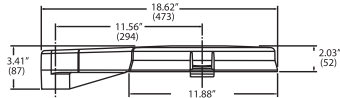
Ceiling Mount



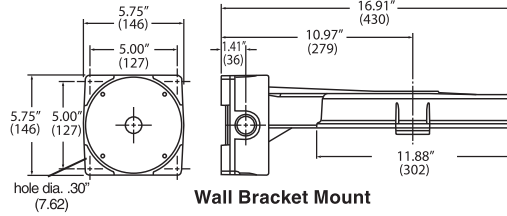
Cone Mount



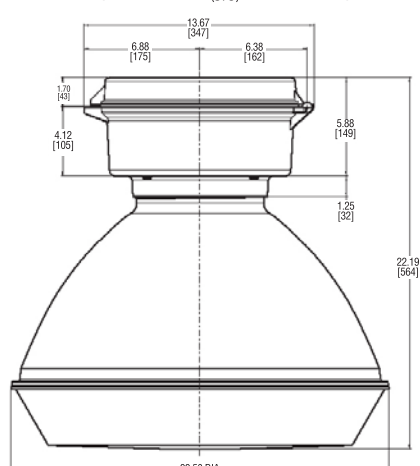
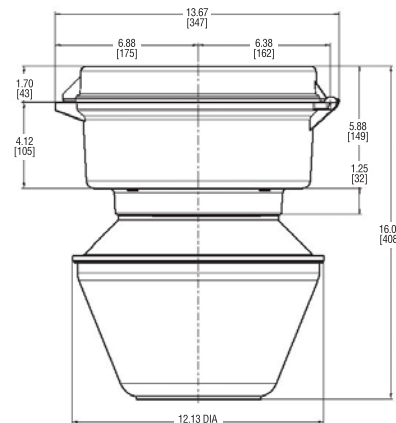
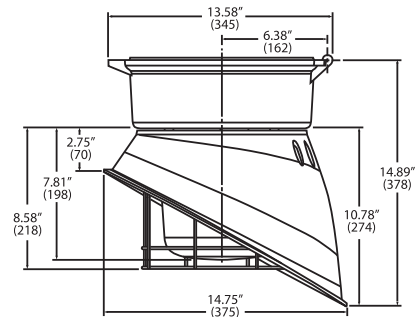
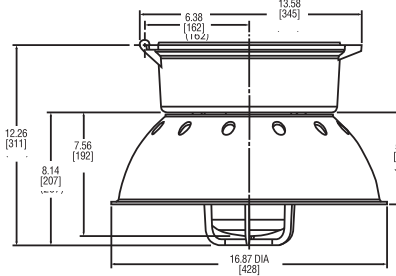
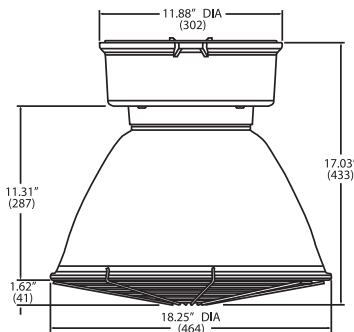
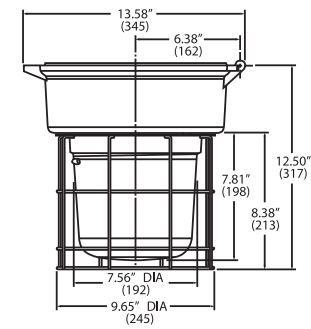
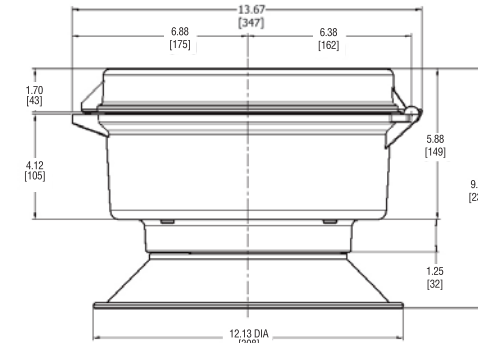
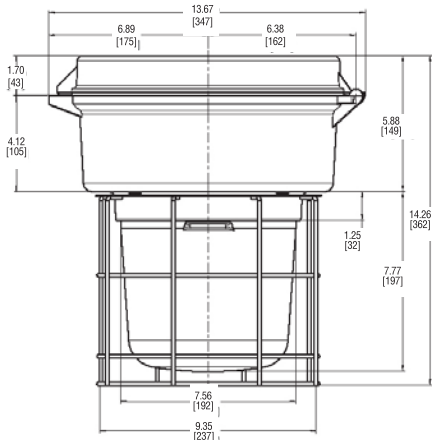
Stanchion (25°) Mount



Stanchion (0°) Mount



Wall Bracket Mount



For Height of VM2L models, deduct 1.56" (40mm) from VM4L tank, or overall dimensions with some mount and optic. All other dimensions are the same.



EXPLOSION-PROOF – INTRODUCTION & LOGIC



Class I, Div. 1 & 2, Groups C,D
 Class I, Zones 1 & 2, Groups IIB, IIA
 Class II, Div. 1 & 2, Groups E,F,G
 Class III, Div. 1 & 2
 Suitable for wet locations
 Suitable for Paint Spray Booth
 Marine Rated (US only)
 Type 3, 4, 4X
 Factory Sealed

Certified - File LR11713

HOSTILELITE® LED

FEATURES-SPECIFICATIONS Applications

HostileLite® EML LED Series fixtures are designed for installations where moisture, dirt, dust, corrosion and vibration may be present, or Type 3 and 4X areas where wind, water, snow, or high ambients can be expected. They can be used in locations made hazardous due to the presence of flammable or explosive gases, vapors and combustible dusts as defined by the NEC.

Applications include classified areas such as paint manufacturing plants, ammunition facilities, oil and gas producing and refining plants, off-shore and dockside installations, tank farms, pipeline pumping stations and marine loading and fuel transfer terminals.

Compliances

- UL-8750 for LED lighting
- UL-844 Electric Lighting Fixtures for use in Hazardous Locations
- UL Marine Type Electric Lighting Fixtures
- CSA C22.2 no. 137-M1981 Electric Luminaires for use in Hazardous Locations
- Type 3, 4, 4X, 7CD, 9EFG

Materials

- Housing, splice box and guards corrosion resistant copper-free aluminum alloy
- Baked powder epoxy/polyester finish, electrostatically applied for complete, uniform corrosion protection
- All external hardware – Stainless Steel
- Reflectors are aluminum with white finish

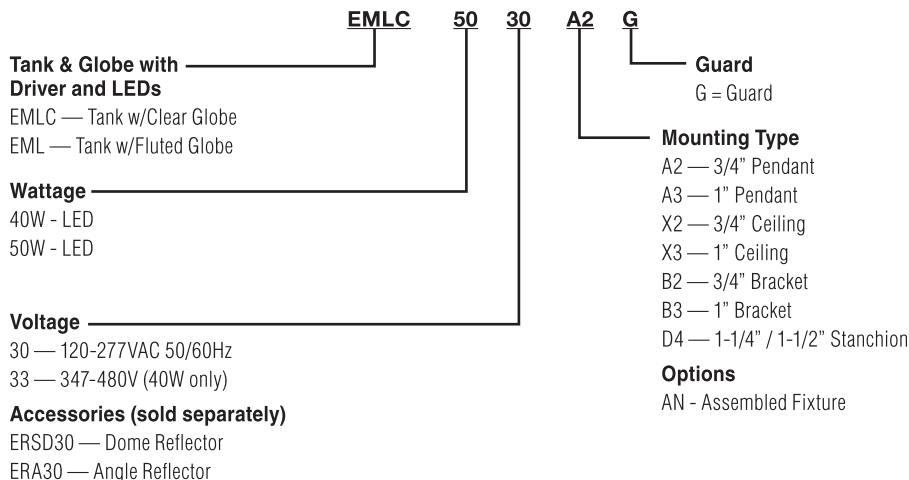
LED Luminaire Features and Standards

- Compact Explosion-proof with Traditional Industrial Appearance and Suitability
- Fluted or Exclusive Clear Globe; Dome or Angle Reflectors
- Optional Mounting arrangements including Pendant, Wall, Ceiling, and Stanchion
- EML LED Housings can be retrofitted to existing EZ splice boxes; upgrade from Incandescent, Fluorescent or HID
- Energy Savings – Less than 55 Watts of Power
- LED Array Life – 100,000+ hours with 70% initial lumens
- Long Fixture Life – 50,000 - 55,000 maintenance free hours

- Crisp White Light for Excellent Color Rendering – Chromaticity 5000K (CCT range; approx. 70 CRI)
- Ambient suitability -40°C to 55°C
- Instant on – Including after power interruption
- “World Voltage” 120-277VAC 50/60Hz
- Solder-LESS LED Board Connections – Vibration Resistant
- Factory Sealed Construction – No external seal required, simply wire mouting cap and thread-in fixture to install

Suitable for Paint Spray Booth Applications

Catalog Number Logic





LIGHTING

EXPLOSION-PROOF – ORDERING INFORMATION



Pendant



Ceiling



Wall



Stanchion

ORDERING INFORMATION

EML SERIES PENDANT WITH OPTIC AND GUARD				
WATTS	HUB SIZE	VOLTAGE	FLUTED GLOBE & GUARD	CLEAR GLOBE & GUARD
40	3/4"	120-277VAC	EML4030A2G	EMLC4030A2G
50	3/4"	120-277VAC	EML5030A2G	EMLC5030A2G

EML SERIES CEILING WITH OPTIC AND GUARD				
WATTS	HUB SIZE	VOLTAGE	FLUTED GLOBE & GUARD	CLEAR GLOBE & GUARD
40	3/4"	120-277VAC	EML4030X2G	EMLC4030X2G
50	3/4"	120-277VAC	EML5030X2G	EMLC5030X2G

EML SERIES WALL WITH OPTIC AND GUARD				
WATTS	HUB SIZE	VOLTAGE	FLUTED GLOBE & GUARD	CLEAR GLOBE & GUARD
40	3/4"	120-277VAC	EML4030B2G	EMLC4030B2G
50	3/4"	120-277VAC	EML5030B2G	EMLC5030B2G

EML SERIES 25° STANCHION WITH OPTIC AND GUARD				
WATTS	HUB SIZE	VOLTAGE	FLUTED GLOBE & GUARD	CLEAR GLOBE & GUARD
40	1-1/4"/1-1/2"	120-277VAC	EML4030D4G	EMLC4030D4G
50	1-1/4"/1-1/2"	120-277VAC	EML5030D4G	EMLC5030D4G



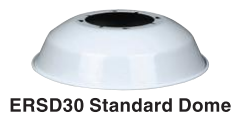
EXPLOSION-PROOF – COMPONENTS & RATINGS



EZ MOUNTING BRACKETS				
CATALOG NUMBER				HUB SIZE
PENDANT	CEILING	WALL	STANCHION	
EZA2	EZX2	EZB2	—	3/4"
EZA3	EZX3	EZB3	—	1"
—	—	—	EZD4*	1-1/4" / 1-1/2"*

* 1-1/2" furnished with 1-1/2" - 1-1/4" reducer

EML - EMLC LED ACCESSORIES	
DESCRIPTION	CATALOG NUMBER
Guard	EMG2
Dome Reflector	ERSD30
Angle Reflector	ERA30
CIDI C2D1 N4X Photocell 120VAC	VMHKPC1
CIDI C2D1 N4X Photocell 208-277VAC	VMHKPC2
Replacement Fluted Globe & Support	EMGS3
Replacement Clear Globe & Support	EMGS2
Adapter to old Killark "H" Series or Crouse Hinds®	EAC/EACH



ERSD30 Standard Dome



EMGS3
EMGS2



ERA30 Angle Dome



EML4530
EMLC4530



EAC/EACH

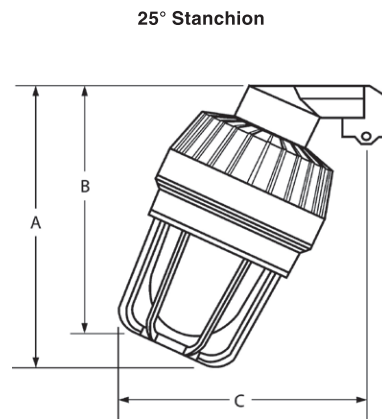
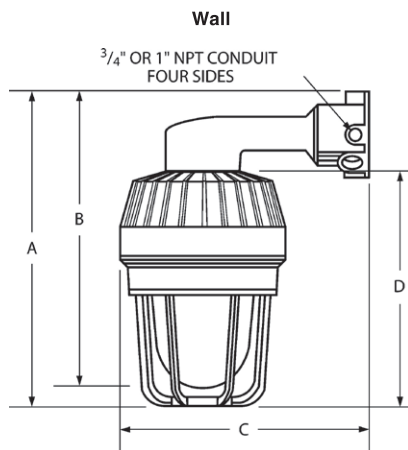
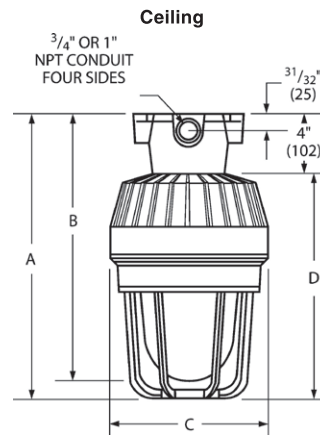
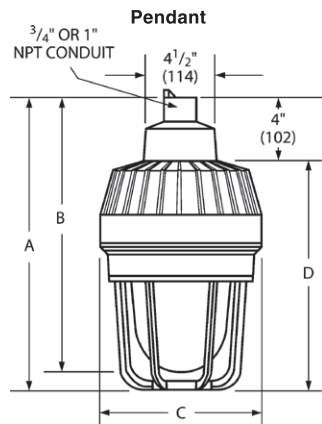
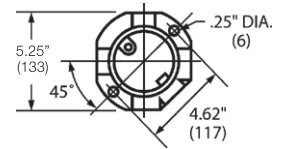
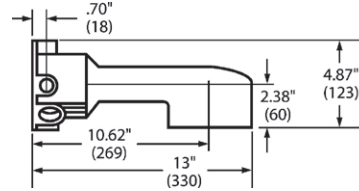
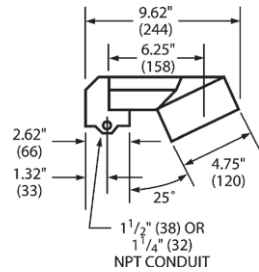
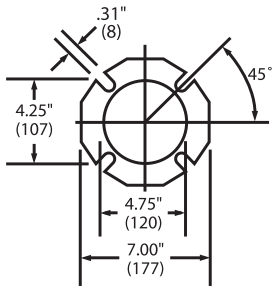
ORDERING INFORMATION AND AMBIENT SUITABILITY							C1D1/C1Z1		C2D1		L70	
CATALOG NO.	WEIGHT LBS./KG	WATTS	VOLTAGE	AMPS	EML FLUTTED LUMENS	EMLC CLEAR LUMENS	40°C	55°C	40°C	55°C	TM-21	CALCULATED
EML4030	26.00 / 11.79	40	120-277VAC	0.46-0.16	3479	3750	T6	T6	T4A (EFG)	T4 (EFG)	60100	270000
EML4033			347-480VAC	0.14-0.10								
EML5030		50	120-277VAC	0.43-0.18	5740	5741	T6	T6	T4A (EFG)	T4 (EFG)	72600	278000

TYPICAL WEIGHTS (LBS.) W/STANDARD GLOBE AND GUARD - EML (C) SERIES			
Pendant 29.33	Ceiling 31.79	Wall 33.25	Stanchion 30.94



LIGHTING

EXPLOSION-PROOF – DIMENSIONS & WEIGHTS



EML(C) DIMENSIONS				
TYPE	A	B	C	D
PENDANT	15-15/16" (404)	15-1/16" (382)	8-13/16" (224)	11-15/16" (303)
CEILING	15-15/16" (404)	15-1/16" (382)	8-13/16" (224)	11-15/16" (303)
WALL	16-13/16" (426)	15-15/16" (404)	15" (379)	11-15/16" (303)
STANCHION	15-1/8" (384)	14" (356)	13-1/2" (343)	



EXPLOSION-PROOF – INTRODUCTION & LOGIC



Class I, Div. 1 & 2, Groups C,D
 Class I, Zones 1 & 2, Groups IIB, IIA
 Class II, Div. 1 & 2, Groups E,F,G
 Class III, Div. 1 & 2
 Suitable for wet locations
 Suitable for Paint Spray Booth
 Marine Rated (US only)
 Type 3, 4, 4X
 Factory Sealed

Certified - File LR11713

HOSTILE^{ITE} LED

FEATURES-SPECIFICATIONS

Applications

HOSTILE^{ITE} EZL Series high wattage LED fixtures are designed for installations where moisture, dirt, dust, corrosion and vibration may be present, or Type 3 and 4X areas where wind, water, snow or where high ambient temperatures can be expected. They can be used in locations made hazardous due to the presence of flammable or explosive gases, vapors and combustible dusts as defined by the NEC.

Typical applications include classified areas such as paint manufacturing plants, paint spray, oil and gas producing and refining plants, off-shore and dockside installations, tank farms, pipeline pumping stations and marine loading and fuel transfer terminals.

Compliances

- UL-8750 for LED lighting
- UL-844 Electric Lighting Fixtures for use in Hazardous Locations
- UL Marine Type Electric Lighting Fixtures
- CSA C22.2 no. 137-M1981 Electric Luminaires for use in Hazardous Locations
- Type 3, 4, 4X, 7CD, 9EFG

Materials

- Housing, splice box, and guards corrosion resistant copper-free aluminum alloy
- Baked powder epoxy/polyester finish, electrostatically applied for complete, uniform corrosion protection
- All external hardware – Stainless Steel
- Reflectors are aluminum with white finish

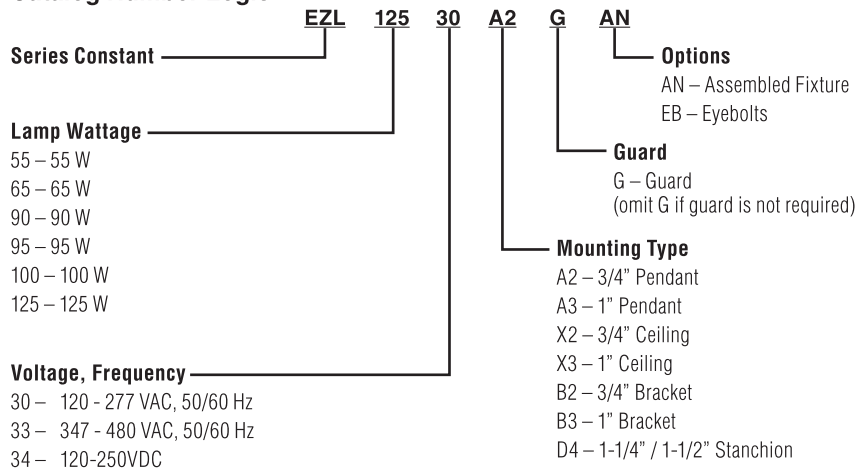
LED Luminaire Features and Standards

Supplemental **20KA/10KV Surge Protection** is **standard** (for 120-277 VAC models)
10KA/10KV Surge Protection (for 347-480 VAC)

- Explosion-proof with Traditional Industrial Appearance and Suitability
- Mounting choice – Pendant, ceiling, 25° stanchion or 90° wall mount, all with “wireless” design that allows fast, easy fixture installation or removal for maintenance.
- Accessories – Available with or without guard, standard dome or angle reflector
- EZL LED Housings can be retrofitted to existing EZ splice boxes; upgrade from Incandescent, Fluorescent or HID
- Energy Savings – Less than 130 Watts of Power

- LED Array Life – 100,000+ hours with 70% initial lumens
- Long Fixture Life – 50,000 - 55,000 maintenance free hours
- Crisp White Light for Excellent Color Rendering – Chromaticity 5000K (CCT range; approx. 70 CRI)
- Ambient suitability -40°C to 55°C
- Instant on – Including after power interruption
- “World Voltage” 120-277VAC 50/60Hz
- Solder-LESS LED Board Connections – Vibration Resistant
- Factory Sealed Construction – No external seal required, simply wire routing cap and thread-in fixture to install

Catalog Number Logic



LIGHTING

EZL SERIES



EXPLOSION PROOF – ORDERING INFORMATION, COMPONENTS & RATINGS



EZL SERIES PENDANT WITH OPTIC AND GUARD			
WATTS	HUB SIZE	VOLTAGE	GLOBE & GUARD
55	3/4"	120-277VAC	EZL5530A2G
65	3/4"	120-277VAC	EZL6530A2G
90	3/4"	120-277VAC	EZL9030A2G
95	3/4"	120-277VAC	EZL9530A2G
100	3/4"	120-277VAC	EZL10030A2G
125	3/4"	120-277VAC	EZL12530A2G



EZL SERIES CEILING WITH OPTIC AND GUARD			
WATTS	HUB SIZE	VOLTAGE	GLOBE & GUARD
55	3/4"	120-277VAC	EZL5530X2G
65	3/4"	120-277VAC	EZL6530X2G
90	3/4"	120-277VAC	EZL9030X2G
95	3/4"	120-277VAC	EZL9530X2G
100	3/4"	120-277VAC	EZL10030X2G
125	3/4"	120-277VAC	EZL12530X2G

EZL SERIES WALL BRACKET WITH OPTIC AND GUARD			
WATTS	HUB SIZE	VOLTAGE	GLOBE & GUARD
55	3/4"	120-277VAC	EZL5530B2G
65	3/4"	120-277VAC	EZL6530B2G
90	3/4"	120-277VAC	EZL9030B2G
95	3/4"	120-277VAC	EZL9530B2G
100	3/4"	120-277VAC	EZL10030B2G
125	3/4"	120-277VAC	EZL12530B2G



EZL SERIES STANCHION WITH OPTIC AND GUARD			
WATTS	HUB SIZE	VOLTAGE	GLOBE & GUARD
55	3/4"	120-277VAC	EZL5530D4G
65	3/4"	120-277VAC	EZL6530D4G
90	3/4"	120-277VAC	EZL9030D4G
95	3/4"	120-277VAC	EZL9530D4G
100	3/4"	120-277VAC	EZL10030D4G
125	3/4"	120-277VAC	EZL12530D4G



MOUNTING BOXES				
HUB SIZE	CATALOG NUMBER			
	PENDANT	CEILING	BRACKET	STANCHION
3/4"	EZA2	EZX2	EZB2	—
1"	EZA3	EZX3	EZB3	—
1-1/4"/1-1/2"	—	—	—	EZD4



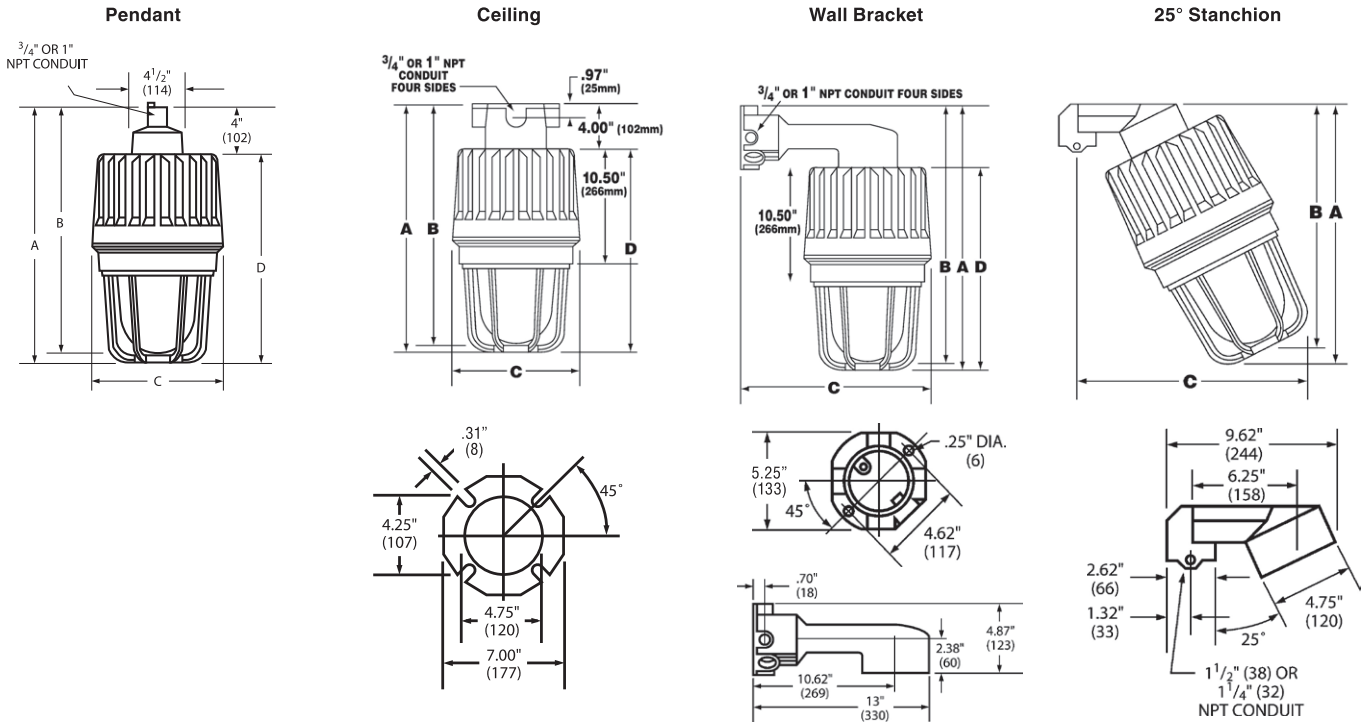
REFLECTORS	
CATALOG NUMBER	DESCRIPTION
VMPSD40	Standard dome. fiberglass reinforced polyester
VMPA40	30° Angle fiberglass reinforced polyester
HRD400	Deep dome. Aluminum with white finish
HRD400ALZ	Deep dome with specular anaodized finish



ORDERING INFORMATION AND AMBIENT SUITABILITY						C1D1/C1Z1		C2D1		L70	
CATALOG NO.	WEIGHT LBS./KG	WATTS	VOLTAGE	AMPS	DELIVERED LUMENS	40°C	55°C	40°C	55°C	TM-21	CALCULATED
EZL6530	36 / 16.33	65	120-277VAC	0.54/0.23	6515	T6	T6	EFG	EFG	60100	270000
EZL9030		90	120-277VAC	0.75/0.32	7818	T6	T6	EFG	EFG	60100	270000
EZL9530		95	120-277VAC	0.79/0.34	9121	T6	T6	EFG	EFG	60100	270000
EZL10030		100	120-277VAC	0.83/0.36	10903	T6	XXX	EFG	XXX	72600	278000
EZL12530		125	120-277VAC	1.04/0.45	12720	T6	XXX	EFG	XXX	72600	278000

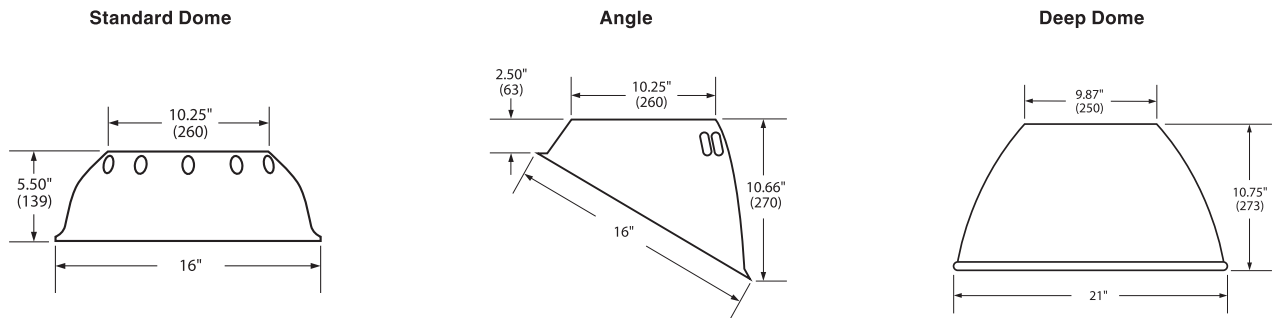


DIMENSIONS



MOUNTING DIMENSIONS														
PENDANT				CEILING				BRACKET				STANCHION		
A	B	C	D	A	B	C	D	A	B	C	D	A	B	C
22"	21-1/4"	11-1/4"	18"	22"	21-1/4"	11-1/4"	18"	22-7/8"	22-1/8"	16-3/4"	18"	24-7/8"	24"	19-13/16"
(558)	(539)	(285)	(457)	(558)	(539)	(285)	(457)	(580)	(561)	(425)	(457)	(631)	(609)	(503)

Reflector Dimensions





FIXTURE ADAPTERS



EAC/EACH



EZBA12

Class I, Div. 1 & 2, Group D
 Class I, Zones 1 & 2, Groups IIA
 Class II, Div. 1 & 2, Groups E,F,G
 Class III

cULus Certified

FEATURES-SPECIFICATIONS



Applications

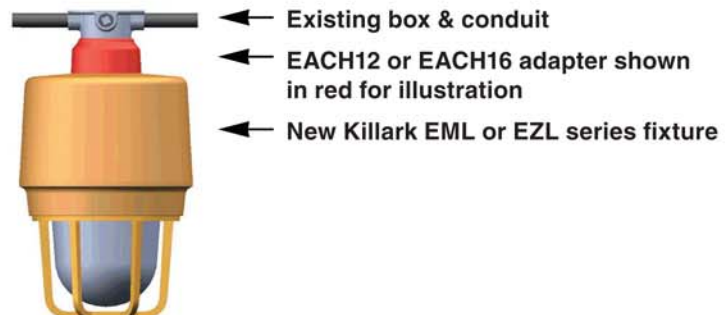
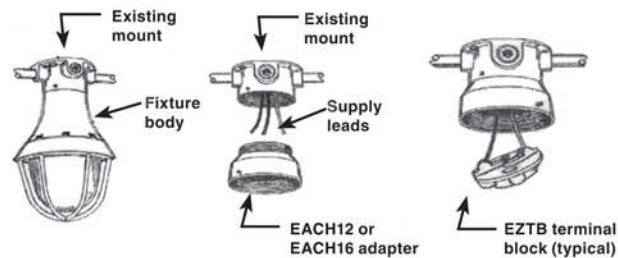
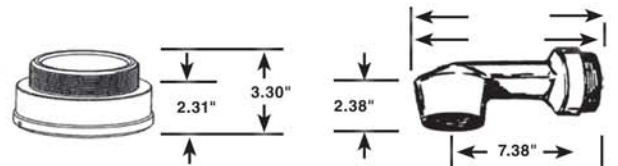
EAC Series adapters are designed to ease upgrading of existing Crouse-Hinds® “EV” series or existing Killark “H” series to Killark HOSTILELITE® EML or EZL series. Units are primarily designed to aid replacement of old ceiling or wall mount units where removal of the existing mounting box and conduit would be difficult or time consuming. Adapter & Killark fixtures rated Type 4.

Adapters are used with Fixture Housing, Globe, Globe Support assemblies. Complete fixture with mounting box is not required. Adapters are painted to match Killark beige fixture finish.

Features

- Setscrews permit secure adapter attachment into old mounting box and to new fixture
- Converted fixtures may be easily removed for service using the Killark EZ mounting system. Wire terminals are included in the adapter (EZTB Terminal Block)

EAC / EZBA FIXTURE ADAPTERS		
CATALOG NUMBER	DESCRIPTION	EXAMPLE OF MODEL UTILIZED OR REPLACED
EAC	Killark H series Ceiling or Wall	HXG-2-125 Fixture
EACH12	Crouse old style Ceiling Mount with lamp socket in adapter ring between fixture body and a GUF 12 pitch box	GUF box w/Set Screw
EZBA12	Crouse old style Wall Mount, old style Arm with integral lamp socket (socket in fixture in newer models) attached to GUF 12 pitch mounting box. EZBA12 includes arm	GUF box w/Set Screw
EACH16	Crouse newer style ceiling or wall fixtures w/lamp socket in fixture body; mounted to EV series 16 pitch threaded box; adapter fits in ceiling box or existing arm attached to wall fixture	EVA26/EV22 Box; EVBX240
EAAP-C2	Appleton Code-Master 2	CLC5075





FLOODLIGHTING & WALLPACK



KFL



KFLC



KF1L



KFL2H



KFLH



KWPL



LIGHTING

COMPACT FLOOD – INTRODUCTION & LOGIC



Class I, Div. 2, Groups A,B,C,D
Class I, Zone 2, Groups IIC, IIB, IIA
Class II, Div. 1 & 2, Groups E,F,G
Class III
Type 4X

 File LR11713

PETROBRIGHT® LED

FEATURES-SPECIFICATIONS

Applications

LED Compact Floods are designed for installations where moisture, dirt, dust, corrosion and vibration may be present, or Type 3 and 4X areas where wind, water, snow or high ambients can be expected. They can be used in locations made hazardous by the presence of flammable vapors or gases or combustible dusts as defined by the NEC.

Typical applications include spot lighting or walkways in manufacturing plants, and certain chemical and petrochemical processing facilities, sewage treatment plants, off-shore and dockside installations, garages and storage facilities

Compliances

- UL-8750 for LED lighting
- ANSI/UL 1598 (A)
- UL-844 Standard for lighting fixtures for hazardous locations, Class I, Division 1; Class II, Division 1; Class III
- CSA C22.2 no. 137-M1981 electric luminaires for use in hazardous locations
- Enclosed and gasketed
- Type 3, 4X, IP66

Materials

- Body and lens frame corrosion resistant copper-free aluminum alloy with baked powder epoxy/polyester finish, electrostatically applied for complete, uniform corrosion protection
- All external hardware – stainless steel
- Thermal shock and impact resistant extra heavy-duty glass lens
- High temperature silicone gasketing
- Trunnion heavy gauge galvanized steel with painted finish

LED Flood Features and Standards

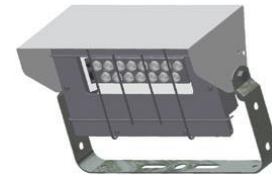
Supplemental **20KA/10KV Surge Protection** is **standard** (for 120-277 VAC models)
10KA/10KV Surge Protection (for 347-480 VAC)

- One 3/4" NPT hub & R-21 3/4" x 1/2" reducer is standard
- Crisp White Light for Excellent Color Rendering – Chromaticity 5000 K (CCT); approx. 70 CRI
- Energy Savings – High lumens per watt
- LED Array Life – 100,000+ hours with 70% initial lumens
- Long Fixture Life – 50,000 - 55,000 maintenance free hours
- Ambient suitability -40°C to 55°C
- Instant On – Including after power interruption
- Solder-LESS LED Board Connections – Vibration Resistant

Patented Fixture Design

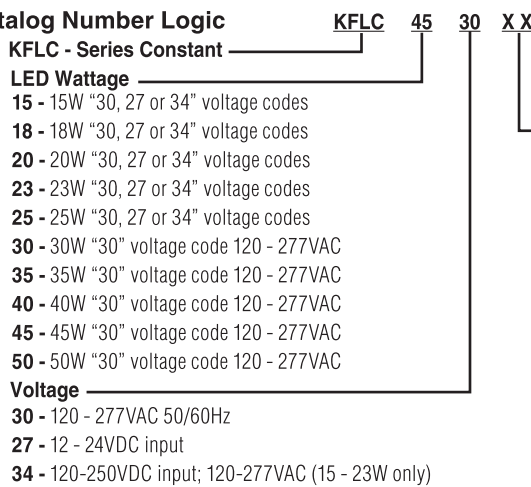


KFLC with KFS-6 Slipfitter mount on 2" pipe



Dark Sky Visor
KFLC-DARK

Catalog Number Logic



Options

- LY-** Less Yoke for Wall Mount
- F-** Single Fuse (Not for use in Canada)
- FF-** 2 Fuses (Not for use in Canada)
- SP-** Surge Protection
- TBL-** Terminal Blocks Looping
- D75-** Dual 3/4" threaded NPT entry
- M25-** Single M25 Slip-hole Entry
- D25-** Two M25 Slip-hole Entry
- M20-** Single M20 Slip-hole Entry
- D20-** Dual M20 Slip-hole Entry
- PL-** Polycarbonate Lens



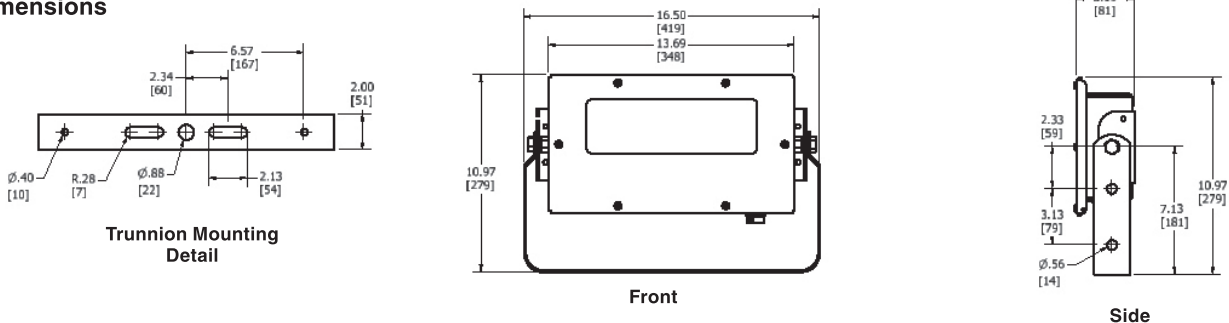
COMPACT FLOOD – ORDERING & TECHNICAL DATA

ORDERING INFORMATION AND AMBIENT SUITABILITY						C1D2		C1D2		C2D1		L70	
CATALOG NO.	WEIGHT LBS./KG	WATTS	VOLTAGE	AMPS	DELIVERED LUMENS	40°C	55°C	40°C	55°C	40°C	55°C	TM-21	CALCULATED
KFLC1527	9.50 / 4.31	15	12-24VDC	1.3-0.6	1435	T6	T6	T4	T3B	T4A	T4A	60100	270000
KFLC1530			120-277VAC	0.2-0.1									
KFLC1534			120-250VDC	0.2-0.1									
KFLC1827		18	12-24VDC	1.5-0.8	1830	T6	T6	T4	T3B	T4A	T4A	72600	278000
KFLC1830			120-277VAC	0.2-0.1									
KFLC1834			120-250VDC	0.2-0.1									
KFLC2027		20	12-24VDC	1.7-0.8	2170	T6	T6	T4	T3B	T4A	T4A	60100	270000
KFLC2030			120-277VAC	0.2-0.1									
KFLC2034			120-250VDC	0.2-0.1									
KFLC2327		23	12-24VDC	1.9-1.0	2550	T6	T6	T4	T3B	T4A	T4A	60100	270000
KFLC2330			120-277VAC	0.2-0.1									
KFLC2334			120-250VDC	0.2-0.1									
KFLC2527		25	12-24VDC	2.1-1.0	2667	T6	T6	T4	T3B	T4A	T4A	72600	278000
KFLC2530			120-277VAC	0.2-0.1									
KFLC2534			120-250VDC	0.2-0.1									
KFLC3030		30	120-277VAC	0.26-0.11	2662	T6	T6	T4	T3B	T4A	T4A	60100	270000
KFLC3530		35		0.30-0.13	3302	T6	T6	T4	T3B	T4A	T4A	60100	270000
KFLC4030		40		0.34-0.15	4039	T6	T6	T4	T3B	T4A	T4A	72600	278000
KFLC4530		45		0.38-0.17	4718	T6	T6	T4	T3B	T4A	T4A	72600	278000
KFLC5030		50		0.42-0.18	5353	T6	T6	T4	T3B	T4A	T4A	60300	190000

KFL MOUNTS AND ACCESSORIES	
CATALOG NUMBER	DESCRIPTION
KFLC-DARK	Reflector for field addition - No uplight at 45° to 70°
KFLCG	Guard
KFLC-DOOR	Replacement Door Assembly
NWP-HUBA	3/4" Aluminum Hub; Replacement or Additional (Max. 4)
VMSC10	Safety Cable (through yoke)
KFS-6	Steel Slipfitter for 2" Pipe (2-3/8" o.d.) Tenon. Slips 3.75" Over Pipe.
KFCB	Heavy Duty Cast-Iron Crossarm Fitting for Horizontal Trunnion
KFWB	Heavy Duty Wall Mount and/or Pipe Clamp Fitting Clamps 2" Pipe (2-3/8" o.d.) Through 2-1/2" Pipe (2-7/8" o.d.)
K4040	Heavy Duty Steel Wall Bracket. (Must be with KFCB Crossarm Fitting)
4041	Heavy Duty Steel Wall Bracket 2" Pipe (2-3/8" o.d.) Tenon Fitting



Dimensions





LIGHTING

C1D2 FLOOD – INTRODUCTION & LOGIC



PETROBRIGHT® LED

FEATURES-SPECIFICATIONS

Applications

LED Floods are designed for installations where moisture, dirt, dust, corrosion and vibration may be present, or Type 3 and 4X areas where wind, water, snow, or high ambients can be expected. They can be used in locations made hazardous by the presence of flammable vapors or gases or combustible dusts as defined by the NEC/CEC/IECEX/ATEX & INMETRO.

Typical applications include manufacturing plants, and certain chemical and petrochemical processing facilities, sewage treatment plants, off-shore and dockside installations, garages and storage facilities.

Compliances

- UL-8750 for LED lighting
- ANSI/UL 1598(A)
- UL-844 Standard for lighting fixtures for hazardous locations, Class I, Division 2; Class II, Divisions 1 and 2; Class III
- CSA C22.2 no. 137-M1981 electric luminaires for use in hazardous locations
- Enclosed and gasketed
- Type 3, 4X
- IP66
- IEX suffix Zone 2/21 to IEC 60079-0, 60079-15, 60079-31 Standards

Materials

- Body, end caps and lens frame corrosion resistant copper-free aluminum alloy with baked powder epoxy/polyester finish, electrostatically applied for complete, uniform corrosion protection
- All external hardware - stainless steel
- Thermal shock and impact resistant glass lens
- High temperature silicone gasketing
- Trunion heavy gauge galvanized steel with painted finish



LED Flood Features and Standards

Supplemental **20KA/10KV Surge Protection** is **standard** (for 120-277 VAC models)
10KA/10KV Surge Protection (for 347-480 VAC)

- Crisp White Light for Excellent Color Rendering - Chromaticity 5000K (CCT); approx. 70 CRI
- Energy Savings – High lumens per watt
- LED Array Life – 100,000+ hours with 70% initial lumens
- Long Fixture Life – 50,000 - 55,000 maintenance free hours
- Ambient suitability -50°C to 55°C up to 125W
- Instant On – Including after power interruption
- World Voltage 120 – 277VAC 50/60Hz
- Solder-LESS LED Board Connections – Vibration Resistant

Class I, Div. 2, Groups A,B,C,D
 Class II, Div. 1&2, Groups EFG
 Class III
 Suitable for wet locations
 Marine Rated (US Only)
 Type 3, 4X
 IP66

CSA US File LR11713

IEC Ex Rated model (w/IEX suffix)
 Zone 2 and Zone 21 areas
 Ex nA IIC T6...T3, Gc
 Ex tb IIIC T160°C Db
 Tamb -50°C <Ta<+55°C, IP66

IECEX Certificate
 CSA 14.0002X

ATEX Certificate
 CML 14ATEX3087/4088

PATENTED LUMINAIRE DESIGN

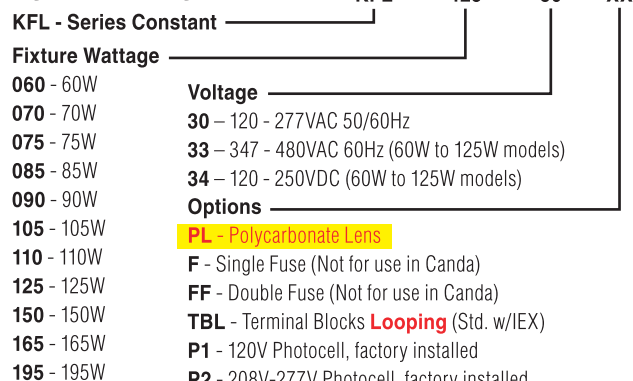
KFL with KFS-6 Slipfitter mount on 2" pipe

Dark Sky Visor
 KFL-DARK



IEX Units include Qty. 3 6mm terminals plus external ground as standard

Catalog Number Logic



PL - Polycarbonate Lens

- F - Single Fuse (Not for use in Canada)
- FF - Double Fuse (Not for use in Canada)
- TBL - Terminal Blocks **Looping** (Std. w/IEX)
- P1 - 120V Photocell, factory installed
- P2 - 208V-277V Photocell, factory installed
- P3 - 347V Photocell, factory installed
- D20 - 2x M20 entries
- D25 - 2x M25 entries
- D75 - 2 x 3/4" NPT
- SY - 316 SS Yoke
- IEX - IECEX & ATEX includes TBL and External Ground (to 125W)



Consult website for current list of approved luminaires



C1D2 FLOOD – ORDERING INFORMATION & TECHNICAL DATA

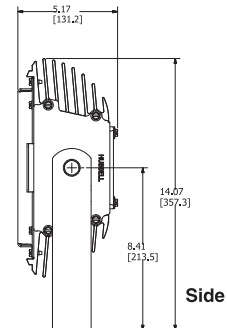
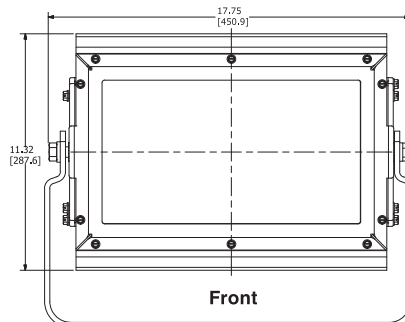
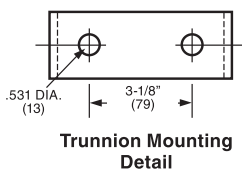
ORDERING INFORMATION AND AMBIENT SUITABILITY						C1D2		C1D2 SIMULTANEOUS		C2D1		IEC ZONE 2		IEC ZONE 21		L70	
CATALOG NO.	WEIGHT LBS./KG	WATTS	VOLTAGE	AMPS	DELIVERED LUMENS	40°C	55°C	40°C	55°C	40°C	55°C	40°C	55°C	40°C	55°C	TM-21	CALCULATED
KFL06030	30.00 / 13.61	60	120-277VAC	0.50-0.20	6111	T6	T5	T3C	T3C	T3C (EFG)	T3C (EFG)	T6	T5	145	160	60100	270000
KFL07030		70	120-277VAC	0.60-0.30	9742	T6	T5	T3C	T3C	T3C (EFG)	T3C (EFG)	T6	T5	145	160	72600	278000
KFL07530		75	120-277VAC	0.60-0.30	7454	T6	T5	T3C	T3C	T3C (EFG)	T3C (EFG)	T6	T5	145	160	60100	270000
KFL08530		85	120-277VAC	0.70-0.30	10840	T6	T5	T3C	T3C	T3C (EFG)	T3C (EFG)	T6	T5	145	160	72600	278000
KFL08533			347-480VAC	0.24-0.17													
KFL08534			120-250VDC	0.70-0.27													
KFL09030		90	120-277VAC	0.80-0.40	9023	T6	T5	T3C	T3C	T3C (EFG)	T3C (EFG)	T6	T5	145	160	60100	270000
KFL09033			347-480VAC	0.28-0.23													
KFL09034			120-250VDC	0.80-0.36													
KFL10530		105	120-277VAC	0.90-0.40	10370	T4A	T4A	T3C	T3C	T3C (EFG)	T3C (EFG)	T4	T4	145	160	60100	270000
KFL10533			347-480VAC	0.31-0.23													
KFL10534			120-250VDC	0.90-0.36													
KFL11030		110	120-277VAC	0.90-0.40	13780	T6	T5	T3C	T3C	T3C (EFG)	T3C (EFG)	T6	T5	145	160	72600	278000
KFL11033			347-480VAC	0.31-0.23													
KFL11034			120-250VDC	0.90-0.36													
KFL12530		125	120-277VAC	1.00-0.50	15340	T6	T5	T3C	T3C	T3C (EFG)	T3C (EFG)	T6	T5	145	160	72600	278000
KFL12533			347-480VAC	0.35-0.29													
KFL12534			120-250VDC	1.00-0.45													
KFL15030		150	120-277VAC	1.25-0.54	18550	T5	-	T3C	-	T3C (EFG)	-	T5	T5	160	160	60300	190000
KFL16530		165	120-277VAC	1.38-0.60	19220	T5	-	T3C	-	T3C (EFG)	-	T5	T4	160	160	72600	278000
KFL19530	195	120-277VAC	1.63-0.70	21940	T5	-	T3C	-	T3C (EFG)	-	T5	T4	160	160	72600	278000	

KFL MOUNTS AND ACCESSORIES

CATALOG NUMBER	DESCRIPTION
KFS-6	Steel Slipfitter for 2" Pipe (2-3/8" o.d.) Tenon. Slips 3.75" Over Pipe.
KFCB	Heavy Duty Cast-Iron Crossarm Fitting for Horizontal Trunnion
KFWB	Heavy Duty Wall Mount and/or Pipe Clamp Fitting Clamps 2" Pipe (2-3/8" o.d.) Through 2-1/2" Pipe (2-7/8" o.d.)
K4040	Heavy Duty Steel Wall Bracket. (Must be with KFCB Crossarm Fitting)
4041	Heavy Duty Steel Wall Bracket 2" Pipe (2-3/8" o.d.) Tenon Fitting. Uses with KFS-6
KFLG	Wire Guard, 316 Stainless Steel (not used with KFL-DARK)
VMSC10	10' Stainless Steel Safety Cable with loop grip
KFL-DARK	Dark Sky Visor, White Painted Aluminum (not used with KFLG)
KFL-DOOR	Replacement Door and Lens Assembly (for units w/o internal reflectors)
KFL-DOOR2	Replacement Internal Reflector and Lens Assembly



Dimensions



LIGHTING

KFLH SERIES



C1D2 FLOOD – INTRODUCTION & LOGIC



Class I, Div. 2, Groups A, B, C, D
 Class I, Zone 2, IIC, IIB, IIA
 Class II, Div. 1 & 2, Groups E, F, G
 Class III
 Suitable for wet locations
 Marine Rated (US only)
 Type 3, 4X
 IP66

IEC Ex Rated Model (w/ IEX suffix)
 Zone 2 and Zone 21 areas
 Ex nA IIC T6...T3, Gc
 Ex tb IIC T105°C Db
 Tamb -50°C < Ta < +55°C, IP66

IECEX Certificate
 QPS 15.0011



ATEX Certificate
 CML 15ATEX4079X (nA)
 &
 CML 15ATEX3080X (tb)

PETROBRIGHT® LED

FEATURES-SPECIFICATIONS

Applications

LED Floods are designed for installations where moisture, dirt, dust, corrosion and vibration may be present, or Type 3 and 4X areas where wind, water, snow or high ambients can be expected. They can be used in locations made hazardous by the presence of flammable vapors or gases or combustible dusts as defined by the NEC/CEC/IECEX/ATEX & INMETRO.

Typical applications include manufacturing plants, and certain chemical and petrochemical processing facilities, sewage treatment plants, off-shore and dockside installations, garages and storage facilities.

Compliances

- UL-8750 for LED lighting
- ANSI/UL 1598(A)
- UL-844 Standard for lighting fixtures for hazardous locations, Class I, Division 2; Class II, Divisions 1 and 2; Class III
- CSA C22.2 no. 137-M1981 electric luminaires for use in hazardous locations
- Enclosed and gasketed
- Type 3, 4X
- IP66

Materials

- Body and lens frame corrosion resistant copper-free aluminum alloy with baked powder epoxy/polyester finish, electrostatically applied for complete, uniform corrosion protection
- All external hardware – stainless steel
- Thermal shock and impact resistant glass lens (Polycarbonate available)
- High temperature silicone gasketing
- Trunnion heavy gauge 316 stainless steel

LED Flood Features and Standards

Supplemental **20KA/10KV Surge Protection** is **standard** (for 120-277 VAC models)
10KA/10KV Surge Protection (for 347-480 VAC)

- Crisp White Light for Excellent Color Rendering – Chromaticity 5000K (CCT); approx. 70 CRI
- Energy Savings – High lumens per watt
- LED Array Life – 100,000+ hours with 70% initial lumens
- Long Fixture Life – 50,000 - 55,000 maintenance free hours
- Ambient suitability -40°C to 55°C up to 250W to -50°C for non-hazardous applications
- Instant On – Including after power interruption
- World Voltage 120 – 277VAC 50/60Hz
- Solder-LESS LED Board Connections – Vibration Resistant

PATENTED LENS and REFLECTOR DESIGN

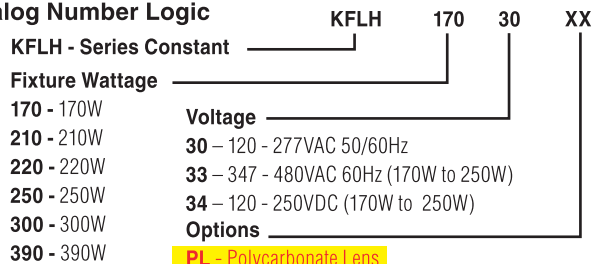


KFLH Luminaire



Dark Sky Visor KFLH-DARK

Catalog Number Logic



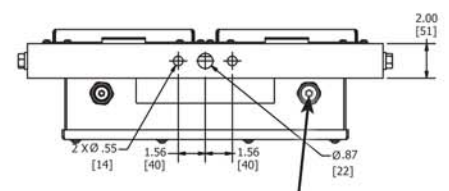
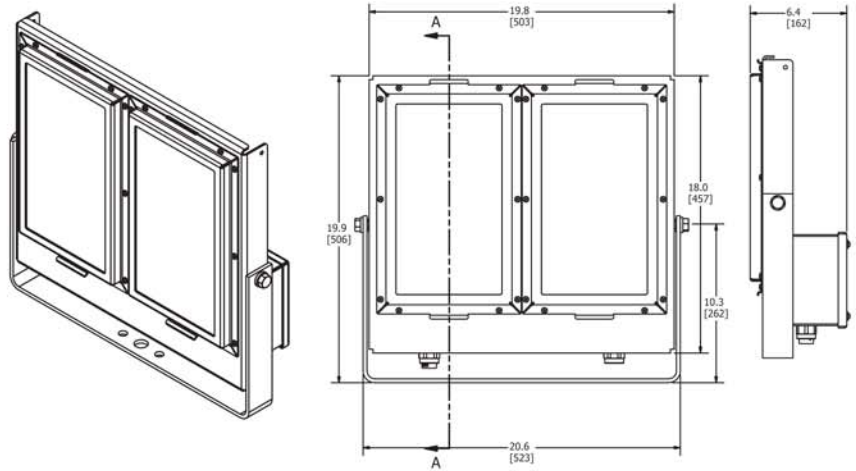
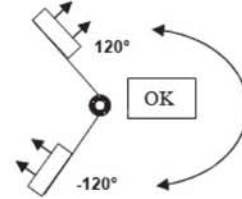
- F - Single Fuse (Not for use in Canada)
- FF - Double Fuse (Not for use in Canada)
- TBL - Terminal Blocks **Looping**
- P1 - 120V Photocell, factory installed
- P2 - 208V-277V Photocell, factory installed
- P3 - 347V Photocell, factory installed
- IEX - IEXEx includes TBL & External ground



C1D2 FLOOD – ORDERING INFORMATION & TECHNICAL DATA

ORDERING INFORMATION AND AMBIENT SUITABILITY						C1D2 (C1Z2)		C1D2 SIMULTANEOUS		C2D1		L70	
CATALOG NO.	WEIGHT LBS./KG	WATTS	VOLTAGE	AMPS	DELIVERED LUMENS	40°C	55°C	40°C	55°C	40°C	55°C	TM-21	CALCULATED
KFLH17030	25.00 / 11.3	170	120-277VAC	1.46-0.63	21620	T4A (T4)	T4	T4	T3C	T4	T3C	72600	278000
KFLH17033			347-480VAC	0.51-0.36			-		-		-		
KFLH17034			120-250VDC	1.46-0.56			T4		T3C		T3C		
KFLH21030		210	120-277VAC	1.75-0.75	21220	T4A (T4)	T4	T4	T3C	T4	T3C	60100	270000
KFLH21033			347-480VAC	0.61-0.43			-		-		-		
KFLH21034			120-250VDC	1.75-0.68			T4		T3C		T3C		
KFLH22030		220	120-277VAC	1.88-0.81	26970	T4A (T4)	T4	T4	T3C	T4	T3C	72600	278000
KFLH22033			347-480VAC	0.65-0.47			-		-		-		
KFLH22034			120-250VDC	1.88-0.73			T4		T3C		T3C		
KFLH25030		250	120-277VAC	2.17-0.94	30950	T4A (T4)	T4	T4	T3C	T4	T3C	72600	278000
KFLH25033			347-480VAC	0.75-0.54			-		-		-		
KFLH25034			120-250VDC	2.17-0.85			T4		T3C		T3C		
KFLH30030		300	120-277VAC	2.48-1.07	37030	T4A (T4)	T4	-	-	-	-	60300	107000
KFLH39030		390	120-277VAC	3.30-1.43	40410	T4A (T4)	T4	-	-	-	-	60300	190000

KFLH MOUNTS AND ACCESSORIES	
CATALOG NUMBER	DESCRIPTION
KFS-6	Steel Slipfitter for 2" Pipe (2-3/8" o.d.) Tenon. Slips 3.75" Over Pipe.
KFCB	Heavy Duty Cast-Iron Crossarm Fitting for Horizontal Trunnion
KFWB	Heavy Duty Wall Mount and/or Pipe Clamp Fitting Clamps 2" Pipe (2-3/8" o.d.) Through 2-1/2" Pipe (2-7/8" o.d.)
K4040	Heavy Duty Steel Wall Bracket. (Must be with KFCB Crossarm Fitting)
4041	Heavy Duty Steel Wall Bracket 2" Pipe (2-3/8" o.d.) Tenon Fitting. Use with KFS-6
KFLG	Wire Guard, 316 Stainless Steel (order 2 per fixture)
VMSC10	10' Stainless Steel Safety Cable with loop grip
KFLH-DARK	Dark Sky Visor, White Painted Aluminum
KFLH-DOOR	Replacement Internal Reflector and Lens Assembly (order 2 per fixture as required)



2-M20 slip holes supplied with 3/4" NPT adapters with one plugged.

LIGHTING

KFL2H SERIES



C1D2 FLOOD – INTRODUCTION & LOGIC



Class I, Div. 2, Groups A, B, C, D
 Class I, Zone 2, IIC, IIB, IIA
 Class II, Div. 1 & 2, Groups E, F, G
 Class III
 Suitable for wet locations
 Marine Rated (US only)
 Type 3, 4X
 IP66

IEC Ex Rated Model (w/ IEX suffix)
 Zone 2 and Zone 21 areas
 Ex nA IIC T6...T3, Gc
 Ex tb IIC T105°C Db
 Tamb -50°C ≤ Ta ≤ +55°C, IP66

IECEX Certificate
 QPS 15.0011



ATEX Certificate
 CML 15ATEX4079X (nA)
 &
 CML 15ATEX3080X (tb)

PETROBRIGHT® LED

FEATURES-SPECIFICATIONS

Applications

LED Floods are designed for installations where moisture, dirt, dust, corrosion and vibration may be present, or Type 3 and 4X areas where wind, water, snow or high ambients can be expected. They can be used in locations made hazardous by the presence of flammable vapors or gases or combustible dusts as defined by the NEC/CEC/IECEX/ATEX & INMETRO.

Typical applications include manufacturing plants, and certain chemical and petrochemical processing facilities, sewage treatment plants, off-shore and dockside installations, garages and storage facilities.

Compliances

- UL-8750 for LED lighting
- ANSI/UL 1598(A)
- UL-844 Standard for lighting fixtures for hazardous locations, Class I, Division 2; Class II, Divisions 1 and 2; Class III
- CSA C22.2 no. 137-M1981 electric luminaires for use in hazardous locations
- Enclosed and gasketed
- Type 3, 4X
- IP66

Materials

- Body and lens frame corrosion resistant copper-free aluminum alloy with baked powder epoxy/polyester finish, electrostatically applied for complete, uniform corrosion protection
- All external hardware – stainless steel
- Thermal shock and impact resistant glass lens (Polycarbonate available)
- High temperature silicone gasketing
- Trunnion heavy gauge 316 stainless steel

LED Flood Features and Standards

Supplemental **20KA/10KV Surge Protection** is **standard** (for 120-277 VAC models)
10KA/10KV Surge Protection (for 347-480 VAC)

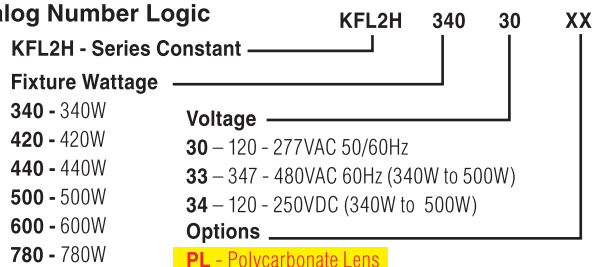
- Crisp White Light for Excellent Color Rendering – Chromaticity 5000K (CCT); approx. 70 CRI
- Energy Savings – High lumens per watt
- LED Array Life – 100,000+ hours with 70% initial lumens
- Long Fixture Life – 50,000 - 55,000 maintenance free hours
- Ambient suitability -40°C to 55°C up to 500W to -50°C for non-hazardous applications
- Instant On – Including after power interruption
- World Voltage 120 – 277VAC 50/60Hz
- Solder-LESS LED Board Connections – Vibration Resistant

PATENTED LENS and REFLECTOR DESIGN

Dark Sky Visor
 KFLH-DARK



Catalog Number Logic

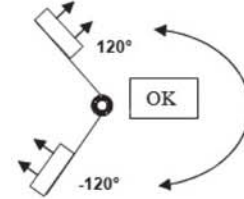


- F** - Single Fuse (Not for use in Canada)
- FF** - Double Fuse (Not for use in Canada)
- TBL** - Terminal Blocks **Looping**
- P1** - 120V Photocell, factory installed
- P2** - 208V-277V Photocell, factory installed
- P3** - 347V Photocell, factory installed
- IEX** - IEXEx includes TBL & External ground

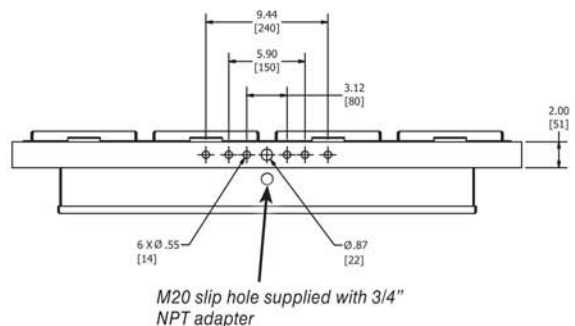
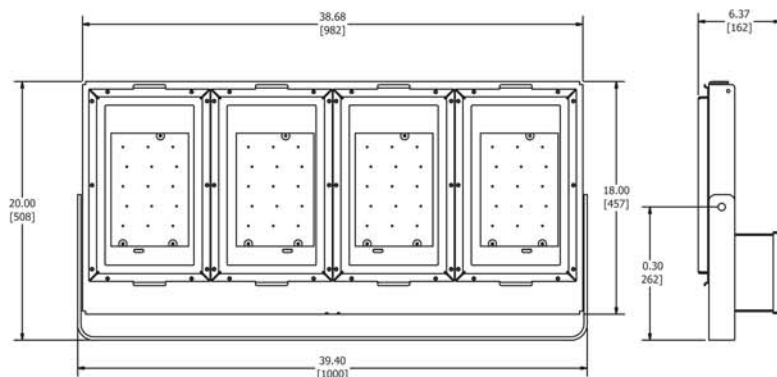


C1D2 FLOOD – ORDERING INFORMATION & TECHNICAL DATA

ORDERING INFORMATION AND AMBIENT SUITABILITY						C1D2 (C1Z2)		C1D2 SIMULTANEOUS		C2D1		L70					
CATALOG NO.	WEIGHT LBS./KG	WATTS	VOLTAGE	AMPS	DELIVERED LUMENS	40°C	55°C	40°C	55°C	40°C	55°C	TM-21	CALCULATED				
KFL2H34030	50.00 / 22.6	340	120-277VAC	2.92-1.26	43240	T4A (T4)	-	T4	-	T4	T3C	72600	278000				
KFL2H34033			347-480VAC	1.02-0.72							-			-	-		
KFL2H34034			120-250VDC	2.92-1.12							T4			T3C	T3C		
KFL2H42030		420	120-277VAC	3.50-1.50	42440	T4A (T4)	-	T4	-	T4	T3C	60100	270000				
KFL2H42033			347-480VAC	1.22-0.86							-			-	-		
KFL2H42034			120-250VDC	3.50-1.36							T4			T3C	T3C		
KFL2H44030		440	120-277VAC	3.76-1.62	53940	T4A (T4)	-	T4	-	T4	T3C	72600	278000				
KFL2H44033			347-480VAC	1.30-0.94							-			-	-		
KFL2H44034			120-250VDC	3.76-1.46							T4			T3C	T3C		
KFL2H50030		500	120-277VAC	4.34-1.88	69410	T4A (T4)	T4	T4	T4	T3C	T4	T3C	72600	278000			
KFL2H50033			347-480VAC	1.50-1.08											-	-	-
KFL2H50034			120-250VDC	4.34-1.70											-	-	-
KFL2H60030		600	120-277VAC	4.96-2.14	74060	T4A (T4)	T4	-	-	-	-	-	60300	107000			
KFL2H78030			780	120-277VAC	6.60-2.86	80820	T4A (T4)	T4	-	-	-	-	60300	190000			



KFL2H MOUNTS AND ACCESSORIES	
CATALOG NUMBER	DESCRIPTION
KFS-6	Steel Slipfitter for 2" Pipe (2-3/8" o.d.) Tenon. Slips 3.75" Over Pipe
KFCB	Heavy Duty Cast-Iron Crossarm Fitting for Horizontal Trunnion
KFWB	Heavy Duty Wall Mount and/or Pipe Clamp Fitting Clamps 2" Pipe (2-3/8" o.d.) Through 2-1/2" Pipe (2-7/8" o.d.)
K4040	Heavy Duty Steel Wall Bracket. (Must be with KFCB Crossarm Fitting)
4041	Heavy Duty Steel Wall Bracket 2" Pipe (2-3/8" o.d.) Tenon Fitting. Use with KFS-6
KFLG	Wire Guard, 316 Stainless Steel (order 4 per fixture)
VMSC10	10' Stainless Steel Safety Cable with loop grip
KFLH-DARK	Dark Sky Visor, White Painted Aluminum
KFLH-DOOR	Replacement Internal Reflector and Lens Assembly (order 4 per fixture as required)





LIGHTING

C1D1 FLOOD – INTRODUCTION & LOGIC



PETROBRIGHT® LED

FEATURES-SPECIFICATIONS

Applications

LED KF1L Series Explosion-proof Floods are designed for installations where moisture, dirt, dust, corrosion and vibration may be present, or Type 3 and 4X areas where wind, water, snow or high ambients can be expected. They can be used in locations made hazardous by the presence of flammable vapors or gases or combustible dusts as defined by the NEC/CEC/IECEX/ATEX & INMETRO

Typical applications include manufacturing plants, and certain chemical and petrochemical processing facilities, sewage treatment plants, off-shore and dockside installations, garages and storage facilities

Compliances

- UL-8750 for LED lighting
- ANSI/UL 1598A
- UL-844 Standard for lighting fixtures for hazardous locations, Class I, Division 1; Class II, Division 1; Class III
- CSA C22.2 no. 137-M1981 electric luminaires for use in hazardous locations
- Zone 1 and Zone 21 to IEC 60079-0, 60079-1, 60079-31, 60079-7 Standards
- Enclosed and gasketed
- Type 3, 4X
- IP66

Materials

- Body, end caps and lens frame corrosion resistant copper-free aluminum alloy with baked powder epoxy/polyester finish, electrostatically applied for complete, uniform corrosion protection
- All external hardware - stainless steel
- Thermal shock and impact resistant extra heavy-duty glass lens
- High temperature silicone gasketing
- Trunnion heavy gauge 316 SS



LED Flood Features and Standards

Supplemental **20KA/10KV Surge Protection** is **standard** (for 120-277 VAC models)
10KA/10KV Surge Protection (for 347-480 VAC)

- **Factory Sealed Construction**
- One 3/4" NPT & one M20 entry standard (see logic for other choices)
- Crisp White Light for Excellent Color Rendering – Chromaticity 5000 K (CCT); approx. 70 CRI
- Energy Savings – High lumens per watt
- LED Array Life – 100,000+ hours with 70% initial lumens
- Long Fixture Life – 50,000 - 55,000 maintenance free hours
- Instant On – Including after power interruption
- World Voltage 120 – 277VAC 50/60Hz
- Solder-LESS LED Board Connections – Vibration Resistant

Class I, Div. 1&2, Groups B,C,D
 Class I, Zone 1&2, Groups IIB+H2, IIA
 Class II, Div. 1&2, Groups EFG, Class III
 Enclosure Type 4X, IP66 (-50°C to +55°C)

CSA File LR11713

IEC Ex Rated model (w/IEX or IEX4B suffix) Zone 1, Zone 21

Ex de IIB+H2 T6..T5, Gb, IP66

Tamb -20°C ≤Ta ≤ +55°C; Option LT for -50°C ≤Ta ≤ +55°C

Ex de IIB T6..T5, Gb, -50°C ≤Ta ≤ +55°C

Ex tb IIIC T90°C Db, -50°C ≤Ta ≤ +55°C

IECEX Certificate
 CSA 14.0010

ATEX Certificate
 SIRA14ATEX1159X

Patent Pending
 Fixture
 Design



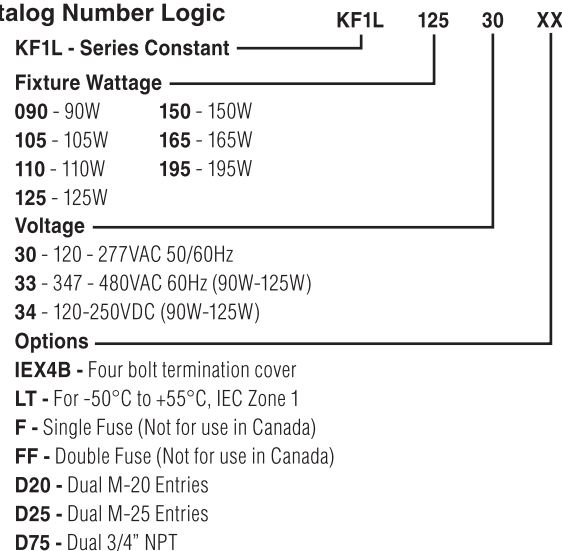
KF1L with KFS-6 Slipfitter mount on 2" pipe



Dark Sky Visor
 KF1L-DARK

Suitable for Paint
 Spray

Catalog Number Logic



Construction/Certification Notes:
 KF1L units are standard with one 3/4" NPT hub & one M20 hub – both plugged, with an 8-bolt factory sealed termination chamber, suitable for CID1 BCD -50°C to +55°C and IEC Zone 1 Ex de suitable for -20°C to 55°C.

Use option LT for models needing IEC Zone 1, -50°C to +55°C suitability for hydrogen.

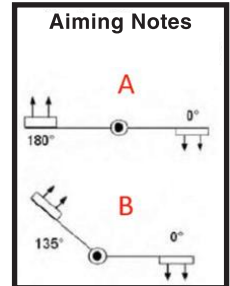
Option IEX4B utilizes 4 terminal cover bolts for Ex de and maintains all ratings **EXCEPT CID1 BCD.**

See logic for other entry options



C1D1 FLOOD – ORDERING & TECHNICAL DATA

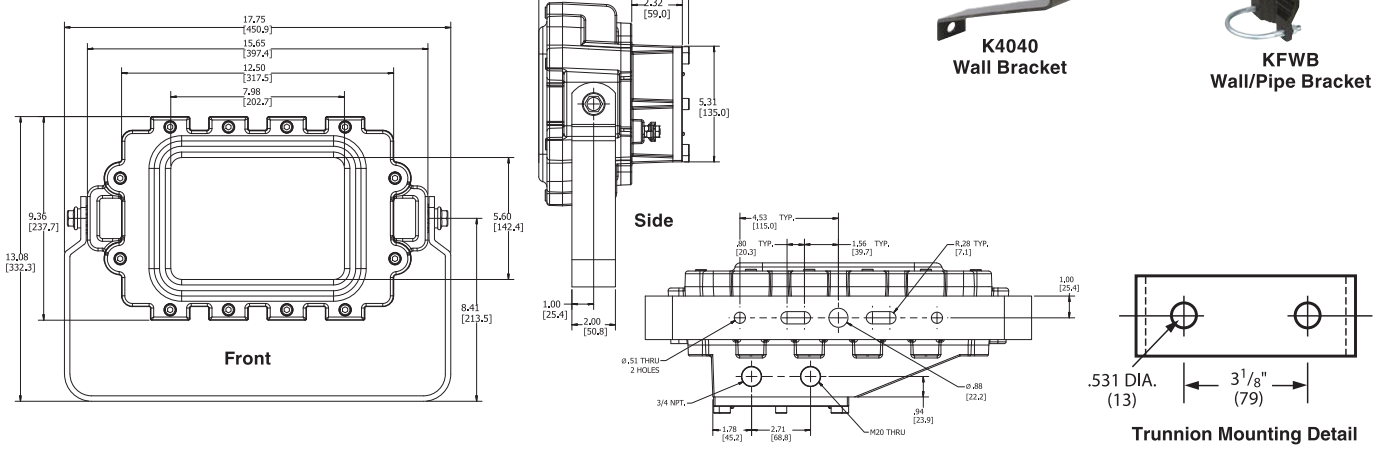
ORDERING INFORMATION AND AMBIENT SUITABILITY						C1D1		C2D1		IEC ZONE 1		IEC ZONE 21		L70												
CATALOG NO.	WEIGHT LBS./KG	WATTS	VOLTAGE	AMPS	DELIVERED LUMENS	40°C	55°C	40°C	55°C	40°C	55°C	40°C	55°C	TM-21	CALCULATED											
KF1L09030	46.00 / 20.87	90	120-277VAC	0.72-0.31	7182	T6	T6	(EFG)	Limited Aiming B	T6	T5	160-75	175-90	60100	270000											
KF1L09033			347-480VAC	0.25-0.18																						
KF1L09034			120-250VDC	0.72-0.28																						
KF1L10530		105	120-277VAC	0.85-0.37	8362	T6	T6	(EFG)	Limited Aiming B	T6	T5	160-76	175-91	60100	270000											
KF1L10533			347-480VAC	0.29-0.21																						
KF1L10534			120-250VDC	0.85-0.33																						
KF1L11030		110	120-277VAC	0.95-0.41	10590	T6	T6	(EFG)	Limited Aiming B	T6	T5	160-77	175-92	72600	278000											
KF1L11033			347-480VAC	0.33-0.24																						
KF1L11034			120-250VDC	0.95-0.37																						
KF1L12530		125	120-277VAC	1.10-0.48	11590	T6	T6	(EFG)	Limited Aiming B	T6	T5	160-78	175-93	72600	278000											
KF1L12533			347-480VAC	0.38-0.28																						
KF1L12534			120-250VDC	1.10-0.43																						
KF1L15030		150	120-277VAC	1.25-0.54	13280	T5	-	-	-	T5	-	-	-	60300	190000											
KF1L16530			120-277VAC	1.38-0.60												13760	T5	-	-	-	T5	-	-	-	72600	278000
KF1L19530			120-277VAC	1.63-0.70																						



KFL MOUNTS AND ACCESSORIES	
CATALOG NUMBER	DESCRIPTION
KFS-6	Steel Slipfitter for 2" Pipe (2-3/8" o.d.) Tenon. Slips 3.75" Over Pipe
KFCB	Heavy Duty Cast-Iron Crossarm Fitting for Horizontal Trunnion
KFWB	Heavy Duty Wall Mount and/or Pipe Clamp Fitting Clamps 2" Pipe (2-3/8" o.d.) Through 2-1/2" Pipe (2-7/8" o.d.)
K4040	Heavy Duty Steel Wall Bracket. (Must be with KFCB Crossarm Fitting)
4041	Heavy Duty Steel Wall Bracket 2" Pipe (2-3/8" o.d.) Tenon Fitting
KFLG	Wire Guard, 316 Stainless Steel
VMSC10	10' Stainless Steel Safety Cable with loop grip
KF1L-DARK	Dark Sky Visor, White Painted Aluminum
KF1L-DOOR	Replacement Door and Lens Assembly



Dimensions





WALLPACK



Class I, Div. 2, Groups A,B,C,D
Class I, Zone 2, Groups IIC, IIB, IIA
Type 4X



FEATURES-SPECIFICATIONS

CERTILITE®

Applications

KWPL Wall Luminaires are ideally suited for applications requiring a pleasing aesthetic appearance or hazardous location suitability in a compact energy saving fixture. Units are of copper-free aluminum construction for cool operation with a bronze electrostatically applied powder-coat finish. Suitable for locations such as perimeter security lighting, parking areas, factories and parking garages.

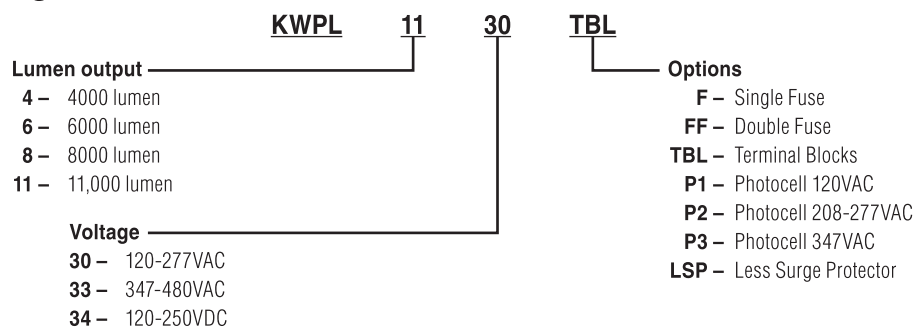
Features

- Aluminum with Bronze finish 1/2" hub on either side for conduit entry
- Suitability for 55°C ambient, 90°C supply wire required (see table)
- Lens thermal shock and impact resistant prismatic borosilicate glass
- Two Hubbell Guard® Corrosion resistant hex head fasteners provide water-tight seal for door gasket
- Options include: factory installed photo cells, fusing

Compliances

- UL 1598 Standard for Luminaires
- UL 844 Standard for lighting fixtures for hazardous locations
- CSA C22 no. 137-M1981 electric luminaires for use in hazardous locations
- Enclosed and gasketed
- Type 3, 4X
- LED Array Life – 100,000+ hours with 70% initial lumens
- Long Fixture Life – 50,000 - 55,000 maintenance free hours

Catalog Logic





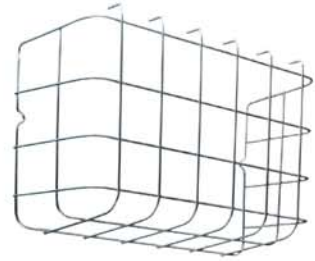
WALLPACK



Glare Shield



Clear Shield



Wire Guard

ORDERING INFORMATION

ORDERING INFORMATION AND AMBIENT SUITABILITY						C1D2		L70	
CATALOG NO.	WEIGHT LBS./KG	WATTS	VOLTAGE	AMPS	LUMENS	40°C	55°C	TM-21	CALCULATED
KWPL430	14.00 / 6.35	34	120-277VAC	0.12 - 0.28	4436	T5	T4A	60500	247000
KWPL433			347-480VAC	0.07 - 0.10		T5	T4A	60500	247000
KWPL434			120-250VDC	0.14 - 0.28		T5	T4A	60500	247000
KWPL630		46	120-277VAC	0.17 - 0.38	5636	T4A	T4	60500	247000
KWPL633			347-480VAC	0.10 - 0.13					
KWPL634			120-250VDC	0.18 - 0.38					
KWPL830		68	120-277VAC	0.25 - 0.57	8404	T4A	T4	60500	247000
KWPL833			347-480VAC	0.14 - 0.20					
KWPL834			120-250VDC	0.27 - 0.57					
KWPL1130		90	120-277VAC	0.32 - 0.75	10914	T4	-	60500	247000
KWPL1133			347-480VAC	0.19 - 0.26					
KWPL1134			120-250VDC	0.36 - 0.75					



C SP US
FACTORY
SEALED

Photo Cell Field Kits for Harsh Type 4X and Class I, Div. 2 Locations

PHOTO CELL FIELD KITS	
CATALOG NUMBER	VOLTS
VMFSPC1	120VAC
VMFSPC2	208-277VAC
VMFSPC3	347VAC

KWP ACCESSORIES	
CATALOG NUMBER	DESCRIPTION
PGPS	Clear Shield (Polycarbonate) for Protecting Lens
PGWG	Wire Guard, Cadmium Plated Steel
PVLV	Glare Shield Full Cutoff Visor – Formed Bronze Aluminum Forces light to Walkway
KWPLENS	Replacement Door and Lens

LIGHTING

EMERGENCY & UTILITY LIGHTING



EMERGENCY BATTERY BACKUP & UTILITY LIGHTING



NEBS



LLS2



EBS



VSL



DVL



EMERGENCY BATTERY SYSTEM



Class I, Division 2, Groups A, B, C, D
 Class I, Zone 2, Groups IIA, IIB, IIB+H2, IIC
 Class II, Division 1, Groups E, F, G
 Class III
 Suitable for wet locations
 Type 4, 4X
 IP66

UL Sanitation Certified with FP Option
 Operating Temperature:
 C1D2 & C2D1: 50° to 122°F(10° to 50°C)
 C1D2 & C2D1: with heater option -22° to 122°F (-30° to 50°C)

FEATURES-SPECIFICATIONS

Applications

The NEBS Series is a highly versatile superior lumen output, industrial application emergency lighting unit, designed to provide a minimum of 90 minutes illumination when primary power is lost. The NEBS Series provides the same level of lumen output with no light degradation for the full 90 minutes of battery discharge. It has a flame-rated, UV stable thermoplastic housing which is fully gasketed and corrosion resistant with a gray finish. LED based lamp-heads are made of high strength die-cast aluminum with a polycarbonate lens. Includes micro-controller based 3-stage charger and Lithium Iron Phosphate(LiFePO4) battery. The NEBS Series accepts 120 through 277VAC input at 50 or 60Hz. Not designed for self-diagnostic operation at 220-240VAC input. Universal mounting plate made of painted stamped steel. The NEBS is specifically designed for demanding environments, high reliability operation in industrial settings such as wet location or hose-down, food processing, food storage, production facilities, chemical plant and wastewater treatment.

Construction

The NEBS Series housing, covers, remote housing, shield and LED Lenses are made of impact resistant polycarbonate. Lamp-heads are made of die-cast aluminum for thermal dissipation.

Installation

The unit includes a universal mounting plate which facilitates mounting to a truss or I-beam, pole, column, or wall.

Illumination

The NEBS series provides bright and uniform illumination and is specifically designed for higher mounting heights above 9'. Coverage provided by 2 sealed aluminum lamp-heads using 3 high power LEDs each. The LEDs are located in a specially designed heat dissipating lamp-head which is fully adjustable and can be locked into position. The NEBS is designed for full lumen output across the entire 90 minutes of operation. This ensures maximum visibility of the egress path over the full 90 minute discharge period.

Electronics

Upon failure of the normal utility power, a LED driver is automatically activated to power the emergency LED lamp-heads. At resumption of normal utility power, the LED driver is turned off. The battery is recharged through a micro-controller based 3-stage charger. The battery is a maintenance-free Lithium Iron Phosphate (LiFePO4) type. The NEBS series accepts dual-voltage input of 120 through 277VAC at 50 or 60 Hz. A low voltage battery disconnect feature protects the battery from severe damage during prolonged power failures. Manual testing is available at any time using the push-to-test button. The NEBS remote can be located up to 100' from the source unit using 75°C minimum rated 12 gage wire.

Spectron Includes:

- Self-diagnostics monitors LED status, LED driver circuit, battery capacity and charger function and displays any fault detection by means of a flashing code
- Self-Test feature automatically runs a 1 minute test once a month and an alternating 30-60 minute test once every 6 months. Multi-color LED indicator provides visible fault detection and charging status
- User initiated 1, or 90-minute system test feature
- 15 minute re-transfer delay
- Automatic unit transfer in brown-out conditions (below 80% of nominal AC input voltage)

SERVICE ALERT CODES

OPERATING STATUS

KILLARK®

- = BATTERY DISCONNECTED
- = BATTERY FAULT
- = CHARGER FAULT
- = LED DRIVER FAULT
- = LAMP FAULT
- = LOAD LEARN FAILURE
- = ALTERNATING = LOAD LEARN PROGRESS

PUSH TO TEST

OFF = AC OFF
 ON = AC ON
 BLINKING = TEST IN PROGRESS

SPECTRON®



LIGHTING

EMERGENCY BATTERY SYSTEM

NEBS	12	I	C1D2	06L
Model	Capacity	Self-Diagnostics	Application	Lamp
	6 – 6 Watt 12 – 12 Watt	Blank – None I – Spectron® Self-Diagnostics	FP – Food Processing Rated C1D2 – Class 1 Div. 2 C2D1 – Class 2 Div. 1 HTR – Heater for Cold Temp	Blank – 3 Watt LED lamps 06L – 6 Watt LED lamps

OPERATING TEMPERATURE IN °C		
AMBIENT °C	CLASS 1 DIV. 2 A, B, C, D	CLASS 2 DIV. 1 E, F, G
40	T6	T6
50	T5	T6

ADDITIONAL PRODUCT INFORMATION							
CATALOG NUMBER	BATTERY	CAPACITY	LAMP(W)	LUMENS PER LAMP	RUNTIME	REMOTE CAPABLE	REMOTE PART NUMBER
NEBS6I-C1D2	LiFePO4	6 watts	3 watts	331	90 min	No	N/A
NEBS6I-C2D1							
NEBS12I-C1D2		12 watts	3 watts	331	90 min	Yes	NEBSRS-C1D2 NEBSRD-C1D2
NEBS12I-C2D1							NEBSRS-C2D1 NEBSRD-C2D1
NEBS12I-C1D2-06L		12 watts	6 watts	514	90 min	No	N/A
NEBS12I-C2D1-06L							

INPUT POWER CONSUMPTION			
	INPUT VOLTAGE	AMPS.	MAX. WATTS
NEBS6	120	0.03	3.40
	277	0.04	3.49
NEBS12	120	0.05	5.98
	277	0.04	6.52

ACCESSORIES	
NEBSRS	Type 4X Rated Single Head Remote
NEBSRD	Type 4X Rated Double Head Remote
NEBSRS-FP	Food Processing Rated Single Head Remote
NEBSRD-FP	Food Processing Rated Double Head Remote
NEBSWG	Wire Guard (Does not include Food Processing option) 15"H x 14"L x 7"D
NEBSRD-C1D2	Class 1, Div. 2 Remote, 3W heads, 1 conduit hub included
NEBSRD-C2D1	Class 2, Div. 1 Remote, 3W heads with shield, 1 conduit hub included

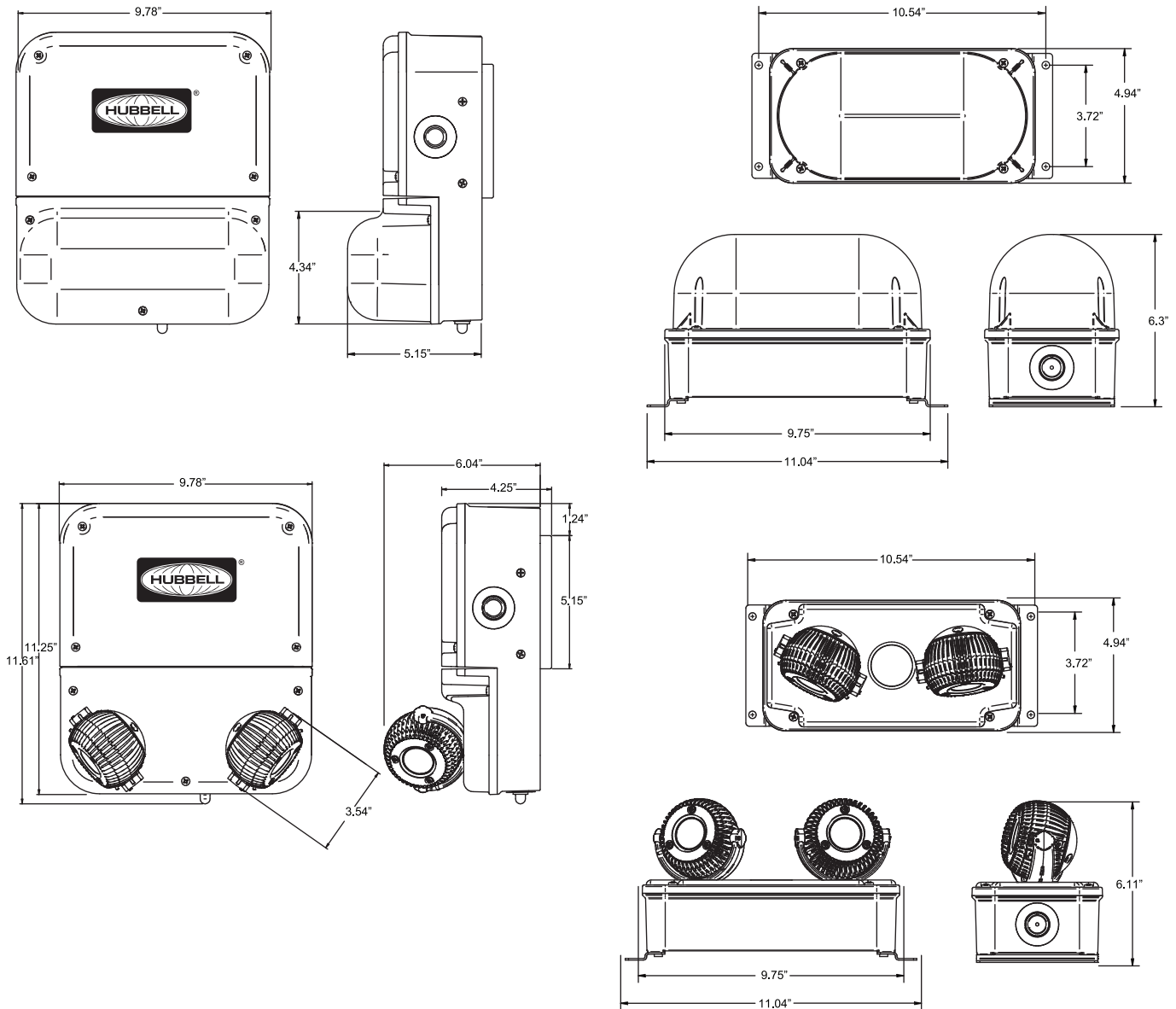
The NEBS Series meets proposed California Energy Commission(CEC) requirements for limits on power consumption in maintenance mode with less than 0.5 watts.

- Maintenance Mode Power Consumption 120VAC- 0.33W
- Maintenance Mode Power Consumption 277VAC- 0.36W



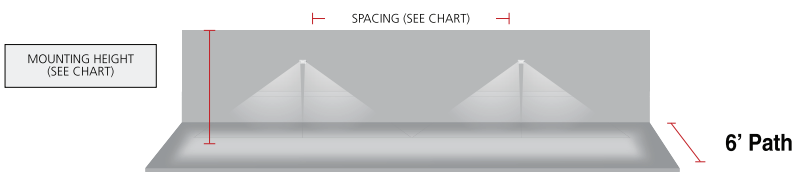


DIMENSIONS



APPLICATION DATA

Ceiling Mount



* Multiple unit spacing based on 6' path

INDUSTRIAL PARAMETERS CH=30', R=10/10/10, CEILING MOUNTED (MULTIPLE UNIT SPACING), 6' PATH															
NEBS12I-06L (6 WATT HEAD OPTION)							NEBS6I (3 WATT HEADS)								
MOUNTING HEIGHT	20'	18'	16'	14'	12'	10'	7.5'	MOUNTING HEIGHT	20'	18'	16'	14'	12'	10'	7.5'
MAX SPACING @ 1 FC AVG.	62'	65'	68'	71'	74'	77'	81'	MAX SPACING @ 1 FC AVG.	43'	45'	48'	51'	53'	56'	59'
MAX SPACING @ 1 FC MIN.	35'	34'	34'	33'	32'	31'	29'	MAX SPACING @ 1 FC MIN.	28'	28'	27'	27'	26'	24'	22'



LIGHTING

EMERGENCY BATTERY SYSTEM – INTRODUCTION



EBS Battery Unit Only

Class I, Div. 1&2, Groups B,C,D
 Class I, Zone 1&2, Groups IIB+H2, IIA
 Class II, Div. 1&2, Groups EFG
 Class III
 Enclosure Type 4 (Type 4, 7B CD, 9EFG)

 File LR11713

HOSTILE^{ITE}® EBS EMERGENCY

FEATURES-SPECIFICATIONS

Applications

Where required by the NEC (or local "Life Safety" code) for safe egress (over doors, aiseways, stairs, walkways, exit paths, and outer perimeter walls) to provide illumination during interruption of normal power to area lighting.

In indoor or outdoor locations made hazardous by the presence of flammable gas, vapors, or dusts. Includes refinery/chemical production and storage, grain processing, waste water treatment facilities and any area requiring heavy-duty dependable emergency lighting.

Exclusive Features

- LED Heads provide clear crisp illumination at 5000° Kelvin
- LED Head L70 value 100,000 hours for minimal maintenance
- Two head models up to 500% brighter than competitive non-LED units
- Enclosure Type 4 (Type 4) for wet and harsh locations
- Group B is standard when using EBSHK type heads
- Automatic Safety Disconnect – Removing main cover disconnects battery power
- Ambient Suitability 0°C to 45°C Battery Unit; Heads to 55°
- Compact unit requires only two mounting points
- World Voltage 120-277 VAC 50/60Hz input

Other Features

- High % of lumens maintained during 90 minute egress cycle
- EBSHK type heads are fully adjustable on unit or remote when ordered with RFSL Factory Sealed mounting kits

- EBSEL type heads are factory sealed on their EZ type mounting boxes
- Heads can be remote mounted over 300' from battery unit
- Ni-Cad sealed batteries provide 90 minutes of illumination
- Integral base unit LED pilot light indicates AC power is present
- Choice of Integral or Remote Push-To-Test station to verify system operation
- Vapor Capsule to inhibit corrosion is standard with main enclosure unit
- Terminal Blocks identified for incoming and outgoing connections

Compliances

- UL 1598 Standard for Luminaires
- UL 8750 for LED Lighting
- UL 844 Luminaires for Hazardous Locations
- UL 1203 Explosion-Proof/Dust-Ignition-Proof Electrical Enclosures
- UL 924 Emergency Lighting
- CSA C22.2 no. 137-M1981 Luminaires for Hazardous Locations
- CSA C22.2 no. 30-M1986 C1D1 Enclosures
- CSA 22.2 no. 25-1066 C2D1 EFG Enclosures
- Enclosure Type 4
- Type 4, 7BCD, 9EFG

Materials

- Main Enclosure and Heads Copper Free Aluminum alloy with Baked Powder epoxy/polyester finish, electrostatically applied for complete, uniform corrosion protection
- Attachment fittings copper-free aluminum
- External hardware 316 Stainless Steel
- EBSEL reflectors EXIT accessory aluminum with white paint

Notes

- Main EBS unit is CID1 Grp B (Suitable Zone 1 IIB+H2) with attached EBSHK heads or no heads; with attached EBSEL heads unit is CID1 Groups CD (Suitable Zone 1 IIB, IIA)



EBS Unit with HK Type Heads and Integral Push-To-Test



EBS Unit with EL Type Heads and Integral Push-To-Test



EBS Unit with EL Type Head and Exit plus HK Head with remote Push-To-Test



EMERGENCY BATTERY SYSTEM – LOGIC & COMPONENTS

Catalog Number Logic

EBS23DH - **P** **T** **A** **D**

EBS23DH Series Constant 120-277V 50/60Hz 23W
Dual-Head (Remote or Attached)

Test Options

- P** – Push-To-Test on Enclosure
- R** – Remote Push-To-Test Station (EBS-PTT shipped separately)
- N** – None - ordered separately or breaker controlled

Time Delay Option

- T** – Power Resumption Emergency Time-delay (Factory set approx. 15 min.) 120 thru 277V
- N** – No Time-Delay

Luminaire Head Options

- N** – No heads - For Remote Heads Ordered Separately
- A** – 2 EBSHK1030 Heads Factory Attached
- B** – 2 EBSEL1030 Heads (Less Guards) and Fittings for Attachment
- BG** – 2 EBSEL1030 Heads with Guards and Fittings for Attachment
- BE** – 2 EBSEL1030 Heads with 1 Guard and 1 HEXA-100 EXIT and Fittings for Attachment
- C** – 1 EBSHK1030 Head Attached and 1 EBSEL1030 Head (Less Guard) and Fittings for Attachment
- CG** – 1 EBSHK1030 Heads Attached and 1 EBSEL1030 Head with Guard and Fittings for Attachment
- CE** – 1 EBSHK1030 Heads Attached and 1 EBSEL1030 Head with HEXA-100 EXIT and Fittings for Attachment
- D** – 1 EBSHK1030 Only (2nd Head Remote - Ordered Separately)
- E** – 1 EBSEL1030 Only Less Guard and Fittings for Attachment (2nd Head Remote - Ordered Separately)
- EG** – 1 EBSEL1030 Only with Guard and Fittings for Attachment (2nd Head Remote - Ordered Separately)
- EE** – 1 EBSEL1030 Only with HEXA100 EXIT and Fittings for Attachment (2nd Head Remote - Ordered Separately)

Drain

- D** – Group B Drain for Wet Applications including condensation from heat <> cold cycling
- Blank** – Not included



Factory Sealed Remote LED Spot Light - Bottom Feed



Factory Sealed Remote LED Spot Light - Side Feed



Remote Push-To-Test Station



Remote LED Luminaire

EBS UNIT - BOTTOM DETAIL



- A** Optional Push-To-Test
- B** Optional Group B Drain
- C** Standard Pilot Light
- D** Entry for Remote P-T-T Station
- E** Power Entry (also on top)

The EBS23 System is designed to power 2 Heads for operation (total attached or remote); each Head is approximately 10 Watts.



LIGHTING

EMERGENCY BATTERY SYSTEM – PRE-CONFIGURED UNITS



Class I, Div. 1&2, Groups B,C,D
 Class I, Zone 1&2, Groups IIB+H2, IIA
 Class II, Div. 1&2, Groups EFG
 Class III
 Enclosure Type 4 (Type 4, 7B CD, 9EFG)



ORDERING INFORMATION

INTEGRAL PUSH-TO-TEST		REMOTE PUSH-TO-TEST		
EBS SYSTEM WITH TWO EBSHK HEADS				CID1BCD
Integral PTT, Two EBSHK	Integral PTT, TDR , Two EBSHK	Remote PTT, Two EBSHK	Remote PTT, TDR , Two EBSHK	
EBS23DH-PNA	EBS23DH-PTA	EBS23DH-RNA	EBS23DH-RTA	
EBS SYSTEM WITH TWO EBSEL HEADS WITH GUARDS				CID1CD
Integral PTT, Two EBSEL Heads w/ Guards	Integral PTT, TDR , Two EBSEL Heads w/ Guards	Remote PTT, Two EBSEL Heads w/ Guards	Remote PTT, TDR , Two EBSEL Heads w/ Guards	
EBS23DH-PN8G	EBS23DH-PT8G	EBS23DH-RN8G	EBS23DH-RT8G	
EBS SYSTEM WITH ONE EBSHK HEAD & 1 EBSEL HEAD WITH GUARD				CID1CD
Integral PTT, One EBSHK & One EBSEL Head w/ Guard	Integral PTT, TDR , One EBSHK & One EBSEL Head w/ Guard	Remote PTT, One EBSHK & One EBSEL Head w/ Guard	Remote PTT, TDR , One EBSHK & One EBSEL Head w/ Guard	
EBS23DH-PNCG	EBS23DH-PTCG	EBS23DH-RNCG	EBS23DH-RTCG	
EBS SYSTEM WITH TWO EBSEL HEADS ONE WITH EXIT				CID1CD
Integral PTT, Two EBSEL Heads, One w/ EXIT, One w/ Guard	Integral PTT, TDR , Two EBSEL Heads One w/ EXIT, One w/ Guard	Remote PTT, Two EBSEL Heads, One w/ EXIT, One w/ Guard	Remote PTT, Two EBSEL Heads, One w/ EXIT, One w/ Guard	
EBS23DH-PNBE	EBS23DH-PTBE	EBS23DH-RNBE	EBS23DH-RTBE	
EBS SYSTEM WITH ONE EBSHK HEAD & ONE EBSEL HEAD WITH EXIT				CID1CD
Integral PTT, One EBSHK Head, One EBSEL w/ EXIT	Integral PTT, TDR , One EBSHK Head, One EBSEL w/ EXIT	Remote PTT, One EBSHK Head, One EBSEL w/ EXIT	Remote PTT, TDR , One EBSHK Head, One EBSEL w/ EXIT	
EBS23DH-PNCE	EBS23DH-PTCE	EBS23DH-RNCE	EBS23DH-RTCE	
EBS SYSTEM ONLY FOR REMOTE HEADS (ORDER TWO SEPARATELY)				CID1BCD
Integral PTT, No Heads	Integral PTT, TDR , No Heads	Remote PTT, No Heads	Remote PTT, TDR , No Heads	
EBS23DH-PNN	EBS23DH-PTN	EBS23DH-RNN	EBS23DH-RTN	





EMERGENCY BATTERY SYSTEM – REMOTE HEADS & ACCESSORIES



EBSEL1030 COMPONENTS & ACCESSORIES – DESCRIPTION	CATALOG NUMBER
EBSEL 10W Head Only with LED's, Less Mount and Guard	EBSEL1030
Guard	EMG1
Red Guard – used to signify remote fixture is for Emergency	EMG1-R
EXIT Accessory – 3-sided white painted aluminum	HEXA-100
Dome Reflector	ERSD15
Angle Reflector	ERA15
Sealed Fittings Set for attachment of Pendant EBSEL to EBS23HD-xxx	EBS-AHFS
Replacement Globe and Support Assembly	EMGS1



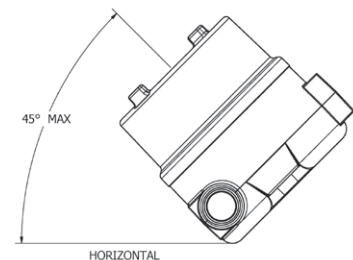
EBSEL Shown with Exit Accessory



MOUNTING BOXES				
CATALOG NUMBER				HUB SIZE
PENDANT	CEILING	BRACKET	STANCHION	
EZA2	EZX2	EZB2	-	3/4"
EZA3	EZX3	EZB3	-	1"
-	-	-	EZD4	1-1/4" / 1-1/2"



EBS23DH SERIES ACCESSORIES – DESCRIPTION	CATALOG NUMBER
Remote Push-To-Test Station Group B 3/4" Feed-Thru w/Close Up Plug	EBS-PTT
Remote Push-To-Test Station with Lock Off, Group B 3/4" Feed-Thru	EBS-PTT-LO
Lock-Off for Integral Push-To-Test	G010502
Sealed Fittings Set for attachment of EBSHK to GEBC-2 or GEBL-2	EBS-AHFS
Replacement Battery Pack and Electronics	KLBP01
Replacement Vapor Capsule for corrosion protection	EBS-VC



EBSHK Heads can be aimed up to 45 above horizontal – if flush on wall will require spacing out.



LIGHTING

EMERGENCY BATTERY SYSTEM – ELECTRICAL & TEMPERATURE DATA

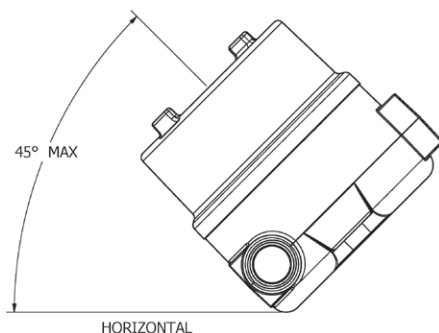


EBS23DH ELECTRICAL DATA						
CATALOG NUMBER	INPUT**			OUTPUT**		
	VOLTAGE	WATTS	CURRENT	VOLTAGE	WATTS	CURRENT
EBS23DH	120-277VAC	7.5	.1 A	33VDC	23	700mA

** Figures nominal. Current is 350mA to each of 2 heads (2 heads are required for proper operation, remote or attached).

THERMAL PERFORMANCE DATA					
CATALOG NUMBER	AMBIENT	CID1	CIID1	SUITABILITY	SUPPLY WIRE
EBS23DH	45°C	T6	EFG	0-45°C	75°C
EBSEL1030	55°C	T6	EFG	-40 to 40°C	75°C
EBSHK1030	55°C	T6	EFG	-40 to 40°C	75°C

* Heads are NOT certified for use without EBS Battery Unit

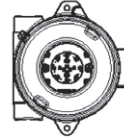


EBSHK Heads can be aimed up to 45 above horizontal – if flush on wall will require spacing out.

4 Head EBS option:

EBS units are designed for 2 head operation and will provide the lumens noted at right. However, 4 heads can be connected and will operate for 90 minutes at half the published lumen values. The EBSHK1030 would provide 456 lumens; the EVSEL1030 540 lumens. Instructions for wiring are included with the main EBS unit.

LED 10W EBSHK1030

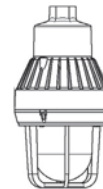


ZONAL LUMEN SUMMARY		
ZONE	LUMENS	FIXT%
0-30	254	27.9%
0-40	423	46.3%
0-60	781	85.5%
0-90	913	100.0%
90-120	0	0.0%
90-130	0	0.0%
90-150	0	0.0%
90-180	0	0.0%
0-180	913	100.0%

Absolute Photometry
Total Luminaire Efficiency = N.A.%
Spacing to Mounting Height Ratio 2.1

EMERGENCY MODE LUMENS		
5 Min.	99.1%	905 Lumens
45 Min.	99.4%	871 Lumens
90 Min.	95.3%	871 Lumens

LED 10W EBSEL1030



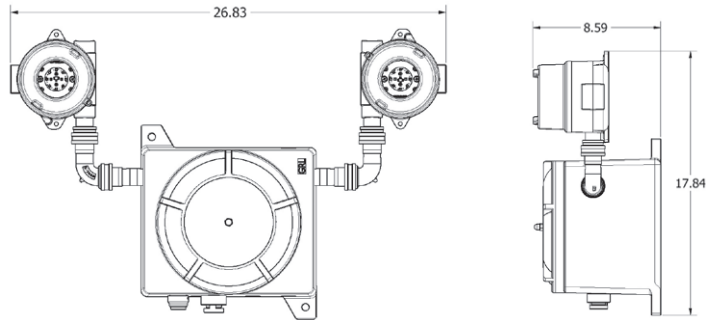
ZONAL LUMEN SUMMARY		
ZONE	LUMENS	FIXT%
0-30	180	16.7%
0-40	344	31.8%
0-60	758	70.1%
0-90	1067	98.7%
90-120	11	1.0%
90-130	13	1.2%
90-150	14	1.3%
90-180	14	1.3%
0-180	1081	100%

Absolute Photometry
Total Luminaire Efficiency = N.A.%
Spacing to Mounting Height Ratio 2.1

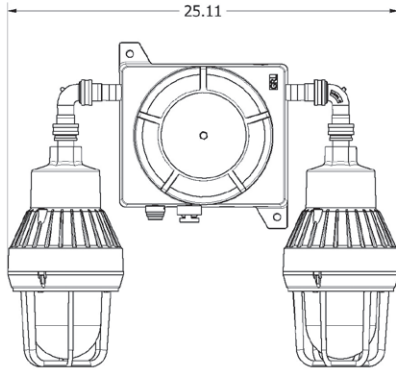
EMERGENCY MODE LUMENS		
5 Min.	94.4%	102 Lumens
45 Min.	91.3%	987 Lumens
90 Min.	89.3%	966 Lumens



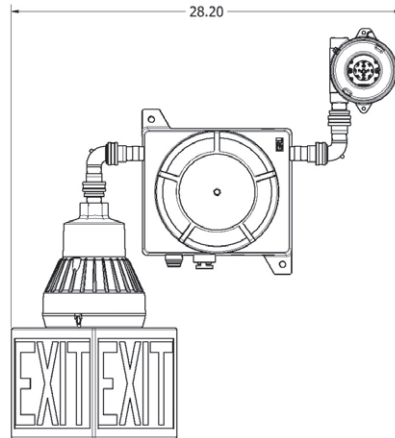
EMERGENCY BATTERY SYSTEM – DIMENSIONS & WEIGHTS



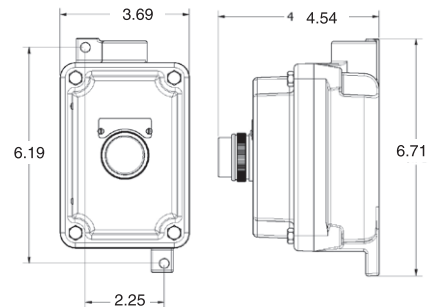
Dimensions - EBS with HK Heads



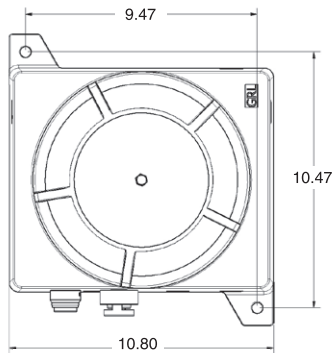
Dimensions - EBS with EL Heads



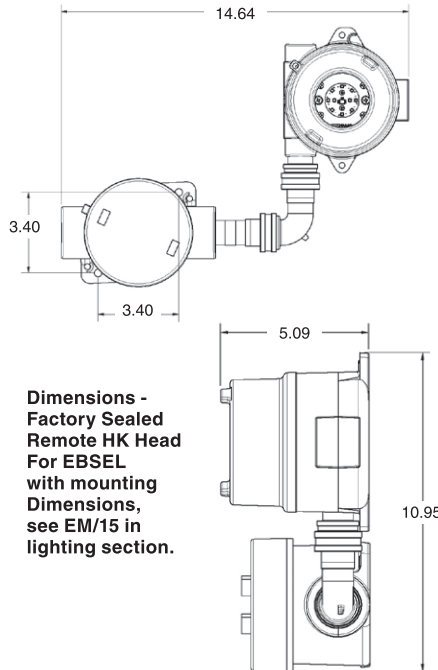
Dimensions - EBS with EL-EXIT & HK Heads



Dimensions - Remote Test Station



Dimensions - EBS Main Unit



Dimensions -
Factory Sealed
Remote HK Head
For EBSEL
with mounting
Dimensions,
see EM/15 in
lighting section.

WEIGHTS (SHIPPING) INDIVIDUAL AND COMBINATIONS	LBS.
EGS23DH Main Unit Only	36.6
EBSEL1030 Pendant Head Only w/ Fittings Set	12.3
EBSHK1030 Head Only w/ Fittings Set	5.0
EBSHK1030-RFSC (or RFSL)	11.0
EBS-PTT	3.0
EBS-AHFS Factory Sealed Fittings Set	0.6
EBS23DH & 1 EBSHK w/ Fittings	41.6
EBS23DH & 2 EBSHK w/ Fittings	46.6
EBS23DH & 1 EBSEL w/ Fittings	48.9
EBS23DH & 2 EBSEL w/ Fittings	61.2
EBS23DH & 1 EBSEL & 1 EBSHK w/ Fittings	53.9



LED LIGHT HEAD LUMINAIRE



GR Box

LED Head Zones 0, 1, 2
Ex ia I Ma and Ex ia IIB T3 Ga
IP65
Ta = -20°C to +40°C
Certificate: IECEx TSA 15.00 28X

GR Zone 1, 2
Ex d IIB T5/T6 and Ex tDA21 T80°C or T90°C
IP66
Ta = -20°C to +60°C
Certificate: IECEx PTB 05.0029

Connectors Zone 1, 2
Ex dbe IIC and Ex tb IIIC Db T85
IP66
Ta = -40°C to +60°C
Certificate: IECEx BAS 06.0018X

FEATURES-SPECIFICATIONS Applications

The intrinsically safe Type LLS2 LED luminaire is part of the Killark portable area lighting system that is designed to provide plant and area illumination in Group I and II harsh and hazardous areas. The LLS2 LED finds application on longwalls, around load centres and on machinery such as road headers, continuous miners and roof bolters for general area illumination.

The LLS2 LED luminaire uses high efficiency LED technology to provide both a compact low profile form factor and a long life maintenance free area illumination solution.

The luminaire is powered from a general-purpose intrinsically safe 12V power supply the Austdac AC36W installed in a GR enclosure. The AC36W is capable of powering up to 4 LLS2 LEDs. Up to 2 power supplies can be placed in a GR enclosure allowing for 8 LED's

The LLS2 LED luminaire is fitted with two power connectors which allow the LLS2 LED to be daisy chained.

The LLS2 LED can be mounted by the integral high strength magnets or may be bolted in place using the two external 12mm mounting holes. These two simple mounting alternatives and integral connector make the LLS2 LED particularly suited for use as longwall area lighting as the lighting system can be quickly removed during longwall relocations.

Compliances

- The LED luminaire type LLS2 is IECEx certified for use in Group I and II hazardous areas. The LLS2 IECEx certificate is IECEx TSA 15.0028X
- The LLS2 LED markings are Ex ia I Ma and Ex ia IIB T3 Ga.
- For Group II applications the user should refer to the User's Manual regarding potential electrostatic charging hazard.

Features and Standards

- High Intensity cool white
- High efficiency LED technology 650lm
- Low profile
- Magnetic or bolt mounting
- Intrinsically safe
- Long life
- Certified for Group I and II

Specifications

- Name – Luminaire LED
- Type – LLS2
- Mounting – M12 @ 340mm centres
- Size – 100(H)x360(W)x42(D)mm
3.93(H)x14.17(W)x1.65(D)
- Mass – 1100g
- Electrical connections – Integral connector
- Maximum cable length – 50m (164 feet)
- Ingress protection – IP65
- Operating temp range – -20°C to +40°C
-04°F to +104°F

Power Supply

- Operating Voltage – 10.0 - 12.6Vdc
- Current Consumption – 700mA max
- Ui – 12.6Vdc
- Ii – 3.3A
- Ci – 3.3uF
- Li – 0uH

Photometrics

- Luminance Flux – 650lm
- Beam angle – 90°
- Color temperature – 5000-8300°K



CATALOG NUMBER	DESCRIPTION
LLS002-01	LED Light Head Luminaire Type LLS2 - GROUP I
LLS002-02	LED Light Head Luminaire Type LLS2 - GROUP II
LLS002-C1-10	Cable LLS2 - 1 Connector – 10m
LLS002-C2-10	Cable LLS2 - 2 Connector – 10m
PSAC36W-12V-3.00A	Power Supply Type AC36W
GRISCB1	GR Enclosure / (1) Intrinsically-Safe Power Supply / InstrumEx Connectors
GRISCB2	GR Enclosure / (2) Intrinsically-Safe Power Supply / InstrumEx Connectors



UTILITY LIGHT – INTRODUCTION



Class I, Div. 2, Groups A,B,C,D
 Class I, Zone 2, Groups IIC, IIB, IIA
 Class II, Div. 2, Groups F,G
 Class III
 Suitable for wet locations
 Enclosure Type 4

Certified - File LR11713

V SERIES LED

FEATURES-SPECIFICATIONS

Introduction

Killark 'VSL' Series LED fixtures are designed for installations where moisture, dirt, dust, corrosion and vibration may be present, or Type 3 and 4 areas where wind, water, snow or high ambients can be expected. VSL's are sized to replace "Utility" type fixtures (incandescent or CFL's) in hallways, closets, elevator pits, docks, stairwells, access tunnels, and mechanical rooms. These fixtures can be used in locations made hazardous by the presence of flammable vapors or gases or combustible dusts as defined by the NEC. Typical applications include manufacturing plants, and certain chemical and petrochemical processing facilities, sewage treatment plants, off-shore and dockside installations, and garage areas.

LED Luminaire Features and Standards

- Compact in Size with Traditional Industrial Appearance and Suitability
- Wide variety of optics including glass globes (clear and tempered, color) plus polycarbonate globes in clear and colors (Polycarbonate globes are suitable to 40°C.)
- Optional Mounting arrangements including Pendant, Wall, Ceiling, Stanchion and Adapters
- Fixtures available unit packed, order option CP
- VSL LED Housings can be retrofitted to existing V Series splice boxes; upgrade from CFL or incandescent
- Energy Savings – less than 13 Watts of Power; less than 16 Watts for VSL1630. Replaces 75W or higher incandescent

- Long Fixture Life – 50,000 - 55,000 maintenance free hours
- Crisp White Light for Excellent Color Rendering – Chromaticity 5000°K (CCT); 70 CRI
- Integral driver – maintains fixture's compact profile to fit in existing spaces
- Ambient suitability -40°C to 55°C
- Instant on – including after power interruption
- "World Voltage" 120-277VAC 50/60Hz
- Solder-LESS LED Board Connections – Vibration Resistant

Compliances

- UL-8750 for LED lighting
- UL 1598 standard for luminaires
- UL-844 Standard for lighting fixtures for hazardous locations, Class I, Division 2; Class II, Division 2; Class III, Division 2
- CSA C22.2 no. 137-M1981 electric luminaires for use in hazardous locations
- Enclosed and gasketed
- Type 3, 4

Materials, Weights

- Body, splice box and guards are corrosion resistant copper-free aluminum alloy
- Baked powder epoxy/polyester finish, electrostatically applied for complete, uniform corrosion protection
- Reflectors – Polypropylene for pendant or ceiling applications
- Heavy-duty silicone gasketing for Type 4 requirements

Optic Selection Examples

- Broadest **COLOR** globe offering for Hazardous Locations in the industry
- Use as status lights or specialty/emergency indicators





LIGHTING

UTILITY LIGHT – CATALOG LOGIC



Clear Glass w/Guard

White Glass w/Guard

Blue Glass

Clear Polycarbonate

Red Polycarbonate

Class I, Div. 2, Groups A,B,C,D
 Class I, Zone 2, Groups IIC,IIB,IIA
 Class II, Div. 2, Groups F,G
 Class III
 Suitable for wet locations
 Enclosure Type 4

Certified - File LR11713

V SERIES LED Catalog Number Logic

- VSL Series Constant**
 1
Lamp Wattage
 13 = 13W LED
 16 = 16W LED
Voltage
 30 – 120-277VAC (13W, 16W)
 27 – 12-24VDC (13W, 16W)
 34 – 120-250VDC (13W)
Mounting Type
 NN – Mounr Ordered Separately
 A1 – 1/2" Pendant (VGA-1)
 A2 – 3/4" Pendant (VGA-2)
 F1 – 1/2" Ceiling w/Feet & Adapter (VBC-1 w/VBA)
 F2 – 3/4" Ceiling w/Feet & Adapter (VBC-2 w/VBA)
 X1 – 1/2" Ceiling (VGX-1)
 X2 – 3/4" Ceiling (VGX-2)
 C1 – 1/2" Ceiling (VGC-1)
 C2 – 3/4" Ceiling (VGC-2)
 H1 – 1/2" Ceiling Dead End (VGH-1)
 H2 – 3/4" Ceiling Dead End (VGH-2)
 D1 – 1/2" Ceiling Deep (VXA-1)
 D2 – 3/4" Ceiling Deep (VXA-2)
 D4 – 1-1/4" Stanchion (VD-4)
 RA – Round (Box) Adapter (VBA)
 SA – Square (Box) Adapter (VFPS)
 W1 – 1/2" Wall w/Feet (VBC-1 w/VB-1)
 W2 – 3/4" Wall w/Feet (VBC-2 w/VB-2)
 V1 – 1/2" Wall Elbow (VB-1)
 V2 – 3/4" Wall Elbow (VB-2)
 FL – Elbow for "V" Box (VFL)

- Reflector**
 S – Standard Reflector (Pendant or Ceiling Use Only)
 CP – Component Pack
Optic Color (Optic Type)
 A – Amber (S, H, P)
 B – Blue (S, H)
 R – Red (S, H, P)
 G – Green (S, P)
 P – Purple (S)
 BG – Blue Green (S, H)
 W – White (S)
Guard
 G – Guard (For Glass Globes Only)
 N – No Guard (Standard on Polycarbonate Globes)
 R – Guard Red (For Glass Globes Only)
 Can Signify Emergency UPS Circuits
Optics**
 S – Standard Globe (Clear)
 H – Heat Resistant (Tempered) Globe (Clear)
 P – Polycarbonate (Clear)



COLORED GLOBE OPTIONS** EXAMPLE VSL1330A1SG-A			
SUFFIX AND AVAILABLE COMBINATIONS			
COLOR NUMBER	STANDARD GLOBE	TEMPERED GLOBE	POLYCARBONATE
AMBER	A	A	A
BLUE	B	B	—
RUBY	R	R	R
GREEN	G	—	G
PURPLE	P	—	—
BLUE-GREEN	BG	BG	—
WHITE	W	W	W



** Use tempered glass or poly globe for wet location applications.



UTILITY LIGHT – COMPONENTS



VSL Body

**RETROFIT
FOR ENERGY
SAVINGS**

VSL Fixture Bodies Only

Fixture bodies contain the LED driver and array, heat sink plus gaskets, and are threaded to accept globes, guards and reflectors. Users with KILLARK “V” Series vapor tight fixtures from the 1960’s onward can up-grade to the latest technology and, in many cases, reuse existing mounts, globes and guards. VSL bodies are designed for metallic boxes and mount directly to V Series splice boxes or adapters as indicated.

VSL FIXTURE BODIES	
CATALOG NUMBER	DESCRIPTION
VSL1330	13W 120-277VAC 50/60Hz Body with LEDs and Driver
VSL1630	16W 120-277VAC 50/60Hz Body with LEDs and Driver



VGA



VGH



VGC



VGX



VXA



VBC



VBA



VFPS

VSL Splice Boxes

For use with VSL Series fixture bodies.

VSL SPLICE BOXES				
CATALOG NUMBER	HUB SIZE	QTY.	LOGIC CODE	DESCRIPTION
VGA-1	1/2"	1	A1	Pendant mount
VGA-2	3/4"	1	A2	
VGH-1	1/2"	1	H1	Ceiling mount
VGH-2	3/4"	1	H2	
VGC-1	1/2"	2	C1	Ceiling mount
VGC-2	3/4"	2	C2	
VGX-1	1/2"	4	X1	Ceiling mount
VGX-2	3/4"	4	X2	
VXA-1	1/2"	5	D1	Ceiling mount, deep box
VXA-2	3/4"	5	D2	
VBC-1	1/2"	4	F1	Ceiling mount, with 3 close-up plugs (requires VBA Adapter) or wall mount with VB elbow
VBC-2	3/4"	4	F2	
VXAB	-	-	-	Blank close-up plate (less gasket)

VSL Adapters

VSL ADAPTER MOUNTING PLATES	
CATALOG NUMBER	DESCRIPTION
VBA	Adapts fixture body to VB, VJ or steel 3-1/2" & 4" splice boxes. Supplied with gasket.
VFPS	Adapts fixture body to steel 4" square outlet boxes or 3-1/2" or 4" octagon boxes

VSL Wall/Stanchion Mounts



VB



VFL



VD

VSL MOUNTING BRACKETS			
CATALOG NUMBER	HUB SIZE	QTY.	DESCRIPTION
VB-1	1/2"	1	Wall mount to VJ or VB boxes
VB-2	3/4"	1	Wall mount to VJ or VB boxes
VFL	-	-	Wall mount to V boxes directly or to VJ, VB boxes with VBA adapter
VD-4	1-1/4"	1	Stanchion mount



LIGHTING

UTILITY LIGHT – COMPONENTS, RATINGS & WEIGHTS

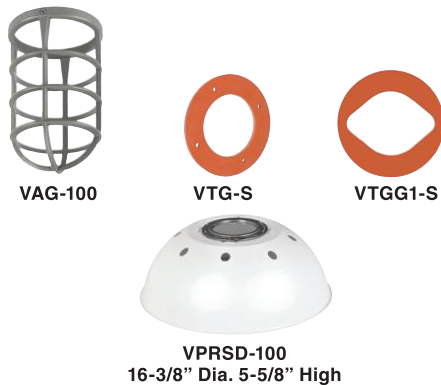
VSL Globes



VSL GLOBES – ORDERING INFORMATION AND SUFFIX GRID*						
COLOR	GLASS	OPTIC LOGIC	TEMPERED GLASS	OPTIC LOGIC	POLYCARBONATE	OPTIC LOGIC
Clear	VCG-100	S*	VCGP-100	H*	VPLCG-100	P*
Amber	AMG-100	A	VAMGP-100	A	VPLCG-100A	A
Blue	VBG-100	B	VBGP-100	B	–	–
Ruby (Red)	VRG-100	R	VRGP-100	R	VPLCG-100R	R
Green	VRSG-100	G	–	–	VPLCG-100G	G
Purple	VPG-100	P	–	–	–	–
Blue-Green	VGG-100	BG	VGGP-100	BG	–	–
White	VWG-100	W	VWGP-100	W	VPLCG-100W	W

* Use tempered glass or polycarbonate globes for wet location applications.

VSL Components



VSL COMPONENT PARTS AND ACCESSORIES	
CATALOG NUMBER	DESCRIPTION
VAG-100	Aluminum Guard for use with Glass Globe
VAG-100R	Red Aluminum Guard for use with Glass Globe
VTG-S	Body to Splice Box Gasket – Silicone
VTGG1-S	Globe Gasket – Silicone
VPRSD-100	White polypropylene for pendant & ceiling applications. Not for use with wall or stanchion models.

Typical Weights (lbs.) w/Standard Globe and Guard – VSL Series			
Pendant 7.03	Ceiling 7.51	Wall 8.09	Stanchion 7.61

VSL Thermal Ratings

VSL THERMAL PERFORMANCE DATA INCLUDING VPRSD-100 REFLECTOR								
CATALOG NUMBER	AMBIENT	C1D2		C2D2		SUPPLY WIRE	L70	
		GLASS GLOBE	POLY GLOBE	GLASS GLOBE	POLY GLOBE		TM-21	CALCULATED
VSL1330	40°C	T6	T5	T5 (F,G)	T5 (F,G)	90°	60,500	100,000+
VSL1330	55°C	T5	–	–	–	90°	60,500	100,000+
VSL1630	40°C	T5	–	T5 (F,G)	–	90°	60,500	100,000+

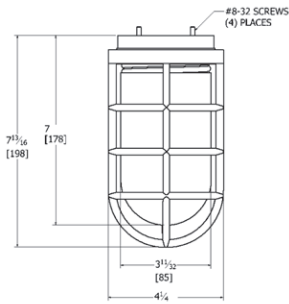
VSL Electrical Ratings

VSL LED BODY WITH DRIVERS AND LEDS – ELECTRICAL RATINGS					
CATALOG NUMBER	VOLTAGE 50/60HZ	WATTS	AMPS 120/277	LUMENS	WEIGHT LBS.
VSL1330	120-277VAC	12.42	.108/.047	1300	5.0
VSL1630	120-277VAC	15.64	.156/.067	1625	5.0

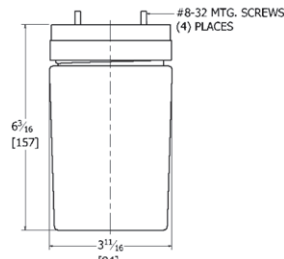
DELIVERED LUMENS			
WATTS	W/ GLOBE VCG-100	W/GLOBE VPLCG-100	W/GLOBE VWG100
13W	1211	1104	905
16W	1328	1308	1072



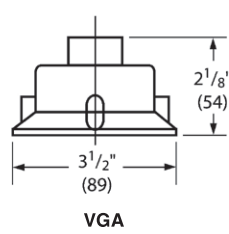
UTILITY LIGHT – DIMENSIONS



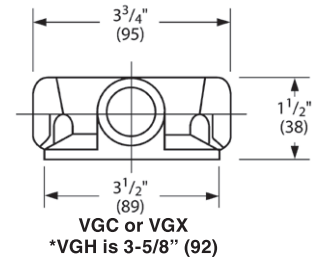
VSL Body w/Globe & Guard, No Splice Box



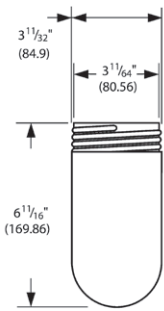
VSL Body w/Polycarbonate Globe, No Splice Box



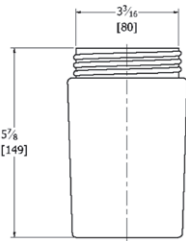
VGA



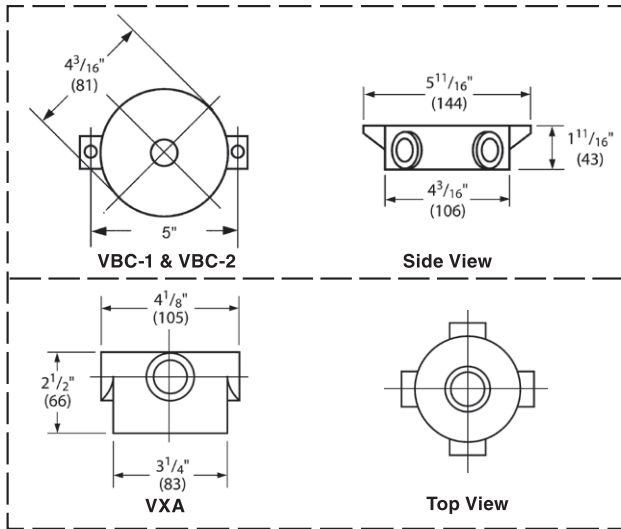
VGC or VGX
*VGH is 3-5/8" (92)



Glass Globe



Polycarbonate Globe

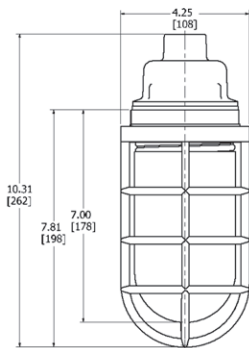


VBC-1 & VBC-2

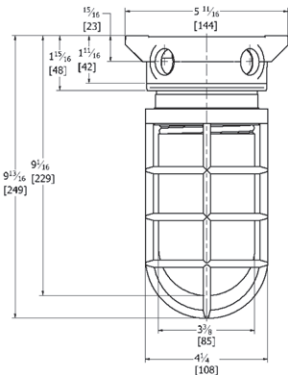
Side View

VXA

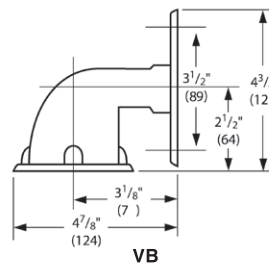
Top View



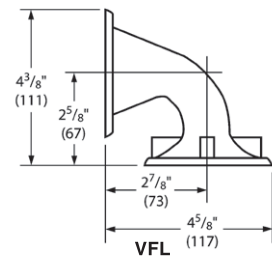
VSL Pendant Fixture w/Globe & Guard



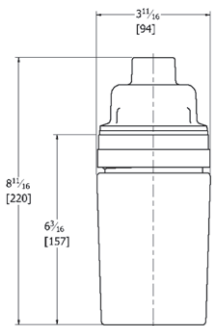
VSL Ceiling Fixture w/Globe & Guard



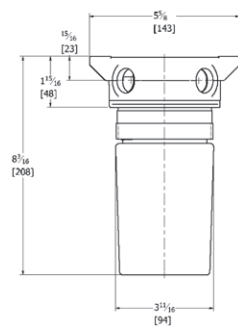
VB



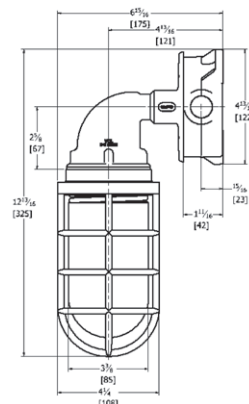
VFL



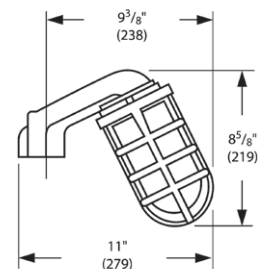
VSL Pendant Fixture w/Polycarbonate Globe



VSL Ceiling Fixture w/Polycarbonate Globe



VSL Wall Mounted Fixture w/Globe & Guard



VSL Stanchion Fixture w/Globe & Guard



LIGHTING

CLASS II UTILITY LIGHT – INTRODUCTION & ORDERING INFORMATION



Class II, Div. 1 & 2, Groups E, F, G
 Class III
 Class I, Div. 2, Groups A, B, C, D



Certified - File LR11713

DV SERIES LED

FEATURES-SPECIFICATIONS Introduction

Killark 'DVL' Series LED fixtures are designed for hazardous locations where suspended metal, carbon (such as coal) and grain dusts create explosive or ignitable mixture with the air.

LED Luminaire Features and Standards

- Compact in Size with Traditional Industrial Appearance and Suitability
- DVL LED Housings can be retrofitted to existing DV Series splice boxes; upgrade from incandescent housing 100 Series components
- Long Fixture Life – 50,000 - 55,000 maintenance free hours
- Crisp White Light for Excellent Color Rendering – Chromaticity 5000°K (CCT); 70 CRI
- Integral driver – maintains fixture's compact profile to fit in existing spaces
- Instant on – including after power interruption
- "World Voltage" 120-277VAC 50/60Hz
- Solder-LESS LED Board Connections – Vibration Resistant

Compliances

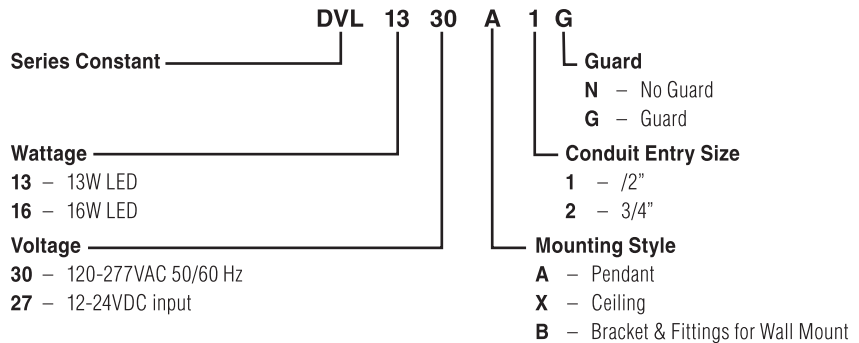
- UL-8750 for LED lighting
- UL 1598 standard for luminaires
- UL-844 Standard for lighting fixtures for hazardous locations, Class I, Division 2; Class II, Division 2; Class III, Division 2
- CSA C22.2 no. 137-M1981 electric luminaires for use in hazardous locations

Materials, Weights

- Body and splice box are corrosion resistant copper-free aluminum alloy. Steel guard.
- Baked powder epoxy/polyester finish, electrostatically applied for complete, uniform corrosion protection

DVL 100 SERIES						
MODEL	LAMP	HUB	PENDANT	CEILING	WALL	DELIVERED LUMENS
Type 100 13Watt	Included	1/2"	DVL1330A1G	DVL1330X1G	DVL1330B1G	1144
		3/4"	DVL1330A2G	DVL1330X2G	DVL1330B2G	
Type 100 16Watt	Included	1/2"	DVL1630A1G	DVL1630X1G	DVL1630B1G	1355
		3/4"	DVL1630A2G	DVL1630X2G	DVL1630B2G	

DVL Series LED Catalog Logic



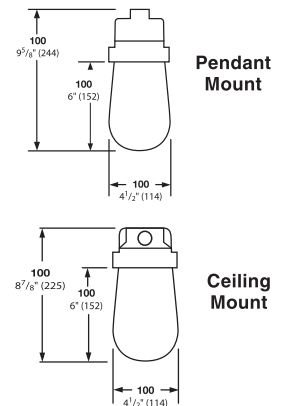
ACCESSORIES/COMPONENTS			
BODIES		MOUNTS	
DVL 1330	LED 13W	DVA1	1/2" Pendant Mount
DVL 1327	LED 13W	DVA2	3/4" Pendant Mount
DVL 1630	LED 16W	DVX1	1/2" Ceiling Mount
DVL 1627	LED 16W	DVX2	3/4" Ceiling Mount
		DVB1	1/2" Wall Mount
		DVB2	3/4" Wall Mount
GLOBE		GUARD	
DCGE-10		DAG-100	

DVL THERMAL RATINGS					
CAT. NO.	AMBIENT	WATTS	C2D1 EFG	C1D2 ABCD	SUPPLY WIRE
DVL1330	40°C	13	T3B	T6	90°C
DVL1630	40°C	16	T3B	T6	90°C
DVL1330	55°C	13	-	T5	90°C
DVL1630	55°C	16	-	T5	90°C

DVL Electrical and L70 Ratings
 Same as VSL Series - See page L55

Dimensions

As 100 Series incandescent



Wall Mount overall dimensions
 Height = 13.125" (333mm)
 Outward from wall = 7.4" (188mm)



FIXTURE HANGERS



FKA



FH



HOOKLOOP

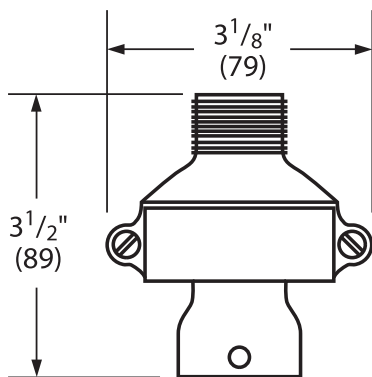
FEATURES-SPECIFICATIONS

FKA

Features

- Ball joint permits fixture to hang plumb. Fixture may swing up to 20° from vertical in any direction
- Cast of aluminum alloy (copper-free aluminum; less than 4/10 of 1%)
- Set screw locks fixture stem in place. Cannot accidentally loosen – intended for use with threaded metal conduit
- Joint cannot twist conductor
- Suitable for fixtures up to 125 pounds

FKA		
CATALOG NUMBER	MALE THREAD	FIXTURE STEM SIZE
FKA-22	3/4"	3/4"



For replacement ball only catalog number 00890545



Listed - File E27731



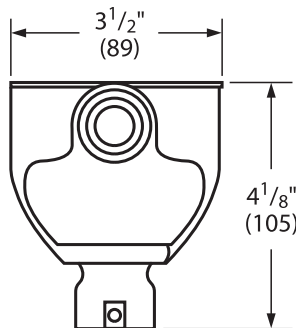
Certified - File LR11851 See files for details or call Killark.

FH

Features

- Combination splice box and flexible fixture hanger
- Ball joint permits fixture to hang plumb. Fixture may swing up to 20° from vertical
- Cast of aluminum alloy (copper-free aluminum; less than 4/10 of 1%)
- Set screw locks fixture stem in place – intended for use with threaded metal conduit
- Joint cannot twist conductors
- Cover may be removed for easy wiring – 11 cu. inches
- Mounts directly to metal conduit
- Suitable for fixtures up to 125 pounds

FH			
TWO HUBS	THREE HUBS	CONDUIT SIZE	FIXTURE STEM SIZE
FEED THRU	T		
FHC-21	FHT-21	3/4"	1/2"
FHC-22	FHT-22	3/4"	3/4"



For replacement ball only catalog number 00890545



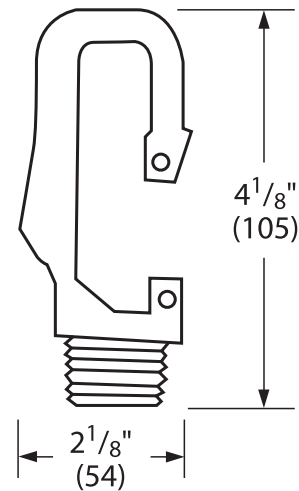
Listed - File E27731

HOOKLOOP

Features

- Pendant fixture hanger consists of a "HOOK" and safety bar which allows conversion to a "LOOP" configuration as necessary
- 3/4" male thread
- Maximum load 125 pounds

HOOKLOOP
CATALOG NUMBER
HOOKLOOP





LIGHTING

FIXTURE HANGERS

FH



Hook

V Hanger Boxes



VGA



VGC



VGH



VGX

Covers



Flexible Hanger Covers



Hub Covers (for Rigid Mounting)

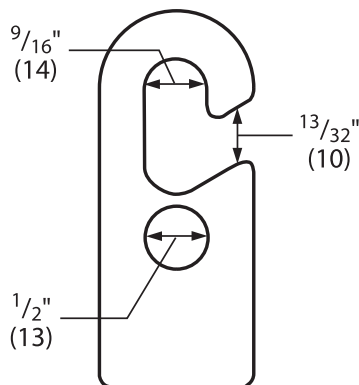
FEATURES-SPECIFICATIONS

FH HOOK

Features

- Economical hanger for pendant fixtures
- Fixtures may absorb minor bumps and vibration through free swinging action
- Hub provided with a set screw to pre-vent accidental loosening of fixture stem
- A 1/2 inch hole in body is for flexible cable. Cord may be assembled with plug for quick removal of fixtures
- Cast of aluminum alloy (copper-free—less than 4/10 of 1%)
- FH supports up to 125 pounds

FH HOOK, LOOP		
CATALOG NUMBER	DESCRIPTION	FIXTURE STEM SIZE
FH-2	Hook	3/4"



UL LISTED - File E27731 or E3397

See files for details or call Killark

V SERIES

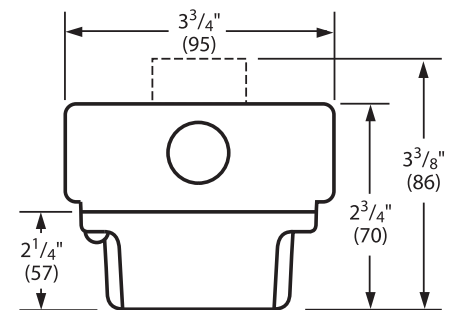
Features

- Flexible fixture hanger for threaded fixture stem. +120° from vertical
- Enclosed and gasketed, suitable for wet locations
- Permits angular displacement of fixture without twisting wires
- Cushioned—absorbs shock and vibration. Internal strap assures ground continuity
- Combines splice box and hanger in one unit. Splice box available in four configurations
- Cast of corrosion resistant aluminum alloy (copper-free—less than 4/10 of 1%)
- Supports up to 125 pounds

UL LISTED - File E27731 or E3397

FLEXIBLE HANGERS, V SERIES ENCLOSED AND GASKETED			
CATALOG NUMBER		HUB SIZE	FIXTURE STEM SIZE
HANGER W/SPLICE BOX	SPLICE BOX ONLY		
VPFHA-12	VGA-1	1/2"	3/4"
VPFHA-22	VGA-2	3/4"	3/4"
VPFHC-12	VGC-1	1/2"	3/4"
VPFHC-22	VGC-2	3/4"	3/4"
VPFHH-12	VGH-1	1/2"	3/4"
VPFHH-22	VGH-2	3/4"	3/4"
VPFHX-12	VGX-1	1/2"	3/4"
VPFHX-22	VGX-2	3/4"	3/4"

FIXTURE HANGERS ONLY		
CATALOG NUMBER	DESCRIPTION	FIXTURE STEM SIZE
VPFH-2	Flexible hanger cover, maximum load 125 Lbs.	3/4"
VG-2	Hub cover for rigid mounting	3/4"



Flexible cover with box, dotted line is VGA pendant



FIXTURE HANGERS



HXB



XFH



EKJ

FEATURES-SPECIFICATIONS

HXB

- Class I, Div. 1 & 2, Groups C,D
- Class I, Zones 1 & 2, Groups IIB, IIA
- Class II, Div. 1 & 2, Groups E,F,G
- Class III

Features

- Fixture hanger for hazardous locations combining splice box and hanger
- Set screws in female hub prevents accidental loosening of fixture stem; set screws in hub cover lock cover to the splice box
- Four hubs in "X" configuration up to 3/4"
- Flange mounting ring cast as integral part of box
- Splice box wiring hole with cover for access to box interior
- Cast of corrosion resistant aluminum alloy (copper-free aluminum; less than 4/10 of 1%)
- Supports to 125 pounds; vol. 16 cu."

UL LISTED - File E10514

SP Certified - File LR11716

HXB SPLICE BOX AND HANGER		
CATALOG NUMBER	CONDUIT HUB SIZE	FIXTURE STEM SIZE
HXB-11	1/2"	1/2"
HXB-12	1/2"	3/4"
HXB-21	3/4"	1/2"
HXB-22	3/4"	3/4"
HXBC	Blank Cover	
HIC-SILVER	Replacement Wiring Plug	

XFH

- Class I, Div. 1 & 2, Groups C,D
- Class I, Zones 1 & 2, Groups IIB, IIA
- Class II, Div. 1 & 2, Groups E,F,G
- Class III

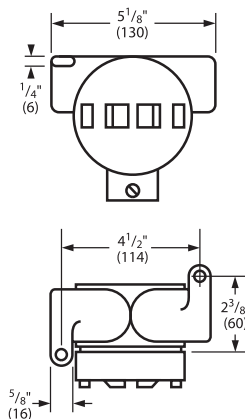
Features

- Fixture hanger for hazardous locations combining splice box and hanger
- Set screws in female hub prevents accidental loosening of fixture
- Straight through conduit hubs for through feed. 20 cu"
- Mounting lugs are standard
- Cast of corrosion resistant aluminum alloy (copper-free aluminum; less than 4/10 of 1%)
- Supports to 125 pounds

UL LISTED - File E10514

SP Certified - File LR11716

XFH SPLICE BOX AND HANGER		
CATALOG NUMBER	CONDUIT HUB SIZE	FIXTURE STEM SIZE
XFH-21	3/4"	1/2"
XFH-22	3/4"	3/4"



EKJ

- Class I, Div. 1 & 2, Groups A,B,C,D
- Class I, Zones 1 & 2, Groups IIC, IIB, IIA
- Class II, Div. 1 & 2, Groups E,F,G
- Class III

Features

- Fixture pendant hanger for hazardous locations
- Permits free swing and plumb hang
- Set screws in each hub prevents accidental loosening of fixture
- Constructed of seamless bronze hose with brass outer braid. Asphaltum impregnated jute inner insulates and protects wire from abrasion. Brass female end fittings are supplied with short nipples
- Electrical ground continuity without bonding jumper
- Suitable for wet locations as well as hazardous locations
- Flexible lengths 4 to 18 inches
- Supports to 125 pounds

UL LISTED - File E10514

SP Certified - File LR11716

EKJ FLEXIBLE PENDANT HANGER *		
CATALOG NUMBER	CONDUIT HUB SIZE	FIXTURE STEM SIZE
EKJ-14	1/2"	4"
EKJ-24	3/4"	4"
EKJ-16	1/2"	6"
EKJ-26	3/4"	6"
EKJ-18	1/2"	8"
EKJ-28	3/4"	8"
EKJ-110	1/2"	10"
EKJ-210	3/4"	10"
EKJ-112	1/2"	12"
EKJ-212	3/4"	12"
EKJ-115	1/2"	15"
EKJ-215	3/4"	15"
EKJ-118	1/2"	18"
EKJ-218	3/4"	18"



LIGHTING

FIXTURE HANGERS



JL



JAL



ENY Pendant Seal

FEATURES-SPECIFICATIONS

JL/JAL

Class I, Div. 1 & 2, Groups C,D
 Class I, Zones 1 & 2, Group IIB
 Class II, Div. 1 & 2, Groups E,F,G
 Class III

Features

- Splice box and hub cover for mounting pendant fixtures in hazardous locations
- Conduit openings in two configurations

- Flange type cover. Set screw in hub prevents accidental loosening of fixture stem
- Integral lugs for mounting box to ceiling
- Cast of corrosion resistant aluminum alloy (copper-free aluminum; less than 4/10 of 1%)
- Supports up to 125 pounds

LISTED - File E10514

Certified - File LR11716

ENY PENDANT SEALS

Class I, Div. 1 & 2, Groups A,B,C,D
 Class I, Zones 1 & 2, Groups IIC,IIB,IIA
 Class II, Div. 1 & 2, Groups E,F,G
 Class III

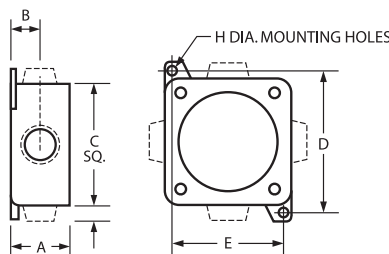
Features

- ENY Pendant Seals are designed for hazardous locations and meet code requirements for a safety set-screw when hanging fixtures. Common applications are for Class I Division I Group B or Class I Zone 2 Ex nR restricted breathing fixtures
- Cast of corrosion resistant aluminum alloy (copper-free aluminum; less than 4/10 of 1%)
- Supports up to 125 pounds

JL/JAL SPlice BOX AND HUB COVER FIXTURE HANGER				
CATALOG NUMBER		CONDUIT BOX	COVER	TYPE
JL SERIES W/HUB COVER	JAL SERIES W/HUB COVER			
JLC-11	—	1/2"	1/2"	CS Straight Through
JLC-12	—	1/2"	3/4"	
JLC-21	—	3/4"	1/2"	
JLC-22	—	3/4"	3/4"	
JLX-11	JALX-11	1/2"	1/2"	XF our Hubs
JLX-12	JALX-12	1/2"	3/4"	
JLX-21	JALX-21	3/4"	1/2"	
JLX-22	JALX-22	3/4"	3/4"	
—	JALX-31	1"	1/2"	
—	JALX-32	1"	3/4"	

CATALOG NUMBER	SIZE
ENY-2SET	3/4"

JL/JAL DIMENSIONS						
SERIES	A	B	C	D	E	F
JL	1-15/16" (49)	11/16" (17)	3-1/4" (95)	4-7/32" (107)	2-3/8" (60)	5/16" (8)
JAL	2-3/8" (60)	15/32" (12)	4-5/8" (117)	5-1/4" (133)	4-1/8" (105)	5/16" (8)





FLOODLIGHT MOUNTS

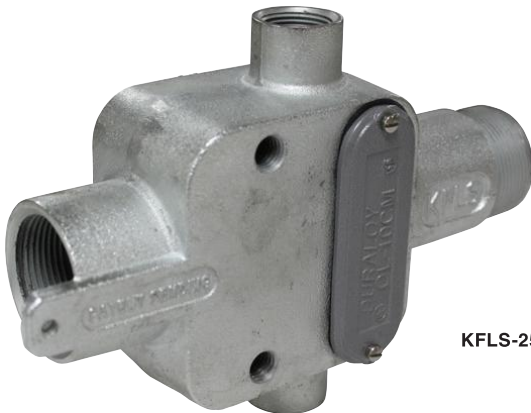
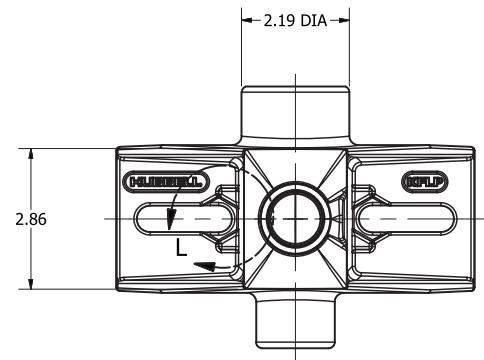
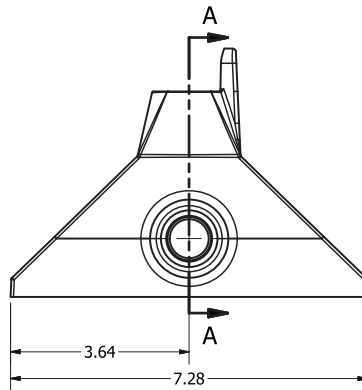


KFLP-23

Class I, Div. 1&2, Groups A, B, C, D
 Class II, Div. 1&2, Groups E, F, G
 Class III
 Suitable for wet locations Types 3, 4 IP66

Features:

- Zinc Plated ductile iron
- Stainless Steel Set Screw prevents accidental loosening due to vibration
- Indention in slot to prevent the nut from moving for one handed tightening during installation
- 1" or 3/4" NPT Conduit
- 3/4" NPT Cord Connector or Flexible Coupling
- Splice box wiring hole with cover for wiring access
- Earthquake tab
- Supports 125 lbs.

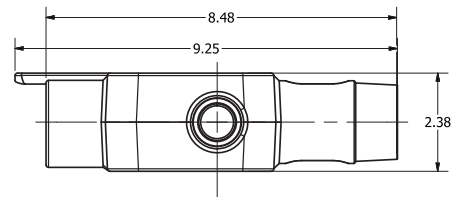
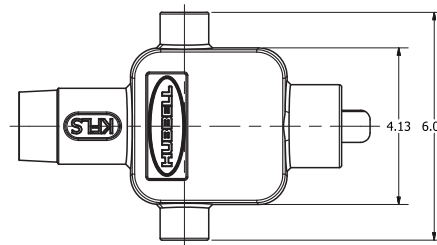


KFLS-25

Suitable for wet locations when used with gasketed covers.
 Federal Specification W-C-586D/A-A 50563.
 Suitable for use in hazardous location applications when installed according to NEC Articles 501.10(b), Class I, Div. 2, (Suitable for use in Class I Zone 2 applications) 502.10 and 503.10.

Features:

- Zinc Plated ductile iron
- Stainless Steel Set Screw prevents accidental loosening due to vibration
- 1.5", 1" or 3/4" NPT Conduit
- (2) - 3/4" NPT Cord Connector or Flexible Coupling
- Stackable; allowing up-to 4 positions to mount a floodlight
- Splice box wiring hole with cover for wiring access
- Supports 125 lbs.



LIGHTING



LIGHTING FOR HARSH AND HAZARDOUS ENVIRONMENTS



NVS Series

VM4 Series



EZ Series



EM Series



NV2 Series

NWP Series



KF Series



HFX Series



MB Series



LZ Series



FLUORESCENT BI-PIN/MEDIUM BASE HID



Pendant



Ceiling



Wall



Stanchion

Class I, Div. 2, Groups A,B,C,D*
Class I, Zone 2, Groups IIC,IIB,IIA
Class II, Div. 1 & 2, Groups E,F,G*
Class III
Suitable for wet locations
Marine Rated (US Only)
NEMA 3, 4X

UL LISTED - Files E10514 and E91793 (Marine)
SF Certified - File LR11713

FEATURES-SPECIFICATIONS



Applications

CertiLite® MB fixtures are designed for installations where moisture, dirt, dust, corrosion and vibration may be present, or NEMA 3 and 4X areas where wind, water, snow or high ambients can be expected. They can be used in locations made hazardous by the presence of flammable vapors or gases or combustible dusts as defined by the NEC.

Typical applications include manufacturing plants, and certain chemical and petrochemical processing facilities, sewage treatment plants, off-shore and dockside installations, garages and storage facilities.

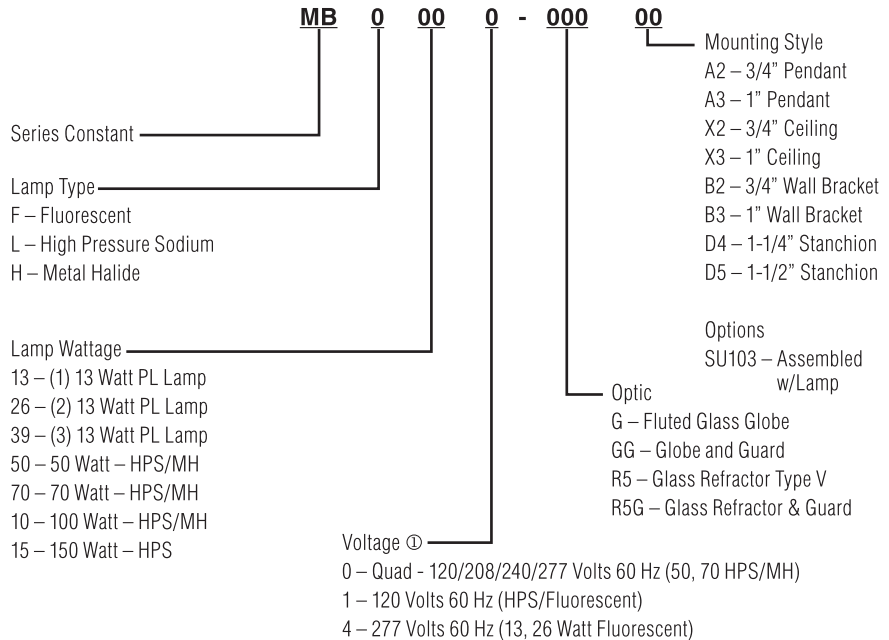
Features

- Ballast tank and splice box – corrosion resistant copper-free aluminum alloy
- Baked powder epoxy/polyester finish, electrostatically applied for complete, uniform corrosion protection
- All external hardware – stainless steel
- Guard – copper-free aluminum alloy
- Normally shipped as components for quick delivery
- Refractor guard – steel with corrosion resistant finish
- Reflector – lightweight, corrosion resistant fiberglass reinforced polyester
- Fluorescent models furnished with lamps. Energy efficient instant on white light (2700K). 10,000 hour lamp life
- HID lamp holders are E26 medium base

Compliances

- UL-1572 Standard for HID lighting fixtures
- UL-1570 Standard for Fluorescent fixtures
- UL Marine type lighting fixtures (HID models) UL-844 Standard for lighting fixtures for hazardous locations, Class I, Division 2; Class II, Divisions 1 and 2; Class III
- CSA C22.2 no. 137-M1981 electric luminaires for use in hazardous locations
- Enclosed and gasketed
- NEMA 3, 4X

Catalog Number Logic



© Consult factory for available lamp and voltage combinations.
 * See hazardous location application data on page L72 for limitations.



LIGHTING

HIGH PRESSURE SODIUM, 50-150W MEDIUM BASE HID



FEATURES-SPECIFICATIONS

Pendant



PENDANT 50-150W HIGH PRESSURE SODIUM					
LAMP TYPE	LAMP WATTS/ANSI	HUB SIZE ^②	VOLTAGE 60 HZ ^①	CATALOG NUMBER ^②	
				GLOBE AND GUARD	REFRACTOR AND GUARD
HPS	50 (S68)	3/4"	120	MBL501-GGA2	MBL501-R5GA2
	70 (S62)	3/4"	120	MBL701-GGA2	MBL701-R5GA2
	100 (S54)	3/4"	120	MBL101-GGA2	MBL101-R5GA2
	150 (S55)	3/4"	120	MBL151-GGA2	MBL151-R5GA2

Ceiling



CEILING 50-150W HIGH PRESSURE SODIUM					
LAMP TYPE	LAMP WATTS/ANSI	HUB SIZE ^②	VOLTAGE 60 HZ ^①	CATALOG NUMBER ^②	
				GLOBE AND GUARD	REFRACTOR AND GUARD
HPS	50 (S68)	3/4"	120	MBL501-GGX2	MBL501-R5GX2
	70 (S62)	3/4"	120	MBL701-GGX2	MBL701-R5GX2
	100 (S54)	3/4"	120	MBL101-GGX2	MBL101-R5GX2
	150 (S55)	3/4"	120	MBL151-GGX2	MBL151-R5GX2

Wall



WALL 50-150W HIGH PRESSURE SODIUM					
LAMP TYPE	LAMP WATTS/ANSI	HUB SIZE ^②	VOLTAGE 60 HZ ^①	CATALOG NUMBER ^②	
				GLOBE AND GUARD	REFRACTOR AND GUARD
HPS	50 (S68)	3/4"	120	MBL501-GGB2	MBL501-R5GB2
	70 (S62)	3/4"	120	MBL701-GGB2	MBL701-R5GB2
	100 (S54)	3/4"	120	MBL101-GGB2	MBL101-R5GB2
	150 (S55)	3/4"	120	MBL151-GGB2	MBL151-R5GB2

Stanchion



STANCHION 50-150W HIGH PRESSURE SODIUM					
LAMP TYPE	LAMP WATTS/ANSI	HUB SIZE ^②	VOLTAGE 60 HZ ^①	CATALOG NUMBER ^②	
				GLOBE AND GUARD	REFRACTOR AND GUARD
HPS	50 (S68)	1-1/4"	120	MBL501-GGD4	MBL501-R5GD4
	70 (S62)	1-1/4"	120	MBL701-GGD4	MBL701-R5GD4
	100 (S54)	3/4"	120	MBL101-GGD4	MBL101-R5GD4
	150 (S55)	1-1/4"	120	MBL151-GGD4	MBL151-R5GD4
	150	1-1/4"	120	MBL151-GGD4	MBL151-R5GD4

^① Catalog numbers shown are 120. Consult factory for other available voltages.

^② Catalog numbers shown with 3/4" conduit openings (1-1/4" on stanchion mount) and includes globe and guard or IES type V 8" glass refractor and guard. See catalog logic for other possible configurations.

* See Hazardous Location Application Data on page L72 for limitations.



METAL HALIDE, 50-100W MEDIUM BASE HID



ORDERING INFORMATION

Pendant



PENDANT 50-100W METAL HALIDE					
LAMP TYPE	LAMP WATTS/ANSI	HUB SIZE ^②	VOLTAGE 60 HZ ^①	CATALOG NUMBER ^②	
				GLOBE AND GUARD	REFRACTOR AND GUARD
MH ^③	50 (M110)	3/4"	120/208/240/277	MBH500-GGA2	MBH500-R5GA2
	70 (M98)	3/4"	120/208/240/277	MBH700-GGA2	MBH700-R5GA2
	100 (M90)	3/4"	120/208/240/277	MBH100-GGA2	MBH100-R5GA2

Ceiling



CEILING 50-100W METAL HALIDE					
LAMP TYPE	LAMP WATTS/ANSI	HUB SIZE ^②	VOLTAGE 60 HZ ^①	CATALOG NUMBER ^②	
				GLOBE AND GUARD	REFRACTOR AND GUARD
MH ^③	50 (M110)	3/4"	120/208/240/277	MBH500-GGX2	MBH500-R5GX2
	70 (M98)	3/4"	120/208/240/277	MBH700-GGX2	MBH700-R5GX2
	100 (M90)	3/4"	120/208/240/277	MBH100-GGX2	MBH100-R5GX2

Wall



WALL 50-100W METAL HALIDE					
LAMP TYPE	LAMP WATTS/ANSI	HUB SIZE ^②	VOLTAGE 60 HZ ^①	CATALOG NUMBER ^②	
				GLOBE AND GUARD	REFRACTOR AND GUARD
MH ^③	50 (M110)	3/4"	120/208/240/277	MBH500-GGB2	MBH500-R5GB2
	70 (M98)	3/4"	120/208/240/277	MBH700-GGB2	MBH700-R5GB2
	100 (M90)	3/4"	120/208/240/277	MBH100-GGB2	MBH100-R5GB2

Stanchion



STANCHION 50-100W METAL HALIDE					
LAMP TYPE	LAMP WATTS/ANSI	HUB SIZE ^②	VOLTAGE 60 HZ ^①	CATALOG NUMBER ^②	
				GLOBE AND GUARD	REFRACTOR AND GUARD
MH ^③	50 (M110)	1-1/4"	120/208/240/277	MBH500-GGD4	MBH500-R5GD4
	70 (M98)	1-1/4"	120/208/240/277	MBH700-GGD4	MBH700-R5GD4
	100 (M90)	1-1/4"	120/208/240/277	MBH100-GGD4	MBH100-R5GD4

① Metal Halide MB fixtures use quad-volt ballasts.

② Catalog numbers shown with 3/4" conduit openings (1-1/4" on stanchion mount) and include globe and guard or IES type V 8" glass refractor and guard. See catalog logic for other possible configurations.

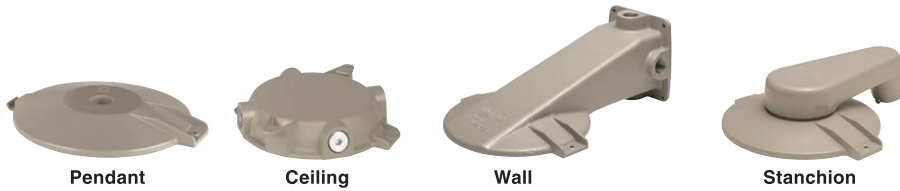
③ 50, 70, 100 MH Ballasts include a separate ignitor and are PULSE circuits.

* See Hazardous Location Application Data on page L72 for limitations.



LIGHTING

COMPONENT PARTS/BALLAST DATA



MB MOUNTING BRACKETS				
CATALOG NUMBER				HUB SIZE
PENDANT	CEILING	WALL	STANCHION	
MBA-2	MBX-2	MBB-2	—	3/4
MBA-3	MBX-3	MBB-3	—	1
—	MBX-8*	—	—	M20
—	—	—	MBD-4	1-1/4
—	—	—	MBD-5	1-1/2

* MBX-8 furnished with 3 non-metallic plugs



EBRS



EMRS



ENY-2Set

MB ACCESSORIES	
CATALOG NUMBER	DESCRIPTION
EMRS	MB medium base replacement socket (E26)
EBRS	MB Bi-Pin base replacement socket
MPL13	Replacement lamp for MBF and EBF series
ENY-2SET	3/4 ENY seal with set screw for sealed (Ex nR) pendant installations
ENY-3SET	1 ENY seal with set screw for sealed (Ex nR) pendant installations

MB BALLAST TANK			
LAMP TYPE	LAMP WATTAGE	VOLTAGE 60 HZ	CATALOG NUMBER
FL	13	120	MBF131
	26	120	MBF261
	39	120	MBF391
HPS	50	120	MBL501
	70	120	MBL701
	100	120	MBL101
	150	120	MBL151
MH	50	120/208/240/277	MBH500
	70	120/208/240/277	MBH700
	100	120/208/240/277	MBH100

MB BALLAST DATA										
LAMP	LAMP TYPE		STARTING AMPS	OPERATING AMPS	OPEN CIRCUIT AMPS	INPUT WATTS MAX	BALLAST CIRCUIT	REGULATIONS	MINIMUM START TEMPERATURE	
	WATTS	VOLTS - VAC								
FL ^①	13	120/277	.39/.35	.30/.3	—	16	NPF	—	0°	-18°C
HPS	50	120	0.75	0.55	0.9	60	HX-HPF ^②	±5% Line voltage ^③	-40°F	-40°C
	70	120	0.85	0.75	1.3	82	HX-HPF ^②	±5% Line voltage ^③	-40°F	-40°C
	100	120	1.50	1.05	1.8	115	HX-HPF ^②	±5% Line voltage ^③	-40°F	-40°C
	150	120	2.20	1.50	2.35	170	HX-HPF ^②	±5% Line voltage ^③	-40°F	-40°C
MH	50	120/208/240/277	.87/.51/.47/.39	.6/.35/.3/.25	1.6/.67/.57/.5	67	HX-HPF ^②	±5% Line voltage ^③ ±12% Lamp watts ^③	-20°F	-30°C
	70	120/208/240/277	.8/.5/.43/.39	.85/.5/.43/.37	1.7/1.04/.87/.78	95	HX-HPF ^②	±5% Line voltage ^③ ±12% Lamp watts ^③	-20°F	-30°C
	100	120/208/240/277	1.2/.8/.65/.6	1.15/.66/.58/.5	2.3/1.4/1.15/1.0	129	HX-HPF ^②	±5% Line voltage ^③ ±12% Lamp watts ^③	-20°F	-30°C

① Per lamp, max available amps @ 120VAC is 0.3A; max @ 277VAC is 0.2A

② Ballasts are High Power Factor 90%+.

③ Lamp watts within ANSI Trapezoid limitations.



ACCESSORIES/DIMENSIONS

Globe



MBG

Refractor



VZRG1550

Guards



MBAG



VMRWG8

Reflectors



VMPSD17

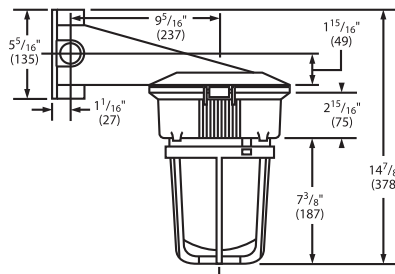
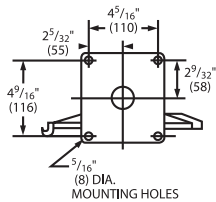
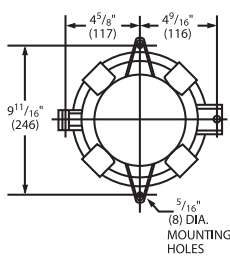
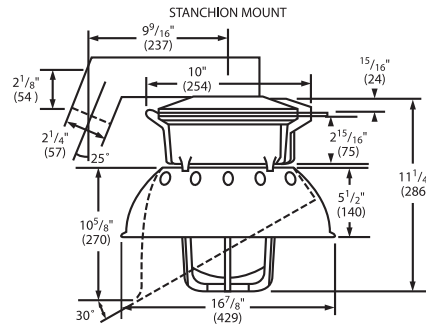
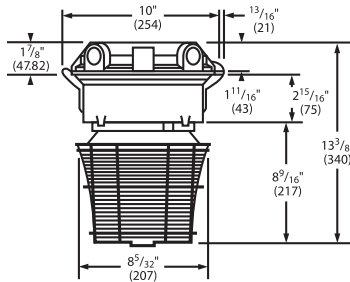


VMPA17

ORDERING INFORMATION

MB ACCESSORIES	
CATALOG NUMBER	DESCRIPTION
MBG	Heat and impact resistant globe
VZRG1550	(I.E.S. Type V) closed bottom 8 glass refractor
MBAG	Globe guard - Epoxy/polyester painted aluminum
VMRWG8	Refractor guard - plated steel
VMPSD17	Standard dome reflector (fiberglass reinforced polyester)
VMPA17	Angle reflector (fiberglass reinforced polyester)

Dimensions





LIGHTING

APPLICATION DATA

MBF HAZARDOUS LOCATION DATA							
LAMP TYPE	LAMPS/WATTS	RATED AMBIENT °C	CLASS I, DIVISION 2 GROUPS A, B, C, D ^① LAMP TEMP, W/GLOBE, GLOBE & REFLECTOR ^② OR 8" GLASS REFRACTOR	CLASS II, DIVISION 1 & 2 ^① MAXIMUM SURFACE TEMPERATURE W/GLOBE, GUARD ^③ & REFLECTOR ^② OR 8" GLASS REFRACTOR ^④	GROUP	CLASS III, DIV. 1 & 2 ^① W/GLOBE, W/GUARD ^③ & REFLECTOR ^② OR 8" GLASS REFRACTOR	SUPPLY WIRE SUITABLE FOR °C
			UL/CSA TEMP I.D.	UL/CSA TEMP I.D.		UL/CSA	
PL	13	40	(T3B) 165°C	(T4) 135°C	E, F & G	YES	90
	26 (2x13)	40	(T3B) 165°C	(T4) 135°C	E, F & G	YES	90
	39 (3x13)	25	(T3A) 180°C	(T4) 135°C	E, F & G	YES	90

① Verify temperatures for suitability for intended use.

② Includes both standard dome and angle reflectors.

③ Guard required for Class II, Division 1 and Class III, Division 1 applications.

④ Note: 8 inch glass refractor not CSA certified for Class II, Division 1 and Class III, Divisions 1 installations.

MB HAZARDOUS LOCATION DATA												
LAMP		RATED AMBIENT °C	CLASS I, DIV. 2, GROUPS A, B, C, D ^① LAMP TEMPERATURES			CLASS II, DIV. 1 & 2, GROUPS E, F, G ^{③⑤} MAXIMUM SURFACE TEMPERATURES			CLASS III, DIV. 1 & 2 ^③			SUPPLY WIRE SUITABLE FOR °C
TYPE	WATTAGE		WITHOUT ^④ REFLECTOR	WITH ^② REFLECTOR	WITH REFLECTOR	WITHOUT ^④ REFLECTOR	WITH ^② REFLECTOR	WITH REFLECTOR	WITHOUT ^④ REFLECTOR	WITH ^② REFLECTOR	WITH REFLECTOR	
HPS	50	40	215°C(T2D)	215°C(T2D)	215°C(T2D)	120°C(T4A)	135°C(T4)	120°C(T4A)	YES	YES	YES	75
	50	55	230°C(T2C)	230°C(T2C)	230°C(T2C)	135°C(T4)	160°C(T3C)	135°C(T4)	YES	YES	YES	90
	50	65	230°C(T2C)	230°C(T2C)	230°C(T2C)	160°C(T3C)	160°C(T3C)	160°C(T3C)	YES	YES	YES	90
	70	40	260°C(T2B)	260°C(T2B)	230°C(T2C)	120°C(T4A)	135°C(T4)	120°C(T4A)	YES	YES	YES	75
	100	40	280°C(T2A)	280°C(T2A)	280°C(T2A)	160°C(T3C)	160°C(T3C)	160°C(T3C)	YES	YES	YES	90
	150	40	325°C(T1)	325°C(T1)	325°C(T1)	—	—	160°C(T3C)	NO	NO	YES	110
MH	50	40	230°C(T2C)	230°C(T2C)	230°C(T2C)	160°C(T3C)	160°C(T3C)	160°C(T3C)	YES	YES	YES	90
	70	40	230°C(T2C)	230°C(T2C)	230°C(T2C)	160°C(T3C)	160°C(T3C)	160°C(T3C)	YES	YES	YES	90
	100	40	280°C(T2A)	280°C(T2A)	280°C(T2A)	160°C(T3C)	160°C(T3C)	160°C(T3C)	YES	YES	YES	85

① Verify temperatures for suitability for intended use.

② Includes both standard dome and angle reflectors.

③ Guard required for Class II, Division 1 and Class III applications.

④ Based on luminaire with globe and guard only.

⑤ 150 watt HPS—Groups E, F only with or without reflector and Groups E, F and G with refractor.



VQ1F/VQ2F SERIES

KILLARK

CERTILITE® COMPACT FLUORESCENT FIXTURES 13-84 WATT



VM1/Pendant
Globe & Guard



VM2/Ceiling
Globe & Guard



VM1/Wall
Globe & Guard



VM2/Stanchion 25°
Refractor & Guard

Class I, Div. 2, Groups A,B,C,D
Class I, Zone 2, Groups IIC, IIB, IIA
Class II, Div. 1 & 2, Groups E,F,G
Class III
Suitable for wet locations
NEMA 3, 4, 4X
IP66

Certified - File LR11713

NR Restricted Breathing Option
Class I, Zone 2 AEx nAnR
Class I, Zone 2 Ex nR



FEATURES-SPECIFICATIONS



Applications:

CertiLite® VQ1F/VQ2F Series are designed for installations where moisture, dirt, dust, corrosion and vibration may be present, or NEMA 3 and 4X areas and where wind, water, snow or high ambients can be expected. They can be used in locations made hazardous by the presence of flammable vapors and gases or combustible dusts, as defined by the NEC®. Typical applications include manufacturing plants and certain chemical and petrochemical processing facilities, sewage treatment plants, off-shore and dockside installations, garages and warehouses.

Standard Materials:

- Ballast tank and splice box – corrosion resistant copper-free aluminum alloy with baked powder epoxy/polyester finish, electrostatically applied for complete, uniform corrosion protection.
- All external hardware – 316 stainless steel.
- Guards – Painted copper-free aluminum alloy or 316SS for 7-3/4" glass optics and Enclosed Reflectors.
- Reflectors – lightweight, corrosion resistant fiberglass reinforced polyester, or copper-free aluminum.

Features:

- "World Voltage" Ballast 120 through 277 VAC 50/60Hz
- Six mounting splice box types: Pendant, Ceiling, Wall bracket, Cone Top, 25° Angle Stanchion, Straight Stanchion – in a variety of entry sizes, including M20 for the VMX ceiling style.
- Elevated ambients to 55°C 13W-64W
- Two lamp models have 2 ballasts for separate switching or system redundancy

- Normally shipped as components for fast delivery, or may be ordered factory assembled.
- Options for Fuses and Quick Disconnect
- Tank assemblies include quad-pin lamp

Compliances

- UL1598 Standard for luminaires
- UL1598A Marine type luminaire
- UL-844 Standard for lighting fixtures for hazardous locations

- CSA C22.2 no. 137-M1981 electric luminaires for use in hazardous locations
- Enclosed and gasketed
- NEMA 3, 4X IP66
- UL 60079-15 - Electrical apparatus for Explosive Gas Atmospheres with Type of Protection "n" (Restricted Breathing and non-sparking).

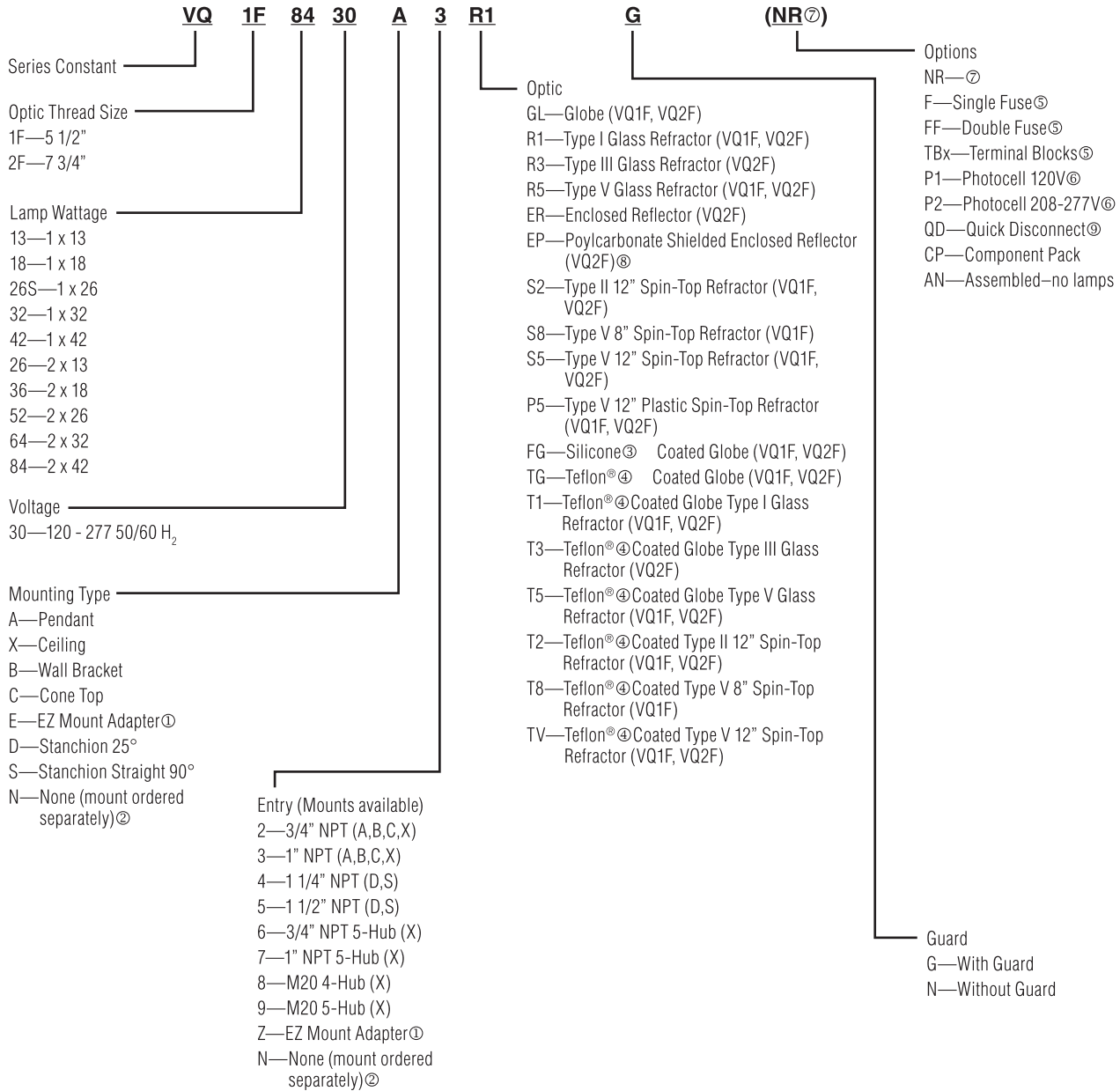
FEATURES		BENEFITS
	Swing-Barrel Nut Patented Tank Mounting System	<ul style="list-style-type: none"> • Stainless-to-Stainless securement • Takes load off during installation <ul style="list-style-type: none"> • Uses ordinary tools • Saves time and labor
	Sealed Optic Zone 2 AEx nAR Restricted Breathing (suffix NR)	NO External Seals. Lower T-codes, Suitable for Class I Div. 2 Classified areas per the NEC®. See L54 for more info.
	All glass refractors	Compact (5-1/2" thread size, types I & V) Standard (7-3/4", thread size, types I, III, V) Enhances user selection flexibility
	"EZ" mount adapter	Easier Maintenance, saves labor, move fixture from the ladder to the workbench
	Photo controls - Class I Div. 2 / N4X areas	Available as Field or Factory Installed to save energy when light not required
	Earthquake Tab - Built-in attachment point for safety cables	Safety: Secures fixture to structure in case of conduit failure. "3rd hand" accessories for lamp change out. See L83 for more info.
	"FULL CUTOFF" & CUTOFF Optics	For "Dark Sky" Requirements. Helps to minimize offending light pollution. See L86 for more info.
	VMEP40 "Food Optic" VQ2F	Expanded Offering for Food or Grain Handling Applications to minimize contamination. See L85 for more info.

Note: VQ1F dimensions are the same as VM1 and VQ2F are same as VM2.



CATALOG ORDERING LOGIC

CertiLite® Catalog Number Logic; 13-84 W Compact Fluorescent Fixtures



① Completes as "EZ", conduit mounting boxes ordered separately.
 ② NN mount ordered separately.
 ③ Silicone coated globe for additional impact protection.
 ④ Teflon® is a registered trademark of DuPont, Inc.
 ⑤ Fusing not for Marine or Canadian installations.
 ⑥ Photo cells for Class I, Div. 2 only
 ⑦ Restricted Breathing.
 ⑧ Not for use with wall or straight (90°) Stanchion.

⑧ QD = Quick Disconnect. Allows easy tank removal for maintenance. Electrician simply unplugs de-energized ballast from supply circuit.



VQ1F/VQ2F SERIES

KILLARK

CERTILITE® COMPACT FLUORESCENT FIXTURES



**VM1 Pendant
w/ 5-1/2"
Globe & Guard**



**VM2 Pendant
w/ 7-3/4"
Globe & Guard**



**VM1 Ceiling
w/ 5-1/2"
Globe & Guard**



**VM2 Ceiling
w/ 7-3/4"
Globe & Guard**

VQ1F-VQ2F 13-84 WATT COMPACT FLUORESCENT - PENDANT										
DESCRIPTION				5-1/2" OPTIC THREAD SIZE			7-3/4" OPTIC THREAD SIZE			
WATTS	LAMPS INCL.	HUB SIZE	VOLTAGE	GLOBE & GUARD	TYPE I GLASS REFRACTOR & GUARD	TYPE V GLASS REFRACTOR & GUARD	GLOBE & GUARD	TYPE I GLASS REFRACTOR & GUARD	TYPE V GLASS REFRACTOR & GUARD	12" SPIN-TOP TYPE V REFRACTOR & GUARD
13	1X13	3/4"	120VAC THROUGH 227VAC 50/60Hz	VQ1F1330A2GLG	VQ1F1330A2R1G	VQ1F1330A2R5G	VQ2F1330A2GLG	VQ2F1330A2R1G	VQ2F1330A2R5G	VQ2F1330A2S5G
18	1X18	3/4"		VQ1F1830A2GLG	VQ1F1830A2R1G	VQ1F1830A2R5G	VQ2F1830A2GLG	VQ2F1830A2R1G	VQ2F1830A2R5G	VQ2F1830A2S5G
26	1X26	3/4"		VQ1F26S30A2GLG	VQ1F26S30A2R1G	VQ1F26S30A2R5G	VQ2F26S30A2GLG	VQ2F26S30A2R1G	VQ2F26S30A2R5G	VQ2F26S30A2S5G
32	1X32	3/4"		VQ1F3230A2GLG	VQ1F3230A2R1G	VQ1F3230A2R5G	VQ2F3230A2GLG	VQ2F3230A2R1G	VQ2F3230A2R5G	VQ2F3230A2S5G
42	1X42	3/4"		VQ1F4230A2GLG	VQ1F4230A2R1G	VQ1F4230A2R5G	VQ2F4230A2GLG	VQ2F4230A2R1G	VQ2F4230A2R5G	VQ2F4230A2S5G
26	2X13	3/4"		VQ1F2630A2GLG	VQ1F2630A2R1G	VQ1F2630A2R5G	VQ2F2630A2GLG	VQ2F2630A2R1G	VQ2F2630A2R5G	VQ2F2630A2S5G
36	2X18	3/4"		VQ1F3630A2GLG	VQ1F3630A2R1G	VQ1F3630A2R5G	VQ2F3630A2GLG	VQ2F3630A2R1G	VQ2F3630A2R5G	VQ2F3630A2S5G
52	2X26	3/4"		VQ1F5230A2GLG	VQ1F5230A2R1G	VQ1F5230A2R5G	VQ2F5230A2GLG	VQ2F5230A2R1G	VQ2F5230A2R5G	VQ2F5230A2S5G
64	2X32	3/4"		VQ1F6430A2GLG	VQ1F6430A2R1G	VQ1F6430A2R5G	VQ2F6430A2GLG	VQ2F6430A2R1G	VQ2F6430A2R5G	VQ2F6430A2S5G
84	2X42	3/4"		VQ1F8430A2GLG	VQ1F8430A2R1G	VQ1F8430A2R5G	VQ2F8430A2GLG	VQ2F8430A2R1G	VQ2F8430A2R5G	VQ2F8430A2S5G

VQ1F-VQ2F 13-84 WATT COMPACT FLUORESCENT - CEILING										
DESCRIPTION				5-1/2" OPTIC THREAD SIZE			7-3/4" OPTIC THREAD SIZE			
WATTS	LAMPS INCL.	HUB SIZE	VOLTAGE	GLOBE & GUARD	TYPE I GLASS REFRACTOR & GUARD	TYPE V GLASS REFRACTOR & GUARD	GLOBE & GUARD	TYPE I GLASS REFRACTOR & GUARD	TYPE V GLASS REFRACTOR & GUARD	12" SPIN-TOP TYPE V REFRACTOR & GUARD
13	1X13	3/4"	120VAC THROUGH 227VAC 50/60Hz	VQ1F1330X2GLG	VQ1F1330X2R1G	VQ1F1330X2R5G	VQ2F1330X2GLG	VQ2F1330X2R1G	VQ2F1330X2R5G	VQ2F1330X2S5G
18	1X18	3/4"		VQ1F1830X2GLG	VQ1F1830X2R1G	VQ1F1830X2R5G	VQ2F1830X2GLG	VQ2F1830X2R1G	VQ2F1830X2R5G	VQ2F1830X2S5G
26	1X26	3/4"		VQ1F26S30X2GLG	VQ1F26S30X2R1G	VQ1F26S30X2R5G	VQ2F26S30X2GLG	VQ2F26S30X2R1G	VQ2F26S30X2R5G	VQ2F26S30X2S5G
32	1X32	3/4"		VQ1F3230X2GLG	VQ1F3230X2R1G	VQ1F3230X2R5G	VQ2F3230X2GLG	VQ2F3230X2R1G	VQ2F3230X2R5G	VQ2F3230X2S5G
42	1X42	3/4"		VQ1F4230X2GLG	VQ1F4230X2R1G	VQ1F4230X2R5G	VQ2F4230X2GLG	VQ2F4230X2R1G	VQ2F4230X2R5G	VQ2F4230X2S5G
26	2X13	3/4"		VQ1F2630X2GLG	VQ1F2630X2R1G	VQ1F2630X2R5G	VQ2F2630X2GLG	VQ2F2630X2R1G	VQ2F2630X2R5G	VQ2F2630X2S5G
36	2X18	3/4"		VQ1F3630X2GLG	VQ1F3630X2R1G	VQ1F3630X2R5G	VQ2F3630X2GLG	VQ2F3630X2R1G	VQ2F3630X2R5G	VQ2F3630X2S5G
52	2X26	3/4"		VQ1F5230X2GLG	VQ1F5230X2R1G	VQ1F5230X2R5G	VQ2F5230X2GLG	VQ2F5230X2R1G	VQ2F5230X2R5G	VQ2F5230X2S5G
64	2X32	3/4"		VQ1F6430X2GLG	VQ1F6430X2R1G	VQ1F6430X2R5G	VQ2F6430X2GLG	VQ2F6430X2R1G	VQ2F6430X2R5G	VQ2F6430X2S5G
84	2X42	3/4"		VQ1F8430X2GLG	VQ1F8430X2R1G	VQ1F8430X2R5G	VQ2F8430X2GLG	VQ2F8430X2R1G	VQ2F8430X2R5G	VQ2F8430X2S5G

LIGHTING

VQ1F/VQ2F SERIES



CERTILITE® COMPACT FLUORESCENT FIXTURES



VM1 Wall
w/ 5-1/2"
Globe & Guard



VM2 Wall
w/ 7-3/4"
Globe & Guard



VM1 EZ Adapter
w/ 5-1/2"
Globe & Guard



VM2 EZ Adapter
w/ 7-3/4"
Globe & Guard

VQ1F-VQ2F 13-84 WATT COMPACT FLUORESCENT - WALL										
DESCRIPTION				5-1/2" OPTIC THREAD SIZE			7-3/4" OPTIC THREAD SIZE			
WATTS	LAMPS INCL.	HUB SIZE	VOLTAGE	GLOBE & GUARD	TYPE I GLASS REFRACTOR & GUARD	TYPE V GLASS REFRACTOR & GUARD	GLOBE & GUARD	TYPE I GLASS REFRACTOR & GUARD	TYPE V GLASS REFRACTOR & GUARD	12" SPIN-TOP TYPE V REFRACTOR & GUARD
13	1X13	3/4"	120VAC THROUGH 227VAC 50/60Hz	VQ1F1330B2GLG	VQ1F1330B2R1G	VQ1F1330B2R5G	VQ2F1330B2GLG	VQ2F1330B2R1G	VQ2F1330B2R5G	VQ2F1330B2S5G
18	1X18	3/4"		VQ1F1830B2GLG	VQ1F1830B2R1G	VQ1F1830B2R5G	VQ2F1830B2GLG	VQ2F1830B2R1G	VQ2F1830B2R5G	VQ2F1830B2S5G
26	1X26	3/4"		VQ1F26S30B2GLG	VQ1F26S30B2R1G	VQ1F26S30B2R5G	VQ2F26S30B2GLG	VQ2F26S30B2R1G	VQ2F26S30B2R5G	VQ2F26S30B2S5G
32	1X32	3/4"		VQ1F3230B2GLG	VQ1F3230B2R1G	VQ1F3230B2R5G	VQ2F3230B2GLG	VQ2F3230B2R1G	VQ2F3230B2R5G	VQ2F3230B2S5G
42	1X42	3/4"		VQ1F4230B2GLG	VQ1F4230B2R1G	VQ1F4230B2R5G	VQ2F4230B2GLG	VQ2F4230B2R1G	VQ2F4230B2R5G	VQ2F4230B2S5G
26	2X13	3/4"		VQ1F2630B2GLG	VQ1F2630B2R1G	VQ1F2630B2R5G	VQ2F2630B2GLG	VQ2F2630B2R1G	VQ2F2630B2R5G	VQ2F2630B2S5G
36	2X18	3/4"		VQ1F3630B2GLG	VQ1F3630B2R1G	VQ1F3630B2R5G	VQ2F3630B2GLG	VQ2F3630B2R1G	VQ2F3630B2R5G	VQ2F3630B2S5G
52	2X26	3/4"		VQ1F5230B2GLG	VQ1F5230B2R1G	VQ1F5230B2R5G	VQ2F5230B2GLG	VQ2F5230B2R1G	VQ2F5230B2R5G	VQ2F5230B2S5G
64	2X32	3/4"		VQ1F6430B2GLG	VQ1F6430B2R1G	VQ1F6430B2R5G	VQ2F6430B2GLG	VQ2F6430B2R1G	VQ2F6430B2R5G	VQ2F6430B2S5G
84	2X42	3/4"		VQ1F8430B2GLG	VQ1F8430B2R1G	VQ1F8430B2R5G	VQ2F8430B2GLG	VQ2F8430B2R1G	VQ2F8430B2R5G	VQ2F8430B2S5G

VQ1F-VQ2F 13-84 WATT COMPACT FLUORESCENT - EZ ADAPTER										
DESCRIPTION				5-1/2" OPTIC THREAD SIZE			7-3/4" OPTIC THREAD SIZE			
WATTS	LAMPS INCL.	HUB SIZE	VOLTAGE	GLOBE & GUARD	TYPE I GLASS REFRACTOR & GUARD	TYPE V GLASS REFRACTOR & GUARD	GLOBE & GUARD	TYPE I GLASS REFRACTOR & GUARD	TYPE V GLASS REFRACTOR & GUARD	12" SPIN-TOP TYPE V REFRACTOR & GUARD
13	1X13	Ⓢ	120VAC THROUGH 227VAC 50/60Hz	VQ1F1330EZGLG	VQ1F1330EZR1G	VQ1F1330EZR5G	VQ2F1330EZGLG	VQ2F1330EZR1G	VQ2F1330EZR5G	VQ2F1330EZR5G
18	1X18	Ⓢ		VQ1F1830EZGLG	VQ1F1830EZR1G	VQ1F1830EZR5G	VQ2F1830EZGLG	VQ2F1830EZR1G	VQ2F1830EZR5G	VQ2F1830EZR5G
26	1X26	Ⓢ		VQ1F26S30EZGLG	VQ1F26S30EZR1G	VQ1F26S30EZR5G	VQ2F26S30EZGLG	VQ2F26S30EZR1G	VQ2F26S30EZR5G	VQ2F26S30EZR5G
32	1X32	Ⓢ		VQ1F3230EZGLG	VQ1F3230EZR1G	VQ1F3230EZR5G	VQ2F3230EZGLG	VQ2F3230EZR1G	VQ2F3230EZR5G	VQ2F3230EZR5G
42	1X42	Ⓢ		VQ1F4230EZGLG	VQ1F4230EZR1G	VQ1F4230EZR5G	VQ2F4230EZGLG	VQ2F4230EZR1G	VQ2F4230EZR5G	VQ2F4230EZR5G
26	2X13	Ⓢ		VQ1F2630EZGLG	VQ1F2630EZR1G	VQ1F2630EZR5G	VQ2F2630EZGLG	VQ2F2630EZR1G	VQ2F2630EZR5G	VQ2F2630EZR5G
36	2X18	Ⓢ		VQ1F3630EZGLG	VQ1F3630EZR1G	VQ1F3630EZR5G	VQ2F3630EZGLG	VQ2F3630EZR1G	VQ2F3630EZR5G	VQ2F3630EZR5G
52	2X26	Ⓢ		VQ1F5230EZGLG	VQ1F5230EZR1G	VQ1F5230EZR5G	VQ2F5230EZGLG	VQ2F5230EZR1G	VQ2F5230EZR5G	VQ2F5230EZR5G
64	2X32	Ⓢ		VQ1F6430EZGLG	VQ1F6430EZR1G	VQ1F6430EZR5G	VQ2F6430EZGLG	VQ2F6430EZR1G	VQ2F6430EZR5G	VQ2F6430EZR5G
84	2X42	Ⓢ		VQ1F8430EZGLG	VQ1F8430EZR1G	VQ1F8430EZR5G	VQ2F8430EZGLG	VQ2F8430EZR1G	VQ2F8430EZR5G	VQ2F8430EZR5G

Ⓢ VMEZA tank adapters "classified" as an assembly for use between VM type tanks and EZ mounts. Order EZ mounts separately.



VQ1F/VQ2F SERIES

KILLARK

CERTILITE® COMPACT FLUORESCENT FIXTURES



VM1 Stanchion 25°
w/5-1/2"
Globe & Guard



VM1 Stanchion
Straight
w/5-1/2"
Globe & Guard



VM2 Stanchion 25°
w/7-3/4"
Globe & Guard



VM2 Stanchion
Straight
w/7-3/4"
Globe & Guard

VQ1F-VQ2 F13-84 WATT COMPACT FLUORESCENT - STANCHION 25° ANGLE											
DESCRIPTION				5-1/2" OPTIC THREAD SIZE			7-3/4" OPTIC THREAD SIZE				
WATTS	LAMPS INCL.	HUB SIZE	VOLTAGE	GLOBE & GUARD	TYPE I GLASS REFRACTOR & GUARD	TYPE V GLASS REFRACTOR & GUARD	GLOBE & GUARD	TYPE I GLASS REFRACTOR & GUARD	TYPE V GLASS REFRACTOR & GUARD	12" SPIN-TOP TYPE V REFRACTOR & GUARD	
13	1X13	3/4"	120VAC THROUGH 227VAC 50/60Hz	VQ1F1330D5GLG	VQ1F1330D5R1G	VQ1F1330D5R5G	VQ2F1330D5GLG	VQ2F1330D5R1G	VQ2F1330D5R5G	VQ2F1330D5S5G	
18	1X18	3/4"		VQ1F1830D5GLG	VQ1F1830D5R1G	VQ1F1830D5R5G	VQ2F1830D5GLG	VQ2F1830D5R1G	VQ2F1830D5R5G	VQ2F1830D5S5G	
26	1X26	3/4"		VQ1F26S30D5GLG	VQ1F26S30D5R1G	VQ1F26S30D5R5G	VQ2F26S30D5GLG	VQ2F26S30D5R1G	VQ2F26S30D5R5G	VQ2F26S30D5S5G	
32	1X32	3/4"		VQ1F3230D5GLG	VQ1F3230D5R1G	VQ1F3230D5R5G	VQ2F3230D5GLG	VQ2F3230D5R1G	VQ2F3230D5R5G	V12F3230D5S5G	
42	1X42	3/4"		VQ1F4230D5GLG	VQ1F4230D5R1G	VQ1F4230D5R5G	VQ2F4230D5GLG	VQ2F4230D5R1G	VQ2F4230D5R5G	VQ2F4230D5S5G	
26	2X13	3/4"		VQ1F2630D5GLG	VQ1F2630D5R1G	VQ1F2630D5R5G	VQ2F2630D5GLG	VQ2F2630D5R1G	VQ2F2630D5R5G	VQ2F2630D5S5G	
36	2X18	3/4"		VQ1F3630D5GLG	VQ1F3630D5R1G	VQ1F3630D5R5G	VQ2F3630D5GLG	VQ2F3630D5R1G	VQ2F3630D5R5G	VQ2F3630D5S5G	
52	2X26	3/4"		VQ1F5230D5GLG	VQ1F5230D5R1G	VQ1F5230D5R5G	VQ2F5230D5GLG	VQ2F5230D5R1G	VQ2F5230D5R5G	VQ2F5230D5S5G	
64	2X32	3/4"		VQ1F6430D5GLG	VQ1F6430D5R1G	VQ1F6430D5R5G	VQ2F6430D5GLG	VQ2F6430D5R1G	VQ2F6430D5R5G	VQ2F6430D5S5G	
84	2X42	3/4"		VQ1F8430D5GLG	VQ1F8430D5R1G	VQ1F8430D5R5G	VQ2F8430D5GLG	VQ2F8430D5R1G	VQ2F8430D5R5G	VQ2F8430D5S5G	

VQ1F-VQ2F 13-84 WATT COMPACT FLUORESCENT - STANCHION STRAIGHT											
DESCRIPTION				5-1/2" OPTIC THREAD SIZE			7-3/4" OPTIC THREAD SIZE				
WATTS	LAMPS INCL.	HUB SIZE	VOLTAGE	GLOBE & GUARD	TYPE I GLASS REFRACTOR & GUARD	TYPE V GLASS REFRACTOR & GUARD	GLOBE & GUARD	TYPE I GLASS REFRACTOR & GUARD	TYPE V GLASS REFRACTOR & GUARD	12" SPIN-TOP TYPE V REFRACTOR & GUARD	
13	1X13	1-1/2"	120VAC THROUGH 227VAC 50/60Hz	VQ1F1330S5GLG	VQ1F1330S5R1G	VQ1F1330S5R5G	VQ2F1330S5GLG	VQ2F1330S5R1G	VQ2F1330S5R5G	VQ2F1330S5S5G	
18	1X18	1-1/2"		VQ1F1830S5GLG	VQ1F1830S5R1G	VQ1F1830S5R5G	VQ2F1830S5GLG	VQ2F1830S5R1G	VQ2F1830S5R5G	VQ2F1830S5S5G	
26	1X26	1-1/2"		VQ1F26S30S5GLG	VQ1F26S30S5R1G	VQ1F26S30S5R5G	VQ2F26S30S5GLG	VQ2F26S30S5R1G	VQ2F26S30S5R5G	VQ2F26S30S5S5G	
32	1X32	1-1/2"		VQ1F3230S5GLG	VQ1F3230S5R1G	VQ1F3230S5R5G	VQ2F3230S5GLG	VQ2F3230S5R1G	VQ2F3230S5R5G	VQ2F3230S5S5G	
42	1X42	1-1/2"		VQ1F4230S5GLG	VQ1F4230S5R1G	VQ1F4230S5R5G	VQ2F4230S5GLG	VQ2F4230S5R1G	VQ2F4230S5R5G	VQ2F4230S5S5G	
26	2X13	1-1/2"		VQ1F2630S5GLG	VQ1F2630S5R1G	VQ1F2630S5R5G	VQ2F2630S5GLG	VQ2F2630S5R1G	VQ2F2630S5R5G	VQ2F2630S5S5G	
36	2X18	1-1/2"		VQ1F3630S5GLG	VQ1F3630S5R1G	VQ1F3630S5R5G	VQ2F3630S5GLG	VQ2F3630S5R1G	VQ2F3630S5R5G	VQ2F3630S5S5G	
52	2X26	1-1/2"		VQ1F5230S5GLG	VQ1F5230S5R1G	VQ1F5230S5R5G	VQ2F5230S5GLG	VQ2F5230S5R1G	VQ2F5230S5R5G	VQ2F5230S5S5G	
64	2X32	1-1/2"		VQ1F6430S5GLG	VQ1F6430S5R1G	VQ1F6430S5R5G	VQ2F6430S5GLG	VQ2F6430S5R1G	VQ2F6430S5R5G	VQ2F6430S5S5G	
84	2X42	1-1/2"		VQ1F8430S5GLG	VQ1F8430S5R1G	VQ1F8430S5R5G	VQ2F8430S5GLG	VQ2F8430S5R1G	VQ2F8430S5R5G	VQ2F8430S5S5G	

LIGHTING

VQ1F/VQ2F SERIES



COMPONENTS/TECHNICAL DATA

MOUNTING SPLICE BOXES							
HUB SIZE	CATALOG NUMBER						
	PENDANT	CEILING 4 HUB	CEILING 5 HUB	WALL	CONE TOP	25 DEGREE STANCHION	90 DEGREE STANCHION
3/4"	VMA2B	VMX2B	VMX6B	VMB2B	VMC2B	—	—
1"	VMA3B	VMX3B	VMX7B	VMB3B	VMC3B	VMD4B	—
1-1/4"	—	—	—	—	—	VMD5B	VMS4B
1-1/2"	—	—	—	—	—	—	VMS5B
M-20	—	VMX8B**	VMX9B	—	—	—	—

* VMEZA is used between a ballast tank and an EZ mount-ordered separately.
 ** VMX8B furnished with 3 non-metallic plugs.

OPTICS AND GUARDS				
DESCRIPTION	VQ1F LOW WATTAGE 5-1/2" OPTIC THREAD SIZE		VQ2F LOW WATTAGE 7-3/4" OPTIC THREAD SIZE	
	OPTICS	GUARD	OPTICS	GUARD
Globe (glass)	VMG17	VMAG17	VMG25	VMAG25S
Refractor (all glass) Type V	VMR175	VMAG17	VMR255	VMAG25S
Refractor (all glass) Type I	VMR171	VMAG17	VMR251	VMAG25S
Refractor (all glass) Type III	—	—	VMR253	VMAG25S
Refractor (spin top glass) 8" Type V	VZRG1550	VMRWG8	—	—
Refractor (spin top glass) 12" Type V	VZRG2550	VMRWG	VZRG4050	VMRWGS
Refractor (spin top glass) 12" Type II	VZRG2520	VMRWG	VZRG4020	VMRWGS
Refractor (spin top plastic) 12" Type V	VZRP175	VMRWG	VZRP175B	VMRWGS
Enclosed Refractor (glass lens)	—	—	VMER40	VMERG
Enclosed Refractor (plastic lens)	—	—	VMEP40	—

BALLAST TANKS ONLY 120 VAC THROUGH 277 VAC 50/60 HZ			
CATALOG NUMBER			
5-1/2" OPTIC	7-3/4" OPTIC	WATTS	LAMPS INCL.
VQ1F1330	VQ2F1330	13	1X13
VQ1F1830	VQ2F1830	18	1X18
VQ1F26S30	VQ2F26S30	26	1X26
VQ1F3230	VQ2F3230	32	1X32
VQ1F4230	VQ2F4230	42	1X42
VQ1F2630	VQ2F2630	26	2X13
VQ1F3630	VQ2F3630	36	2X18
VQ1F5230	VQ2F5230	52	2X26
VQ1F6430	VQ2F6430	64	2X32
VQ1F8430	VQ2F8430	84	2X42

REPLACEMENT LAMPS	
CATALOG NUMBER	DESCRIPTION
MQL13	13W Quad-Pin
MQL18	18W Quad-Pin
MQL26	26W Quad-Pin
MQL32	32W Quad-Pin
MQL42	42W Quad-Pin

LUMEN OUTPUT	
LAMP SOURCE	LUMEN OUTPUT
13 Watt (1X13)	900
18 Watt (1X18)	1200
26 Watt (1X26)	1800
32 Watt (1X32)	2400
42 Watt (1X42)	3200
26 Watt (2X13)	1800
36 Watt (2X18)	2400
52 Watt (2X26)	3600
64 Watt (2X32)	4800
84 Watt (2X42)	6400

© Order splice box, optic and guard separately.

VQ1F/VQ2F BALLAST DATA							
LAMP SOURCE	LAMP WATTS/TYPE	VOLTAGE 60HZ	OPERATING (AMPS)	BALLAST CIRCUIT	REGULATION	MIN. START	
Quad-Pin Fluorescent	13 Watt (1X13)	120-277	.144 (120)/.067 (277)	HPF	Electronic	"5°F (-20°C) 5°F (-15°C)"	
	18 Watt (1X18)		.158 (120)/.073 (277)				
	26 Watt (1X26)		.24 (120)/.11 (277)				
	32 Watt (1X32)	120-277	.31 (120)/.13 (277)	HPF	Electronic	-4°F (-20°C) Watt	
	42 Watt (1X42)						.38 (120)/.18 (277)
	26 Watt (2X13)	120-277	.288 (120)/.134 (277)	HPF	Electronic	5°F (-15°C)	
	36 Watt (2X18)						.316 (120)/.146 (277)
	52 Watt (2X26)						.48 (120)/.11 (277)
64 Watt (2X32)	120-277	.62 (120)/.26 (277)	HPF	Electronic	-4°F (-20°C)		
84 Watt (2X42)						.76 (120)/.36 (277)	



VQ1F/VQ2F SERIES

KILLARK

APPLICATION DATA FOR HAZARDOUS LOCATIONS

VQ1F/VQ2F SERIES THERMAL PERFORMANCE DATA ①									
CLASS I DIVISION 2 GROUPS A,B,C,D/ZONE 2 GROUPS IIC,IIB,IIA/CLASS II E,F,G/CLASS III									
CATALOG NUMBER*	LAMP WATTS	AMBIENT DEGREES C	CLASS I DIVISION 2		CLASS I ZONE 2 NR II		CLASS II DIVISION 1		SUPPLY WIRE
			GLOBE OR REFRACTOR ①	GLOBE + REFLECTOR	GLOBE OR REFRACTOR ②	GLOBE + REFLECTOR	GLOBE OR REFRACTOR ①	GLOBE + REFLECTOR	
VQ1F1330	13 (1X13)	40	T3C	T3C	T6	T6	T3C (EFG)	T3C (EFG)	75
		55	T3C	T3C	T6	T6	T3C (EFG)	T3C (EFG)	75
VQ1F1830	18 (1X18)	40	T3C	T3C	T6	T6	T3C (EFG)	T3C (EFG)	75
		55	T3C	T3C	T6	T6	T3C (EFG)	T3C (EFG)	75
VQ1F26S30	26 (1X26)	40	T3A	T3A	T6	T6	T3C (EFG)	T3C (EFG)	75
		55	T3A	T3A	T6	T6	T3C (EFG)	T3C (EFG)	75
VQ1F3230	32 (1X32)	40	T3A	T3A	T6	T6	T3C (EFG)	T3C (EFG)	75
		55	T3A	T3A	T6	T6	T3C (EFG)	T3C (EFG)	75
VQ1F4230	42 (1X42)	40	T3A	T3A	T6	T6	T3C (EFG)	T3C (EFG)	75
		55	T3A	T3A	T6	T6	T3C (EFG)	T3C (EFG)	75
VQ1F2630	26 (2X13)	40	T3A	T3A	T6	T6	T3C (EFG)	T3C (EFG)	60
		55	T3A	T3A	T5	T5	T3C (EFG)	T3C (EFG)	75
VQ1F3630	36 (2X18)	40	T3A	T3A	T6	T6	T3C (EFG)	T3C (EFG)	60
		55	T3A	T3A	T6	T6	T3C (EFG)	T3C (EFG)	75
VQ1F5230	52 (2X26)	40	T3	T2D	T6	T5	T3C (EFG)	T3C (EFG)	75
		55	T2D	T2D	T4	T4	T3C (EFG)	T3C (EFG)	75
VQ1F8430	64 (2X32)	40	T3	T2D	T6	T5	T3C (EFG)	T3C (EFG)	75
		55	T2D	T2D	T4	T4	T3C (EFG)	T3C (EFG)	75
VQ1F8430	84 (2X42)	40	T2B	T2B	T4	T4	T3C (EFG)	T3C (EFG)	75
		55	XXX	XXX	XXX	XXX	XXX	XXX	XXX
VQ2F1330	13 (1X13)	40	T3C	T3C	T6	T6	T4A (EFG)	T4A (EFG)	60
		55	T3C	T3C	T6	T6	T4A (EFG)	T4A (EFG)	75
VQ2F1830	18 (1X18)	40	T3C	T3C	T6	T6	T4A (EFG)	T4A (EFG)	60
		55	T3C	T3C	T6	T6	T4A (EFG)	T4A (EFG)	75
VQ2F26S30	26 (1X26)	40	T3A	T3A	T6	T6	T4A (EFG)	T4A (EFG)	60
		55	T3A	T3A	T6	T6	T4A (EFG)	T4A (EFG)	75
VQ2F3230	32 (1X32)	40	T3A	T3A	T6	T6	T4A (EFG)	T4A (EFG)	60
		55	T3A	T3A	T6	T6	T4A (EFG)	T4A (EFG)	75
VQ2F4230	42 (1X42)	40	T3A	T3A	T6	T6	T4A (EFG)	T4A (EFG)	60
		55	T3A	T3A	T6	T6	T4A (EFG)	T4A (EFG)	75
VQ2F2630	26 (2X13)	40	T3A	T3A	T6	T6	T4A (EFG)	T4A (EFG)	60
		55	T3A	T3A	T6	T6	T4A (EFG)	T4A (EFG)	75
VQ2F3630	36 (2X18)	40	T3A	T3A	T6	T6	T4A (EFG)	T4A (EFG)	60
		55	T3A	T3A	T6	T6	T4A (EFG)	T4A (EFG)	75
VQ2F5230	52 (2X26)	40	T3	T3	T6	T6	T4A (EFG)	T4A (EFG)	60
		55	T3	T3	T6	T6	T4A (EFG)	T4A (EFG)	75
VQ2F6430	64 (2X32)	40	T3	T3	T6	T6	T4A (EFG)	T4A (EFG)	60
		55	T3	T3	T6	T6	T4A (EFG)	T4A (EFG)	75
VQ1F8430	84 (2X42)	40	T2C	T2C	T6	T6	T4A (EFG)	T4A (EFG)	75
		55	XXX	XXX	XXX	XXX	XXX	XXX	XXX

T-CODE & TEMPERATURE RANGE CONVERSION TABLE °C															
T1	350	325	T2	T2A	T2B	T2C	T2D	T3	T3A	T3B	T3C	T4	T4A	T5	T6
351-450	326-350	301-325	281-300	261-280	231-260	216-230	201-215	181-200	166-180	161-165	136-160	121-135	101-120	86-100	<=85

① C1D2 & T-codes for Refractors include VMR "All Glass" and VZ Spin-Top Types. Also applies for VMER40 and VMPE40 in VQ2F models.

② T-codes for Ex nR Refractors are for VMR "All Glass" Types. Also applies for VMER40 and VMPE40 in VQ2F models.

* VQ1F models use 5-1/2" CertiLite® VM optics; VQ2F models use 7-3/4" VM optics.



CERTILITE® TO CERTILITE® V

GENERAL CROSS-REFERENCE FOR CERTILITE® TO CERTILITE®V***							
	WATTS	ANSI LAMP TYPE		GLOBE & GUARD	SPIN-TOP REFRACTOR	ENCLOSED REFLECTOR	TANK ONLY
HPS	50	S68	Certilite® Certilite®V	VML0-0-1-1 GG	VML0-0-1-1 G58	—	VML0-0-1-1
				VM3S05	VM3S05 S8N	—	VM3S05
	70	S62		VML0-0-4 GG	VML0-0-4 G58	—	VML0-0-4
				VM3S07	VM3S07 S8N	—	VM3S07
	100	S54		VML0-0-5 GG	VML0-0-5 G58	—	VML0-0-5
				VM3S10	VM3S10 S8N	—	VM3S10
	150	S55		VML0-0-9 GG	VML0-0-9 G58	—	VML0-0-9
VM3S15			VM3S15 S8N	—	VM3S15		
250	S50	VMV0-0-7 GG	VMV0-0-7 G5	VMV0-0-7 ER	VMV0-0-7		
		VM5S25	VM5S25 S5N	VM5S25 ERN	VM5S25		
400	S51	VMV0-0-8 GG	VMV0-0-8 G5	VMV0-0-8 ER	VMV0-0-8		
		VM5S40	VM5S40 S5N	VM5S40 ERN	VM5S40		
MH	70	M98	Certilite® Certilite®V	VMM0-0-4 GG	VMM0-0-4 G58	—	VMM0-0-4
				VM3H07	VM3H07 S8N	—	VM3H07
	100	M90		VMM0-0-5 GG	VMM0-0-5 G58	—	VMM0-0-5
				VM3H10	VM3H10 S8N	—	VM3H10
	175	M57		VMM0-0-6 GG	VMM0-0-6 G58	—	VMM0-0-6
				VM3H17	VM3H17 S5N	—	VM3H17
250	M58	VMM0-0-7 GG	VMM0-0-7 G58	—	VMM0-0-7		
		VM3H25	VM3H25 S5N	—	VM3H25		
400	M59	VMF0-0-8 GG	VMF0-0-8 G5	VMF0-0-8 ER	VMF0-0-8		
		VM5H40	VM5H40 S5N	VM5H40 ERN	VM5H40		
MHP	175	M137	Certilite® Certilite®V	VMU0-0-6 GG	VMU0-0-6 G58	—	VMU0-0-6
				VM3P17	VM3P17 S8N	—	VM3P17
	250	M138		VMP0-0-7 GG	VMP0-0-7 G5	VMP0-0-7 ER	VMP0-0-7
				VM5P25	VM5P25 S5N	VM5P25 ERN	VM5P25
	320	M132		VMP0-0-32 GG	VMP0-0-32 G5	VMP0-0-32 ER	VMP0-0-32
				VM5P32	VM5P32 S5N	VM5P32 ERN	VM5P32
350	M131	VMP0-0-35 GG	VMP0-0-35 G5	VMP0-0-35 ER	VMP0-0-35		
		VM5P35	VM5P35 S5N	VM5P35 ERN	VM5P35		
400	M135	VMP0-0-8 GG	VMP0-0-8 G5	VMP0-0-8 ER	VMP0-0-8		
		VM5P40	VM5P40 S5N	VM5P40 ERN	VM5P40		
MV	100	H38	Certilite® Certilite®V	VMK0-0-5 GG	VMK0-0-5 G58	—	VMK0-0-5
				VM3M10	VM3M10 S8N	—	VM3M10
	175	H39		VMK0-0-6 GG	VMK0-0-6 G58	—	VMK0-0-6
				VM3M17	VM3M17 S8N	—	VM3M17
250	H37	VMK0-0-7 GG	VMK0-0-7 G58	—	VMK0-0-7		
		VM3M25	VM3M25 S8N	—	VM3M25		
400	H33	VME0-0-8 GG	VME0-0-8 G5	VME0-0-8 ER	VME0-0-8		
		VM5M40	VM5M40 S5N	VM5M40 ERN	VM5M40		

COMPONENTS			
	CERTILITE®	CERTILITE®V	DESCRIPTION
MOUNTS	VMA-2	VMA2B	3/4" Pendant
	VMA-3	VMA3B	1" Pendant
	VMB-2	VMB2B	3/4" Wall Bracket
	VMB-3	VMB3B	1" Wall Bracket
	VMC-2	VMC2B	3/4" Cone Top
	VMD-4	VMD4B	1-1/4" 25° Stanchion
	VMD-5	VMD5B	1-1/2" 25° Stanchion
	VMDS-5	VMS5B	1-1/2" 90° Stanchion
	VMX-2	VMX2B	3/4" Ceiling
VMX-3	VMX3B	1" Ceiling	
OPTICS	VMG-17	VMG17	5-1/2" GLOBE
	VMGT-17	VMG17F	TUFFSKIN GLOBE
	VMGTC-17	VMG17T	TELFON GLOBE
	VMG-40	VMG40	7-3/4" HIGH WATT GLOBE
	VZRG-1550	VZRG1550	8" SPIN-TOP V REFRACTOR
	VZRG-2550	VZRG2550	12" SPIN-TOP V REFRACTOR
	VZRG-2510	VZRG2520	12" SPIN-TOP II REFRACTOR
	VZRP-175	VZRP175	12" POLY REFRACTOR
	VZRG-4050	VZRG4050	12" SPIN-TOP V REFRACTOR
VZRG-4020	VZRG4020	12" SPIN-TOP II REFRACTOR	
GUARDS	VMAG-17	VMAG17	5-1/2" GLOBE GUARD
	VMAG-40	VMAG40S	HIGH WATT GLOBE GUARD
	VMRWG-8	VMRWG8	8" SPIN-TOP GUARD
	VMRWG	VMRWG	12" SPIN-TOP GUARD
REFLECTORS	VMPSD-17	VMPSD40	WHITE REFLECTOR
	VMPA-17	VMPA40	WHITE ANGLE REFLECTOR
	VMPSD-40	VMPSD40	WHITE REFLECTOR
	VMPA-40	VMPA40	WHITE ANGLE REFLECTOR
	HRD-400	HRD400	DEEP WHITE REFLECTOR
	HRD-400ALZ	HRD400ALZ	DEEP ALZAK REFLECTOR

③ All Certilite®V tanks use "40" reflectors.

*** See catalog logic for more information regarding additional conduit sizing and fixture options and accessories.

④ 175-400W MH Fixtures are EXPORT ONLY (EISA LAW).

MOUNT CODES ①①		
CERTILITE® ①-①	CERTILITE®V ①①	DESCRIPTION
A-2	A2	3/4" Pendant
A-3	A3	1" Pendant
B-2	B2	3/4" Wall Bracket
B-3	B3	1" Wall Bracket
C-2	C2	3/4" Cone Top
D-4	D4	1-1/4" 25° Stanchion
D-5	D5	1-1/2" 25° Stanchion
S-5	S5	1-1/2" 90° Stanchion
X-2	X2	3/4" Ceiling
X-3	X3	1" Ceiling

OPTIONS		
CERTILITE®	CERTILITE®V	DESCRIPTION
QTZ	QA	Quartz Auxiliary
IR	IR	Instant Restart
BP	BP	Ballast Protector
NR	NR	Restricted Breathing
SU103	AS	Assembled w/Standard Lamp

VOLTAGE CODES ②		
CERTILITE®	CERTILITE®V	DESCRIPTION
0	0	Quad-Tap 120, 208, 240, 277V 60Hz
6	6	Tri-Tap 120, 277, 347V 60Hz
5	5	480V 60Hz
7	7	220V 60Hz
8	8	240V 50Hz





INTRODUCTION

FEATURES-SPECIFICATIONS



KILLARK® CertiLite® V Series sets a new standard for industrial grade HID luminaires. Designed for installations where moisture, dirt, dust, corrosion and vibration may be present, these fixtures are suitable for NEMA 3 and 4X areas and where wind, water, snow or high ambients can be expected. They also can be used in locations made hazardous by the presence of flammable vapors and gases or combustible dusts, as defined by the NEC®. Typical applications include manufacturing sites, chemical and petrochemical processing facilities, sewage treatment plants, off-shore and dockside installations, garages and warehouses.

Standard Materials:

- Ballast tank and splice box – corrosion resistant copper-free aluminum alloy with baked powder epoxy/polyester finish, electrostatically applied for complete, uniform corrosion protection.
- All external hardware – 316 stainless steel.
- Guards – painted copper-free aluminum alloy or 316SS for 7-3/4" glass optics and Enclosed Reflectors.
- Spin-top Refractor Guards are Plated Steel.
- Reflectors – lightweight, corrosion resistant fiberglass reinforced polyester, or copper-free aluminum.

Additional Features:

- Seven mounting splice box types; Pendant, Flex Pendant, Ceiling, Wall bracket, Cone Top, 25° Angle Stanchion, Straight Stanchion – in a variety of entry sizes, including M20 for the VMX ceiling style.
- Quartz auxiliary, HPS instant restart, Ballast Protectors
- Minimum starting temperature: HPS – 40°C; MV, MH & MHP – 30°C
- Normally shipped as components for fast delivery, or may be ordered factory assembled with or without lamps.
- Options for fuses and quick disconnect



Compliances

- UL1598 Standard for luminaires
- UL1598A Marine type luminaire
- UL-844 Standard for lighting fixtures for hazardous locations
- CSA C22.2 no. 137-M1981 electric luminaires for use in hazardous locations

Class I, Div. 2, Groups A,B,C,D
 Class I, Zone 2, Groups IIC, IIB, IIA
 Class II, Div. 1 & 2, Groups E,F,G
 Class III
 Suitable for wet locations
 NEMA 3, 4, 4X
 IP66

US LISTED - File E10514 (Hazardous & Marine)













Certified - File LR11713

NR Restricted Breathing Option

Class I, Zone 2 AEx nAnR

Class I, Zone 2 Ex nR

- Enclosed and gasketed
- NEMA 3, 4X IP66
- UL 60079-15 - Electrical apparatus for Explosive Gas Atmospheres with Type of Protection "n" (Restricted Breathing and non-sparking).

FEATURES	BENEFITS
 Swing-Barrel Nut Patented Tank Mounting System	<ul style="list-style-type: none"> • Stainless-to-Stainless securement • Takes load off during installation • Uses ordinary tools • Saves time and labor
 Range of ballast tanks	Cover a wider range of wattage sizes and socket types (will include five total) for maximum user selection flexibility
 Sealed Optic Zone 2 AEx nAR Restricted Breathing (suffix NR)	NO External Seals. Lower T-codes, Suitable for Class I Div. 2 Classified areas per the NEC®
 All glass refractors	Compact (5-1/2" thread size, types I & V) Standard (7-3/4", thread size, types I, III, V) Enhances user selection flexibility
 "EZ" mount adapter	Easier Maintenance, saves labor, move fixture from the ladder to the workbench
 Photo controls- Class I Div.2 / N4X areas	Available as Field or Factory Installed to save energy when light not required
 Earthquake Tab -Built-in attachment point for safety cables	Safety: Secures fixture to structure in case of conduit failure. "3rd hand" accessories for lamp change out. See L53 for more info.
 "FULL CUTOFF" & CUTOFF Optics	For "Dark Sky" Requirements. Helps to minimize offending light pollution.
 VMEP40 "Food Optic"	Expanded Offering for Food or Grain Handling Applications to minimize contamination
 NEMA Decals 15 17 17P	Easier Maintenance, Saves labor "Have the right lamp in hand before going up the ladder".
 Expanded lamp types and wattages	Philips® QL Induction type and 600Watt HPS available for long life or high lumen requirements
 CertiLite Software	Used to determine number of fixtures required and their proper layout for various tasks and applications.

Philips® is a registered trademark of Koninklijke Philips Electronics N.V.



INTRODUCTION

CERTILITE® V
The Logical Choice



VM1
5 1/2" Optic
Reduced Profile
Medium Base



VM2
7 3/4" Optic
Reduced Profile
Medium Base



VM3
5 1/2" Optic Low
Wattage Mogul
Base



VM4
7 3/4" Optic Low
Wattage Mogul
Base



VM5
7 3/4" Optic High
Wattage Mogul
Base

SWING-BARREL NUT



Hang Fixture

- The CertiLite® V patented Swing-Barrel Nut System provides a Stainless-to-Stainless securement between tank and mounting box. No more Stainless-to-Aluminum connections or need for Stainless inserts.



Swing into Place

- Users can easily lift the tank into place and "take the load off" then tighten. Saves time and labor.



Tighten

- Only the patented Swing-Barrel Nut Stainless System can be tightened with a common screwdriver or nut driver; others are either stainless-to-aluminum, or require a wrench or special deep socket.

NOTE: CertiLite® V series tanks are backwardly compatible with older



INTRODUCTION

CERTILITE® V *The Logical Choice*

FOR PERSONNEL SAFETY

Maintenance personnel are often in awkward positions when relamping: trying to simultaneously hold on to a ladder, a globe and the lamp. Available “3rd Hand” suspension cables support 5-1/2” VMG17/VMR17x optics, utilizing the VMAG17 guard. 7-3/4” VMG25/VMR25x/VMG40 optics utilize the VMAGxxS guard and VMAGBC bottom closure. Cables attach to a special “Earthquake Tab” built into the ballast tank housing. See Suspension Accessories page L126.



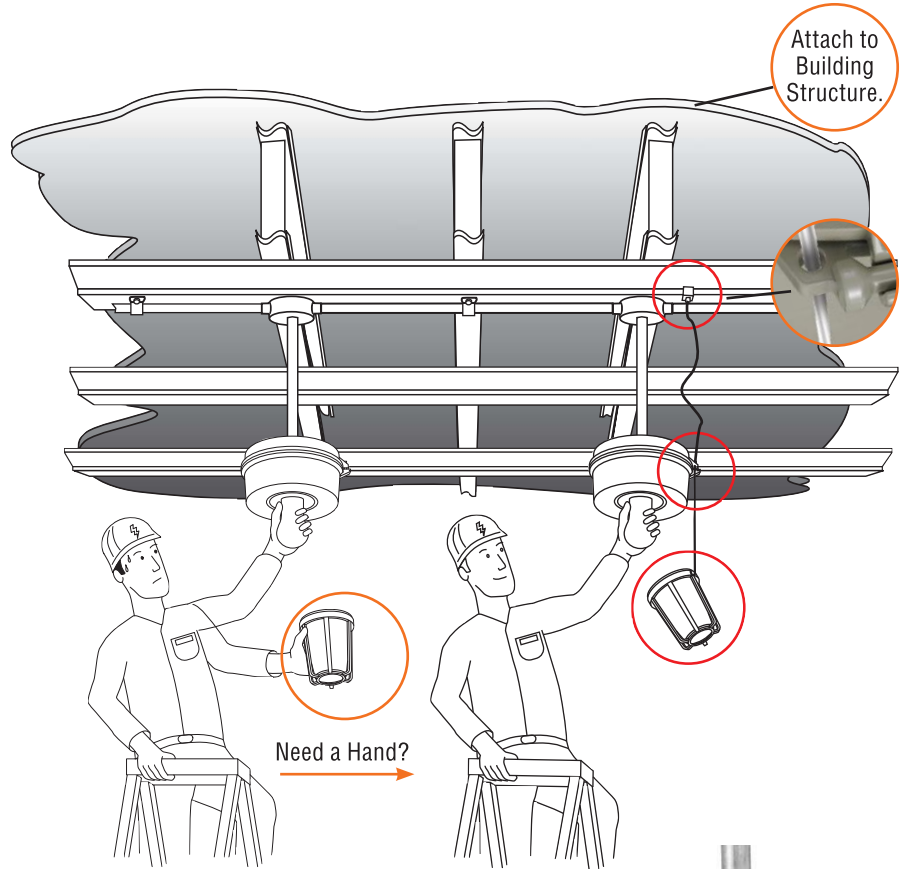
CertiLite®V tanks as standard have a built-in “Earthquake Tab”. The tab is used to hold optic suspension devices, and can simultaneously be used to add a safety cable linked to the building superstructure.

EZ MOUNT & LAMP IDENTIFICATION

To enable easy and safe removal of CertiLite®V fixtures for maintenance, install with the new VMEZA ballast tank to EZ mount adapter.

The complete assembly is removed for maintenance at the workbench.

Large facilities often keep spares so that a “new” fixture is put in at the time one needs maintenance – thus eliminating the need to set up access equipment multiple times.



HAVE THE RIGHT LAMP IN HAND BEFORE GOING UP THE LADDER.



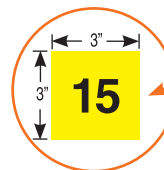
Yellow
150W HPS



RED
175W MH



RED
175W MHP



NEMA Decals
for Lamp Type &
Wattage

* “P” designates newer pulse start Metal Halide lamps: 150, 175, 200, 250, 320, 350 and 400 watt models.

LIGHTING

CERTILITE® V SERIES



CERTILITE® V
The Logical Choice

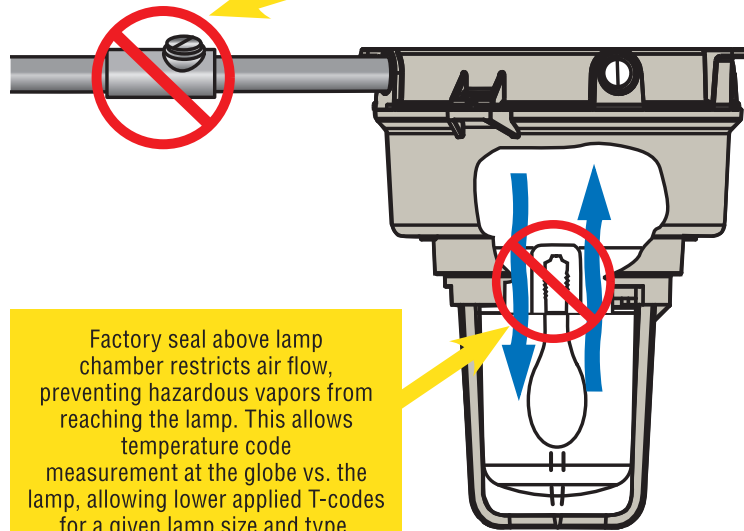
INTRODUCTION

NEW "Sealed Optic" construction, option "NR". Rated for Class I, Zone 2 **AEx nAnR/Ex nR II** Restricted Breathing. "Sealed Entry" is no longer required to obtain significantly lower T-codes.

No labor intensive conduit seals or sealed cable glands required for installation

FOR LOWER T-CODES

- CertiLite®V luminaires with the NR option are factory sealed to save installation time and labor costs.
- AEx nAnR/Ex nR II is covered under NEC® Article 505, and indicates Non-Arcing and Non-Breathing.
- North American Class I Division 2 designated locations may use properly marked Zone 2 rated equipment per NEC Article 501.5.
- The CertiLite®V NR option is available for VMG, VMR, and VMER40 optics, but not VZRG Type "Spin-top" Refractors.
- Permits the use of fewer higher wattage luminaires for a given application.



Factory seal above lamp chamber restricts air flow, preventing hazardous vapors from reaching the lamp. This allows temperature code measurement at the globe vs. the lamp, allowing lower applied T-codes for a given lamp size and type.

KILLARK® CERTILITE® V		LUMINAIRE FOR HAZARDOUS LOCATIONS WHEN COMPLETELY ASSEMBLED WITH UL LISTED LUMINAIRE FITTINGS FOR HAZARDOUS LOCATIONS. (SEE INSIDE BALLAST HOUSING) SUITABLE FOR WET LOCATIONS. ALSO LISTED AS LUMINAIRE FITTING FOR HAZARDOUS LOCATIONS. Δ ALSO LISTED AS MISC. MARINE TYPE LUMINAIRE, OUTSIDE TYPE (SALT WATER).																	
ST. LOUIS, MO. USA		UL LISTED 794A		CLASS I, DIV. 2 ¹ OPERATING TEMP						CLASS I, DIV. 2, EXHIBIT 10.8 OPERATING TEMP CODE									
DATE CODE 14507		AMBIENT TEMP °C		40		55		65		40		55		65					
CATALOG NO. VM3S150NR	DATE CODE 14507	40		55		65		40		55		65		40		55		65	
LAMP WATTS 150	LAMP TYPE HPS	40		55		65		40		55		65		40		55		65	
INPUT WATTS 188	ANCH CODE S55	40		55		65		40		55		65		40		55		65	
POWER FACTOR .90+	HERTZ 60	40		55		65		40		55		65		40		55		65	
PRIMARY VOLTS 120/208/240/277	FOR VERTICAL MOUNTING ONLY. MOUNT LAMP SIDE UP. NEMA 4X	40		55		65		40		55		65		40		55		65	
STARTING AMPS 2.0/1.15/1.0/.85		40		55		65		40		55		65		40		55		65	
OPERATING AMPS 1.65/.95/.83/.72		40		55		65		40		55		65		40		55		65	
CAUTION: WHEN UNIT IS PROVIDED WITH MULTITAP BALLAST, CONNECT THE SUPPLY LINE TO THE DESIRED LEAD FROM THE BALLAST. KEEP OTHER LEADS CAPPED. FOR REWAPPING, DISCONNECT SUPPLY CIRCUIT AND ALLOW LAMP TO COOL. Δ FOR U.S. APPLICATIONS		CAUTION: TO PREVENT IGNITION OF HAZARDOUS ATMOSPHERE, DISCONNECT THIS FIXTURE FROM SUPPLYING CIRCUIT BEFORE OPENING. KEEP ASSEMBLY TIGHTLY CLOSED WHEN CIRCUITS ARE ALIVE.		WARNING: TO PREVENT RISK OF FIRE OR EXPLOSION DO NOT INSTALL WHERE THE MARKED OPERATING TEMPERATURE EXCEEDS IGNITION TEMPERATURE OF HAZARDOUS ATMOSPHERE.															

See the Benefit!

LAMP TYPE AND WATTAGE	EXAMPLES AT 40C AMBIENT. SEE THERMAL PERFORMANCE CHARTS BEGINNING L84 FOR MORE INFORMATION	CLASS I DIV. 2/ ZONE 2 GLOBE ONLY ①	CLASS I ZONE 2 AEX NANR II ②	REDUCTION IN APPLIED T-CODE
150 HPS	VM3 w/ VMG or VMR	T2B (260°C)	T4 (135°C)	-125°C
	VM4 w/ VMG or VMR	T2B (260°C)	T4 (135°C)	-125°C
400 HPS	VM5 w/ VMG	350° C	T3 (200°C)	-150°C
	VM5 w/ VMER40	350° C	T3 (200°C)	-150°C
175 MH	VM3 w/ VMG or VMR	T2A (280°C)	T3 (200°C)	-80°C
	VM4 w /VMG or VMR	T2B (260°C)	T4 (135°C)	-125°C
400 MH	VM5 w/ VMG40	325° (300°C)	T3 (200°C)	-100°C
	VM5 w/ VMER40	T2 (300°C)	T3 (200°C)	-100°C

① Based on Lamp temperature data
② Based on Globe temperature data



INTRODUCTION

CERTILITE® V *The Logical Choice*

FOR FOOD & GRAIN SAFETY AND LOW BAY APPLICATIONS

- CertiLite®V VM4 or VM5 series luminaires with the new VMEP40 Optic have a strong non-glass polycarbonate shield protecting food from potential broken glass contamination, as could be the case even with heat-resistant heavy duty globes.
- Unique design incorporates internal glass lens to seal out dust and vapors from the lamp, with a polycarbonate shield banded tightly at the bottom.
- Copper-free aluminum reflector has anodized finish for easy cleaning; threaded portion at top is natural aluminum to prevent paint dust contamination during maintenance (from attaching/detaching).
- Polycarbonate shield is replaceable and must always be used to maintain ratings. Order part number VMEP40-LENS.

SAFETY COATING

EXPANDED TEFLON® COATED OPTICS

- CertiLite®V now offers additional all glass threaded refractors, and many are available with a Teflon coating.
- Teflon® coating helps to reduce the likelihood of glass breakage, and if broken, reduces the area of contamination. Also enhances cleanability.

Teflon® is a registered trademark of Dupont, Inc.



Grain Area



Food Area



VMG17T



VMEP40 Optic

LIGHTING

CERTILITE® V SERIES

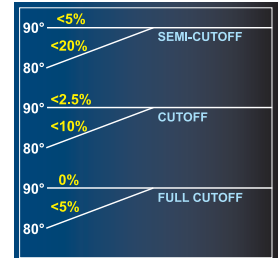


INTRODUCTION




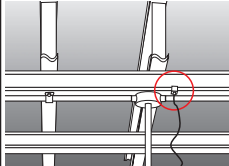
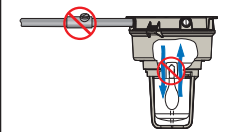



CERTILITE® V The Logical Choice

For Dark Sky Needs

- The CertiLite®V VMER40 Enclosed Reflector meets the “Full Cutoff” photometric requirement in many areas, such as observatories, to minimize offending light pollution. Fits VM2, VM4 & VM5 Series tanks.
- Use VMDARK1 gasket kit to enable the deep HRD Series Reflectors to meet the “Full Cutoff” requirement over globes on the VM4, or “Cutoff” on VM5 Series tanks.



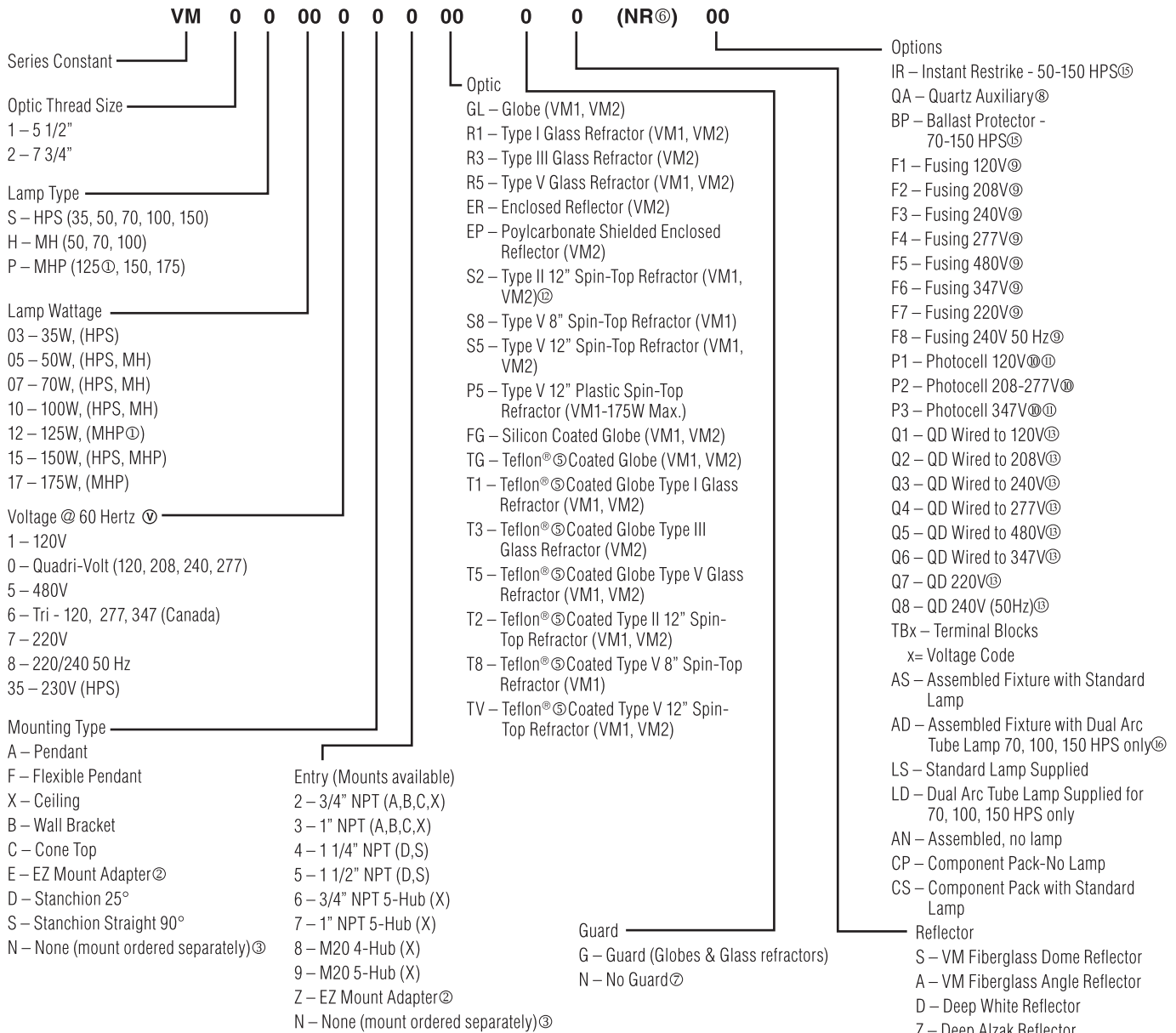
COMPETITIVE COMPARISONS

CERTILITE®V KILLARK	COMPETITION
 <p>Swing-barrel nut (patented) Stainless-to-Stainless securement between tank and mounting box. Can be tightened with a common screwdriver or nut driver.</p>	Either not stainless, or require a wrench or special deep socket.
 <p>Earthquake tab Built in securement location for safety cables, optic “3rd Hand” or to building structure.</p>	Not available
 <p>Maintenance Safety Optic suspension systems</p>	Not available
 <p>Suspension safety cable to building superstructure</p>	Not available
 <p>“Sealed Optic” Instead of more costly “Sealed Entry” Meets AEx nAR Requirements</p>	“Sealed Entry” requires extra parts (conduit seals) and labor to install, and block pulling of replacement wiring.
 <p>VMEP40 Food Area Suitable Optic</p>	Only Glass Optics Offered
 <p>Dark Sky Optics Available</p>	Limited, if any, solutions for light pollution, a problem in many areas.
 <p>316 Stainless Guards For 7 3/4” All Glass Optics. Optional Bottom Closure.</p>	“Ordinary” stainless & open bottom type only. Provides less protection from bottom impact or corrosion.



VM1/VM2 CATALOG ORDERING LOGIC

CertiLite®V Catalog Number Logic; 35-175 Low Wattage (Medium Base) HID Fixtures



Ⓞ Special order lamp type/wattage not shown in grids, minimums apply.

Ⓞ Completes as "EZ", conduit mounting boxes ordered separately.

Ⓞ NN mount ordered separately.

Ⓞ Silicone coated globe for additional impact protection.

Ⓞ Teflon® is a registered trademark of DuPont, Inc.

Ⓞ Consult factory for available lamp and voltage combinations.

Ⓞ Restricted Breathing - See L84 for more information.

Ⓞ Order Guards for Spin-Tops & VMER40 separately.

Ⓞ QA not suitable for Class I, Div. 2/Zone 2 applications; consult factory for other hazardous applications.

Ⓞ Fusing not for Marine or Canadian installations.

Ⓞ Photo cells for Class I, Div. 2 only, or C1Z2 nR not Class II.

Ⓞ Field connection to proper tap in case of Multitap Ballasts.

Ⓞ Not for use with wall or straight (90°) Stanchion.

Ⓞ QD = Quick Disconnect. Allows easy tank removal for maintenance.

Ⓞ Electrician simply unplugs de-energized ballast from supply circuit. 220V 60Hz or 230V 50Hz used with QA-requires VM5 tank.

Ⓞ IR and BP cannot be ordered together.

Ⓞ Not available with IR or QA.



LIGHTING

CERTILITE® V SERIES



HIGH PRESSURE SODIUM, 35-150W MEDIUM BASE HID



VM1 Pendant
w/ 5-1/2"
Globe & Guard



VM2 Pendant
w/ 7-3/4"
Globe & Guard



VM1 Flexible Pendant
w/ 5-1/2"
Refractor & Guard



VM2 Flexible Pendant
w/ 7-3/4"
Refractor & Guard

Class I, Div. 2, Groups A,B,C,D^①
Class I, Zone 2, Groups IIC, IIB, IIA
Class II, Div. 1 & 2, Groups E,F,G
Class III
Suitable for wet locations
NEMA 3, 4, 4X
IP66

UL LISTED - File E10514 (Hazardous & Marine)

CS Certified - File LR11713

NR Restricted Breathing Option^⑤

Class I, Zone 2 AEx nAnR **CS** **US**
Class I, Zone 2 Ex nR **CS** **US**

VM 35 - 150 HIGH PRESSURE SODIUM - PENDANT										
DESCRIPTION				5-1/2" OPTIC THREAD SIZE ②			7-3/4" OPTIC THREAD SIZE ②			
WATTS	ANSI	HUB SIZE ③	VOLTAGE ④	GLOBE & GUARD	TYPE I GLASS REFRACTOR & GUARD	TYPE V GLASS REFRACTOR & GUARD	GLOBE & GUARD	TYPE I GLASS REFRACTOR & GUARD	TYPE V GLASS REFRACTOR & GUARD	12" SPIN-TOP TYPE V REFRACTOR & GUARD
35	S76	3/4"	120V	VM1S031A2GLG	VM1S031A2R1G	VM1S031A2R5G	VM2S031A2GLG	VM2S031A2R1G	VM2S031A2R5G	VM2S031A2S5G
50	S68	3/4"	Quad	VM1S050A2GLG	VM1S050A2R1G	VM1S050A2R5G	VM2S050A2GLG	VM2S050A2R1G	VM2S050A2R5G	VM2S050A2S5G
70	S62	3/4"	Quad Tri 480	VM1S070A2GLG	VM1S070A2R1G	VM1S070A2R5G	VM2S070A2GLG	VM2S070A2R1G	VM2S070A2R5G	VM2S070A2S5G
				VM1S076A2GLG	VM1S076A2R1G	VM1S076A2R5G	VM2S076A2GLG	VM2S076A2R1G	VM2S076A2R5G	VM2S076A2S5G
				VM1S075A2GLG	VM1S075A2R1G	VM1S075A2R5G	VM2S075A2GLG	VM2S075A2R1G	VM2S075A2R5G	VM2S075A2S5G
100	S54	3/4"	Quad Tri 480	VM1S100A2GLG	VM1S100A2R1G	VM1S100A2R5G	VM2S100A2GLG	VM2S100A2R1G	VM2S100A2R5G	VM2S100A2S5G
				VM1S106A2GLG	VM1S106A2R1G	VM1S106A2R5G	VM2S106A2GLG	VM2S106A2R1G	VM2S106A2R5G	VM2S106A2S5G
				VM1S105A2GLG	VM1S105A2R1G	VM1S105A2R5G	VM2S105A2GLG	VM2S105A2R1G	VM2S105A2R5G	VM2S105A2S5G
150	S55	3/4"	Quad Tri 480	VM1S150A2GLG	VM1S150A2R1G	VM1S150A2R5G	VM2S150A2GLG	VM2S150A2R1G	VM2S150A2R5G	VM2S150A2S5G
				VM1S156A2GLG	VM1S156A2R1G	VM1S156A2R5G	VM2S156A2GLG	VM2S156A2R1G	VM2S156A2R5G	VM2S156A2S5G
				VM1S155A2GLG	VM1S155A2R1G	VM1S155A2R5G	VM2S155A2GLG	VM2S155A2R1G	VM2S155A2R5G	VM2S155A2S5G

VM 35 - 150 HIGH PRESSURE SODIUM - FLEX PENDANT										
DESCRIPTION				5-1/2" OPTIC THREAD SIZE ②			7-3/4" OPTIC THREAD SIZE ②			
WATTS	ANSI	HUB SIZE ③	VOLTAGE ④	GLOBE & GUARD	TYPE I GLASS REFRACTOR & GUARD	TYPE V GLASS REFRACTOR & GUARD	GLOBE & GUARD	TYPE I GLASS REFRACTOR & GUARD	TYPE V GLASS REFRACTOR & GUARD	12" SPIN-TOP TYPE V REFRACTOR & GUARD
35	S76	3/4"	120V	VM1S031F2GLG	VM1S031F2R1G	VM1S031F2R5G	VM2S031F2GLG	VM2S031F2R1G	VM2S031F2R5G	VM2S031F2S5G
50	S68	3/4"	Quad	VM1S050F2GLG	VM1S050F2R1G	VM1S050F2R5G	VM2S050F2GLG	VM2S050F2R1G	VM2S050F2R5G	VM2S050F2S5G
70	S62	3/4"	Quad Tri 480	VM1S070F2GLG	VM1S070F2R1G	VM1S070F2R5G	VM2S070F2GLG	VM2S070F2R1G	VM2S070F2R5G	VM2S070F2S5G
				VM1S076F2GLG	VM1S076F2R1G	VM1S076F2R5G	VM2S076F2GLG	VM2S076F2R1G	VM2S076F2R5G	VM2S076F2S5G
				VM1S075F2GLG	VM1S075F2R1G	VM1S075F2R5G	VM2S075F2GLG	VM2S075F2R1G	VM2S075F2R5G	VM2S075F2S5G
100	S54	3/4"	Quad Tri 480	VM1S100F2GLG	VM1S100F2R1G	VM1S100F2R5G	VM2S100F2GLG	VM2S100F2R1G	VM2S100F2R5G	VM2S100F2S5G
				VM1S106F2GLG	VM1S106F2R1G	VM1S106F2R5G	VM2S106F2GLG	VM2S106F2R1G	VM2S106F2R5G	VM2S106F2S5G
				VM1S105F2GLG	VM1S105F2R1G	VM1S105F2R5G	VM2S105F2GLG	VM2S105F2R1G	VM2S105F2R5G	VM2S105F2S5G
150	S55	3/4"	Quad Tri 480	VM1S150F2GLG	VM1S150F2R1G	VM1S150F2R5G	VM2S150F2GLG	VM2S150F2R1G	VM2S150F2R5G	VM2S150F2S5G
				VM1S156F2GLG	VM1S156F2R1G	VM1S156F2R5G	VM2S156F2GLG	VM2S156F2R1G	VM2S156F2R5G	VM2S156F2S5G
				VM1S155F2GLG	VM1S155F2R1G	VM1S155F2R5G	VM2S155F2GLG	VM2S155F2R1G	VM2S155F2R5G	VM2S155F2S5G

① See hazardous location data pages L131- L140 for application suitability
 ② Catalog numbers shown are with Guard; to omit guard change ending G to N; e.g. VM1S050A2GLN
 ③ Catalog numbers shown are with 3/4" conduit openings; change "2" to "3" for 1" e.g. VM1S050A3GLG
 ④ Consult catalog logic for other available voltage & lamp combinations
 ⑤ Add suffix NR for AEx nR Restricted Breathing; see page L84 for more information (CS US only)



HIGH PRESSURE SODIUM, 35-150W MEDIUM BASE HID



VM1 Ceiling
w/ 5-1/2"
Globe & Guard



VM2 Ceiling
w/ 7-3/4"
Globe & Guard



VM1 Wall
w/ 5-1/2"
Refractor & Guard



VM2 Wall
w/ 7-3/4"
Refractor & Guard

VM 35 - 150 HIGH PRESSURE SODIUM - CEILING										
DESCRIPTION				5-1/2" OPTIC THREAD SIZE ②			7-3/4" OPTIC THREAD SIZE ②			
WATTS	ANSI	HUB SIZE ③	VOLTAGE ④	GLOBE & GUARD	TYPE I GLASS REFRACTOR & GUARD	TYPE V GLASS REFRACTOR & GUARD	GLOBE & GUARD	TYPE I GLASS REFRACTOR & GUARD	TYPE V GLASS REFRACTOR & GUARD	12" SPIN-TOP TYPE V REFRACTOR & GUARD
35	S76	3/4"	120V	VM1S031X2GLG	VM1S031X2R1G	VM1S031X2R5G	VM2S031X2GLG	VM2S031X2R1G	VM2S031X2R5G	VM2S031X2S5G
50	S68	3/4"	Quad	VM1S050X2GLG	VM1S050X2R1G	VM1S050X2R5G	VM2S050X2GLG	VM2S050X2R1G	VM2S050X2R5G	VM2S050X2S5G
70	S62	3/4"	Quad Tri 480	VM1S070X2GLG	VM1S070X2R1G	VM1S070X2R5G	VM2S070X2GLG	VM2S070X2R1G	VM2S070X2R5G	VM2S070X2S5G
				VM1S076X2GLG	VM1S076X2R1G	VM1S076X2R5G	VM2S076X2GLG	VM2S076X2R1G	VM2S076X2R5G	VM2S076X2S5G
				VM1S075X2GLG	VM1S075X2R1G	VM1S075X2R5G	VM2S075X2GLG	VM2S075X2R1G	VM2S075X2R5G	VM2S075X2S5G
100	S54	3/4"	Quad Tri 480	VM1S100X2GLG	VM1S100X2R1G	VM1S100X2R5G	VM2S100X2GLG	VM2S100X2R1G	VM2S100X2R5G	VM2S100X2S5G
				VM1S106X2GLG	VM1S106X2R1G	VM1S106X2R5G	VM2S106X2GLG	VM2S106X2R1G	VM2S106X2R5G	VM2S106X2S5G
				VM1S105X2GLG	VM1S105X2R1G	VM1S105X2R5G	VM2S105X2GLG	VM2S105X2R1G	VM2S105X2R5G	VM2S105X2S5G
150	S55	3/4"	Quad Tri 480	VM1S150X2GLG	VM1S150X2R1G	VM1S150X2R5G	VM2S150X2GLG	VM2S150X2R1G	VM2S150X2R5G	VM2S150X2S5G
				VM1S156X2GLG	VM1S156X2R1G	VM1S156X2R5G	VM2S156X2GLG	VM2S156X2R1G	VM2S156X2R5G	VM2S156X2S5G
				VM1S155X2GLG	VM1S155X2R1G	VM1S155X2R5G	VM2S155X2GLG	VM2S155X2R1G	VM2S155X2R5G	VM2S155X2S5G

VM 35 - 150 HIGH PRESSURE SODIUM - WALL										
DESCRIPTION				5-1/2" OPTIC THREAD SIZE ②			7-3/4" OPTIC THREAD SIZE ②			
WATTS	ANSI	HUB SIZE ③	VOLTAGE ④	GLOBE & GUARD	TYPE I GLASS REFRACTOR & GUARD	TYPE V GLASS REFRACTOR & GUARD	GLOBE & GUARD	TYPE I GLASS REFRACTOR & GUARD	TYPE V GLASS REFRACTOR & GUARD	12" SPIN-TOP TYPE V REFRACTOR & GUARD
35	S76	3/4"	120V	VM1S031B2GLG	VM1S031B2R1G	VM1S031B2R5G	VM2S031B2GLG	VM2S031B2R1G	VM2S031B2R5G	VM2S031B2S5G
50	S68	3/4"	Quad	VM1S050B2GLG	VM1S050B2R1G	VM1S050B2R5G	VM2S050B2GLG	VM2S050B2R1G	VM2S050B2R5G	VM2S050B2S5G
70	S62	3/4"	Quad Tri 480	VM1S070B2GLG	VM1S070B2R1G	VM1S070B2R5G	VM2S070B2GLG	VM2S070B2R1G	VM2S070B2R5G	VM2S070B2S5G
				VM1S076B2GLG	VM1S076B2R1G	VM1S076B2R5G	VM2S076B2GLG	VM2S076B2R1G	VM2S076B2R5G	VM2S076B2S5G
				VM1S075B2GLG	VM1S075B2R1G	VM1S075B2R5G	VM2S075B2GLG	VM2S075B2R1G	VM2S075B2R5G	VM2S075B2S5G
100	S54	3/4"	Quad Tri 480	VM1S100B2GLG	VM1S100B2R1G	VM1S100B2R5G	VM2S100B2GLG	VM2S100B2R1G	VM2S100B2R5G	VM2S100B2S5G
				VM1S106B2GLG	VM1S106B2R1G	VM1S106B2R5G	VM2S106B2GLG	VM2S106B2R1G	VM2S106B2R5G	VM2S106B2S5G
				VM1S105B2GLG	VM1S105B2R1G	VM1S105B2R5G	VM2S105B2GLG	VM2S105B2R1G	VM2S105B2R5G	VM2S105B2S5G
150	S55	3/4"	Quad Tri 480	VM1S150B2GLG	VM1S150B2R1G	VM1S150B2R5G	VM2S150B2GLG	VM2S150B2R1G	VM2S150B2R5G	VM2S150B2S5G
				VM1S156B2GLG	VM1S156B2R1G	VM1S156B2R5G	VM2S156B2GLG	VM2S156B2R1G	VM2S156B2R5G	VM2S156B2S5G
				VM1S155B2GLG	VM1S155B2R1G	VM1S155B2R5G	VM2S155B2GLG	VM2S155B2R1G	VM2S155B2R5G	VM2S155B2S5G

① See hazardous location data pages L131 - L140 for application suitability
 ② Catalog numbers shown are with Guard; to omit guard change ending G to N; e.g. VM1S050X2GLN
 ③ Catalog numbers shown are with 3/4" conduit openings; change "2" to "3" for 1" e.g. VM1S050X3GLG
 ④ Consult catalog logic for other available voltage & lamp combinations
 ⑤ Add suffix NR for AEx nR Restricted Breathing; see page L84 for more information (cULus only)

LIGHTING

CERTILITE® V SERIES



HIGH PRESSURE SODIUM, 35-150W MEDIUM BASE HID



VM1 Cone
w/5-1/2"
Globe & Guard



VM2 Cone
w/7-3/4"
Globe & Guard



VM1 EZ Adapter
w/5-1/2"
Refractor & Guard



VM2 EZ Adapter
w/7-3/4"
Refractor & Guard

VM 35 - 150 HIGH PRESSURE SODIUM -CONE											
DESCRIPTION				5-1/2" OPTIC THREAD SIZE ②			7-3/4" OPTIC THREAD SIZE ②				
WATTS	ANSI	HUB SIZE③	VOLTAGE ④	GLOBE & GUARD	TYPE I GLASS REFRACTOR & GUARD	TYPE V GLASS REFRACTOR & GUARD	GLOBE & GUARD	TYPE I GLASS REFRACTOR & GUARD	TYPE V GLASS REFRACTOR & GUARD	12" SPIN-TOP TYPE V REFRACTOR & GUARD	
35	S76	3/4	120V	VM1S031C2GLG	VM1S031C2R1G	VM1S031C2R5G	VM2S031C2GLG	VM2S031C2R1G	VM2S031C2R5G	VM2S031C2S5G	
50	S68	3/4	Quad	VM1S050C2GLG	VM1S050C2R1G	VM1S050C2R5G	VM2S050C2GLG	VM2S050C2R1G	VM2S050C2R5G	VM2S050C2S5G	
70	S62	3/4	Quad Tri 480	VM1S070C2GLG	VM1S070C2R1G	VM1S070C2R5G	VM2S070C2GLG	VM2S070C2R1G	VM2S070C2R5G	VM2S070C2S5G	
				VM1S076C2GLG	VM1S076C2R1G	VM1S076C2R5G	VM2S076C2GLG	VM2S076C2R1G	VM2S076C2R5G	VM2S076C2S5G	
				VM1S075C2GLG	VM1S075C2R1G	VM1S075C2R5G	VM2S075C2GLG	VM2S075C2R1G	VM2S075C2R5G	VM2S075C2S5G	
100	S54	3/4	Quad Tri 480	VM1S100C2GLG	VM1S100C2R1G	VM1S100C2R5G	VM2S100C2GLG	VM2S100C2R1G	VM2S100C2R5G	VM2S100C2S5G	
				VM1S106C2GLG	VM1S106C2R1G	VM1S106C2R5G	VM2S106C2GLG	VM2S106C2R1G	VM2S106C2R5G	VM2S106C2S5G	
				VM1S105C2GLG	VM1S105C2R1G	VM1S105C2R5G	VM2S105C2GLG	VM2S105C2R1G	VM2S105C2R5G	VM2S105C2S5G	
150	S55	3/4	Quad Tri 480	VM1S150C2GLG	VM1S150C2R1G	VM1S150C2R5G	VM2S150C2GLG	VM2S150C2R1G	VM2S150C2R5G	VM2S150C2S5G	
				VM1S156C2GLG	VM1S156C2R1G	VM1S156C2R5G	VM2S156C2GLG	VM2S156C2R1G	VM2S156C2R5G	VM2S156C2S5G	
				VM1S155C2GLG	VM1S155C2R1G	VM1S155C2R5G	VM2S155C2GLG	VM2S155C2R1G	VM2S155C2R5G	VM2S155C2S5G	

VM 35 - 150 HIGH PRESSURE SODIUM -EZ ADAPTER ②											
DESCRIPTION				5-1/2" OPTIC THREAD SIZE ②			7-3/4" OPTIC THREAD SIZE ②				
WATTS	ANSI	HUB SIZE③	VOLTAGE ④	GLOBE & GUARD	TYPE I GLASS REFRACTOR & GUARD	TYPE V GLASS REFRACTOR & GUARD	GLOBE & GUARD	TYPE I GLASS REFRACTOR & GUARD	TYPE V GLASS REFRACTOR & GUARD	12" SPIN-TOP TYPE V REFRACTOR & GUARD	
35	S76	⑥	120V	VM1S031EZGLG	VM1S031EZR1G	VM1S031EZR5G	VM2S031EZGLG	VM2S031EZR1G	VM2S031EZR5G	VM2S031Ezs5G	
50	S68	⑥	Quad	VM1S050EZGLG	VM1S050EZR1G	VM1S050EZR5G	VM2S050EZGLG	VM2S050EZR1G	VM2S050EZR5G	VM2S050Ezs5G	
70	S62	⑥	Quad Tri 480	VM1S070EZGLG	VM1S070EZR1G	VM1S070EZR5G	VM2S070EZGLG	VM2S070EZR1G	VM2S070EZR5G	VM2S070Ezs5G	
				VM1S076EZGLG	VM1S076EZR1G	VM1S076EZR5G	VM2S076EZGLG	VM2S076EZR1G	VM2S076EZR5G	VM2S076Ezs5G	
				VM1S075EZGLG	VM1S075EZR1G	VM1S075EZR5G	VM2S075EZGLG	VM2S075EZR1G	VM2S075EZR5G	VM2S075Ezs5G	
100	S54	⑥	Quad Tri 480	VM1S100EZGLG	VM1S100EZR1G	VM1S100EZR5G	VM2S100EZGLG	VM2S100EZR1G	VM2S100EZR5G	VM2S100Ezs5G	
				VM1S106EZGLG	VM1S106EZR1G	VM1S106EZR5G	VM2S106EZGLG	VM2S106EZR1G	VM2S106EZR5G	VM2S106Ezs5G	
				VM1S105EZGLG	VM1S105EZR1G	VM1S105EZR5G	VM2S105EZGLG	VM2S105EZR1G	VM2S105EZR5G	VM2S105Ezs5G	
150	S55	⑥	Quad Tri 480	VM1S150EZGLG	VM1S150EZR1G	VM1S150EZR5G	VM2S150EZGLG	VM2S150EZR1G	VM2S150EZR5G	VM2S150Ezs5G	
				VM1S156EZGLG	VM1S156EZR1G	VM1S156EZR5G	VM2S156EZGLG	VM2S156EZR1G	VM2S156EZR5G	VM2S156Ezs5G	
				VM1S155EZGLG	VM1S155EZR1G	VM1S155EZR5G	VM2S155EZGLG	VM2S155EZR1G	VM2S155EZR5G	VM2S155Ezs5G	

- ① See hazardous location data pages L131 - L140 for application suitability.
- ② Catalog numbers shown are with Guard; to omit guard change ending G to N; e.g. VM1S050C2GLN.
- ③ Catalog numbers shown are with 3/4" conduit openings; change "2" to "3" for 1" e.g. VM1S050C3GLG.
- ④ Consult catalog logic for other available voltage & lamp combinations.
- ⑤ Add suffix NR for AEx nR Restricted Breathing; see page L84 for more information (Ⓢ only)
- ⑥ VMEZA tank adapters UL "classified" as an assembly for use between VM tanks and EZ mounts. Order EZ mounts separately. See page L101.



HIGH PRESSURE SODIUM, 35-150W MEDIUM BASE HID



VM1 Stanchion 25°
w/5-1/2"
Globe & Guard



VM2 Stanchion 25°
w/7-3/4"
Globe & Guard



VM1 Stanchion
Straight
w/5-1/2"
Refractor & Guard



VM2 Stanchion
Straight
w/7-3/4"
Refractor & Guard

VM 35 - 150 HIGH PRESSURE SODIUM -STANCHION 25° ANGLE										
DESCRIPTION				5-1/2" OPTIC THREAD SIZE®			7-3/4" OPTIC THREAD SIZE®			
WATTS	ANSI	HUB SIZE®	VOLTAGE®	GLOBE & GUARD	TYPE I GLASS REFRACTOR & GUARD	TYPE V GLASS REFRACTOR & GUARD	GLOBE & GUARD	TYPE I GLASS REFRACTOR & GUARD	TYPE V GLASS REFRACTOR & GUARD	12" SPIN-TOP TYPE V REFRACTOR & GUARD
35	S76	1-1/2"	120V	VM1S031D5GLG	VM1S031D5R1G	VM1S031D5R5G	VM2S031D5GLG	VM2S031D5R1G	VM2S031D5R5G	VM2S031D5S5G
50	S68	1-1/2"	Quad	VM1S050D5GLG	VM1S050D5R1G	VM1S050D5R5G	VM2S050D5GLG	VM2S050D5R1G	VM2S050D5R5G	VM2S050D5S5G
70	S62	1-1/2"	Quad Tri 480	VM1S070D5GLG	VM1S070D5R1G	VM1S070D5R5G	VM2S070D5GLG	VM2S070D5R1G	VM2S070D5R5G	VM2S070D5S5G
				VM1S076D5GLG	VM1S076D5R1G	VM1S076D5R5G	VM2S076D5GLG	VM2S076D5R1G	VM2S076D5R5G	VM2S076D5S5G
				VM1S075D5GLG	VM1S075D5R1G	VM1S075D5R5G	VM2S075D5GLG	VM2S075D5R1G	VM2S075D5R5G	VM2S075D5S5G
100	S54	1-1/2"	Quad Tri 480	VM1S100D5GLG	VM1S100D5R1G	VM1S100D5R5G	VM2S100D5GLG	VM2S100D5R1G	VM2S100D5R5G	VM2S100D5S5G
				VM1S106D5GLG	VM1S106D5R1G	VM1S106D5R5G	VM2S106D5GLG	VM2S106D5R1G	VM2S106D5R5G	VM2S106D5S5G
				VM1S105D5GLG	VM1S105D5R1G	VM1S105D5R5G	VM2S105D5GLG	VM2S105D5R1G	VM2S105D5R5G	VM2S105D5S5G
150	S55	1-1/2"	Quad Tri 480	VM1S150D5GLG	VM1S150D5R1G	VM1S150D5R5G	VM2S150D5GLG	VM2S150D5R1G	VM2S150D5R5G	VM2S150D5S5G
				VM1S156D5GLG	VM1S156D5R1G	VM1S156D5R5G	VM2S156D5GLG	VM2S156D5R1G	VM2S156D5R5G	VM2S156D5S5G
				VM1S155D5GLG	VM1S155D5R1G	VM1S155D5R5G	VM2S155D5GLG	VM2S155D5R1G	VM2S155D5R5G	VM2S155D5S5G

VM 35 - 150 HIGH PRESSURE SODIUM -STANCHION STRAIGHT										
DESCRIPTION				5-1/2" OPTIC THREAD SIZE®			7-3/4" OPTIC THREAD SIZE®			
WATTS	ANSI	HUB SIZE®	VOLTAGE®	GLOBE & GUARD	TYPE I GLASS REFRACTOR & GUARD	TYPE V GLASS REFRACTOR & GUARD	GLOBE & GUARD	TYPE I GLASS REFRACTOR & GUARD	TYPE V GLASS REFRACTOR & GUARD	12" SPIN-TOP TYPE V REFRACTOR & GUARD
35	S76	1-1/2"	120V	VM1S031S5GLG	VM1S031S5R1G	VM1S031S5R5G	VM2S031S5GLG	VM2S031S5R1G	VM2S031S5R5G	VM2S031S5S5G
50	S68	1-1/2"	Quad	VM1S050S5GLG	VM1S050S5R1G	VM1S050S5R5G	VM2S050S5GLG	VM2S050S5R1G	VM2S050S5R5G	VM2S050S5S5G
70	S62	1-1/2"	Quad Tri 480	VM1S070S5GLG	VM1S070S5R1G	VM1S070S5R5G	VM2S070S5GLG	VM2S070S5R1G	VM2S070S5R5G	VM2S070S5S5G
				VM1S076S5GLG	VM1S076S5R1G	VM1S076S5R5G	VM2S076S5GLG	VM2S076S5R1G	VM2S076S5R5G	VM2S076S5S5G
				VM1S075S5GLG	VM1S075S5R1G	VM1S075S5R5G	VM2S075S5GLG	VM2S075S5R1G	VM2S075S5R5G	VM2S075S5S5G
100	S54	1-1/2"	Quad Tri 480	VM1S100S5GLG	VM1S100S5R1G	VM1S100S5R5G	VM2S100S5GLG	VM2S100S5R1G	VM2S100S5R5G	VM2S100S5S5G
				VM1S106S5GLG	VM1S106S5R1G	VM1S106S5R5G	VM2S106S5GLG	VM2S106S5R1G	VM2S106S5R5G	VM2S106S5S5G
				VM1S105S5GLG	VM1S105S5R1G	VM1S105S5R5G	VM2S105S5GLG	VM2S105S5R1G	VM2S105S5R5G	VM2S105S5S5G
150	S55	1-1/2"	Quad Tri 480	VM1S150S5GLG	VM1S150S5R1G	VM1S150S5R5G	VM2S150S5GLG	VM2S150S5R1G	VM2S150S5R5G	VM2S150S5S5G
				VM1S156S5GLG	VM1S156S5R1G	VM1S156S5R5G	VM2S156S5GLG	VM2S156S5R1G	VM2S156S5R5G	VM2S156S5S5G
				VM1S155S5GLG	VM1S155S5R1G	VM1S155S5R5G	VM2S155S5GLG	VM2S155S5R1G	VM2S155S5R5G	VM2S155S5S5G

① See hazardous location data pages L131 - L140 for application suitability.
 ② Catalog numbers shown are with Guard; to omit guard change ending G to N; e.g. VM1S050D5GLN.
 ③ Catalog numbers shown are with 1-1/2" conduit openings; change "5" to "4" for 1-1/4" e.g. VM1S050D4GLG.
 ④ Consult catalog logic for other available voltage & lamp combinations.
 ⑤ Add suffix NR for AEx nR Restricted Breathing; see page L84 for more information (☑ only)

LIGHTING

CERTILITE® V SERIES



METAL HALIDE/METAL HALIDE PULSE, 50-175W MEDIUM BASE HID



VM1 Pendant
w/5-1/2"
Globe & Guard



VM2 Pendant
w/7-3/4"
Globe & Guard



VM1 Flexible Pendant
w/5-1/2"
Refractor & Guard



VM2 Flexible Pendant
w/7-3/4"
Refractor & Guard

Class I, Div. 2, Groups A,B,C,D^①
 Class I, Zone 2, Groups IIC, IIB, IIA
 Class II, Div. 1 & 2, Groups E,F,G
 Class III
 Suitable for wet locations
 NEMA 3, 4, 4X
 IP66
 UL LISTED - File E10514 (Hazardous & Marine)
 cUL US Certified - File LR11713
 NR Restricted Breathing Option^⑤
 Class I, Zone 2 AEx nAnR
 Class I, Zone 2 Ex nR, cUL US

VM 50 - 175 METAL HALIDE (PULSE * *) - PENDANT										
DESCRIPTION				5-1/2" OPTIC THREAD SIZE ②			7-3/4" OPTIC THREAD SIZE ②			
WATTS	ANSI	HUB SIZE ③	VOLTAGE ④	GLOBE & GUARD	TYPE I GLASS REFRACTOR & GUARD	TYPE V GLASS REFRACTOR & GUARD	GLOBE & GUARD	TYPE I GLASS REFRACTOR & GUARD	TYPE V GLASS REFRACTOR & GUARD	12" SPIN-TOP TYPE V REFRACTOR & GUARD
50	M110	3/4"	Quad Tri	VM1H050A2GLG	VM1H050A2R1G	VM1H050A2R5G	VM2H050A2GLG	VM2H050A2R1G	VM2H050A2R5G	VM2H050A2S5G
				VM1H056A2GLG	VM1H056A2R1G	VM1H056A2R5G	VM2H056A2GLG	VM2H056A2R1G	VM2H056A2R5G	VM2H056A2S5G
70	M98	3/4"	Quad Tri 480	VM1H070A2GLG	VM1H070A2R1G	VM1H070A2R5G	VM2H070A2GLG	VM2H070A2R1G	VM2H070A2R5G	VM2H070A2S5G
				VM1H076A2GLG	VM1H076A2R1G	VM1H076A2R5G	VM2H076A2GLG	VM2H076A2R1G	VM2H076A2R5G	VM2H076A2S5G
				VM1H075A2GLG	VM1H075A2R1G	VM1H075A2R5G	VM2H075A2GLG	VM2H075A2R1G	VM2H075A2R5G	VM2H075A2S5G
100	M90	3/4"	Quad Tri 480	VM1H100A2GLG	VM1H100A2R1G	VM1H100A2R5G	VM2H100A2GLG	VM2H100A2R1G	VM2H100A2R5G	VM2H100A2S5G
				VM1H106A2GLG	VM1H106A2R1G	VM1H106A2R5G	VM2H106A2GLG	VM2H106A2R1G	VM2H106A2R5G	VM2H106A2S5G
				VM1H105A2GLG	VM1H105A2R1G	VM1H105A2R5G	VM2H105A2GLG	VM2H105A2R1G	VM2H105A2R5G	VM2H105A2S5G
150	M102 M142	3/4"	Quad Tri 480	VM1P150A2GLG	VM1P150A2R1G	VM1P150A2R5G	VM2P150A2GLG	VM2P150A2R1G	VM2P150A2R5G	VM2P150A2S5G
				VM1P156A2GLG	VM1P156A2R1G	VM1P156A2R5G	VM2P156A2GLG	VM2P156A2R1G	VM2P156A2R5G	VM2P156A2S5G
				VM1P155A2GLG	VM1P155A2R1G	VM1P155A2R5G	VM2P155A2GLG	VM2P155A2R1G	VM2P155A2R5G	VM2P155A2S5G
175	M137 M152	3/4"	Quad Tri 480	VM1P170A2GLG	VM1P170A2R1G	VM1P170A2R5G	VM2P170A2GLG	VM2P170A2R1G	VM2P170A2R5G	VM2P170A2S5G
				VM1P176A2GLG	VM1P176A2R1G	VM1P176A2R5G	VM2P176A2GLG	VM2P176A2R1G	VM2P176A2R5G	VM2P176A2S5G
				VM1P175A2GLG	VM1P175A2R1G	VM1P175A2R5G	VM2P175A2GLG	VM2P175A2R1G	VM2P175A2R5G	VM2P175A2S5G

VM 50 - 175 METAL HALIDE (PULSE * *) - FLEX PENDANT										
DESCRIPTION				5-1/2" OPTIC THREAD SIZE ②			7-3/4" OPTIC THREAD SIZE ②			
WATTS	ANSI	HUB SIZE ③	VOLTAGE ④	GLOBE & GUARD	TYPE I GLASS REFRACTOR & GUARD	TYPE V GLASS REFRACTOR & GUARD	GLOBE & GUARD	TYPE I GLASS REFRACTOR & GUARD	TYPE V GLASS REFRACTOR & GUARD	12" SPIN-TOP TYPE V REFRACTOR & GUARD
50	M110	3/4"	Quad Tri	VM1H050F2GLG	VM1H050F2R1G	VM1H050F2R5G	VM2H050F2GLG	VM2H050F2R1G	VM2H050F2R5G	VM2H050F2S5G
				VM1H056F2GLG	VM1H056F2R1G	VM1H056F2R5G	VM2H056F2GLG	VM2H056F2R1G	VM2H056F2R5G	VM2H056F2S5G
70	M98	3/4"	Quad Tri 480	VM1H070F2GLG	VM1H070F2R1G	VM1H070F2R5G	VM2H070F2GLG	VM2H070F2R1G	VM2H070F2R5G	VM2H070F2S5G
				VM1H076F2GLG	VM1H076F2R1G	VM1H076F2R5G	VM2H076F2GLG	VM2H076F2R1G	VM2H076F2R5G	VM2H076F2S5G
				VM1H075F2GLG	VM1H075F2R1G	VM1H075F2R5G	VM2H075F2GLG	VM2H075F2R1G	VM2H075F2R5G	VM2H075F2S5G
100	M90	3/4"	Quad Tri 480	VM1H100F2GLG	VM1H100F2R1G	VM1H100F2R5G	VM2H100F2GLG	VM2H100F2R1G	VM2H100F2R5G	VM2H100F2S5G
				VM1H106F2GLG	VM1H106F2R1G	VM1H106F2R5G	VM2H106F2GLG	VM2H106F2R1G	VM2H106F2R5G	VM2H106F2S5G
				VM1H105F2GLG	VM1H105F2R1G	VM1H105F2R5G	VM2H105F2GLG	VM2H105F2R1G	VM2H105F2R5G	VM2H105F2S5G
150	M102 M142	3/4"	Quad Tri 480	VM1P150F2GLG	VM1P150F2R1G	VM1P150F2R5G	VM2P150F2GLG	VM2P150F2R1G	VM2P150F2R5G	VM2P150F2S5G
				VM1P156F2GLG	VM1P156F2R1G	VM1P156F2R5G	VM2P156F2GLG	VM2P156F2R1G	VM2P156F2R5G	VM2P156F2S5G
				VM1P155F2GLG	VM1P155F2R1G	VM1P155F2R5G	VM2P155F2GLG	VM2P155F2R1G	VM2P155F2R5G	VM2P155F2S5G
175	M137 M152	3/4"	Quad Tri 480	VM1P170F2GLG	VM1P170F2R1G	VM1P170F2R5G	VM2P170F2GLG	VM2P170F2R1G	VM2P170F2R5G	VM2P170F2S5G
				VM1P176F2GLG	VM1P176F2R1G	VM1P176F2R5G	VM2P176F2GLG	VM2P176F2R1G	VM2P176F2R5G	VM2P176F2S5G
				VM1P175F2GLG	VM1P175F2R1G	VM1P175F2R5G	VM2P175F2GLG	VM2P175F2R1G	VM2P175F2R5G	VM2P175F2S5G

① See hazardous location data pages L131 - L140 for application suitability.
 ② Catalog numbers shown are with Guard; to omit guard change ending G to N; e.g. VM1H050A2GLN.
 ③ Catalog numbers shown are with 3/4" conduit openings; change "2" to "3" for 1" e.g. VM1H050A3GLG.
 ④ Consult catalog logic for other available voltage & lamp combinations.
 ⑤ Add suffix NR for AEx nR Restricted Breathing; see page L84 for more information (cUL US only)
 ** 50, 70, & 100 Watt "Traditional Metal Halide" ballasts include a Pulse Ignitor, as do 150 & 175W Metal Halide Pulse models.



METAL HALIDE/METAL HALIDE PULSE, 50-175W MEDIUM BASE HID



VM1 Ceiling
w/5-1/2" Globe & Guard



VM2 Ceiling
w/7-3/4" Globe & Guard



VM1 Wall
w/5-1/2" Refractor & Guard



VM2 Wall
w/7-3/4" Refractor & Guard

VM 50 - 175 METAL HALIDE (PULSE **) - CEILING										
DESCRIPTION				5-1/2" OPTIC THREAD SIZE ©			7-3/4" OPTIC THREAD SIZE ©			
WATTS	ANSI	HUB SIZE®	VOLTAGE ④	GLOBE & GUARD	TYPE I GLASS REFRACTOR & GUARD	TYPE V GLASS REFRACTOR & GUARD	GLOBE & GUARD	TYPE I GLASS REFRACTOR & GUARD	TYPE V GLASS REFRACTOR & GUARD	12" SPIN-TOP TYPE V REFRACTOR & GUARD
50	M110	3/4"	Quad Tri	VM1H050X2GLG	VM1H050X2R1G	VM1H050X2R5G	VM2H050X2GLG	VM2H050X2R1G	VM2H050X2R5G	VM2H050X2S5G
				VM1H056X2GLG	VM1H056X2R1G	VM1H056X2R5G	VM2H056X2GLG	VM2H056X2R1G	VM2H056X2R5G	VM2H056X2S5G
70	M98	3/4"	Quad Tri 480	VM1H070X2GLG	VM1H070X2R1G	VM1H070X2R5G	VM2H070X2GLG	VM2H070X2R1G	VM2H070X2R5G	VM2H070X2S5G
				VM1H076X2GLG	VM1H076X2R1G	VM1H076X2R5G	VM2H076X2GLG	VM2H076X2R1G	VM2H076X2R5G	VM2H076X2S5G
				VM1H075X2GLG	VM1H075X2R1G	VM1H075X2R5G	VM2H075X2GLG	VM2H075X2R1G	VM2H075X2R5G	VM2H075X2S5G
100	M90	3/4"	Quad Tri 480	VM1H100X2GLG	VM1H100X2R1G	VM1H100X2R5G	VM2H100X2GLG	VM2H100X2R1G	VM2H100X2R5G	VM2H100X2S5G
				VM1H106X2GLG	VM1H106X2R1G	VM1H106X2R5G	VM2H106X2GLG	VM2H106X2R1G	VM2H106X2R5G	VM2H106X2S5G
				VM1H105X2GLG	VM1H105X2R1G	VM1H105X2R5G	VM2H105X2GLG	VM2H105X2R1G	VM2H105X2R5G	VM2H105X2S5G
150	M102 M142	3/4"	Quad Tri 480	VM1P150X2GLG	VM1P150X2R1G	VM1P150X2R5G	VM2P150X2GLG	VM2P150X2R1G	VM2P150X2R5G	VM2P150X2S5G
				VM1P156X2GLG	VM1P156X2R1G	VM1P156X2R5G	VM2P156X2GLG	VM2P156X2R1G	VM2P156X2R5G	VM2P156X2S5G
				VM1P155X2GLG	VM1P155X2R1G	VM1P155X2R5G	VM2P155X2GLG	VM2P155X2R1G	VM2P155X2R5G	VM2P155X2S5G
175	M137 M152	3/4"	Quad Tri 480	VM1P170X2GLG	VM1P170X2R1G	VM1P170X2R5G	VM2P170X2GLG	VM2P170X2R1G	VM2P170X2R5G	VM2P170X2S5G
				VM1P176X2GLG	VM1P176X2R1G	VM1P176X2R5G	VM2P176X2GLG	VM2P176X2R1G	VM2P176X2R5G	VM2P176X2S5G
				VM1P175X2GLG	VM1P175X2R1G	VM1P175X2R5G	VM2P175X2GLG	VM2P175X2R1G	VM2P175X2R5G	VM2P175X2S5G

VM 50 - 175 METAL HALIDE (PULSE **) - WALL										
DESCRIPTION				5-1/2" OPTIC THREAD SIZE ©			7-3/4" OPTIC THREAD SIZE ©			
WATTS	ANSI	HUB SIZE®	VOLTAGE ④	GLOBE & GUARD	TYPE I GLASS REFRACTOR & GUARD	TYPE V GLASS REFRACTOR & GUARD	GLOBE & GUARD	TYPE I GLASS REFRACTOR & GUARD	TYPE V GLASS REFRACTOR & GUARD	12" SPIN-TOP TYPE V REFRACTOR & GUARD
50	M110	3/4"	Quad Tri	VM1H050B2GLG	VM1H050B2R1G	VM1H050B2R5G	VM2H050B2GLG	VM2H050B2R1G	VM2H050B2R5G	VM2H050B2S5G
				VM1H056B2GLG	VM1H056B2R1G	VM1H056B2R5G	VM2H056B2GLG	VM2H056B2R1G	VM2H056B2R5G	VM2H056B2S5G
70	M98	3/4"	Quad Tri 480	VM1H070B2GLG	VM1H070B2R1G	VM1H070B2R5G	VM2H070B2GLG	VM2H070B2R1G	VM2H070B2R5G	VM2H070B2S5G
				VM1H076B2GLG	VM1H076B2R1G	VM1H076B2R5G	VM2H076B2GLG	VM2H076B2R1G	VM2H076B2R5G	VM2H076B2S5G
				VM1H075B2GLG	VM1H075B2R1G	VM1H075B2R5G	VM2H075B2GLG	VM2H075B2R1G	VM2H075B2R5G	VM2H075B2S5G
100	M90	3/4"	Quad Tri 480	VM1H100B2GLG	VM1H100B2R1G	VM1H100B2R5G	VM2H100B2GLG	VM2H100B2R1G	VM2H100B2R5G	VM2H100B2S5G
				VM1H106B2GLG	VM1H106B2R1G	VM1H106B2R5G	VM2H106B2GLG	VM2H106B2R1G	VM2H106B2R5G	VM2H106B2S5G
				VM1H105B2GLG	VM1H105B2R1G	VM1H105B2R5G	VM2H105B2GLG	VM2H105B2R1G	VM2H105B2R5G	VM2H105B2S5G
150	M102 M142	3/4"	Quad Tri 480	VM1P150B2GLG	VM1P150B2R1G	VM1P150B2R5G	VM2P150B2GLG	VM2P150B2R1G	VM2P150B2R5G	VM2P150B2S5G
				VM1P156B2GLG	VM1P156B2R1G	VM1P156B2R5G	VM2P156B2GLG	VM2P156B2R1G	VM2P156B2R5G	VM2P156B2S5G
				VM1P155B2GLG	VM1P155B2R1G	VM1P155B2R5G	VM2P155B2GLG	VM2P155B2R1G	VM2P155B2R5G	VM2P155B2S5G
175	M137 M152	3/4"	Quad Tri 480	VM1P170B2GLG	VM1P170B2R1G	VM1P170B2R5G	VM2P170B2GLG	VM2P170B2R1G	VM2P170B2R5G	VM2P170B2S5G
				VM1P176B2GLG	VM1P176B2R1G	VM1P176B2R5G	VM2P176B2GLG	VM2P176B2R1G	VM2P176B2R5G	VM2P176B2S5G
				VM1P175B2GLG	VM1P175B2R1G	VM1P175B2R5G	VM2P175B2GLG	VM2P175B2R1G	VM2P175B2R5G	VM2P175B2S5G

① See hazardous location data pages L131 - L140 for application suitability.
 ② Catalog numbers shown are with Guard; to omit guard change ending G to N; e.g. VM1H050X2GLN.
 ③ Catalog numbers shown are with 3/4" conduit openings; change "2" to "3" for 1" e.g. VM1H050X3GLG.
 ④ Consult catalog logic for other available voltage & lamp combinations.
 ⑤ Add suffix NR for AEx nR Restricted Breathing; see page L84 for more information (☑_{is} only)
 ** 50, 70, & 100 Watt "Traditional Metal Halide" ballasts include a Pulse Ignitor, as do 150 & 175W Metal Halide Pulse models.

LIGHTING

CERTILITE® V SERIES



METAL HALIDE/METAL HALIDE PULSE, 50-175W MEDIUM BASE HID



VM1 Cone
w/5-1/2"
Globe & Guard



VM2 Cone
w/7-3/4"
Globe & Guard



VM1 EZ Adapter
w/5-1/2"
Reflector & Guard



VM2 EZ Adapter
w/7-3/4"
Reflector & Guard

VM 50 - 175 METAL HALIDE (PULSE**) - CONE											
DESCRIPTION				5-1/2" OPTIC THREAD SIZE ②			7-3/4" OPTIC THREAD SIZE ②				
WATTS	ANSI	HUB SIZE ③	VOLTAGE ④	GLOBE & GUARD	TYPE I GLASS REFRACTOR & GUARD	TYPE V GLASS REFRACTOR & GUARD	GLOBE & GUARD	TYPE I GLASS REFRACTOR & GUARD	TYPE V GLASS REFRACTOR & GUARD	12" SPIN-TOP TYPE V REFRACTOR & GUARD	
50	M110	3/4"	Quad Tri	VM1H050C2GLG	VM1H050C2R1G	VM1H050C2R5G	VM2H050C2GLG	VM2H050C2R1G	VM2H050C2R5G	VM2H050C2S5G	
				VM1H056C2GLG	VM1H056C2R1G	VM1H056C2R5G	VM2H056C2GLG	VM2H056C2R1G	VM2H056C2R5G	VM2H056C2S5G	
70	M98	3/4"	Quad Tri 480	VM1H070C2GLG	VM1H070C2R1G	VM1H070C2R5G	VM2H070C2GLG	VM2H070C2R1G	VM2H070C2R5G	VM2H070C2S5G	
				VM1H076C2GLG	VM1H076C2R1G	VM1H076C2R5G	VM2H076C2GLG	VM2H076C2R1G	VM2H076C2R5G	VM2H076C2S5G	
				VM1H075C2GLG	VM1H075C2R1G	VM1H075C2R5G	VM2H075C2GLG	VM2H075C2R1G	VM2H075C2R5G	VM2H075C2S5G	
100	M90	3/4"	Quad Tri 480	VM1H100C2GLG	VM1H100C2R1G	VM1H100C2R5G	VM2H100C2GLG	VM2H100C2R1G	VM2H100C2R5G	VM2H100C2S5G	
				VM1H106C2GLG	VM1H106C2R1G	VM1H106C2R5G	VM2H106C2GLG	VM2H106C2R1G	VM2H106C2R5G	VM2H106C2S5G	
				VM1H105C2GLG	VM1H105C2R1G	VM1H105C2R5G	VM2H105C2GLG	VM2H105C2R1G	VM2H105C2R5G	VM2H105C2S5G	
150	"M102 M142"	3/4"	Quad Tri 480	VM1P150C2GLG	VM1P150C2R1G	VM1P150C2R5G	VM2P150C2GLG	VM2P150C2R1G	VM2P150C2R5G	VM2P150C2S5G	
				VM1P156C2GLG	VM1P156C2R1G	VM1P156C2R5G	VM2P156C2GLG	VM2P156C2R1G	VM2P156C2R5G	VM2P156C2S5G	
				VM1P155C2GLG	VM1P155C2R1G	VM1P155C2R5G	VM2P155C2GLG	VM2P155C2R1G	VM2P155C2R5G	VM2P155C2S5G	
175	"M137 M152"	3/4"	Quad Tri 480	VM1P170C2GLG	VM1P170C2R1G	VM1P170C2R5G	VM2P170C2GLG	VM2P170C2R1G	VM2P170C2R5G	VM2P170C2S5G	
				VM1P176C2GLG	VM1P176C2R1G	VM1P176C2R5G	VM2P176C2GLG	VM2P176C2R1G	VM2P176C2R5G	VM2P176C2S5G	
				VM1P175C2GLG	VM1P175C2R1G	VM1P175C2R5G	VM2P175C2GLG	VM2P175C2R1G	VM2P175C2R5G	VM2P175C2S5G	

VM 50 - 175 METAL HALIDE (PULSE**) - EZ ADAPTER ⑥											
DESCRIPTION				5-1/2" OPTIC THREAD SIZE ②			7-3/4" OPTIC THREAD SIZE ②				
WATTS	ANSI	HUB SIZE ③	VOLTAGE ④	GLOBE & GUARD	TYPE I GLASS REFRACTOR & GUARD	TYPE V GLASS REFRACTOR & GUARD	GLOBE & GUARD	TYPE I GLASS REFRACTOR & GUARD	TYPE V GLASS REFRACTOR & GUARD	12" SPIN-TOP TYPE V REFRACTOR & GUARD	
50	M110	⑥	Quad Tri	VM1H050EZGLG	VM1H050EZR1G	VM1H050EZR5G	VM2H050EZGLG	VM2H050EZR1G	VM2H050EZR5G	VM2H050EZZS5G	
				VM1H056EZGLG	VM1H056EZR1G	VM1H056EZR5G	VM2H056EZGLG	VM2H056EZR1G	VM2H056EZR5G	VM2H056EZZS5G	
70	M98	⑥	Quad Tri 480	VM1H070EZGLG	VM1H070EZR1G	VM1H070EZR5G	VM2H070EZGLG	VM2H070EZR1G	VM2H070EZR5G	VM2H070EZZS5G	
				VM1H076EZGLG	VM1H076EZR1G	VM1H076EZR5G	VM2H076EZGLG	VM2H076EZR1G	VM2H076EZR5G	VM2H076EZZS5G	
				VM1H075EZGLG	VM1H075EZR1G	VM1H075EZR5G	VM2H075EZGLG	VM2H075EZR1G	VM2H075EZR5G	VM2H075EZZS5G	
100	M90	⑥	Quad Tri 480	VM1H100EZGLG	VM1H100EZR1G	VM1H100EZR5G	VM2H100EZGLG	VM2H100EZR1G	VM2H100EZR5G	VM2H100EZZS5G	
				VM1H106EZGLG	VM1H106EZR1G	VM1H106EZR5G	VM2H106EZGLG	VM2H106EZR1G	VM2H106EZR5G	VM2H106EZZS5G	
				VM1H105EZGLG	VM1H105EZR1G	VM1H105EZR5G	VM2H105EZGLG	VM2H105EZR1G	VM2H105EZR5G	VM2H105EZZS5G	
150	M102 M142	⑥	Quad Tri 480	VM1P150EZGLG	VM1P150EZR1G	VM1P150EZR5G	VM2P150EZGLG	VM2P150EZR1G	VM2P150EZR5G	VM2P150EZZS5G	
				VM1P156EZGLG	VM1P156EZR1G	VM1P156EZR5G	VM2P156EZGLG	VM2P156EZR1G	VM2P156EZR5G	VM2P156EZZS5G	
				VM1P155EZGLG	VM1P155EZR1G	VM1P155EZR5G	VM2P155EZGLG	VM2P155EZR1G	VM2P155EZR5G	VM2P155EZZS5G	
175	M137 M152	⑥	Quad Tri 480	VM1P170EZGLG	VM1P170EZR1G	VM1P170EZR5G	VM2P170EZGLG	VM2P170EZR1G	VM2P170EZR5G	VM2P170EZZS5G	
				VM1P176EZGLG	VM1P176EZR1G	VM1P176EZR5G	VM2P176EZGLG	VM2P176EZR1G	VM2P176EZR5G	VM2P176EZZS5G	
				VM1P175EZGLG	VM1P175EZR1G	VM1P175EZR5G	VM2P175EZGLG	VM2P175EZR1G	VM2P175EZR5G	VM2P175EZZS5G	

① See hazardous location data pages L131 - L140 for application suitability.
 ② Catalog numbers shown are with Guard; to omit guard change ending G to N; e.g. VM1H050A2GLN.
 ③ Catalog numbers shown are with 3/4" conduit openings; change "2" to "3" for 1" e.g. VM1H050A3GLG.
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 ⑤ Add suffix NR for AEx nR Restricted Breathing; see page L84 for more information (☉_{US} only)
 ** 50, 70, & 100 Watt "Traditional Metal Halide" ballasts include a Pulse Ignitor, as do 150 & 175W Metal Halide Pulse models.



METAL HALIDE/METAL HALIDE PULSE, 50-175W MEDIUM BASE HID



VM1 Stanchion 25°
w/5-1/2"
Globe & Guard



VM2 Stanchion 25°
w/7-3/4"
Globe & Guard



VM1 Stanchion Straight
w/5-1/2"
Refractor & Guard



VM2 Stanchion Straight
w/7-3/4"
Refractor & Guard

VM 50 - 175 METAL HALIDE (PULSE**) - STANCHION 25° ANGLE										
DESCRIPTION				5-1/2" OPTIC THREAD SIZE ②			7-3/4" OPTIC THREAD SIZE ②			
WATTS	ANSI	HUB SIZE ③	VOLTAGE ④	GLOBE & GUARD	TYPE I GLASS REFRACTOR & GUARD	TYPE V GLASS REFRACTOR & GUARD	GLOBE & GUARD	TYPE I GLASS REFRACTOR & GUARD	TYPE V GLASS REFRACTOR & GUARD	12" SPIN-TOP TYPE V REFRACTOR & GUARD
50	M110	1-1/2"	Quad Tri	VM1H050D5GLG	VM1H050D5R1G	VM1H050D5R5G	VM2H050D5GLG	VM2H050D5R1G	VM2H050D5R5G	VM2H050D5S5G
				VM1H056D5GLG	VM1H056D5R1G	VM1H056D5R5G	VM2H056D5GLG	VM2H056D5R1G	VM2H056D5R5G	VM2H056D5S5G
70	M98	1-1/2"	Quad Tri 480	VM1H070D5GLG	VM1H070D5R1G	VM1H070D5R5G	VM2H070D5GLG	VM2H070D5R1G	VM2H070D5R5G	VM2H070D5S5G
				VM1H076D5GLG	VM1H076D5R1G	VM1H076D5R5G	VM2H076D5GLG	VM2H076D5R1G	VM2H076D5R5G	VM2H076D5S5G
				VM1H075D5GLG	VM1H075D5R1G	VM1H075D5R5G	VM2H075D5GLG	VM2H075D5R1G	VM2H075D5R5G	VM2H075D5S5G
100	M90	1-1/2"	Quad Tri 480	VM1H100D5GLG	VM1H100D5R1G	VM1H100D5R5G	VM2H100D5GLG	VM2H100D5R1G	VM2H100D5R5G	VM2H100D5S5G
				VM1H106D5GLG	VM1H106D5R1G	VM1H106D5R5G	VM2H106D5GLG	VM2H106D5R1G	VM2H106D5R5G	VM2H106D5S5G
				VM1H105D5GLG	VM1H105D5R1G	VM1H105D5R5G	VM2H105D5GLG	VM2H105D5R1G	VM2H105D5R5G	VM2H105D5S5G
150	M102 M142	1-1/2"	Quad Tri 480	VM1P150D5GLG	VM1P150D5R1G	VM1P150D5R5G	VM2P150D5GLG	VM2P150D5R1G	VM2P150D5R5G	VM2P150D5S5G
				VM1P156D5GLG	VM1P156D5R1G	VM1P156D5R5G	VM2P156D5GLG	VM2P156D5R1G	VM2P156D5R5G	VM2P156D5S5G
				VM1P155D5GLG	VM1P155D5R1G	VM1P155D5R5G	VM2P155D5GLG	VM2P155D5R1G	VM2P155D5R5G	VM2P155D5S5G
175	M137 M152	1-1/2"	Quad Tri 480	VM1P170D5GLG	VM1P170D5R1G	VM1P170D5R5G	VM2P170D5GLG	VM2P170D5R1G	VM2P170D5R5G	VM2P170D5S5G
				VM1P176D5GLG	VM1P176D5R1G	VM1P176D5R5G	VM2P176D5GLG	VM2P176D5R1G	VM2P176D5R5G	VM2P176D5S5G
				VM1P175D5GLG	VM1P175D5R1G	VM1P175D5R5G	VM2P175D5GLG	VM2P175D5R1G	VM2P175D5R5G	VM2P175D5S5G

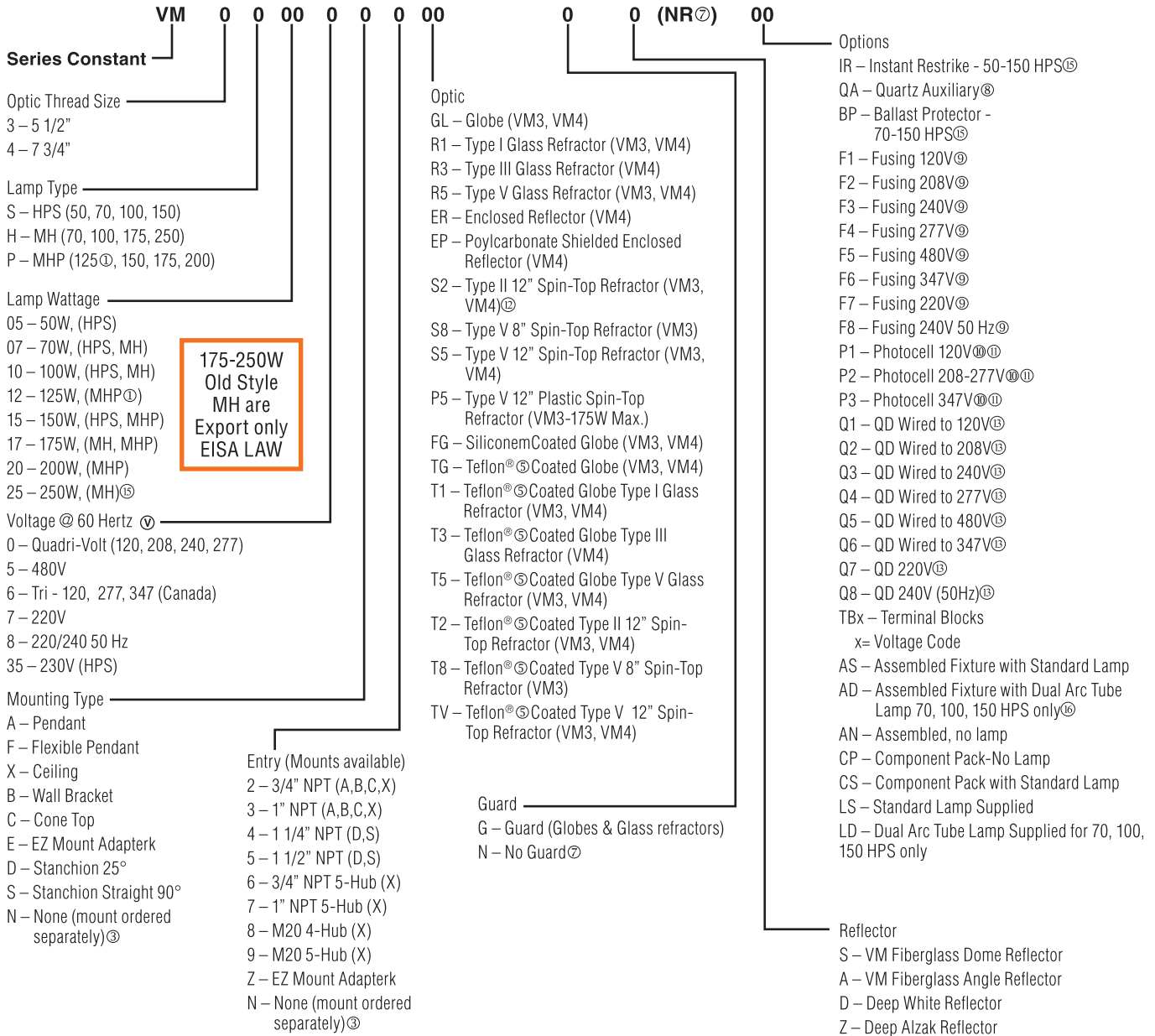
VM 50 - 175 METAL HALIDE (PULSE**) - STANCHION STRAIGHT										
DESCRIPTION				5-1/2" OPTIC THREAD SIZE ②			7-3/4" OPTIC THREAD SIZE ②			
WATTS	ANSI	HUB SIZE ③	VOLTAGE ④	GLOBE & GUARD	TYPE I GLASS REFRACTOR & GUARD	TYPE V GLASS REFRACTOR & GUARD	GLOBE & GUARD	TYPE I GLASS REFRACTOR & GUARD	TYPE V GLASS REFRACTOR & GUARD	12" SPIN-TOP TYPE V REFRACTOR & GUARD
50	M110	1-1/2"	Quad Tri	VM1H050S5GLG	VM1H050S5R1G	VM1H050S5R5G	VM2H050S5GLG	VM2H050S5R1G	VM2H050S5R5G	VM2H050S5S5G
				VM1H056S5GLG	VM1H056S5R1G	VM1H056S5R5G	VM2H056S5GLG	VM2H056S5R1G	VM2H056S5R5G	VM2H056S5S5G
70	M98	1-1/2"	Quad Tri 480	VM1H070S5GLG	VM1H070S5R1G	VM1H070S5R5G	VM2H070S5GLG	VM2H070S5R1G	VM2H070S5R5G	VM2H070S5S5G
				VM1H076S5GLG	VM1H076S5R1G	VM1H076S5R5G	VM2H076S5GLG	VM2H076S5R1G	VM2H076S5R5G	VM2H076S5S5G
				VM1H075S5GLG	VM1H075S5R1G	VM1H075S5R5G	VM2H075S5GLG	VM2H075S5R1G	VM2H075S5R5G	VM2H075S5S5G
100	M90	1-1/2"	Quad Tri 480	VM1H100S5GLG	VM1H100S5R1G	VM1H100S5R5G	VM2H100S5GLG	VM2H100S5R1G	VM2H100S5R5G	VM2H100S5S5G
				VM1H106S5GLG	VM1H106S5R1G	VM1H106S5R5G	VM2H106S5GLG	VM2H106S5R1G	VM2H106S5R5G	VM2H106S5S5G
				VM1H105S5GLG	VM1H105S5R1G	VM1H105S5R5G	VM2H105S5GLG	VM2H105S5R1G	VM2H105S5R5G	VM2H105S5S5G
150	"M102 M142"	1-1/2"	Quad Tri 480	VM1P150S5GLG	VM1P150S5R1G	VM1P150S5R5G	VM2P150S5GLG	VM2P150S5R1G	VM2P150S5R5G	VM2P150S5S5G
				VM1P156S5GLG	VM1P156S5R1G	VM1P156S5R5G	VM2P156S5GLG	VM2P156S5R1G	VM2P156S5R5G	VM2P156S5S5G
				VM1P155S5GLG	VM1P155S5R1G	VM1P155S5R5G	VM2P155S5GLG	VM2P155S5R1G	VM2P155S5R5G	VM2P155S5S5G
175	"M137 M152"	1-1/2"	Quad Tri 480	VM1P170S5GLG	VM1P170S5R1G	VM1P170S5R5G	VM2P170S5GLG	VM2P170S5R1G	VM2P170S5R5G	VM2P170S5S5G
				VM1P176S5GLG	VM1P176S5R1G	VM1P176S5R5G	VM2P176S5GLG	VM2P176S5R1G	VM2P176S5R5G	VM2P176S5S5G
				VM1P175S5GLG	VM1P175S5R1G	VM1P175S5R5G	VM2P175S5GLG	VM2P175S5R1G	VM2P175S5R5G	VM2P175S5S5G

① See hazardous location data pages L131 - L140 for application suitability.
 ② Catalog numbers shown are with Guard; to omit guard change ending G to N; e.g. VM1H050D4GLN.
 ③ Catalog numbers shown are with 1-1/2" conduit openings; change "5" to "4" for 1-1/4" e.g. VM1H050D4GLG.
 ④ Consult catalog logic for other available voltage & lamp combinations.
 ⑤ Add suffix NR for AEx nR Restricted Breathing; see page L84 for more information (☑ is only)
 ** 50, 70, & 100 Watt "Traditional Metal Halide" ballasts include a Pulse Ignitor, as do 150 & 175W Metal Halide Pulse models.



VM3/VM4 CATALOG ORDERING LOGIC

CertiLite® Catalog Number Logic; 50-250 Low Wattage (Mogul Base) HID Fixtures



① Special order lamp type/wattage not shown in grids, minimums apply.
 ② Completes as "EZ", conduit mounting boxes ordered separately.
 ③ Silicone coated globe for additional impact protection.
 ④ Teflon® is a registered trademark of DuPont, Inc. Consult factory for available lamp and voltage combinations.
 ⑤ Restricted Breathing - See L84 for more information.
 ⑥ Order Guards for Spin-Tops & VMER40 separately.
 ⑦ QA not suitable for Class I, Div. 2/Zone 2 applications; consult factory for other hazardous applications.
 ⑧ Fusing not for Marine or Canadian installations.
 ⑨ Photo cells for Class I, Div. 2 only, or C1Z2 nR not Class II.
 ⑩ Field connection to proper tap in case of Multitap Ballasts.
 ⑪ Not for use with wall or straight (90°) Stanchion.
 ⑫ QD = Quick Disconnect. Allows easy tank removal for maintenance.
 ⑬ Electrician simply unplugs de-energized ballast from supply circuit. 220V 60Hz or 230V 50Hz used with QA-requires VM5 tank.
 ⑭ IR and BP cannot be ordered together.
 ⑮ Not available with IR or QA.



HIGH PRESSURE SODIUM, 50-150W MOGUL BASE HID



Pendant
w/ 5-1/2"
Globe & Guard



Flexible Pendant
w/ 5-1/2"
Refractor & Guard



Pendant
w/ 7-3/4"
Globe & Guard



Flexible Pendant
w/ 7-3/4"
Refractor & Guard



Pendant
w/ Enclosed Reflector

Class I, Div. 2, Groups A,B,C,D[Ⓛ]
Class I, Zone 2, Groups IIC, IIB, IIA
Class II, Div. 1 & 2, Groups E,F,G
Class III
Suitable for wet locations
NEMA 3, 4, 4X
IP66

US LISTED - File E10514 (Hazardous & Marine)

US Certified - File LR11713

NR Restricted Breathing Option[Ⓢ]

Class I, Zone 2 AEx nAnR
Class I, Zone 2 Ex nR US

VM 50 - 150 WATT HIGH PRESSURE SODIUM PENDANT										
DESCRIPTION				5-1/2" OPTIC THREAD SIZE [Ⓛ]			7-3/4" OPTIC THREAD SIZE [Ⓛ]			
WATTS	ANSI	HUB SIZE [Ⓢ]	VOLTAGE [Ⓛ]	GLOBE & GUARD	TYPE I GLASS REFRACTOR & GUARD	TYPE V GLASS REFRACTOR & GUARD	GLOBE & GUARD	TYPE I GLASS REFRACTOR & GUARD	TYPE V GLASS REFRACTOR & GUARD	12" SPIN-TOP TYPE V REFRACTOR & GUARD
50	S68	3/4"	Quad	VM3S050A2GLG	VM3S050A2R1G	VM3S050A2R5G	VM4S050A2GLG	VM4S050A2R1G	VM4S050A2R5G	VM4S050A2ERN
				VM3S070A2GLG	VM3S070A2R1G	VM3S070A2R5G	VM4S070A2GLG	VM4S070A2R1G	VM4S070A2R5G	VM4S070A2ERN
70	S62	3/4"	Quad Tri 480	VM3S076A2GLG	VM3S076A2R1G	VM3S076A2R5G	VM4S076A2GLG	VM4S076A2R1G	VM4S076A2R5G	VM4S076A2ERN
				VM3S075A2GLG	VM3S075A2R1G	VM3S075A2R5G	VM4S075A2GLG	VM4S075A2R1G	VM4S075A2R5G	VM4S075A2ERN
				VM3S100A2GLG	VM3S100A2R1G	VM3S100A2R5G	VM4S100A2GLG	VM4S100A2R1G	VM4S100A2R5G	VM4S100A2ERN
100	S54	3/4"	Quad Tri 480	VM3S106A2GLG	VM3S106A2R1G	VM3S106A2R5G	VM4S106A2GLG	VM4S106A2R1G	VM4S106A2R5G	VM4S106A2ERN
				VM3S105A2GLG	VM3S105A2R1G	VM3S105A2R5G	VM4S105A2GLG	VM4S105A2R1G	VM4S105A2R5G	VM4S105A2ERN
				VM3S150A2GLG	VM3S150A2R1G	VM3S150A2R5G	VM4S150A2GLG	VM4S150A2R1G	VM4S150A2R5G	VM4S150A2ERN
150	S55	3/4"	Quad Tri 480	VM3S156A2GLG	VM3S156A2R1G	VM3S156A2R5G	VM4S156A2GLG	VM4S156A2R1G	VM4S156A2R5G	VM4S156A2ERN
				VM3S155A2GLG	VM3S155A2R1G	VM3S155A2R5G	VM4S155A2GLG	VM4S155A2R1G	VM4S155A2R5G	VM4S155A2ERN

VM 50 - 150 WATT HIGH PRESSURE SODIUM FLEXIBLE PENDANT										
DESCRIPTION				5-1/2" OPTIC THREAD SIZE [Ⓛ]			7-3/4" OPTIC THREAD SIZE [Ⓛ]			
WATTS	ANSI	HUB SIZE [Ⓢ]	VOLTAGE [Ⓛ]	GLOBE & GUARD	TYPE I GLASS REFRACTOR & GUARD	TYPE V GLASS REFRACTOR & GUARD	GLOBE & GUARD	TYPE I GLASS REFRACTOR & GUARD	TYPE V GLASS REFRACTOR & GUARD	12" SPIN-TOP TYPE V REFRACTOR & GUARD
50	S68	3/4"	Quad	VM3S050F2GLG	VM3S050F2R1G	VM3S050F2R5G	VM4S050F2GLG	VM4S050F2R1G	VM4S050F2R5G	VM4S050F2ERN
				VM3S070F2GLG	VM3S070F2R1G	VM3S070F2R5G	VM4S070F2GLG	VM4S070F2R1G	VM4S070F2R5G	VM4S070F2ERN
70	S62	3/4"	Quad Tri 480	VM3S076F2GLG	VM3S076F2R1G	VM3S076F2R5G	VM4S076F2GLG	VM4S076F2R1G	VM4S076F2R5G	VM4S076F2ERN
				VM3S075F2GLG	VM3S075F2R1G	VM3S075F2R5G	VM4S075F2GLG	VM4S075F2R1G	VM4S075F2R5G	VM4S075F2ERN
				VM3S100F2GLG	VM3S100F2R1G	VM3S100F2R5G	VM4S100F2GLG	VM4S100F2R1G	VM4S100F2R5G	VM4S100F2ERN
100	S54	3/4"	Quad Tri 480	VM3S106F2GLG	VM3S106F2R1G	VM3S106F2R5G	VM4S106F2GLG	VM4S106F2R1G	VM4S106F2R5G	VM4S106F2ERN
				VM3S105F2GLG	VM3S105F2R1G	VM3S105F2R5G	VM4S105F2GLG	VM4S105F2R1G	VM4S105F2R5G	VM4S105F2ERN
				VM3S150F2GLG	VM3S150F2R1G	VM3S150F2R5G	VM4S150F2GLG	VM4S150F2R1G	VM4S150F2R5G	VM4S150F2ERN
150	S55	3/4"	Quad Tri 480	VM3S156F2GLG	VM3S156F2R1G	VM3S156F2R5G	VM4S156F2GLG	VM4S156F2R1G	VM4S156F2R5G	VM4S156F2ERN
				VM3S155F2GLG	VM3S155F2R1G	VM3S155F2R5G	VM4S155F2GLG	VM4S155F2R1G	VM4S155F2R5G	VM4S155F2ERN

Ⓛ See hazardous application data on pages L131 - L140 for limitations.

Ⓢ Catalog numbers shown are with guard (except enclosed reflector); to omit guard change ending G to N; e.g. VM3S050A2GLN

Ⓛ Catalog numbers shown are with 3/4" conduit openings; change 2 to 3 for 1"; e.g. VM3S050A3GLG.

Ⓛ Consult catalog logic for other available voltages.

Ⓢ Add suffix NR for restricted breathing; see page L84 for more information.

LIGHTING

CERTILITE® V SERIES



HIGH PRESSURE SODIUM, 50-150W MOGUL BASE HID



Ceiling
w/ 5-1/2"
Globe & Guard



Wall
w/ 5-1/2"
Refractor & Guard



Ceiling
w/ 7-3/4"
Globe & Guard



Wall
w/ 7-3/4"
Refractor & Guard



Ceiling
w/ Enclosed Reflector

VM 50 - 150 WATT HIGH PRESSURE SODIUM CEILING

DESCRIPTION				5-1/2" OPTIC THREAD SIZE ②			7-3/4" OPTIC THREAD SIZE ②			
WATTS	ANSI	HUB SIZE ③	VOLTAGE ④	GLOBE & GUARD	TYPE I GLASS REFRACTOR & GUARD	TYPE V GLASS REFRACTOR & GUARD	GLOBE & GUARD	TYPE I GLASS REFRACTOR & GUARD	TYPE V GLASS REFRACTOR & GUARD	12" SPIN-TOP TYPE V REFRACTOR & GUARD
50	S68	3/4"	Quad	VM3S050X2GLG	VM3S050X2R1G	VM3S050X2R5G	VM4S050X2GLG	VM4S050X2R1G	VM4S050X2R5G	VM4S050X2ERN
				VM3S070X2GLG	VM3S070X2R1G	VM3S070X2R5G	VM4S070X2GLG	VM4S070X2R1G	VM4S070X2R5G	VM4S070X2ERN
70	S62	3/4"	Quad Tri 480	VM3S076X2GLG	VM3S076X2R1G	VM3S076X2R5G	VM4S076X2GLG	VM4S076X2R1G	VM4S076X2R5G	VM4S076X2ERN
				VM3S075X2GLG	VM3S075X2R1G	VM3S075X2R5G	VM4S075X2GLG	VM4S075X2R1G	VM4S075X2R5G	VM4S075X2ERN
				VM3S100X2GLG	VM3S100X2R1G	VM3S100X2R5G	VM4S100X2GLG	VM4S100X2R1G	VM4S100X2R5G	VM4S100X2ERN
100	S54	3/4"	Quad Tri 480	VM3S106X2GLG	VM3S106X2R1G	VM3S106X2R5G	VM4S106X2GLG	VM4S106X2R1G	VM4S106X2R5G	VM4S106X2ERN
				VM3S105X2GLG	VM3S105X2R1G	VM3S105X2R5G	VM4S105X2GLG	VM4S105X2R1G	VM4S105X2R5G	VM4S105X2ERN
				VM3S150X2GLG	VM3S150X2R1G	VM3S150X2R5G	VM4S150X2GLG	VM4S150X2R1G	VM4S150X2R5G	VM4S150X2ERN
150	S55	3/4"	Quad Tri 480	VM3S156X2GLG	VM3S156X2R1G	VM3S156X2R5G	VM4S156X2GLG	VM4S156X2R1G	VM4S156X2R5G	VM4S156X2ERN
				VM3S155X2GLG	VM3S155X2R1G	VM3S155X2R5G	VM4S155X2GLG	VM4S155X2R1G	VM4S155X2R5G	VM4S155X2ERN

VM 50 - 150 WATT HIGH PRESSURE SODIUM FLEXIBLE PENDANT

DESCRIPTION				5-1/2" OPTIC THREAD SIZE ②			7-3/4" OPTIC THREAD SIZE ②			
WATTS	ANSI	HUB SIZE ③	VOLTAGE ④	GLOBE & GUARD	TYPE I GLASS REFRACTOR & GUARD	TYPE V GLASS REFRACTOR & GUARD	GLOBE & GUARD	TYPE I GLASS REFRACTOR & GUARD	TYPE V GLASS REFRACTOR & GUARD	12" SPIN-TOP TYPE V REFRACTOR & GUARD
50	S68	3/4"	Quad	VM3S050F2GLG	VM3S050F2R1G	VM3S050F2R5G	VM4S050F2GLG	VM4S050F2R1G	VM4S050F2R5G	VM4S050F2ERN
				VM3S070F2GLG	VM3S070F2R1G	VM3S070F2R5G	VM4S070F2GLG	VM4S070F2R1G	VM4S070F2R5G	VM4S070F2ERN
70	S62	3/4"	Quad Tri 480	VM3S076F2GLG	VM3S076F2R1G	VM3S076F2R5G	VM4S076F2GLG	VM4S076F2R1G	VM4S076F2R5G	VM4S076F2ERN
				VM3S075F2GLG	VM3S075F2R1G	VM3S075F2R5G	VM4S075F2GLG	VM4S075F2R1G	VM4S075F2R5G	VM4S075F2ERN
				VM3S100F2GLG	VM3S100F2R1G	VM3S100F2R5G	VM4S100F2GLG	VM4S100F2R1G	VM4S100F2R5G	VM4S100F2ERN
100	S54	3/4"	Quad Tri 480	VM3S106F2GLG	VM3S106F2R1G	VM3S106F2R5G	VM4S106F2GLG	VM4S106F2R1G	VM4S106F2R5G	VM4S106F2ERN
				VM3S105F2GLG	VM3S105F2R1G	VM3S105F2R5G	VM4S105F2GLG	VM4S105F2R1G	VM4S105F2R5G	VM4S105F2ERN
				VM3S150F2GLG	VM3S150F2R1G	VM3S150F2R5G	VM4S150F2GLG	VM4S150F2R1G	VM4S150F2R5G	VM4S150F2ERN
150	S55	3/4"	Quad Tri 480	VM3S156F2GLG	VM3S156F2R1G	VM3S156F2R5G	VM4S156F2GLG	VM4S156F2R1G	VM4S156F2R5G	VM4S156F2ERN
				VM3S155F2GLG	VM3S155F2R1G	VM3S155F2R5G	VM4S155F2GLG	VM4S155F2R1G	VM4S155F2R5G	VM4S155F2ERN

① See hazardous application data on pages L131 - L140 for limitations.

② Catalog numbers shown are with guard (except enclosed reflector); to omit guard change ending G to N; e.g. VM3S050A2GLN

③ Catalog numbers shown are with 3/4" conduit openings; change 2 to 3 for 1"; e.g. VM3S050A3GLG.

④ Consult catalog logic for other available voltages.

⑤ Add suffix NR for restricted breathing; see page L84 for more information.



HIGH PRESSURE SODIUM, 50-150W MOGUL BASE HID



Cone
w/ Enclosed Reflector

VM 50 - 150 WATT HIGH PRESSURE SODIUM CONE										
DESCRIPTION				5-1/2" OPTIC THREAD SIZE ②			7-3/4" OPTIC THREAD SIZE ②			
WATTS	ANSI	HUB SIZE ③	VOLTAGE ④	GLOBE & GUARD	TYPE I GLASS REFRACTOR & GUARD	TYPE V GLASS REFRACTOR & GUARD	GLOBE & GUARD	TYPE I GLASS REFRACTOR & GUARD	TYPE V GLASS REFRACTOR & GUARD	12" SPIN-TOP TYPE V REFRACTOR & GUARD
50	S68	3/4"	Quad	VM3S050C2GLG	VM3S050C2R1G	VM3S050C2R5G	VM4S050C2GLG	VM4S050C2R1G	VM4S050C2R5G	VM4S050C2ERN
				VM3S070C2GLG	VM3S070C2R1G	VM3S070C2R5G	VM4S070C2GLG	VM4S070C2R1G	VM4S070C2R5G	VM4S070C2ERN
70	S62	3/4"	Quad Tri 480	VM3S076C2GLG	VM3S076C2R1G	VM3S076C2R5G	VM4S076C2GLG	VM4S076C2R1G	VM4S076C2R5G	VM4S076C2ERN
				VM3S075C2GLG	VM3S075C2R1G	VM3S075C2R5G	VM4S075C2GLG	VM4S075C2R1G	VM4S075C2R5G	VM4S075C2ERN
				VM3S100C2GLG	VM3S100C2R1G	VM3S100C2R5G	VM4S100C2GLG	VM4S100C2R1G	VM4S100C2R5G	VM4S100C2ERN
100	S54	3/4"	Quad Tri 480	VM3S106C2GLG	VM3S106C2R1G	VM3S106C2R5G	VM4S106C2GLG	VM4S106C2R1G	VM4S106C2R5G	VM4S106C2ERN
				VM3S105C2GLG	VM3S105C2R1G	VM3S105C2R5G	VM4S105C2GLG	VM4S105C2R1G	VM4S105C2R5G	VM4S105C2ERN
				VM3S150C2GLG	VM3S150C2R1G	VM3S150C2R5G	VM4S150C2GLG	VM4S150C2R1G	VM4S150C2R5G	VM4S150C2ERN
150	S55	3/4"	Quad Tri 480	VM3S156C2GLG	VM3S156C2R1G	VM3S156C2R5G	VM4S156C2GLG	VM4S156C2R1G	VM4S156C2R5G	VM4S156C2ERN
				VM3S155C2GLG	VM3S155C2R1G	VM3S155C2R5G	VM4S155C2GLG	VM4S155C2R1G	VM4S155C2R5G	VM4S155C2ERN

VM 50 - 150 WATT HIGH PRESSURE SODIUM EZ ADAPTER ⑥										
DESCRIPTION				5-1/2" OPTIC THREAD SIZE ②			7-3/4" OPTIC THREAD SIZE ②			
WATTS	ANSI	HUB SIZE ③	VOLTAGE ④	GLOBE & GUARD	TYPE I GLASS REFRACTOR & GUARD	TYPE V GLASS REFRACTOR & GUARD	GLOBE & GUARD	TYPE I GLASS REFRACTOR & GUARD	TYPE V GLASS REFRACTOR & GUARD	12" SPIN-TOP TYPE V REFRACTOR & GUARD
50	S68	⑥	Quad	VM3S050EZGLG	VM3S050EZR1G	VM3S050EZR5G	VM4S050EZGLG	VM4S050EZR1G	VM4S050EZR5G	VM4S050EZERN
				VM3S070EZGLG	VM3S070EZR1G	VM3S070EZR5G	VM4S070EZGLG	VM4S070EZR1G	VM4S070EZR5G	VM4S070EZERN
70	S62	⑥	Quad Tri 480	VM3S076EZGLG	VM3S076EZR1G	VM3S076EZR5G	VM4S076EZGLG	VM4S076EZR1G	VM4S076EZR5G	VM4S076EZERN
				VM3S075EZGLG	VM3S075EZR1G	VM3S075EZR5G	VM4S075EZGLG	VM4S075EZR1G	VM4S075EZR5G	VM4S075EZERN
				VM3S100EZGLG	VM3S100EZR1G	VM3S100EZR5G	VM4S100EZGLG	VM4S100EZR1G	VM4S100EZR5G	VM4S100EZERN
100	S54	⑥	Quad Tri 480	VM3S106EZGLG	VM3S106EZR1G	VM3S106EZR5G	VM4S106EZGLG	VM4S106EZR1G	VM4S106EZR5G	VM4S106EZERN
				VM3S105EZGLG	VM3S105EZR1G	VM3S105EZR5G	VM4S105EZGLG	VM4S105EZR1G	VM4S105EZR5G	VM4S105EZERN
				VM3S150EZGLG	VM3S150EZR1G	VM3S150EZR5G	VM4S150EZGLG	VM4S150EZR1G	VM4S150EZR5G	VM4S150EZERN
150	S55	⑥	Quad Tri 480	VM3S156EZGLG	VM3S156EZR1G	VM3S156EZR5G	VM4S156EZGLG	VM4S156EZR1G	VM4S156EZR5G	VM4S156EZERN
				VM3S155EZGLG	VM3S155EZR1G	VM3S155EZR5G	VM4S155EZGLG	VM4S155EZR1G	VM4S155EZR5G	VM4S155EZERN

① See hazardous application data on pages L131 - L140 for limitations.
 ② Catalog numbers shown are with guard (except enclosed reflector); to omit guard change ending G to N; e.g. VM3S050C2GLN
 ③ Cone top catalog numbers shown are with 3/4" conduit openings, change 2 to 3 for 1"; e.g. VM3S050C3GLG.
 ④ Consult catalog logic for other available voltages.
 ⑤ Add suffix NR for restricted breathing; see page L84 for more information.
 ⑥ VMEZA tank adapters UL "classified" as an assembly for use between VM tanks and EZ mounts. Order EZ mounts separately.

LIGHTING

CERTILITE® V SERIES



HIGH PRESSURE SODIUM, 50-150W MOGUL BASE HID



Stanchion 25°
w/ 5-1/2"
Globe & Guard



Stanchion Straight
w/ 5-1/2"
Refractor & Guard



Stanchion 25°
w/ 7-3/4"
Globe & Guard



Stanchion Straight
w/ 7-3/4"
Refractor & Guard



Stanchion 25°
w/ Enclosed Reflector

VM 50 - 150 WATT HIGH PRESSURE SODIUM STANCHION 25° ANGLE										
DESCRIPTION				5-1/2" OPTIC THREAD SIZE ②			7-3/4" OPTIC THREAD SIZE ②			
WATTS	ANSI	HUB SIZE ③	VOLTAGE ④	GLOBE & GUARD	TYPE I GLASS REFRACTOR & GUARD	TYPE V GLASS REFRACTOR & GUARD	GLOBE & GUARD	TYPE I GLASS REFRACTOR & GUARD	TYPE V GLASS REFRACTOR & GUARD	ENCLOSED REFLECTOR
50	S68	1-1/2"	Quad	VM3S050D5GLG	VM3S050D5R1G	VM3S050D5R5G	VM4S050D5GLG	VM4S050D5R1G	VM4S050D5R5G	VM4S050D5ERN
70	S62	1-1/2"	Quad Tri 480	VM3S070D5GLG	VM3S070D5R1G	VM3S070D5R5G	VM4S070D5GLG	VM4S070D5R1G	VM4S070D5R5G	VM4S070D5ERN
				VM3S076D5GLG	VM3S076D5R1G	VM3S076D5R5G	VM4S076D5GLG	VM4S076D5R1G	VM4S076D5R5G	VM4S076D5ERN
				VM3S075D5GLG	VM3S075D5R1G	VM3S075D5R5G	VM4S075D5GLG	VM4S075D5R1G	VM4S075D5R5G	VM4S075D5ERN
100	S54	1-1/2"	Quad Tri 480	VM3S100D5GLG	VM3S100D5R1G	VM3S100D5R5G	VM4S100D5GLG	VM4S100D5R1G	VM4S100D5R5G	VM4S100D5ERN
				VM3S106D5GLG	VM3S106D5R1G	VM3S106D5R5G	VM4S106D5GLG	VM4S106D5R1G	VM4S106D5R5G	VM4S106D5ERN
				VM3S105D5GLG	VM3S105D5R1G	VM3S105D5R5G	VM4S105D5GLG	VM4S105D5R1G	VM4S105D5R5G	VM4S105D5ERN
150	S55	1-1/2"	Quad Tri 480	VM3S150D5GLG	VM3S150D5R1G	VM3S150D5R5G	VM4S150D5GLG	VM4S150D5R1G	VM4S150D5R5G	VM4S150D5ERN
				VM3S156D5GLG	VM3S156D5R1G	VM3S156D5R5G	VM4S156D5GLG	VM4S156D5R1G	VM4S156D5R5G	VM4S156D5ERN
				VM3S155D5GLG	VM3S155D5R1G	VM3S155D5R5G	VM4S155D5GLG	VM4S155D5R1G	VM4S155D5R5G	VM4S155D5ERN

VM 50 - 150 WATT HIGH PRESSURE SODIUM STANCHION STRAIGHT										
DESCRIPTION				5-1/2" OPTIC THREAD SIZE ②			7-3/4" OPTIC THREAD SIZE ②			
WATTS	ANSI	HUB SIZE ③	VOLTAGE ④	GLOBE & GUARD	TYPE I GLASS REFRACTOR & GUARD	TYPE V GLASS REFRACTOR & GUARD	GLOBE & GUARD	TYPE I GLASS REFRACTOR & GUARD	TYPE V GLASS REFRACTOR & GUARD	ENCLOSED REFLECTOR
50	S68	1-1/2"	Quad	VM3S050S5GLG	VM3S050S5R1G	VM3S050S5R5G	VM4S050S5GLG	VM4S050S5R1G	VM4S050S5R5G	VM4S050S5ERN
70	S62	1-1/2"	Quad Tri 480	VM3S070S5GLG	VM3S070S5R1G	VM3S070S5R5G	VM4S070S5GLG	VM4S070S5R1G	VM4S070S5R5G	VM4S070S5ERN
				VM3S076S5GLG	VM3S076S5R1G	VM3S076S5R5G	VM4S076S5GLG	VM4S076S5R1G	VM4S076S5R5G	VM4S076S5ERN
				VM3S075S5GLG	VM3S075S5R1G	VM3S075S5R5G	VM4S075S5GLG	VM4S075S5R1G	VM4S075S5R5G	VM4S075S5ERN
100	S54	1-1/2"	Quad Tri 480	VM3S100S5GLG	VM3S100S5R1G	VM3S100S5R5G	VM4S100S5GLG	VM4S100S5R1G	VM4S100S5R5G	VM4S100S5ERN
				VM3S106S5GLG	VM3S106S5R1G	VM3S106S5R5G	VM4S106S5GLG	VM4S106S5R1G	VM4S106S5R5G	VM4S106S5ERN
				VM3S105S5GLG	VM3S105S5R1G	VM3S105S5R5G	VM4S105S5GLG	VM4S105S5R1G	VM4S105S5R5G	VM4S105S5ERN
150	S55	1-1/2"	Quad Tri 480	VM3S150S5GLG	VM3S150S5R1G	VM3S150S5R5G	VM4S150S5GLG	VM4S150S5R1G	VM4S150S5R5G	VM4S150S5ERN
				VM3S156S5GLG	VM3S156S5R1G	VM3S156S5R5G	VM4S156S5GLG	VM4S156S5R1G	VM4S156S5R5G	VM4S156S5ERN
				VM3S155S5GLG	VM3S155S5R1G	VM3S155S5R5G	VM4S155S5GLG	VM4S155S5R1G	VM4S155S5R5G	VM4S155S5ERN

① See hazardous application data on pages L131 - L140 for limitations.

② Catalog numbers shown are with guard (except enclosed reflector); to omit guard change ending G to N; e.g. VM3S050D5GLN

③ Catalog numbers shown are with 1-1/2" conduit openings, change 5 to 4 for 1-1/4"; e.g. VM3S050D4GLG.

④ Consult catalog logic for other available voltages.

⑤ Add suffix NR for restricted breathing; see page L84 for more information.



METAL HALIDE, 70-250W MOGUL BASE HID



Pendant w/ 5-1/2" Globe & Guard



Flexible Pendant w/ 5-1/2" Refractor & Guard



Pendant w/ 7-3/4" Globe & Guard



Flexible Pendant w/ 7-3/4" Refractor & Guard



Pendant w/ Enclosed Reflector

Class I, Div. 2, Groups A,B,C,D[Ⓛ]
 Class I, Zone 2, Groups IIC, IIB, IIA
 Class II, Div. 1 & 2, Groups E,F,G
 Class III
 Suitable for wet locations
 NEMA 3, 4, 4X
 IP66

US LISTED - File E10514 (Hazardous & Marine)

US Certified - File LR11713

NR Restricted Breathing Option[Ⓢ]

Class I, Zone 2 AEx nAnR
 Class I, Zone 2 Ex nR

VM 70 - 250 WATT METAL HALIDE PENDANT										
DESCRIPTION				5-1/2" OPTIC THREAD SIZE [Ⓢ]			7-3/4" OPTIC THREAD SIZE [Ⓢ]			
WATTS	ANSI	HUB SIZE [Ⓢ]	VOLTAGE [Ⓢ]	GLOBE & GUARD	TYPE I GLASS REFRACTOR & GUARD	TYPE V GLASS REFRACTOR & GUARD	GLOBE & GUARD	TYPE I GLASS REFRACTOR & GUARD	TYPE V GLASS REFRACTOR & GUARD	ENCLOSED REFLECTOR
70	M98 M143	3/4"	Quad Tri 480	VM3H070A2GLG	VM3H070A2R1G	VM3H070A2R5G	VM4H070A2GLG	VM4H070A2R1G	VM4H070A2R5G	VM4H070A2ERN
				VM3H076A2GLG	VM3H076A2R1G	VM3H076A2R5G	VM4H076A2GLG	VM4H076A2R1G	VM4H076A2R5G	VM4H076A2ERN
				VM3H075A2GLG	VM3H075A2R1G	VM3H075A2R5G	VM4H075A2GLG	VM4H075A2R1G	VM4H075A2R5G	VM4H075A2ERN
100	M90 M140	3/4"	Quad Tri 480	VM3H100A2GLG	VM3H100A2R1G	VM3H100A2R5G	VM4H100A2GLG	VM4H100A2R1G	VM4H100A2R5G	VM4H100A2ERN
				VM3H106A2GLG	VM3H106A2R1G	VM3H106A2R5G	VM4H106A2GLG	VM4H106A2R1G	VM4H106A2R5G	VM4H106A2ERN
				VM3H105A2GLG	VM3H105A2R1G	VM3H105A2R5G	VM4H105A2GLG	VM4H105A2R1G	VM4H105A2R5G	VM4H105A2ERN
175 [Ⓢ]	M57	3/4"	Quad Tri 480	VM3H170A2GLG	VM3H170A2R1G	VM3H170A2R5G	VM4H170A2GLG	VM4H170A2R1G	VM4H170A2R5G	VM4H170A2ERN
				VM3H176A2GLG	VM3H176A2R1G	VM3H176A2R5G	VM4H176A2GLG	VM4H176A2R1G	VM4H176A2R5G	VM4H176A2ERN
				VM3H175A2GLG	VM3H175A2R1G	VM3H175A2R5G	VM4H175A2GLG	VM4H175A2R1G	VM4H175A2R5G	VM4H175A2ERN
250 [Ⓢ]	M58	3/4"	Quad Tri 480	VM3H250A2GLG	VM3H250A2R1G	VM3H250A2R5G	VM4H250A2GLG	VM4H250A2R1G	VM4H250A2R5G	VM4H250A2ERN
				VM3H256A2GLG	VM3H256A2R1G	VM3H256A2R5G	VM4H256A2GLG	VM4H256A2R1G	VM4H256A2R5G	VM4H256A2ERN
				VM3H255A2GLG	VM3H255A2R1G	VM3H255A2R5G	VM4H255A2GLG	VM4H255A2R1G	VM4H255A2R5G	VM4H255A2ERN

VM 70 - 250 WATT METAL HALIDE FLEXIBLE PENDANT										
DESCRIPTION				5-1/2" OPTIC THREAD SIZE [Ⓢ]			7-3/4" OPTIC THREAD SIZE [Ⓢ]			
WATTS	ANSI	HUB SIZE [Ⓢ]	VOLTAGE [Ⓢ]	GLOBE & GUARD	TYPE I GLASS REFRACTOR & GUARD	TYPE V GLASS REFRACTOR & GUARD	GLOBE & GUARD	TYPE I GLASS REFRACTOR & GUARD	TYPE V GLASS REFRACTOR & GUARD	ENCLOSED REFLECTOR
70	M98 M143	3/4"	Quad Tri 480	VM3H070F2GLG	VM3H070F2R1G	VM3H070F2R5G	VM4H070F2GLG	VM4H070F2R1G	VM4H070F2R5G	VM4H070F2ERN
				VM3H076F2GLG	VM3H076F2R1G	VM3H076F2R5G	VM4H076F2GLG	VM4H076F2R1G	VM4H076F2R5G	VM4H076F2ERN
				VM3H075F2GLG	VM3H075F2R1G	VM3H075F2R5G	VM4H075F2GLG	VM4H075F2R1G	VM4H075F2R5G	VM4H075F2ERN
100	M90 M140	3/4"	Quad Tri 480	VM3H100F2GLG	VM3H100F2R1G	VM3H100F2R5G	VM4H100F2GLG	VM4H100F2R1G	VM4H100F2R5G	VM4H100F2ERN
				VM3H106F2GLG	VM3H106F2R1G	VM3H106F2R5G	VM4H106F2GLG	VM4H106F2R1G	VM4H106F2R5G	VM4H106F2ERN
				VM3H105F2GLG	VM3H105F2R1G	VM3H105F2R5G	VM4H105F2GLG	VM4H105F2R1G	VM4H105F2R5G	VM4H105F2ERN
175 [Ⓢ]	M57	3/4"	Quad Tri 480	VM3H170F2GLG	VM3H170F2R1G	VM3H170F2R5G	VM4H170F2GLG	VM4H170F2R1G	VM4H170F2R5G	VM4H170F2ERN
				VM3H176F2GLG	VM3H176F2R1G	VM3H176F2R5G	VM4H176F2GLG	VM4H176F2R1G	VM4H176F2R5G	VM4H176F2ERN
				VM3H175F2GLG	VM3H175F2R1G	VM3H175F2R5G	VM4H175F2GLG	VM4H175F2R1G	VM4H175F2R5G	VM4H175F2ERN
250 [Ⓢ]	M58	3/4"	Quad Tri 480	VM3H250F2GLG	VM3H250F2R1G	VM3H250F2R5G	VM4H250F2GLG	VM4H250F2R1G	VM4H250F2R5G	VM4H250F2ERN
				VM3H256F2GLG	VM3H256F2R1G	VM3H256F2R5G	VM4H256F2GLG	VM4H256F2R1G	VM4H256F2R5G	VM4H256F2ERN
				VM3H255F2GLG	VM3H255F2R1G	VM3H255F2R5G	VM4H255F2GLG	VM4H255F2R1G	VM4H255F2R5G	VM4H255F2ERN

Ⓛ See hazardous application data on pages L131 - L140 for limitations.
 Ⓢ Catalog numbers shown are with guard (except enclosed reflector); to omit guard change ending G to N; e.g. VM3H070A2GLN
 Ⓢ Catalog numbers shown are with 3/4" conduit openings, change 2 to 3 for 1"; e.g. VM3H070A3GLG.
 Ⓢ Consult catalog logic for other available voltages.
 Ⓢ Add suffix NR for restricted breathing; see page L84 for more information.
 Ⓢ 175W M57 & 250W M58 Fixtures are EXPORT ONLY (EISA LAW).

LIGHTING

CERTILITE® V SERIES



METAL HALIDE, 70-250W MOGUL BASE HID



Ceiling
w/ 5-1/2"
Globe & Guard



Wall
w/ 5-1/2"
Refractor & Guard



Ceiling
w/ 7-3/4"
Globe & Guard



Wall
w/ 7-3/4"
Refractor & Guard



Ceiling
w/ Enclosed Reflector

VM 70 - 250 WATT METAL HALIDE CEILING										
DESCRIPTION				5-1/2 OPTIC THREAD SIZE ②			7-3/4 OPTIC THREAD SIZE ②			
WATTS	ANSI	HUB SIZE ③	VOLTAGE ④	GLOBE & GUARD	TYPE I GLASS REFRACTOR & GUARD	TYPE V GLASS REFRACTOR & GUARD	GLOBE & GUARD	TYPE I GLASS REFRACTOR & GUARD	TYPE V GLASS REFRACTOR & GUARD	ENCLOSED REFLECTOR
70	M98 M143	3/4"	Quad Tri 480	VM3H070X2GLG	VM3H070X2R1G	VM3H070X2R5G	VM4H070X2GLG	VM4H070X2R1G	VM4H070X2R5G	VM4H070X2ERN
				VM3H076X2GLG	VM3H076X2R1G	VM3H076X2R5G	VM4H076X2GLG	VM4H076X2R1G	VM4H076X2R5G	VM4H076X2ERN
				VM3H075X2GLG	VM3H075X2R1G	VM3H075X2R5G	VM4H075X2GLG	VM4H075X2R1G	VM4H075X2R5G	VM4H075X2ERN
100	M90 M140	3/4"	Quad Tri 480	VM3H100X2GLG	VM3H100X2R1G	VM3H100X2R5G	VM4H100X2GLG	VM4H100X2R1G	VM4H100X2R5G	VM4H100X2ERN
				VM3H106X2GLG	VM3H106X2R1G	VM3H106X2R5G	VM4H106X2GLG	VM4H106X2R1G	VM4H106X2R5G	VM4H106X2ERN
				VM3H105X2GLG	VM3H105X2R1G	VM3H105X2R5G	VM4H105X2GLG	VM4H105X2R1G	VM4H105X2R5G	VM4H105X2ERN
175 ⑤	M57	3/4"	Quad Tri 480	VM3H170X2GLG	VM3H170X2R1G	VM3H170X2R5G	VM4H170X2GLG	VM4H170X2R1G	VM4H170X2R5G	VM4H170X2ERN
				VM3H176X2GLG	VM3H176X2R1G	VM3H176X2R5G	VM4H176X2GLG	VM4H176X2R1G	VM4H176X2R5G	VM4H176X2ERN
				VM3H175X2GLG	VM3H175X2R1G	VM3H175X2R5G	VM4H175X2GLG	VM4H175X2R1G	VM4H175X2R5G	VM4H175X2ERN
250 ⑥	M58	3/4"	Quad Tri 480	VM3H250X2GLG	VM3H250X2R1G	VM3H250X2R5G	VM4H250X2GLG	VM4H250X2R1G	VM4H250X2R5G	VM4H250X2ERN
				VM3H256X2GLG	VM3H256X2R1G	VM3H256X2R5G	VM4H256X2GLG	VM4H256X2R1G	VM4H256X2R5G	VM4H256X2ERN
				VM3H255X2GLG	VM3H255X2R1G	VM3H255X2R5G	VM4H255X2GLG	VM4H255X2R1G	VM4H255X2R5G	VM4H255X2ERN

VM 70 - 250 WATT METAL HALIDE WALL										
DESCRIPTION				5-1/2 OPTIC THREAD SIZE ②			7-3/4 OPTIC THREAD SIZE ②			
WATTS	ANSI	HUB SIZE ③	VOLTAGE ④	GLOBE & GUARD	TYPE I GLASS REFRACTOR & GUARD	TYPE V GLASS REFRACTOR & GUARD	GLOBE & GUARD	TYPE I GLASS REFRACTOR & GUARD	TYPE V GLASS REFRACTOR & GUARD	ENCLOSED REFLECTOR
70	M98 M143	3/4"	Quad Tri 480	VM3H070B2GLG	VM3H070B2R1G	VM3H070B2R5G	VM4H070B2GLG	VM4H070B2R1G	VM4H070B2R5G	VM4H070B2ERN
				VM3H076B2GLG	VM3H076B2R1G	VM3H076B2R5G	VM4H076B2GLG	VM4H076B2R1G	VM4H076B2R5G	VM4H076B2ERN
				VM3H075B2GLG	VM3H075B2R1G	VM3H075B2R5G	VM4H075B2GLG	VM4H075B2R1G	VM4H075B2R5G	VM4H075B2ERN
100	M90 M140	3/4"	Quad Tri 480	VM3H100B2GLG	VM3H100B2R1G	VM3H100B2R5G	VM4H100B2GLG	VM4H100B2R1G	VM4H100B2R5G	VM4H100B2ERN
				VM3H106B2GLG	VM3H106B2R1G	VM3H106B2R5G	VM4H106B2GLG	VM4H106B2R1G	VM4H106B2R5G	VM4H106B2ERN
				VM3H105B2GLG	VM3H105B2R1G	VM3H105B2R5G	VM4H105B2GLG	VM4H105B2R1G	VM4H105B2R5G	VM4H105B2ERN
175 ⑤	M57	3/4"	Quad Tri 480	VM3H170B2GLG	VM3H170B2R1G	VM3H170B2R5G	VM4H170B2GLG	VM4H170B2R1G	VM4H170B2R5G	VM4H170B2ERN
				VM3H176B2GLG	VM3H176B2R1G	VM3H176B2R5G	VM4H176B2GLG	VM4H176B2R1G	VM4H176B2R5G	VM4H176B2ERN
				VM3H175B2GLG	VM3H175B2R1G	VM3H175B2R5G	VM4H175B2GLG	VM4H175B2R1G	VM4H175B2R5G	VM4H175B2ERN
250 ⑥	M58	3/4"	Quad Tri 480	VM3H250B2GLG	VM3H250B2R1G	VM3H250B2R5G	VM4H250B2GLG	VM4H250B2R1G	VM4H250B2R5G	VM4H250B2ERN
				VM3H256B2GLG	VM3H256B2R1G	VM3H256B2R5G	VM4H256B2GLG	VM4H256B2R1G	VM4H256B2R5G	VM4H256B2ERN
				VM3H255B2GLG	VM3H255B2R1G	VM3H255B2R5G	VM4H255B2GLG	VM4H255B2R1G	VM4H255B2R5G	VM4H255B2ERN

① See hazardous application data on pages L131 - L140 for limitations.

② Catalog numbers shown are with guard (except enclosed reflector); to omit guard change ending G to N; e.g. VM3H070X2GLN

③ Catalog numbers shown are with 3/4" conduit openings, change 2 to 3 for 1"; e.g. VM3H070X3GLG.

④ Consult catalog logic for other available voltages.

⑤ Add suffix NR for restricted breathing; see page L84 for more information.

⑥ 175W M57 & 250W M58 Fixtures are EXPORT ONLY (EISA LAW).



METAL HALIDE, 70-250W MOGUL BASE HID



Cone w/ Enclosed Reflector

VM 70 - 250 WATT METAL HALIDE CONE											
DESCRIPTION				5-1/2" OPTIC THREAD SIZE ②			7-3/4" OPTIC THREAD SIZE ②				
WATTS	ANSI	HUB SIZE ③	VOLTAGE ④	GLOBE & GUARD	TYPE I GLASS REFRACTOR & GUARD	TYPE V GLASS REFRACTOR & GUARD	GLOBE & GUARD	TYPE I GLASS REFRACTOR & GUARD	TYPE V GLASS REFRACTOR & GUARD	ENCLOSED REFLECTOR	
70	M98	3/4"	Quad Tri 480	VM3H070C2GLG	VM3H070C2R1G	VM3H070C2R5G	VM4H070C2GLG	VM4H070C2R1G	VM4H070C2R5G	VM4H070C2ERN	
	M143			VM3H076C2GLG	VM3H076C2R1G	VM3H076C2R5G	VM4H076C2GLG	VM4H076C2R1G	VM4H076C2R5G	VM4H076C2ERN	
				VM3H075C2GLG	VM3H075C2R1G	VM3H075C2R5G	VM4H075C2GLG	VM4H075C2R1G	VM4H075C2R5G	VM4H075C2ERN	
100	M90	3/4"	Quad Tri 480	VM3H100C2GLG	VM3H100C2R1G	VM3H100C2R5G	VM4H100C2GLG	VM4H100C2R1G	VM4H100C2R5G	VM4H100C2ERN	
	M140			VM3H106C2GLG	VM3H106C2R1G	VM3H106C2R5G	VM4H106C2GLG	VM4H106C2R1G	VM4H106C2R5G	VM4H106C2ERN	
				VM3H105C2GLG	VM3H105C2R1G	VM3H105C2R5G	VM4H105C2GLG	VM4H105C2R1G	VM4H105C2R5G	VM4H105C2ERN	
175 ⑥	M57	3/4"	Quad Tri 480	VM3H170C2GLG	VM3H170C2R1G	VM3H170C2R5G	VM4H170C2GLG	VM4H170C2R1G	VM4H170C2R5G	VM4H170C2ERN	
					VM3H176C2GLG	VM3H176C2R1G	VM3H176C2R5G	VM4H176C2GLG	VM4H176C2R1G	VM4H176C2R5G	VM4H176C2ERN
					VM3H175C2GLG	VM3H175C2R1G	VM3H175C2R5G	VM4H175C2GLG	VM4H175C2R1G	VM4H175C2R5G	VM4H175C2ERN
250 ⑥	M58	3/4"	Quad Tri 480	VM3H250C2GLG	VM3H250C2R1G	VM3H250C2R5G	VM4H250C2GLG	VM4H250C2R1G	VM4H250C2R5G	VM4H250C2ERN	
					VM3H256C2GLG	VM3H256C2R1G	VM3H256C2R5G	VM4H256C2GLG	VM4H256C2R1G	VM4H256C2R5G	VM4H256C2ERN
					VM3H255C2GLG	VM3H255C2R1G	VM3H255C2R5G	VM4H255C2GLG	VM4H255C2R1G	VM4H255C2R5G	VM4H255C2ERN

VM 70 - 250 WATT METAL HALIDE EZ ADAPTER											
DESCRIPTION				5-1/2" OPTIC THREAD SIZE ②			7-3/4" OPTIC THREAD SIZE ②				
WATTS	ANSI	HUB SIZE ③	VOLTAGE ④	GLOBE & GUARD	TYPE I GLASS REFRACTOR & GUARD	TYPE V GLASS REFRACTOR & GUARD	GLOBE & GUARD	TYPE I GLASS REFRACTOR & GUARD	TYPE V GLASS REFRACTOR & GUARD	ENCLOSED REFLECTOR	
70	M98	3/4"	Quad Tri 480	VM3H070EZGLG	VM3H070EZR1G	VM3H070EZR5G	VM4H070EZGLG	VM4H070EZR1G	VM4H070EZR5G	VM4H070EZERN	
	M143			VM3H076EZGLG	VM3H076EZR1G	VM3H076EZR5G	VM4H076EZGLG	VM4H076EZR1G	VM4H076EZR5G	VM4H076EZERN	
				VM3H075EZGLG	VM3H075EZR1G	VM3H075EZR5G	VM4H075EZGLG	VM4H075EZR1G	VM4H075EZR5G	VM4H075EZERN	
100	M90	3/4"	Quad Tri 480	VM3H100EZGLG	VM3H100EZR1G	VM3H100EZR5G	VM4H100EZGLG	VM4H100EZR1G	VM4H100EZR5G	VM4H100EZERN	
	M140			VM3H106EZGLG	VM3H106EZR1G	VM3H106EZR5G	VM4H106EZGLG	VM4H106EZR1G	VM4H106EZR5G	VM4H106EZERN	
				VM3H105EZGLG	VM3H105EZR1G	VM3H105EZR5G	VM4H105EZGLG	VM4H105EZR1G	VM4H105EZR5G	VM4H105EZERN	
175 ⑥	M57	3/4"	Quad Tri 480	VM3H170EZGLG	VM3H170EZR1G	VM3H170EZR5G	VM4H170EZGLG	VM4H170EZR1G	VM4H170EZR5G	VM4H170EZERN	
					VM3H176EZGLG	VM3H176EZR1G	VM3H176EZR5G	VM4H176EZGLG	VM4H176EZR1G	VM4H176EZR5G	VM4H176EZERN
					VM3H175EZGLG	VM3H175EZR1G	VM3H175EZR5G	VM4H175EZGLG	VM4H175EZR1G	VM4H175EZR5G	VM4H175EZERN
250 ⑥	M58	3/4"	Quad Tri 480	VM3H250EZGLG	VM3H250EZR1G	VM3H250EZR5G	VM4H250EZGLG	VM4H250EZR1G	VM4H250EZR5G	VM4H250EZERN	
					VM3H256EZGLG	VM3H256EZR1G	VM3H256EZR5G	VM4H256EZGLG	VM4H256EZR1G	VM4H256EZR5G	VM4H256EZERN
					VM3H255EZGLG	VM3H255EZR1G	VM3H255EZR5G	VM4H255EZGLG	VM4H255EZR1G	VM4H255EZR5G	VM4H255EZERN

① See hazardous application data on pages L131 - L140 for limitations.
 ② Catalog numbers shown are with guard (except enclosed reflector); to omit guard change ending G to N; e.g. VM3H070A2GLN
 ③ Catalog numbers shown are with 3/4" conduit openings, change 2 to 3 for 1"; e.g. VM3H070A3GLG.
 ④ Consult catalog logic for other available voltages.
 ⑤ Add suffix NR for restricted breathing; see page L84 for more information.
 ⑥ 175W M57 & 250W M58 Fixtures are EXPORT ONLY (EISA LAW).
 ⑦ VMEZA tank adapters UL "classified" as an assembly for use between VM tanks and EZ mounts. Order EZ mounts separately.

LIGHTING

CERTILITE® V SERIES



METAL HALIDE, 70-250W MOGUL BASE HID



Stanchion 25°
w/ 5-1/2"
Globe & Guard



Stanchion Straight
w/ 5-1/2"
Refractor & Guard



Stanchion 25°
w/ 7-3/4"
Globe & Guard



Stanchion Straight
w/ 7-3/4"
Refractor & Guard



Stanchion 25°
w/ Enclosed Reflector

VM 70 - 250 WATT METAL HALIDE STANCHION 25° ANGLE

DESCRIPTION				5-1/2" OPTIC THREAD SIZE ②			7-3/4" OPTIC THREAD SIZE ②			
WATTS	ANSI	HUB SIZE ③	VOLTAGE ④	GLOBE & GUARD	TYPE I GLASS REFRACTOR & GUARD	TYPE V GLASS REFRACTOR & GUARD	GLOBE & GUARD	TYPE I GLASS REFRACTOR & GUARD	TYPE V GLASS REFRACTOR & GUARD	ENCLOSED REFLECTOR
70	M98 M143	1-1/2"	Quad Tri 480	VM3H070D5GLG	VM3H070D5R1G	VM3H070D5R5G	VM4H070D5GLG	VM4H070D5R1G	VM4H070D5R5G	VM4H070D5ERN
				VM3H076D5GLG	VM3H076D5R1G	VM3H076D5R5G	VM4H076D5GLG	VM4H076D5R1G	VM4H076D5R5G	VM4H076D5ERN
				VM3H075D5GLG	VM3H075D5R1G	VM3H075D5R5G	VM4H075D5GLG	VM4H075D5R1G	VM4H075D5R5G	VM4H075D5ERN
100	M90 M140	1-1/2"	Quad Tri 480	VM3H100D5GLG	VM3H100D5R1G	VM3H100D5R5G	VM4H100D5GLG	VM4H100D5R1G	VM4H100D5R5G	VM4H100D5ERN
				VM3H106D5GLG	VM3H106D5R1G	VM3H106D5R5G	VM4H106D5GLG	VM4H106D5R1G	VM4H106D5R5G	VM4H106D5ERN
				VM3H105D5GLG	VM3H105D5R1G	VM3H105D5R5G	VM4H105D5GLG	VM4H105D5R1G	VM4H105D5R5G	VM4H105D5ERN
175 ⑤	M57	1-1/2"	Quad Tri 480	VM3H170D5GLG	VM3H170D5R1G	VM3H170D5R5G	VM4H170D5GLG	VM4H170D5R1G	VM4H170D5R5G	VM4H170D5ERN
				VM3H176D5GLG	VM3H176D5R1G	VM3H176D5R5G	VM4H176D5GLG	VM4H176D5R1G	VM4H176D5R5G	VM4H176D5ERN
				VM3H175D5GLG	VM3H175D5R1G	VM3H175D5R5G	VM4H175D5GLG	VM4H175D5R1G	VM4H175D5R5G	VM4H175D5ERN
250 ⑥	M58	1-1/2"	Quad Tri 480	VM3H250D5GLG	VM3H250D5R1G	VM3H250D5R5G	VM4H250D5GLG	VM4H250D5R1G	VM4H250D5R5G	VM4H250D5ERN
				VM3H256D5GLG	VM3H256D5R1G	VM3H256D5R5G	VM4H256D5GLG	VM4H256D5R1G	VM4H256D5R5G	VM4H256D5ERN
				VM3H255D5GLG	VM3H255D5R1G	VM3H255D5R5G	VM4H255D5GLG	VM4H255D5R1G	VM4H255D5R5G	VM4H255D5ERN

VM 70 - 250 WATT METAL HALIDE STANCHION STRAIGHT

DESCRIPTION				5-1/2" OPTIC THREAD SIZE ②			7-3/4" OPTIC THREAD SIZE ②			
WATTS	ANSI	HUB SIZE ③	VOLTAGE ④	GLOBE & GUARD	TYPE I GLASS REFRACTOR & GUARD	TYPE V GLASS REFRACTOR & GUARD	GLOBE & GUARD	TYPE I GLASS REFRACTOR & GUARD	TYPE V GLASS REFRACTOR & GUARD	ENCLOSED REFLECTOR
70	M98 M143	1-1/2"	Quad Tri 480	VM3H070S5GLG	VM3H070S5R1G	VM3H070S5R5G	VM4H070S5GLG	VM4H070S5R1G	VM4H070S5R5G	VM4H070S5ERN
				VM3H076S5GLG	VM3H076S5R1G	VM3H076S5R5G	VM4H076S5GLG	VM4H076S5R1G	VM4H076S5R5G	VM4H076S5ERN
				VM3H075S5GLG	VM3H075S5R1G	VM3H075S5R5G	VM4H075S5GLG	VM4H075S5R1G	VM4H075S5R5G	VM4H075S5ERN
100	M90 M140	1-1/2"	Quad Tri 480	VM3H100S5GLG	VM3H100S5R1G	VM3H100S5R5G	VM4H100S5GLG	VM4H100S5R1G	VM4H100S5R5G	VM4H100S5ERN
				VM3H106S5GLG	VM3H106S5R1G	VM3H106S5R5G	VM4H106S5GLG	VM4H106S5R1G	VM4H106S5R5G	VM4H106S5ERN
				VM3H105S5GLG	VM3H105S5R1G	VM3H105S5R5G	VM4H105S5GLG	VM4H105S5R1G	VM4H105S5R5G	VM4H105S5ERN
175 ⑤	M57	1-1/2"	Quad Tri 480	VM3H170S5GLG	VM3H170S5R1G	VM3H170S5R5G	VM4H170S5GLG	VM4H170S5R1G	VM4H170S5R5G	VM4H170S5ERN
				VM3H176S5GLG	VM3H176S5R1G	VM3H176S5R5G	VM4H176S5GLG	VM4H176S5R1G	VM4H176S5R5G	VM4H176S5ERN
				VM3H175S5GLG	VM3H175S5R1G	VM3H175S5R5G	VM4H175S5GLG	VM4H175S5R1G	VM4H175S5R5G	VM4H175S5ERN
250 ⑥	M58	1-1/2"	Quad Tri 480	VM3H250S5GLG	VM3H250S5R1G	VM3H250S5R5G	VM4H250S5GLG	VM4H250S5R1G	VM4H250S5R5G	VM4H250S5ERN
				VM3H256S5GLG	VM3H256S5R1G	VM3H256S5R5G	VM4H256S5GLG	VM4H256S5R1G	VM4H256S5R5G	VM4H256S5ERN
				VM3H255S5GLG	VM3H255S5R1G	VM3H255S5R5G	VM4H255S5GLG	VM4H255S5R1G	VM4H255S5R5G	VM4H255S5ERN

① See hazardous application data on pages L131 - L140 for limitations.

② Catalog numbers shown are with guard (except enclosed reflector); to omit guard change ending G to N; e.g. VM3P150A2GLN

③ Catalog numbers shown are with 3/4" conduit openings; change 5 to 4 for 1-1/4"; e.g. VM3H070D4GLG.

④ Consult catalog logic for other available voltages.

⑤ Add suffix NR for restricted breathing; see page L84 for more information.

⑥ 175W M57 & 250W M58 Fixtures are EXPORT ONLY (EISA LAW).



METAL HALIDE PULSE, 150-200W MOGUL BASE HID



Pendant w/ 5-1/2" Globe & Guard



Flexible Pendant w/ 5-1/2" Refractor & Guard



Pendant w/ 7-3/4" Globe & Guard



Flexible Pendant w/ 7-3/4" Refractor & Guard



Pendant w/ Enclosed Reflector

Class I, Div. 2, Groups A,B,C,D[Ⓛ]
 Class I, Zone 2, Groups IIC, IIB, IIA
 Class II, Div. 1 & 2, Groups E,F,G
 Class III
 Suitable for wet locations
 NEMA 3, 4, 4X
 IP66

US LISTED - File E10514 (Hazardous & Marine)

US Certified - File LR11713

NR Restricted Breathing Option[Ⓢ]

Class I, Zone 2 AEx nAnR
 Class I, Zone 2 Ex nR

VM 150 - 200 WATT METAL HALIDE PULSE PENDANT										
DESCRIPTION				5-1/2" OPTIC THREAD SIZE [Ⓜ]			7-3/4" OPTIC THREAD SIZE [Ⓜ]			
WATTS	ANSI	HUB SIZE [Ⓝ]	VOLTAGE [Ⓞ]	GLOBE & GUARD	TYPE I GLASS REFRACTOR & GUARD	TYPE V GLASS REFRACTOR & GUARD	GLOBE & GUARD	TYPE I GLASS REFRACTOR & GUARD	TYPE V GLASS REFRACTOR & GUARD	ENCLOSED REFLECTOR
150	M102	3/4"	Quad Tri 480	VM3P150A2GLG	VM3P150A2R1G	VM3P150A2R5G	VM4P150A2GLG	VM4P150A2R1G	VM4P150A2R5G	VM4P156A2ERN
	M142			VM3P156A2GLG	VM3P156A2R1G	VM3P156A2R5G	VM4P156A2GLG	VM4P156A2R1G	VM4P156A2R5G	VM4P155A2ERN
				VM3P155A2GLG	VM3P155A2R1G	VM3P155A2R5G	VM4P155A2GLG	VM4P155A2R1G	VM4P155A2R5G	VM4P170A2ERN
175	M137	3/4"	Quad Tri 480	VM3P170A2GLG	VM3P170A2R1G	VM3P170A2R5G	VM4P170A2GLG	VM4P170A2R1G	VM4P170A2R5G	VM4P170A2ERN
	M152			VM3P176A2GLG	VM3P176A2R1G	VM3P176A2R5G	VM4P176A2GLG	VM4P176A2R1G	VM4P176A2R5G	VM4P176A2ERN
				VM3P175A2GLG	VM3P175A2R1G	VM3P175A2R5G	VM4P175A2GLG	VM4P175A2R1G	VM4P175A2R5G	VM4P175A2ERN
200	M136	3/4"	Quad Tri 480	VM3P200A2GLG	VM3P200A2R1G	VM3P200A2R5G	VM4P200A2GLG	VM4P200A2R1G	VM4P200A2R5G	VM4P200A2ERN
				VM3P206A2GLG	VM3P206A2R1G	VM3P206A2R5G	VM4P206A2GLG	VM4P206A2R1G	VM4P206A2R5G	VM4P206A2ERN
				VM3P205A2GLG	VM3P205A2R1G	VM3P205A2R5G	VM4P205A2GLG	VM4P205A2R1G	VM4P205A2R5G	VM4P205A2ERN

VM 150 - 200 WATT METAL HALIDE PULSE FLEXIBLE PENDANT										
DESCRIPTION				5-1/2" OPTIC THREAD SIZE [Ⓜ]			7-3/4" OPTIC THREAD SIZE [Ⓜ]			
WATTS	ANSI	HUB SIZE [Ⓝ]	VOLTAGE [Ⓞ]	GLOBE & GUARD	TYPE I GLASS REFRACTOR & GUARD	TYPE V GLASS REFRACTOR & GUARD	GLOBE & GUARD	TYPE I GLASS REFRACTOR & GUARD	TYPE V GLASS REFRACTOR & GUARD	ENCLOSED REFLECTOR
150	M102	3/4"	Quad Tri 480	VM3P150F2GLG	VM3P150F2R1G	VM3P150F2R5G	VM4P150F2GLG	VM4P150F2R1G	VM4P150F2R5G	VM4P156F2ERN
	M142			VM3P156F2GLG	VM3P156F2R1G	VM3P156F2R5G	VM4P156F2GLG	VM4P156F2R1G	VM4P156F2R5G	VM4P155F2ERN
				VM3P155F2GLG	VM3P155F2R1G	VM3P155F2R5G	VM4P155F2GLG	VM4P155F2R1G	VM4P155F2R5G	VM4P170F2ERN
175	M137	3/4"	Quad Tri 480	VM3P170F2GLG	VM3P170F2R1G	VM3P170F2R5G	VM4P170F2GLG	VM4P170F2R1G	VM4P170F2R5G	VM4P170F2ERN
	M152			VM3P176F2GLG	VM3P176F2R1G	VM3P176F2R5G	VM4P176F2GLG	VM4P176F2R1G	VM4P176F2R5G	VM4P176F2ERN
				VM3P175F2GLG	VM3P175F2R1G	VM3P175F2R5G	VM4P175F2GLG	VM4P175F2R1G	VM4P175F2R5G	VM4P175F2ERN
200	M136	3/4"	Quad Tri 480	VM3P200F2GLG	VM3P200F2R1G	VM3P200F2R5G	VM4P200F2GLG	VM4P200F2R1G	VM4P200F2R5G	VM4P200F2ERN
				VM3P206F2GLG	VM3P206F2R1G	VM3P206F2R5G	VM4P206F2GLG	VM4P206F2R1G	VM4P206F2R5G	VM4P206F2ERN
				VM3P205F2GLG	VM3P205F2R1G	VM3P205F2R5G	VM4P205F2GLG	VM4P205F2R1G	VM4P205F2R5G	VM4P205F2ERN

[Ⓛ] See hazardous application data on pages L131 - L140 for limitations.
[Ⓜ] Catalog numbers shown are with guard (except enclosed reflector); to omit guard change ending G to N; e.g. VM3P150A2GLN
[Ⓝ] Catalog numbers shown are with 3/4" conduit openings; change 2 to 3 for 1"; e.g. VM3P150A3GLG.
[Ⓞ] Consult catalog logic for other available voltages.
[Ⓢ] Add suffix NR for restricted breathing; see page L84 for more information.

LIGHTING

CERTILITE® V SERIES



METAL HALIDE PULSE, 150-200W MOGUL BASE HID



Ceiling
w/ 5-1/2"
Globe & Guard



Wall
w/ 5-1/2"
Refractor & Guard



Ceiling
w/ 7-3/4"
Globe & Guard



Wall
w/ 7-3/4"
Refractor & Guard



Ceiling
w/ Enclosed Reflector

VM 150 - 200 WATT METAL HALIDE PULSE CEILING										
DESCRIPTION				5-1/2" OPTIC THREAD SIZE ②			7-3/4" OPTIC THREAD SIZE ②			
WATTS	ANSI	HUB SIZE ③	VOLTAGE ④	GLOBE & GUARD	TYPE I GLASS REFRACTOR & GUARD	TYPE V GLASS REFRACTOR & GUARD	GLOBE & GUARD	TYPE I GLASS REFRACTOR & GUARD	TYPE V GLASS REFRACTOR & GUARD	ENCLOSED REFLECTOR
150	M102 M142	3/4"	Quad Tri 480	VM3P150X2GLG	VM3P150X2R1G	VM3P150X2R5G	VM4P150X2GLG	VM4P150X2R1G	VM4P150X2R5G	VM4P150X2ERN
				VM3P156X2GLG	VM3P156X2R1G	VM3P156X2R5G	VM4P156X2GLG	VM4P156X2R1G	VM4P156X2R5G	VM4P156X2ERN
				VM3P155X2GLG	VM3P155X2R1G	VM3P155X2R5G	VM4P155X2GLG	VM4P155X2R1G	VM4P155X2R5G	VM4P155X2ERN
175	M137 M152	3/4"	Quad Tri 480	VM3P170X2GLG	VM3P170X2R1G	VM3P170X2R5G	VM4P170X2GLG	VM4P170X2R1G	VM4P170X2R5G	VM4P170X2ERN
				VM3P176X2GLG	VM3P176X2R1G	VM3P176X2R5G	VM4P176X2GLG	VM4P176X2R1G	VM4P176X2R5G	VM4P176X2ERN
				VM3P175X2GLG	VM3P175X2R1G	VM3P175X2R5G	VM4P175X2GLG	VM4P175X2R1G	VM4P175X2R5G	VM4P175X2ERN
200	M136	3/4"	Quad Tri 480	VM3P200X2GLG	VM3P200X2R1G	VM3P200X2R5G	VM4P200X2GLG	VM4P200X2R1G	VM4P200X2R5G	VM4P200X2ERN
				VM3P206X2GLG	VM3P206X2R1G	VM3P206X2R5G	VM4P206X2GLG	VM4P206X2R1G	VM4P206X2R5G	VM4P206X2ERN
				VM3P205X2GLG	VM3P205X2R1G	VM3P205X2R5G	VM4P205X2GLG	VM4P205X2R1G	VM4P205X2R5G	VM4P205X2ERN

VM 150 - 200 WATT METAL HALIDE PULSE WALL										
DESCRIPTION				5-1/2" OPTIC THREAD SIZE ②			7-3/4" OPTIC THREAD SIZE ②			
WATTS	ANSI	HUB SIZE ③	VOLTAGE ④	GLOBE & GUARD	TYPE I GLASS REFRACTOR & GUARD	TYPE V GLASS REFRACTOR & GUARD	GLOBE & GUARD	TYPE I GLASS REFRACTOR & GUARD	TYPE V GLASS REFRACTOR & GUARD	ENCLOSED REFLECTOR
150	M102 M142	3/4"	Quad Tri 480	VM3P150B2GLG	VM3P150B2R1G	VM3P150B2R5G	VM4P150B2GLG	VM4P150B2R1G	VM4P150B2R5G	VM4P150B2ERN
				VM3P156B2GLG	VM3P156B2R1G	VM3P156B2R5G	VM4P156B2GLG	VM4P156B2R1G	VM4P156B2R5G	VM4P156B2ERN
				VM3P155B2GLG	VM3P155B2R1G	VM3P155B2R5G	VM4P155B2GLG	VM4P155B2R1G	VM4P155B2R5G	VM4P155B2ERN
175	M137 M152	3/4"	Quad Tri 480	VM3P170B2GLG	VM3P170B2R1G	VM3P170B2R5G	VM4P170B2GLG	VM4P170B2R1G	VM4P170B2R5G	VM4P170B2ERN
				VM3P176B2GLG	VM3P176B2R1G	VM3P176B2R5G	VM4P176B2GLG	VM4P176B2R1G	VM4P176B2R5G	VM4P176B2ERN
				VM3P175B2GLG	VM3P175B2R1G	VM3P175B2R5G	VM4P175B2GLG	VM4P175B2R1G	VM4P175B2R5G	VM4P175B2ERN
200	M136	3/4"	Quad Tri 480	VM3P200B2GLG	VM3P200B2R1G	VM3P200B2R5G	VM4P200B2GLG	VM4P200B2R1G	VM4P200B2R5G	VM4P200B2ERN
				VM3P206B2GLG	VM3P206B2R1G	VM3P206B2R5G	VM4P206B2GLG	VM4P206B2R1G	VM4P206B2R5G	VM4P206B2ERN
				VM3P205B2GLG	VM3P205B2R1G	VM3P205B2R5G	VM4P205B2GLG	VM4P205B2R1G	VM4P205B2R5G	VM4P205B2ERN

① See hazardous application data on pages L131 - L140 for limitations.

② Catalog numbers shown are with guard (except enclosed reflectors); to omit guard, change ending G to N; e.g. VM3P050X2GLN

③ Catalog numbers shown are with 3/4" conduit openings, change 2 to 3 for 1"; e.g. VM3P150X3GLG.

④ Consult catalog logic for other available voltages.

⑤ Add suffix NR for restricted breathing; see page L84 for more information.



METAL HALIDE PULSE, 150-200W MOGUL BASE HID



Cone
w/ 5-1/2"
Globe & Guard



EZ Adapter
w/ 5-1/2"
Refractor & Guard



Cone
w/ Enclosed Reflector



Cone
w/ 7-3/4"
Globe & Guard



EZ Adapter
w/ 7-3/4"
Refractor & Guard

VM 150 - 200 WATT METAL HALIDE PULSE CONE										
DESCRIPTION				5-1/2" OPTIC THREAD SIZE ②			7-3/4" OPTIC THREAD SIZE ②			
WATTS	ANSI	HUB SIZE ③	VOLTAGE ④	GLOBE & GUARD	TYPE I GLASS REFRACTOR & GUARD	TYPE V GLASS REFRACTOR & GUARD	GLOBE & GUARD	TYPE I GLASS REFRACTOR & GUARD	TYPE V GLASS REFRACTOR & GUARD	ENCLOSED REFLECTOR
150	M102	3/4"	Quad Tri 480	VM3P150C2GLG	VM3P150C2R1G	VM3P150C2R5G	VM4P150C2GLG	VM4P150C2R1G	VM4P150C2R5G	VM4P150C2ERN
	M142			VM3P156C2GLG	VM3P156C2R1G	VM3P156C2R5G	VM4P156C2GLG	VM4P156C2R1G	VM4P156C2R5G	VM4P156C2ERN
				VM3P155C2GLG	VM3P155C2R1G	VM3P155C2R5G	VM4P155C2GLG	VM4P155C2R1G	VM4P155C2R5G	VM4P155C2ERN
175	M137	3/4"	Quad Tri 480	VM3P170C2GLG	VM3P170C2R1G	VM3P170C2R5G	VM4P170C2GLG	VM4P170C2R1G	VM4P170C2R5G	VM4P170C2ERN
	M152			VM3P176C2GLG	VM3P176C2R1G	VM3P176C2R5G	VM4P176C2GLG	VM4P176C2R1G	VM4P176C2R5G	VM4P176C2ERN
				VM3P175C2GLG	VM3P175C2R1G	VM3P175C2R5G	VM4P175C2GLG	VM4P175C2R1G	VM4P175C2R5G	VM4P175C2ERN
200	M136	3/4"	Quad Tri 480	VM3P200C2GLG	VM3P200C2R1G	VM3P200C2R5G	VM4P200C2GLG	VM4P200C2R1G	VM4P200C2R5G	VM4P200C2ERN
				VM3P206C2GLG	VM3P206C2R1G	VM3P206C2R5G	VM4P206C2GLG	VM4P206C2R1G	VM4P206C2R5G	VM4P206C2ERN
				VM3P205C2GLG	VM3P205C2R1G	VM3P205C2R5G	VM4P205C2GLG	VM4P205C2R1G	VM4P205C2R5G	VM4P205C2ERN

VM 150 - 200 WATT METAL HALIDE PULSE EZ ADAPTER										
DESCRIPTION				5-1/2" OPTIC THREAD SIZE ②			7-3/4" OPTIC THREAD SIZE ②			
WATTS	ANSI	HUB SIZE ③	VOLTAGE ④	GLOBE & GUARD	TYPE I GLASS REFRACTOR & GUARD	TYPE V GLASS REFRACTOR & GUARD	GLOBE & GUARD	TYPE I GLASS REFRACTOR & GUARD	TYPE V GLASS REFRACTOR & GUARD	ENCLOSED REFLECTOR
150	M102	⑤	Quad Tri 480	VM3P150EZGLG	VM3P150EZR1G	VM3P150EZR5G	VM4P150EZGLG	VM4P150EZR1G	VM4P150EZR5G	VM4P150EZERN
	M142			VM3P156EZGLG	VM3P156EZR1G	VM3P156EZR5G	VM4P156EZGLG	VM4P156EZR1G	VM4P156EZR5G	VM4P156EZERN
				VM3P155EZGLG	VM3P155EZR1G	VM3P155EZR5G	VM4P155EZGLG	VM4P155EZR1G	VM4P155EZR5G	VM4P155EZERN
175	M137	⑤	Quad Tri 480	VM3P170EZGLG	VM3P170EZR1G	VM3P170EZR5G	VM4P170EZGLG	VM4P170EZR1G	VM4P170EZR5G	VM4P170EZERN
	M152			VM3P176EZGLG	VM3P176EZR1G	VM3P176EZR5G	VM4P176EZGLG	VM4P176EZR1G	VM4P176EZR5G	VM4P176EZERN
				VM3P175EZGLG	VM3P175EZR1G	VM3P175EZR5G	VM4P175EZGLG	VM4P175EZR1G	VM4P175EZR5G	VM4P175EZERN
200	M136	⑤	Quad Tri 480	VM3P200EZGLG	VM3P200EZR1G	VM3P200EZR5G	VM4P200EZGLG	VM4P200EZR1G	VM4P200EZR5G	VM4P200EZERN
				VM3P206EZGLG	VM3P206EZR1G	VM3P206EZR5G	VM4P206EZGLG	VM4P206EZR1G	VM4P206EZR5G	VM4P206EZERN
				VM3P205EZGLG	VM3P205EZR1G	VM3P205EZR5G	VM4P205EZGLG	VM4P205EZR1G	VM4P205EZR5G	VM4P205EZERN

① See hazardous application data on pages L131 - L140 for limitations.

② Catalog numbers shown are with guard (except enclosed reflector); to omit guard change ending G to N; e.g. VM3P150C2GLN

③ Catalog numbers shown are with 3/4" conduit openings; change 2 to 3 for 1"; e.g. VM3P150C3GLG.

④ Consult catalog logic for other available voltages.

⑤ Add suffix NR for restricted breathing; see page L84 for more information.

⑥ VMEZA tank adapters UL "Classified" as an assembly for use between VM Tanks and EZ mounts. Order EZ mounts separately, see page L83.

LIGHTING

CERTILITE® V SERIES



METAL HALIDE PULSE, 150-200W MOGUL BASE HID



Stanchion 25°
w/ 5-1/2"
Globe & Guard



Stanchion Straight
w/ 5-1/2"
Reflector & Guard



Stanchion 25°
w/ 7-3/4"
Globe & Guard



Stanchion Straight
w/ 7-3/4"
Reflector & Guard



Stanchion 25°
w/ Enclosed Reflector

VM 150 - 200 WATT METAL HALIDE PULSE STANCHION 25° ANGLE

DESCRIPTION				5-1/2" OPTIC THREAD SIZE ②			7-3/4" OPTIC THREAD SIZE ②			
WATTS	ANSI	HUB SIZE ③	VOLTAGE ④	GLOBE & GUARD	TYPE I GLASS REFRACTOR & GUARD	TYPE V GLASS REFRACTOR & GUARD	GLOBE & GUARD	TYPE I GLASS REFRACTOR & GUARD	TYPE V GLASS REFRACTOR & GUARD	ENCLOSED REFLECTOR
150	M102	1-1/2"	Quad Tri 480	VM3P150D5GLG	VM3P150D5R1G	VM3P150D5R5G	VM4P150D5GLG	VM4P150D5R1G	VM4P150D5R5G	VM4P150D5ERN
				VM3P156D5GLG	VM3P156D5R1G	VM3P156D5R5G	VM4P156D5GLG	VM4P156D5R1G	VM4P156D5R5G	VM4P156D5ERN
	M142	VM3P155D5GLG	VM3P155D5R1G	VM3P155D5R5G	VM4P155D5GLG	VM4P155D5R1G	VM4P155D5R5G	VM4P155D5ERN		
175	M137	1-1/2"	Quad Tri 480	VM3P170D5GLG	VM3P170D5R1G	VM3P170D5R5G	VM4P170D5GLG	VM4P170D5R1G	VM4P170D5R5G	VM4P170D5ERN
				VM3P176D5GLG	VM3P176D5R1G	VM3P176D5R5G	VM4P176D5GLG	VM4P176D5R1G	VM4P176D5R5G	VM4P176D5ERN
	M152	VM3P175D5GLG	VM3P175D5R1G	VM3P175D5R5G	VM4P175D5GLG	VM4P175D5R1G	VM4P175D5R5G	VM4P175D5ERN		
200	M136	1-1/2"	Quad Tri 480	VM3P200D5GLG	VM3P200D5R1G	VM3P200D5R5G	VM4P200D5GLG	VM4P200D5R1G	VM4P200D5R5G	VM4P200D5ERN
				VM3P206D5GLG	VM3P206D5R1G	VM3P206D5R5G	VM4P206D5GLG	VM4P206D5R1G	VM4P206D5R5G	VM4P206D5ERN
				VM3P205D5GLG	VM3P205D5R1G	VM3P205D5R5G	VM4P205D5GLG	VM4P205D5R1G	VM4P205D5R5G	VM4P205D5ERN

VM 150 - 200 WATT METAL HALIDE PULSE STANCHION STRAIGHT

DESCRIPTION				5-1/2" OPTIC THREAD SIZE ②			7-3/4" OPTIC THREAD SIZE ②			
WATTS	ANSI	HUB SIZE ③	VOLTAGE ④	GLOBE & GUARD	TYPE I GLASS REFRACTOR & GUARD	TYPE V GLASS REFRACTOR & GUARD	GLOBE & GUARD	TYPE I GLASS REFRACTOR & GUARD	TYPE V GLASS REFRACTOR & GUARD	ENCLOSED REFLECTOR
150	M102	1-1/2"	Quad Tri 480	VM3P150S5GLG	VM3P150S5R1G	VM3P150S5R5G	VM4P150S5GLG	VM4P150S5R1G	VM4P150S5R5G	VM4P150S5ERN
				VM3P156S5GLG	VM3P156S5R1G	VM3P156S5R5G	VM4P156S5GLG	VM4P156S5R1G	VM4P156S5R5G	VM4P156S5ERN
	M142	VM3P155S5GLG	VM3P155S5R1G	VM3P155S5R5G	VM4P155S5GLG	VM4P155S5R1G	VM4P155S5R5G	VM4P155S5ERN		
175	M137	1-1/2"	Quad Tri 480	VM3P170S5GLG	VM3P170S5R1G	VM3P170S5R5G	VM4P170S5GLG	VM4P170S5R1G	VM4P170S5R5G	VM4P170S5ERN
				VM3P176S5GLG	VM3P176S5R1G	VM3P176S5R5G	VM4P176S5GLG	VM4P176S5R1G	VM4P176S5R5G	VM4P176S5ERN
	M152	VM3P175S5GLG	VM3P175S5R1G	VM3P175S5R5G	VM4P175S5GLG	VM4P175S5R1G	VM4P175S5R5G	VM4P175S5ERN		
200	M136	1-1/2"	Quad Tri 480	VM3P200S5GLG	VM3P200S5R1G	VM3P200S5R5G	VM4P200S5GLG	VM4P200S5R1G	VM4P200S5R5G	VM4P200S5ERN
				VM3P206S5GLG	VM3P206S5R1G	VM3P206S5R5G	VM4P206S5GLG	VM4P206S5R1G	VM4P206S5R5G	VM4P206S5ERN
				VM3P205S5GLG	VM3P205S5R1G	VM3P205S5R5G	VM4P205S5GLG	VM4P205S5R1G	VM4P205S5R5G	VM4P205S5ERN

① See hazardous application data on pages L131 - L140 for limitations.

② Catalog numbers shown are with guard (except enclosed reflectors); to omit guard change ending G to N; e.g. VM3P150D5GLN

③ Catalog numbers shown are with 1-1/2" conduit openings, change 5 to 4 for 1-1/4"; e.g. VM3P150D4GLG.

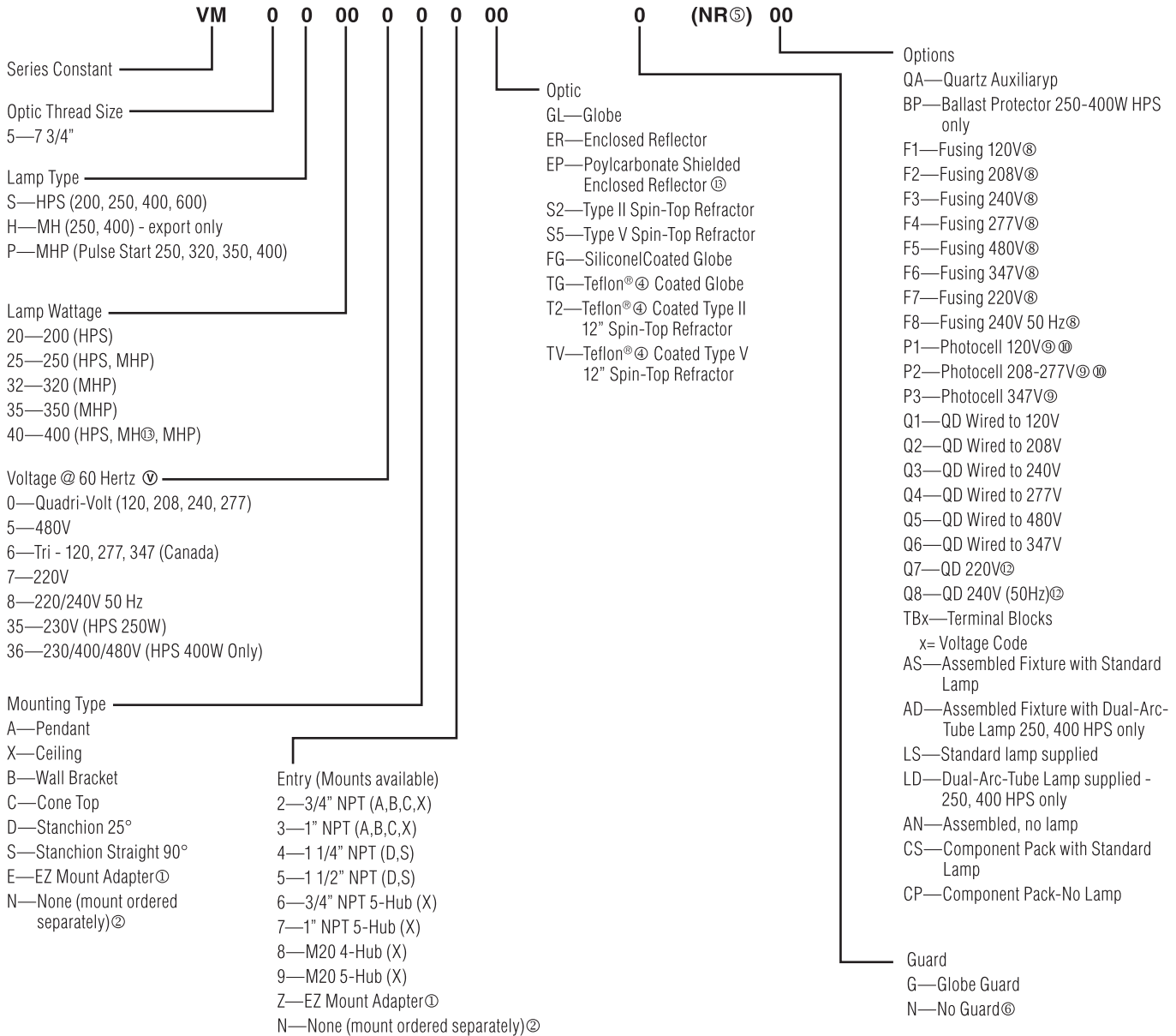
④ Consult catalog logic for other available voltages.

⑤ Add suffix NR for restricted breathing; see page L84 for more information.



VM5 CATALOG ORDERING LOGIC

CertiLite® Catalog Number Logic; 200-400 High Wattage (Mogul Base) HID Fixtures



① Completes as "EZ", conduit mounting boxes ordered separately.
 ② NN mount ordered separately.
 ③ Silicone coated globe for additional impact protection.
 ④ Teflon® is a registered trademark of DuPont, Inc.
 ⑤ Restricted Breathing - See L84 for more information.
 ⑥ Order Guards for Spin-Tops & VMER40 separately. Consult factory for available lamp and voltage combinations
 ⑦ QA not suitable for Class I, Div. 2/Zone 2 applications; consult factory for other hazardous applications.
 ⑧ Fusing not for Marine or Canadian installations.
 ⑨ Photo cells for Class I, Div. 2 only, or C1Z2 nR not Class II.
 ⑩ Field connection to proper tap in case of Multitap Ballasts.
 ⑪ Not for use with wall or straight (90°) Stanchion.
 ⑫ QD = Quick Disconnect. Allows easy tank removal for maintenance. Electrician simply unplugs de-energized ballast from supply circuit.
 ⑬ 400W M59 fixtures and EXPORT ONLY (EISA LAW).



LIGHTING

CERTILITE® V SERIES



HIGH PRESSURE SODIUM, 200-600W MOGUL BASE HID



Pendant w/ Globe & Guard



Pendant w/ Spin-Top Refractor



Ceiling w/ Enclosed Reflector

Class I, Div. 2, Groups A,B,C,D^①
 Class I, Zone 2, Groups IIC, IIB, IIA
 Class II, Div. 1 & 2, Groups E,F,G
 Class III
 Suitable for wet locations
 NEMA 3, 4, 4X
 IP66

US LISTED - File E10514 (Hazardous & Marine)

US Certified - File LR11713

NR Restricted Breathing Option^⑤

Class I, Zone 2 AEx nAnR
 Class I, Zone 2 Ex nR,

VM 200 - 600 WATT HIGH PRESSURE SODIUM PENDANT							
DESCRIPTION				7-3/4" OPTIC THREAD SIZE ^②			
WATTS	ANSI	HUB SIZE ^③	VOLTAGE ^④	GLOBE & GUARD	TYPE V SPIN-TOP GLASS REFRACTOR	ENCLOSED REFLECTOR	POLYCARBONATE SHIELDED ENCLOSED REFLECTOR
200	S66	3/4"	Quad Tri 480	VM5S200A2GLG	VM5S200A2S5N	VM5S200A2ERN	VM5S200A2EPN
				VM5S206A2GLG	VM5S206A2S5N	VM5S206A2ERN	VM5S206A2EPN
				VM5S205A2GLG	VM5S205A2S5N	VM5S205A2ERN	VM5S205A2EPN
250	S50	3/4"	Quad Tri 480	VM5S250A2GLG	VM5S250A2S5N	VM5S250A2ERN	VM5S250A2EPN
				VM5S256A2GLG	VM5S256A2S5N	VM5S256A2ERN	VM5S256A2EPN
				VM5S255A2GLG	VM5S255A2S5N	VM5S255A2ERN	VM5S255A2EPN
400	S51	3/4"	Quad Tri 480	VM5S400A2GLG	VM5S400A2S5N	VM5S400A2ERN	VM5S400A2EPN
				VM5S406A2GLG	VM5S406A2S5N	VM5S406A2ERN	VM5S406A2EPN
				VM5S405A2GLG	VM5S405A2S5N	VM5S405A2ERN	VM5S405A2EPN
600	S106	3/4"	Quad Tri 480	—	—	VM5S600A2ERN	—
				—	—	VM5S606A2ERN	—
				—	—	VM5S605A2ERN	—

VM 200 - 600 WATT HIGH PRESSURE SODIUM CEILING							
DESCRIPTION				7-3/4" OPTIC THREAD SIZE ^②			
WATTS	ANSI	HUB SIZE ^③	VOLTAGE ^④	GLOBE & GUARD	TYPE V SPIN-TOP GLASS REFRACTOR	ENCLOSED REFLECTOR	POLYCARBONATE SHIELDED ENCLOSED REFLECTOR
200	S66	3/4"	Quad Tri 480	VM5S200X2GLG	VM5S200X2S5N	VM5S200X2ERN	VM5S200X2EPN
				VM5S206X2GLG	VM5S206X2S5N	VM5S206X2ERN	VM5S206X2EPN
				VM5S205X2GLG	VM5S205X2S5N	VM5S205X2ERN	VM5S205X2EPN
250	S50	3/4"	Quad Tri 480	VM5S250X2GLG	VM5S250X2S5N	VM5S250X2ERN	VM5S250X2EPN
				VM5S256X2GLG	VM5S256X2S5N	VM5S256X2ERN	VM5S256X2EPN
				VM5S255X2GLG	VM5S255X2S5N	VM5S255X2ERN	VM5S255X2EPN
400	S51	3/4"	Quad Tri 480	VM5S400X2GLG	VM5S400X2S5N	VM5S400X2ERN	VM5S400X2EPN
				VM5S406X2GLG	VM5S406X2S5N	VM5S406X2ERN	VM5S406X2EPN
				VM5S405X2GLG	VM5S405X2S5N	VM5S405X2ERN	VM5S405X2EPN
600	S106	3/4"	Quad Tri 480	—	—	VM5S600X2ERN	—
				—	—	VM5S606X2ERN	—
				—	—	VM5S605X2ERN	—

① See hazardous application data on pages L131 - L140 for limitations.

② Globe catalog number shown with guard. To omit guard, change G to N; e.g. VM5S200A2GLN. Order spin top and enclosed reflector guards separately.

③ Catalog numbers shown are with 3/4" conduit openings, change 2 to 3 for 1"; e.g. VM5S200A3GLG.

④ Consult catalog logic for other available voltages.

⑤ Add suffix NR for restricted breathing; see page L84 for more information.



HIGH PRESSURE SODIUM, 200-600W MOGUL BASE HID



Wall
w/ Globe &
Guard



Wall
w/ Spin-Top
Refractor



Cone
w/ Enclosed
Reflector

VM 200 - 600 WATT HIGH PRESSURE SODIUM WALL							
DESCRIPTION				7-3/4" OPTIC THREAD SIZE ②			
WATTS	ANSI	HUB SIZE ③	VOLTAGE ④	GLOBE & GUARD	TYPE V SPIN-TOP GLASS REFRACTOR	ENCLOSED REFLECTOR	POLYCARBONATE SHIELDED ENCLOSED REFLECTOR
200	S66	3/4"	Quad Tri 480	VM5S200B2GLG	VM5S200B2S5N	VM5S200B2ERN	—
				VM5S206B2GLG	VM5S206B2S5N	VM5S206B2ERN	—
				VM5S205B2GLG	VM5S205B2S5N	VM5S205B2ERN	—
250	S50	3/4"	Quad Tri 480	VM5S250B2GLG	VM5S250B2S5N	VM5S250B2ERN	—
				VM5S256B2GLG	VM5S256B2S5N	VM5S256B2ERN	—
				VM5S255B2GLG	VM5S255B2S5N	VM5S255B2ERN	—
400	S51	3/4"	Quad Tri 480	VM5S400B2GLG	VM5S400B2S5N	VM5S400B2ERN	—
				VM5S406B2GLG	VM5S406B2S5N	VM5S406B2ERN	—
				VM5S405B2GLG	VM5S405B2S5N	VM5S405B2ERN	—
600	S106	3/4"	Quad Tri 480	—	—	VM5S600B2ERN	—
				—	—	VM5S606B2ERN	—
				—	—	VM5S605B2ERN	—

VM 200 - 600 WATT HIGH PRESSURE SODIUM CONE							
DESCRIPTION				7-3/4" OPTIC THREAD SIZE ②			
WATTS	ANSI	HUB SIZE ③	VOLTAGE ④	GLOBE & GUARD	TYPE V SPIN-TOP GLASS REFRACTOR	ENCLOSED REFLECTOR	POLYCARBONATE SHIELDED ENCLOSED REFLECTOR
200	S66	3/4"	Quad Tri 480	VM5S200C2GLG	VM5S200C2S5N	VM5S200C2ERN	VM5S200C2EPN
				VM5S206C2GLG	VM5S206C2S5N	VM5S206C2ERN	VM5S206C2EPN
				VM5S205C2GLG	VM5S205C2S5N	VM5S205C2ERN	VM5S205C2EPN
250	S50	3/4"	Quad Tri 480	VM5S250C2GLG	VM5S250C2S5N	VM5S250C2ERN	VM5S250C2EPN
				VM5S256C2GLG	VM5S256C2S5N	VM5S256C2ERN	VM5S256C2EPN
				VM5S255C2GLG	VM5S255C2S5N	VM5S255C2ERN	VM5S255C2EPN
400	S51	3/4"	Quad Tri 480	VM5S400C2GLG	VM5S400C2S5N	VM5S400C2ERN	VM5S400C2EPN
				VM5S406C2GLG	VM5S406C2S5N	VM5S406C2ERN	VM5S406C2EPN
				VM5S405C2GLG	VM5S405C2S5N	VM5S405C2ERN	VM5S405C2EPN
600	S106	3/4"	Quad Tri 480	—	—	VM5S600C2ERN	—
				—	—	VM5S606C2ERN	—
				—	—	VM5S605C2ERN	—

① See hazardous application data on pages L131 - L140 for limitations.

② Globe catalog number shown with guard. To omit guard, change G to N; e.g. VM5S200B2GLN. Order spin top and enclosed reflector guards separately.

③ Catalog numbers shown are with 3/4" conduit openings, change 2 to 3 for 1"; e.g. VM5S200B3GLG.

④ Consult catalog logic for other available voltages.

⑤ Add suffix NR for restricted breathing; see page L84 for more information.

LIGHTING

CERTILITE® V SERIES



HIGH PRESSURE SODIUM, 200-600W MOGUL BASE HID



Stanchion 25°
w/ Globe & Guard



Stanchion 25°
w/ Spin-Top
Refractor



Stanchion Straight
w/ Enclosed Reflector

VM 200 - 600 WATT HIGH PRESSURE SODIUM STANCHION 25° ANGLE						
DESCRIPTION				7-3/4" OPTIC THREAD SIZE ②		
WATTS	ANSI	HUB SIZE③	VOLTAGE④	GLOBE & GUARD	TYPE V SPIN-TOP GLASS REFRACTOR	ENCLOSED REFLECTOR
200	S66	1-1/2"	Quad Tri 480	VM5S200D5GLG	VM5S200D5S5N	VM5S200D5ERN
				VM5S206D5GLG	VM5S206D5S5N	VM5S206D5ERN
				VM5S205D5GLG	VM5S205D5S5N	VM5S205D5ERN
250	S50	1-1/2"	Quad Tri 480	VM5S250D5GLG	VM5S250D5S5N	VM5S250D5ERN
				VM5S256D5GLG	VM5S256D5S5N	VM5S256D5ERN
				VM5S255D5GLG	VM5S255D5S5N	VM5S255D5ERN
400	S51	1-1/2"	Quad Tri 480	VM5S400D5GLG	VM5S400D5S5N	VM5S400D5ERN
				VM5S406D5GLG	VM5S406D5S5N	VM5S406D5ERN
				VM5S405D5GLG	VM5S405D5S5N	VM5S405D5ERN
600	S106	1-1/2"	Quad Tri 480	—	—	VM5S600D5ERN
				—	—	VM5S606D5ERN
				—	—	VM5S605D5ERN

VM 200 - 600 WATT HIGH PRESSURE SODIUM STANCHION 25° ANGLE						
DESCRIPTION				7-3/4" OPTIC THREAD SIZE ②		
WATTS	ANSI	HUB SIZE③	VOLTAGE④	GLOBE & GUARD	TYPE V SPIN-TOP GLASS REFRACTOR	ENCLOSED REFLECTOR
200	S66	1-1/2"	Quad Tri 480	VM5S200S5GLG	VM5S200S5S5N	VM5S200S5ERN
				VM5S206S5GLG	VM5S206S5S5N	VM5S206S5ERN
				VM5S205S5GLG	VM5S205S5S5N	VM5S205S5ERN
250	S50	1-1/2"	Quad Tri 480	VM5S250S5GLG	VM5S250S5S5N	VM5S250S5ERN
				VM5S256S5GLG	VM5S256S5S5N	VM5S256S5ERN
				VM5S255S5GLG	VM5S255S5S5N	VM5S255S5ERN
400	S51	1-1/2"	Quad Tri 480	VM5S400S5GLG	VM5S400S5S5N	VM5S400S5ERN
				VM5S406S5GLG	VM5S406S5S5N	VM5S406S5ERN
				VM5S405S5GLG	VM5S405S5S5N	VM5S405S5ERN
600	S106	1-1/2"	Quad Tri 480	—	—	VM5S600S5ERN
				—	—	VM5S606S5ERN
				—	—	VM5S605S5ERN

① See hazardous application data on pages L131 - L140 for limitations.

② Globe catalog number shown with guard. To omit guard, change G to N; e.g. VM5S200D5GLN. Order spin top and enclosed reflector guards separately.

③ Catalog numbers shown are with 1-1/2" conduit openings, change 5 to 4 for 1-1/4"; e.g. VM5S200D4GLG.

④ Consult catalog logic for other available voltages.

⑤ Add suffix NR for restricted breathing; see page L84 for more information.



HIGH PRESSURE SODIUM, 200-600W MOGUL BASE HID



EZ Adapter w/ Globe & Guard



EZ Adapter w/ Spin-Top Reflector



EZ Adapter w/ Enclosed Reflector

VM 200 - 600 WATT HIGH PRESSURE SODIUM EZ ADAPTER							
DESCRIPTION				7-3/4" OPTIC THREAD SIZE ②			
WATTS	ANSI	HUB SIZE ③	VOLTAGE ④	GLOBE & GUARD	TYPE V SPIN-TOP GLASS REFRACTOR	ENCLOSED REFLECTOR	POLYCARBONATE SHIELDED ENCLOSED REFLECTOR
200	S66	③	Quad Tri 480	VM5S200EZGLG	VM5S200EVS5N	VM5S200EZERN	VM5S200EZEPN
				VM5S206EZGLG	VM5S206EVS5N	VM5S206EZERN	VM5S206EZEPN
				VM5S205EZGLG	VM5S205EVS5N	VM5S205EZERN	VM5S205EZEPN
250	S50	③	Quad Tri 480	VM5S250EZGLG	VM5S250EVS5N	VM5S250EZERN	VM5S250EZEPN
				VM5S256EZGLG	VM5S256EVS5N	VM5S256EZERN	VM5S256EZEPN
				VM5S255EZGLG	VM5S255EVS5N	VM5S255EZERN	VM5S255EZEPN
400	S51	③	Quad Tri 480	VM5S400EZGLG	VM5S400EVS5N	VM5S400EZERN	VM5S400EZEPN
				VM5S406EZGLG	VM5S406EVS5N	VM5S406EZERN	VM5S406EZEPN
				VM5S405EZGLG	VM5S405EVS5N	VM5S405EZERN	VM5S405EZEPN
600	S106	③	Quad Tri 480	—	—	VM5S600EZERN	—
				—	—	VM5S606EZERN	—
				—	—	VM5S605EZERN	—



Pendant



Ceiling



Wall Bracket



25° Stanchion

MOUNTING BOXES				
CATALOG NUMBER				HUB SIZE
PENDANT	CEILING	BRACKET	STANCHION	
EZA2	EZX2	EZB2	—	3/4"
EZA3	EZX3	EZB3	—	1"
—	—	—	EZD4A*	1-1/4"/1-1/2"*

* 1-1/2" furnished with 1-1/2"-1-1/4" reducer and extension. Extension only part number EZDVMA.

① See hazardous application data on pages L131 - L140 for limitations.

② Globe catalog number shown with guard. To omit guard, change G to N; e.g. VM5S200EZGLN. Order spin top and enclosed reflector guards separately.

③ VMEZA tank adapters UL "classified" as an assembly for use between VM tanks and EZ mounts. See above for separate ordering information

④ Consult catalog logic for other available voltages.

⑤ Add suffix NR for restricted breathing; see page L84 for more information.

⑥ VMEP40 not for use with EZ wall bracket.

LIGHTING

CERTILITE® V SERIES



METAL HALIDE, 400W MOGUL BASE HID



Pendant
w/ Globe & Guard



Ceiling
w/ Globe & Guard



Wall
w/ Spin-Top
Refractor



Cone
w/ Enclosed
Reflector

Class I, Div. 2, Groups A,B,C,D^①
 Class I, Zone 2, Groups IIC, IIB, IIA
 Class II, Div. 1 & 2, Groups E,F,G
 Class III
 Suitable for wet locations
 NEMA 3, 4, 4X
 IP66

US LISTED - File E10514 (Hazardous & Marine)

US Certified - File LR11713

NR Restricted Breathing Option^⑤

Class I, Zone 2 AEx nAnR
 Class I, Zone 2 Ex nR,

VM 400 WATT METAL HALIDE PENDANT							
DESCRIPTION				7-3/4" OPTIC THREAD SIZE ^②			
WATTS	ANSI	HUB SIZE ^③	VOLTAGE ^④	GLOBE & GUARD	TYPE V SPIN-TOP GLASS REFRACTOR	ENCLOSED REFLECTOR	POLYCARBONATE SHIELDED ENCLOSED REFLECTOR
400 ^⑥	M59	3/4"	Quad Tri 480	VM5H400A2GLG	VM5H400A2S5N	VM5H400A2ERN	VM5H400A2EPN
				VM5H406A2GLG	VM5H406A2S5N	VM5H406A2ERN	VM5H406A2EPN
				VM5H405A2GLG	VM5H405A2S5N	VM5H405A2ERN	VM5H405A2EPN

VM 400 WATT METAL HALIDE CEILING							
DESCRIPTION				7-3/4" OPTIC THREAD SIZE ^②			
WATTS	ANSI	HUB SIZE ^③	VOLTAGE ^④	GLOBE & GUARD	TYPE V SPIN-TOP GLASS REFRACTOR	ENCLOSED REFLECTOR	POLYCARBONATE SHIELDED ENCLOSED REFLECTOR
400 ^⑥	M59	3/4"	Quad Tri 480	VM5H400X2GLG	VM5H400X2S5N	VM5H400X2ERN	VM5H400X2EPN
				VM5H406X2GLG	VM5H406X2S5N	VM5H406X2ERN	VM5H406X2EPN
				VM5H405X2GLG	VM5H405X2S5N	VM5H405X2ERN	VM5H405X2EPN

VM 400 WATT METAL HALIDE WALL							
DESCRIPTION				7-3/4" OPTIC THREAD SIZE ^②			
WATTS	ANSI	HUB SIZE ^③	VOLTAGE ^④	GLOBE & GUARD	TYPE V SPIN-TOP GLASS REFRACTOR	ENCLOSED REFLECTOR	POLYCARBONATE SHIELDED ENCLOSED REFLECTOR
400 ^⑥	M59	3/4"	Quad Tri 480	VM5H400B2GLG	VM5H400B2S5N	VM5H400B2ERN	—
				VM5H406B2GLG	VM5H406B2S5N	VM5H406B2ERN	—
				VM5H405B2GLG	VM5H405B2S5N	VM5H405B2ERN	—

VM 400 WATT METAL HALIDE CONE							
DESCRIPTION				7-3/4" OPTIC THREAD SIZE ^②			
WATTS	ANSI	HUB SIZE ^③	VOLTAGE ^④	GLOBE & GUARD	TYPE V SPIN-TOP GLASS REFRACTOR	ENCLOSED REFLECTOR	POLYCARBONATE SHIELDED ENCLOSED REFLECTOR
400 ^⑥	M59	3/4"	Quad Tri 480	VM5H400C2GLG	VM5H400C2S5N	VM5H400C2ERN	VM5H400C2EPN
				VM5H406C2GLG	VM5H406C2S5N	VM5H406C2ERN	VM5H406C2EPN
				VM5H405C2GLG	VM5H405C2S5N	VM5H405C2ERN	VM5H405C2EPN

- ① See hazardous application data on pages L131 - L140 for limitations.
- ② Globe catalog number shown with guard. To omit guard, change G to N; e.g. VM5H400A2GLN. Order spin top and enclosed reflector guards separately.
- ③ Catalog numbers shown are with 3/4" conduit openings, change 2 to 3 for 1"; e.g. VM5H400A3GLG.
- ④ Consult catalog logic for other available voltages.
- ⑤ Add suffix NR for restricted breathing; see page L84 for more information.
- ⑥ 400W M59 Fixtures are EXPORT ONLY (EISA LAW).



METAL HALIDE, 400W MOGUL BASE HID



Stanchion 25°
w/ Globe & Guard



Stanchion 90°
w/ Spin-Top
Refractor



EZ Adapter
w/ Enclosed
Reflector

VM 400 WATT METAL HALIDE STANCHION 25° ANGLE							
DESCRIPTION				7-3/4" OPTIC THREAD SIZE ②			
WATTS	ANSI	HUB SIZE ③	VOLTAGE ④	GLOBE & GUARD	TYPE V SPIN-TOP GLASS REFRACTOR	ENCLOSED REFLECTOR	POLYCARBONATE SHIELDED ENCLOSED REFLECTOR
400 ⑥	M59	1-1/2"	Quad Tri 480	VM5H400D5GLG	VM5H400D5S5N	VM5H400D5ERN	—
				VM5H406D5GLG	VM5H406D5S5N	VM5H406D5ERN	—
				VM5H405D5GLG	VM5H405D5S5N	VM5H405D5ERN	—

VM 400 WATT METAL HALIDE STANCHION STRAIGHT							
DESCRIPTION				7-3/4" OPTIC THREAD SIZE ②			
WATTS	ANSI	HUB SIZE ③	VOLTAGE ④	GLOBE & GUARD	TYPE V SPIN-TOP GLASS REFRACTOR	ENCLOSED REFLECTOR	POLYCARBONATE SHIELDED ENCLOSED REFLECTOR
400 ⑥	M59	1-1/2"	Quad Tri 480	VM5H400S5GLG	VM5H400S5S5N	VM5H400S5ERN	—
				VM5H406S5GLG	VM5H406S5S5N	VM5H406S5ERN	—
				VM5H405S5GLG	VM5H405S5S5N	VM5H405S5ERN	—

VM 400 WATT METAL HALIDE EZ ADAPTER							
DESCRIPTION				7-3/4" OPTIC THREAD SIZE ②			
WATTS	ANSI	HUB SIZE ⑦	VOLTAGE ④	GLOBE & GUARD	TYPE V SPIN-TOP GLASS REFRACTOR	ENCLOSED REFLECTOR	POLYCARBONATE SHIELDED ENCLOSED REFLECTOR
400 ⑥	M59	⑦	Quad Tri 480	VM5H400EZGLG	VM5H400EZS5N	VM5H400EZERN	VM5H400EZEPN
				VM5H406EZGLG	VM5H406EZS5N	VM5H406EZERN	VM5H406EZEPN
				VM5H405EZGLG	VM5H405EZS5N	VM5H405EZERN	VM5H405EZEPN

- ① See hazardous application data on pages L131 - L140 for limitations.
- ② Globe catalog number shown with guard. To omit guard, change G to N; e.g. VM5H400D5GLN. Order spin top and enclosed reflector guards separately.
- ③ Catalog numbers shown with 1-1/2" conduit openings; change 5 to 4 for 1-1/4"; e.g. VM5H400D4GLG.
- ④ Consult catalog logic for other available voltages.
- ⑤ Add suffix NR for restricted breathing; see page L84 for more information.
- ⑥ 400W M59 Fixtures are EXPORT ONLY (EISA LAW).
- ⑦ VMEZA tank adapters UL "classified" as an assembly for use between VM tanks and EZ mounts. Order EZ mounts separately.
- ⑧ VMEP40 not for use with EZ wall bracket.

LIGHTING

CERTILITE® V SERIES



METAL HALIDE PULSE, 400W MOGUL BASE HID



Pendant
w/ Globe & Guard



Pendant
w/ Spin-Top
Refractor



Ceiling
w/ Enclosed Reflector

VM 250 - 400 WATT METAL HALIDE PULSE PENDANT

DESCRIPTION				7-3/4" OPTIC THREAD SIZE ②				
WATTS	ANSI	HUB SIZE ③	VOLTAGE ④	GLOBE & GUARD	TYPE V SPIN-TOP GLASS REFRACTOR	ENCLOSED REFLECTOR	POLYCARBONATE SHIELDED ENCLOSED REFLECTOR	
250	M138	3/4"	Quad Tri 480	VM5P250A2GLG	VM5P250A2S5N	VM5P250A2ERN	VM5P250A2EPN	
	M153			VM5P256A2GLG	VM5P256A2S5N	VM5P256A2ERN	VM5P256A2EPN	
				VM5P255A2GLG	VM5P255A2S5N	VM5P255A2ERN	VM5P255A2EPN	
320	M132	3/4"	Quad Tri 480	VM5P320A2GLG	VM5P320A2S5N	VM5P320A2ERN	VM5P320A2EPN	
	M154			VM5P326A2GLG	VM5P326A2S5N	VM5P326A2ERN	VM5P326A2EPN	
				VM5P325A2GLG	VM5P325A2S5N	VM5P325A2ERN	VM5P325A2EPN	
350	M131	3/4"	Quad Tri 480	VM5P350A2GLG	VM5P350A2S5N	VM5P350A2ERN	VM5P350A2EPN	
					VM5P356A2GLG	VM5P356A2S5N	VM5P356A2ERN	VM5P356A2EPN
					VM5P355A2GLG	VM5P355A2S5N	VM5P355A2ERN	VM5P355A2EPN
400	M135	3/4"	Quad Tri 480	VM5P400A2GLG	VM5P400A2S5N	VM5P400A2ERN	VM5P400A2EPN	
	M155			VM5P406A2GLG	VM5P406A2S5N	VM5P406A2ERN	VM5P406A2EPN	
					VM5P405A2GLG	VM5P405A2S5N	VM5P405A2ERN	VM5P405A2EPN

VM 250 - 400 WATT METAL HALIDE PULSE CEILING

DESCRIPTION				7-3/4" OPTIC THREAD SIZE ②				
WATTS	ANSI	HUB SIZE ③	VOLTAGE ④	GLOBE & GUARD	TYPE V SPIN-TOP GLASS REFRACTOR	ENCLOSED REFLECTOR	POLYCARBONATE SHIELDED ENCLOSED REFLECTOR	
250	M138	3/4"	Quad Tri 480	VM5P250X2GLG	VM5P250X2S5N	VM5P250X2ERN	VM5P250X2EPN	
	M153			VM5P256X2GLG	VM5P256X2S5N	VM5P256X2ERN	VM5P256X2EPN	
				VM5P255X2GLG	VM5P255X2S5N	VM5P255X2ERN	VM5P255X2EPN	
320	M132	3/4"	Quad Tri 480	VM5P320X2GLG	VM5P320X2S5N	VM5P320X2ERN	VM5P320X2EPN	
	M154			VM5P326X2GLG	VM5P326X2S5N	VM5P326X2ERN	VM5P326X2EPN	
					VM5P325X2GLG	VM5P325X2S5N	VM5P325X2ERN	VM5P325X2EPN
350	M131	3/4"	Quad Tri 480	VM5P350X2GLG	VM5P350X2S5N	VM5P350X2ERN	VM5P350X2EPN	
					VM5P356X2GLG	VM5P356X2S5N	VM5P356X2ERN	VM5P356X2EPN
					VM5P355X2GLG	VM5P355X2S5N	VM5P355X2ERN	VM5P355X2EPN
400	M135	3/4"	Quad Tri 480	VM5P400X2GLG	VM5P400X2S5N	VM5P400X2ERN	VM5P400X2EPN	
	M155			VM5P406X2GLG	VM5P406X2S5N	VM5P406X2ERN	VM5P406X2EPN	
					VM5P405X2GLG	VM5P405X2S5N	VM5P405X2ERN	VM5P405X2EPN

① See hazardous application data on pages L131 - L140 for limitations.

② Globe catalog number shown with guard. To omit guard, change G to N; e.g. VM5P250A2GLN. Order spin top and enclosed reflector guards separately.

③ Catalog numbers shown are with 3/4" conduit openings, change 2 to 3 for 1"; e.g. VM5P250A3GLG.

④ Consult catalog logic for other available voltages.

⑤ Add suffix NR for restricted breathing; see page L84 for more information.



METAL HALIDE PULSE, 400W MOGUL BASE HID



Wall
w/ Globe & Guard



Wall
w/ Spin-Top
Refractor



Cone
w/ Enclosed Reflector

VM 250 - 400 WATT METAL HALIDE PULSE WALL								
DESCRIPTION				7-3/4" OPTIC THREAD SIZE ②				
WATTS	ANSI	HUB SIZE③	VOLTAGE④	GLOBE & GUARD	TYPE V SPIN-TOP GLASS REFRACTOR	ENCLOSED REFLECTOR	POLYCARBONATE SHIELDED ENCLOSED REFLECTOR	
250	M138	3/4"	Quad Tri 480	VM5P250B2GLG	VM5P250B2S5N	VM5P250B2ERN	—	
	M153			VM5P256B2GLG	VM5P256B2S5N	VM5P256B2ERN	—	
				VM5P255B2GLG	VM5P255B2S5N	VM5P255B2ERN	—	
320	M132	3/4"	Quad Tri 480	VM5P320B2GLG	VM5P320B2S5N	VM5P320B2ERN	—	
	M154			VM5P326B2GLG	VM5P326B2S5N	VM5P326B2ERN	—	
				VM5P325B2GLG	VM5P325B2S5N	VM5P325B2ERN	—	
350	M131	3/4"	Quad Tri 480	VM5P350B2GLG	VM5P350B2S5N	VM5P350B2ERN	—	
					VM5P356B2GLG	VM5P356B2S5N	VM5P356B2ERN	—
					VM5P355B2GLG	VM5P355B2S5N	VM5P355B2ERN	—
400	M135	3/4"	Quad Tri 480	VM5P400B2GLG	VM5P400B2S5N	VM5P400B2ERN	—	
	M155			VM5P406B2GLG	VM5P406B2S5N	VM5P406B2ERN	—	
					VM5P405B2GLG	VM5P405B2S5N	VM5P405B2ERN	—

VM 250 - 400 WATT METAL HALIDE PULSE CONE								
DESCRIPTION				7-3/4" OPTIC THREAD SIZE ②				
WATTS	ANSI	HUB SIZE③	VOLTAGE④	GLOBE & GUARD	TYPE V SPIN-TOP GLASS REFRACTOR	ENCLOSED REFLECTOR	POLYCARBONATE SHIELDED ENCLOSED REFLECTOR	
250	M138	3/4"	Quad Tri 480	VM5P250C2GLG	VM5P250C2S5N	VM5P250C2ERN	VM5P250C2EPN	
	M153			VM5P256C2GLG	VM5P256C2S5N	VM5P256C2ERN	VM5P256C2EPN	
					VM5P255C2GLG	VM5P255C2S5N	VM5P255C2ERN	VM5P255C2EPN
320	M132	3/4"	Quad Tri 480	VM5P320C2GLG	VM5P320C2S5N	VM5P320C2ERN	VM5P320C2EPN	
					VM5P326C2GLG	VM5P326C2S5N	VM5P326C2ERN	VM5P326C2EPN
					VM5P325C2GLG	VM5P325C2S5N	VM5P325C2ERN	VM5P325C2EPN
350	M131	3/4"	Quad Tri 480	VM5P350C2GLG	VM5P350C2S5N	VM5P350C2ERN	VM5P350C2EPN	
					VM5P356C2GLG	VM5P356C2S5N	VM5P356C2ERN	VM5P356C2EPN
					VM5P355C2GLG	VM5P355C2S5N	VM5P355C2ERN	VM5P355C2EPN
400	M135	3/4"	Quad Tri 480	VM5P400C2GLG	VM5P400C2S5N	VM5P400C2ERN	VM5P400C2EPN	
				M155	VM5P406C2GLG	VM5P406C2S5N	VM5P406C2ERN	VM5P406C2EPN
						VM5P405C2GLG	VM5P405C2S5N	VM5P405C2ERN

① See hazardous application data on pages L131 - L140 for limitations.

② Globe catalog number shown with guard. To omit guard, change G to N; e.g. VM5P250B2GLN. Order spin top and enclosed reflector guards separately.

③ Catalog numbers shown are with 3/4" conduit openings, change 2 to 3 for 1"; e.g. VM5P250B3GLG.

④ Consult catalog logic for other available voltages.

⑤ Add suffix NR for restricted breathing; see page L84 for more information.

LIGHTING

CERTILITE® V SERIES



METAL HALIDE PULSE, 250-400 W MOGUL BASE HID



Stanchion 25°
w/ Globe & Guard



Stanchion 25°
w/ Spin-Top
Refractor



Stanchion Straight
w/ Enclosed Reflector

Class I, Div. 2, Groups A,B,C,D^①
Class I, Zone 2, Groups IIC, IIB, IIA
Class II, Div. 1 & 2, Groups E,F,G
Class III
Suitable for wet locations
NEMA 3, 4, 4X
IP66

UL LISTED - File E10514 (Hazardous & Marine)

SP US Certified - File LR11713

NR Restricted Breathing Option^⑤

Class I, Zone 2 AEx nAnR^②
Class I, Zone 2 Ex nR^③

VM 250 - 400 WATT METAL HALIDE PULSE STANCHION 25° ANGLE						
DESCRIPTION				7-3/4" OPTIC THREAD SIZE ^②		
WATTS	ANSI	HUB SIZE ^③	VOLTAGE ^④	GLOBE & GUARD	TYPE V SPIN-TOP GLASS REFRACTOR	ENCLOSED REFLECTOR
250	M138	1-1/2"	Quad Tri 480	VM5P250D5GLG	VM5P250D5S5N	VM5P250D5ERN
	M153			VM5P256D5GLG	VM5P256D5S5N	VM5P256D5ERN
				VM5P255D5GLG	VM5P255D5S5N	VM5P255D5ERN
320	M132	1-1/2"	Quad Tri 480	VM5P320D5GLG	VM5P320D5S5N	VM5P320D5ERN
	M154			VM5P326D5GLG	VM5P326D5S5N	VM5P326D5ERN
				VM5P325D5GLG	VM5P325D5S5N	VM5P325D5ERN
350	M131	1-1/2"	Quad Tri 480	VM5P350D5GLG	VM5P350D5S5N	VM5P350D5ERN
				VM5P356D5GLG	VM5P356D5S5N	VM5P356D5ERN
				VM5P355D5GLG	VM5P355D5S5N	VM5P355D5ERN
400	M135	1-1/2"	Quad Tri 480	VM5P400D5GLG	VM5P400D5S5N	VM5P400D5ERN
	M155			VM5P406D5GLG	VM5P406D5S5N	VM5P406D5ERN
				VM5P405D5GLG	VM5P405D5S5N	VM5P405D5ERN

VM 250 - 400 WATT METAL HALIDE PULSE STANCHION STRAIGHT						
DESCRIPTION				7-3/4" OPTIC THREAD SIZE ^②		
WATTS	ANSI	HUB SIZE ^③	VOLTAGE ^④	GLOBE & GUARD	TYPE V SPIN-TOP GLASS REFRACTOR	ENCLOSED REFLECTOR
250	M138	1-1/2"	Quad Tri 480	VM5P250S5GLG	VM5P250S5S5N	VM5P250S5ERN
	M153			VM5P256S5GLG	VM5P256S5S5N	VM5P256S5ERN
				VM5P255S5GLG	VM5P255S5S5N	VM5P255S5ERN
320	M132	1-1/2"	Quad Tri 480	VM5P320S5GLG	VM5P320S5S5N	VM5P320S5ERN
	M154			VM5P326S5GLG	VM5P326S5S5N	VM5P326S5ERN
				VM5P325S5GLG	VM5P325S5S5N	VM5P325S5ERN
350	M131	1-1/2"	Quad Tri 480	VM5P350S5GLG	VM5P350S5S5N	VM5P350S5ERN
				VM5P356S5GLG	VM5P356S5S5N	VM5P356S5ERN
				VM5P355S5GLG	VM5P355S5S5N	VM5P355S5ERN
400	M135	1-1/2"	Quad Tri 480	VM5P400S5GLG	VM5P400S5S5N	VM5P400S5ERN
	M155			VM5P406S5GLG	VM5P406S5S5N	VM5P406S5ERN
				VM5P405S5GLG	VM5P405S5S5N	VM5P405S5ERN

① See hazardous application data on pages L131 - L140 for limitations.

② Globe catalog number shown with guard. To omit guard, change G to N; e.g. VM5P250D5GLN. Order spin top and enclosed reflector guards separately.

③ Catalog numbers shown with 1-1/2" conduit openings; change 5 to 4 for 1-1/4"; e.g. VM5P250D4GLG.

④ Consult catalog logic for other available voltages.

⑤ Add suffix NR for restricted breathing; see page L84 for more information.



METAL HALIDE PULSE, 250-400W MOGUL BASE HID



EZ Adapter w/ Globe & Guard



EZ Adapter w/ Spin-Top Refractor



EZ Adapter w/ Enclosed Reflector

VM 250 - 400 WATT METAL HALIDE PULSE EZ ADAPTER								
DESCRIPTION				7-3/4" OPTIC THREAD SIZE ②				
WATTS	ANSI	HUB SIZE ③	VOLTAGE ④	GLOBE & GUARD	TYPE V SPIN-TOP GLASS REFRACTOR	ENCLOSED REFLECTOR	"POLYCARBONATE SHIELDED ENCLOSED REFLECTOR O	
250	M138	3/4"	Quad Tri 480	VM5P250EZGLG	VM5P250EZS5N	VM5P250EZERN	VM5P250EZEPN	
	M153			VM5P256EZGLG	VM5P256EZS5N	VM5P256EZERN	VM5P256EZEPN	
				VM5P255EZGLG	VM5P255EZS5N	VM5P255EZERN	VM5P255EZEPN	
320	M132	3/4"	Quad Tri 480	VM5P320EZGLG	VM5P320EZS5N	VM5P320EZERN	VM5P320EZEPN	
	M154			VM5P326EZGLG	VM5P326EZS5N	VM5P326EZERN	VM5P326EZEPN	
				VM5P325EZGLG	VM5P325EZS5N	VM5P325EZERN	VM5P325EZEPN	
350	M131	3/4"	Quad Tri 480	VM5P350EZGLG	VM5P350EZS5N	VM5P350EZERN	VM5P350EZEPN	
					VM5P356EZGLG	VM5P356EZS5N	VM5P356EZERN	VM5P356EZEPN
					VM5P355EZGLG	VM5P355EZS5N	VM5P355EZERN	VM5P355EZEPN
400	M135	3/4"	Quad Tri 480	VM5P400EZGLG	VM5P400EZS5N	VM5P400EZERN	VM5P400EZEPN	
	M155			VM5P406EZGLG	VM5P406EZS5N	VM5P406EZERN	VM5P406EZEPN	
					VM5P405EZGLG	VM5P405EZS5N	VM5P405EZERN	VM5P405EZEPN



Pendant



Ceiling



Wall Bracket



25° Stanchion

MOUNTING BOXES				
CATALOG NUMBER				HUB SIZE
PENDANT	CEILING	BRACKET	STANCHION	
EZA2	EZX2	EZB2	—	3/4"
EZA3	EZX3	EZB3	—	1"
—	—	—	EZD4A*	1-1/4"/1-1/2"*

*1-1/2" furnished with 1-1/2"-1-1/4" reducer and extension. Extension only part number EZDVMA.

① See hazardous application data on pages L131 - L140 for limitations.

② Globe catalog number shown with guard. To omit guard, change G to N; e.g. VM5P250EZGLN. Order spin top and enclosed reflector guards separately.

③ VMEZA tank adapters UL "classified" as an assembly for use between VM tanks and EZ mounts. See above for separate ordering information.

④ Consult catalog logic for other available voltages.

⑤ Add suffix NR for restricted breathing; see page L84 for more information.

⑥ VMEP40 not for use with EZ wall bracket.

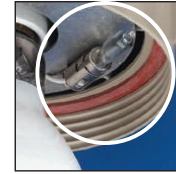
LIGHTING

CERTILITE® V SERIES



ACCESSORIES/OPTIONS

CERTILITE® V PHOTO CELL ACCESSORY



Auxiliary Lighting

Momentary voltage outages or dips can temporarily extinguish HID lamps which may require up to ten (10) minutes to restrike. To provide illumination during this period, about 10% of the fixtures should be specified with auxiliary lighting.

Quartz Auxiliary

Quartz auxiliary is available for all CertiLite® V Series fixtures (except those with plastic refractors) by adding the suffix "QA" to the fixture catalog number. Example: VM3S050A2GLG-QA.

Low wattage fixtures with this option use 100 or 150 watt quartz lamps. High wattage fixtures can use up to 250 watt quartz lamps. Quartz lamps are not supplied with the fixture. Use quartz lamp type Q100 CL/DC (100W) or Q150 CL/DC (150W) DC Bayonet T-4 Base.

Due to the quartz envelope surface temperature (exceeding 600°C), fixtures with this option are not suitable for Class I, Division 2, Class I, Zone 2, some Class I, Zone 2 ExnR, Class II and Class III hazardous locations. Contact the factory for specific fixture suitabilities.

Instant Restrike

Available for low wattage High Pressure Sodium Fixtures by adding Suffix "IR" to catalog number Example: VM3S050A2GLG-IR.

Additional instant restrike interior circuitry may decrease High Pressure Sodium lamp life. Feature will not affect fixture suitability in hazardous location applications.

Ballast Protection Circuit

Optional factory installed special ballast protector replaces the standard HPS ignitor and applies starting pulse to the lamp for 10 to 15 seconds each time voltage is supplied to the ballast. If the lamp has not ignited by the end of the time period, the starter will cease pulsing. Used to eliminate the continuous high voltage pulsing of the ignitor when end of life, lamp cycling, or missing lamp conditions exist. Available for HPS fixtures. Add suffix "BP" to fixture catalog number.

Notes: BP and IR cannot be used together. QTZ and IR cannot be used together.

PHOTO CONTROL FOR STANDARD AND HAZARDOUS CLASS I DIVISION 2 AREAS ^②			
CATALOG NUMBER	VOLTS	FREQUENCY	WATTS
HUB2PC120	120VAC	50/60Hz	400
HUB2PC227 ^③	208-277VAC ^③	50/60Hz	400
HUB2PC347	347VAC	50/60Hz	440

① Must be factory installed. Add P1 (for 120V), P2 (for 208-277V) or P3 (for 347V) suffixes are also for use with KFxxx - 76 Floods and KWP Series Wallpack Luminaires.

② Photo control cells for Class 1 Division 2 only.

③ Marked 220-277V, suitable for 208V.

PHOTO CELL FIELD KITS*		
CATALOG NUMBER ^①	VOLTS	FREQUENCY
HUB2PC120FK	120VAC	50/60Hz
HUB2PC227FK	208-277VAC	50/60Hz
HUB2PC347FK	347VAC	50/60Hz

* Includes instructions for KFSS Series.

① 40°C ambient max. C1 D2 (T3) to 400W max.

Photo Control Component UL/CSA



FS COVER MOUNTED PHOTO CELLS *	
CATALOG NUMBER ^{①②}	VOLTS
VMFSPC1	120VAC
VMFSPC2	208-277VAC
VMFSPC3	347VAC

* Includes photo cell and factory drilled cover and gasket.

① Order single gang FS box separately.

② 40°C ambient max. T3 to 400W max.

FACTORY SEALED



C1, DIV. 2 & N4X



FACTORY SEALED



Class I, DIV. 1 BCD
Class II, DIV. 1&2 EFG
CLASS III
NEMA 3, 4X
IP66



HKB - GL PHOTO CELLS	
CATALOG NUMBER ^①	VOLTS
VMHKPC1	120VAC
VMHKPC2	208-277VAC
VMHKPC3	347VAC

① 40°C ambient, T3 Rated



COMPONENTS



Pendant



Ceiling



Wall



Cone Top



25° Stanchion



Straight Stanchion



EZ Adapter*
VMEZA



Tank Adapter

CERTILITE® V VM MOUNTING SPLICE BOXES

HUB SIZE	CATALOG NUMBER							
	PENDANT	FLEXIBLE PENDANT	CEILING 4 HUB	CEILING 5 HUB	WALL	CONE TOP	25 DEGREE STANCHION	90 DEGREE STANCHION
3/4"	VMA2B	VMF2B	VMX2B	VMX6B	VMB2B	VMC2B	—	—
1"	VMA3B	VMF3B	VMX3B	VMX7B	VMB3B	VMC3B	—	—
1-1/4"	—	—	—	—	—	—	VMD4B	VMS4B
1-1/2"	—	—	—	—	—	—	VMD5B	VMS5B
M-20	—	—	VMX8B**	VMX9B	—	—	—	—

*VMEZA is used between a ballast tank and an EZ mount-ordered separately.

**VMX8B furnished with 3 non-metallic plugs.



VM1 Low Wattage
5-1/2" Optic Thread Size



VM2 Low Wattage
7-3/4" Optic Thread Size



VM3 Low Wattage
5-1/2" Optic Thread Size



VM4 Low Wattage
7-3/4" Optic Thread Size



VM5 High Wattage
7-3/4" Optic Thread Size

CERTILITE® V VM 35-600 W BALLAST TANK ASSEMBLIES CATALOG NUMBERS

WATTS	VOLTAGE @ 60 HZ	MEDIUM BASE E26				MOGUL BASE E39 SOCKET								
		HPS		MH-MHP		HPS			MH-MHP		MH PULSE			
		LOW WATTAGE		LOW WATTAGE		LOW WATTAGE		HIGH WATTAGE	LOW WATTAGE		HIGH WATTAGE	LOW WATTAGE		HIGH WATTAGE
		5-1/2"	7-3/4"	5-1/2"	7-3/4"	5-1/2"	7-3/4"	7-3/4"	5-1/2"	7-3/4"	7-3/4"	5-1/2"	7-3/4"	7-3/4"
35	120	VM1S031	VM2S031	—	—	—	—	—	—	—	—	—	—	—
	50	Quad	VM1S050	VM2S050	VM1H050	VM2H050	VM3S050	VM4S050	—	—	—	—	—	—
		Tri	—	—	VM1H056	VM2H056	VM3S056	VM4S056	—	—	—	—	—	—
70	480	—	—	—	—	—	—	—	—	—	—	—	—	
	Quad	VM1S070	VM2S070	VM1H070	VM2H070	VM3S070	VM4S070	—	VM3H070	VM4H070	—	—	—	
		Tri	VM1S076	VM2S076	VM1H076	VM2H076	VM3S076	VM4S076	—	VM3H076	VM4H076	—	—	
100	480	VM1S075	VM2S075	VM1H075	VM2H075	VM3S075	VM4S075	—	VM3H075	VM4H075	—	—		
	Quad	VM1S100	VM2S100	VM1H100	VM2H100	VM3S100	VM4S100	—	VM3H100	VM4H100	—	—		
	Tri	VM1S106	VM2S106	VM1H106	VM2H106	VM3S106	VM4S106	—	VM3H106	VM4H106	—	—		
150	480	VM1S105	VM2S105	VM1H105	VM2H105	VM3S105	VM4S105	—	VM3H105	VM4H105	—	—		
	Quad	VM1S150	VM2S150	VM1P150	VM2P150	VM3S150	VM4S150	—	—	—	VM3P150	VM4P150		
	Tri	VM1S156	VM2S156	VM1P156	VM2P156	VM3S156	VM4S156	—	—	—	VM3P156	VM4P156		
175	480	VM1S155	VM2S155	VM1P155	VM2P155	VM3S155	VM4S155	—	—	—	VM3P155	VM4P155		
	Quad	—	—	VM1P170	VM2P170	—	—	—	VM3H170	VM4H170	—	—		
	Tri	—	—	VM1P176	VM2P176	—	—	VM5S200	VM3H176	VM4H176	—	—		
200	480	—	—	VM1P175	VM2P175	—	—	VM5S206	VM3H175	VM4H175	—	—		
	Quad	—	—	—	—	—	—	VM5S205	—	—	VM3P200	VM4P200		
	Tri	—	—	—	—	—	—	VM5S250	—	—	VM3P206	VM4P206		
250	480	—	—	—	—	—	—	VM5S256	—	—	VM3P205	VM4P205		
	Quad	—	—	—	—	—	—	VM5S255	VM3H250	VM4H250	—	—		
	Tri	—	—	—	—	—	—	—	VM3H256	VM4H256	—	—		
320	480	—	—	—	—	—	—	—	VM3H255	VM4H255	—	—		
	Quad	—	—	—	—	—	—	—	—	—	—	—		
	Tri	—	—	—	—	—	—	—	—	—	—	—		
350	480	—	—	—	—	—	—	—	—	—	—	—		
	Quad	—	—	—	—	—	—	—	—	—	—	—		
	Tri	—	—	—	—	—	—	—	—	—	—	—		
400	480	—	—	—	—	—	—	—	—	—	—	—		
	Quad	—	—	—	—	—	—	—	—	—	—	—		
	Tri	—	—	—	—	—	—	—	—	—	—	—		
600	480	—	—	—	—	—	—	—	—	—	—	—		
	Quad	—	—	—	—	—	—	—	—	—	—	—		
	Tri	—	—	—	—	—	—	—	—	—	—	—		

LIGHTING

CERTILITE® V SERIES



COMPONENTS

CERTILITE® V OPTICS & GUARDS						
DESCRIPTION	"VM1/VM3 LOW WATTAGE 5-1/2" OPTIC THREAD SIZE"		"VM2/VM4/VM5QL LOW WATTAGE 7-3/4" OPTIC THREAD SIZE"		"VM5 HIGH WATTAGE 7-3/4" OPTIC THREAD SIZE"	
	OPTICS	GUARD	OPTICS	GUARD	OPTICS	GUARD
Globe (glass)	VMG17	VMAG17	VMG25	VMAG25S	VMG40	VMAG40S
Refractor (all glass) Type V	VMR175	VMAG17	VMR255	VMAG25S	—	—
Refractor (all glass) Type I	VMR171 P	VMAG17	VMR251 ⑦	VMAG25S	—	—
Refractor (all glass) Type III	—	—	VMR253 ⑦	VMAG25S	—	—
Refractor (spin top glass) 8" Type V	VZRG1550	VMRWG8	—	—	—	—
Refractor (spin top glass) 12" Type V	VZRG2550	VMRWGS	VZRG4050 ①	VMRWGS	VZRG4050	VMRWGS
Refractor (spin top glass) 12" Type II	VZRG2520	VMRWGS	VZRG4020 ①	VMRWGS	VZRG4020	VMRWGS
Enclosed Reflector (glass lens)	—	—	VMER40	VMERG	VMER40	VMERG
Enclosed Reflector (plastic lens)	—	—	VMEP40	—	VMEP40	—
Globe (Tuffskin® coated) ⑤	VMG17F	VMAG17	VMG25F	VMAG25S	VMG40F	VMAG40S
Globe (Teflon® coated) ⑤	VMG17T	VMAG17	VMG25T	VMAG25S	VMG40T	VMAG40S
Refractor (Teflon coated) Type V	VMR175T	VMAG17	VMR255T	VMAG25S	—	—
Refractor (Teflon coated) Type I	VMR171T	VMAG17	VMR251T	VMAG25S	—	—
Refractor (Teflon coated) Type III	—	—	VMR253T	VMAG25S	—	—
Refractor (Spin Top Teflon coated) 12" Type V	VZRG2550T	VMRWG	VZRG4050T ①	VMRWG	VZRG4050T	VMRWG
Refractor (Spin Top Teflon coated) 12" Type II	VZRG2520T	VMRWG	VZRG4020T ①	VMRWG	VZRG4020T	VMRWG

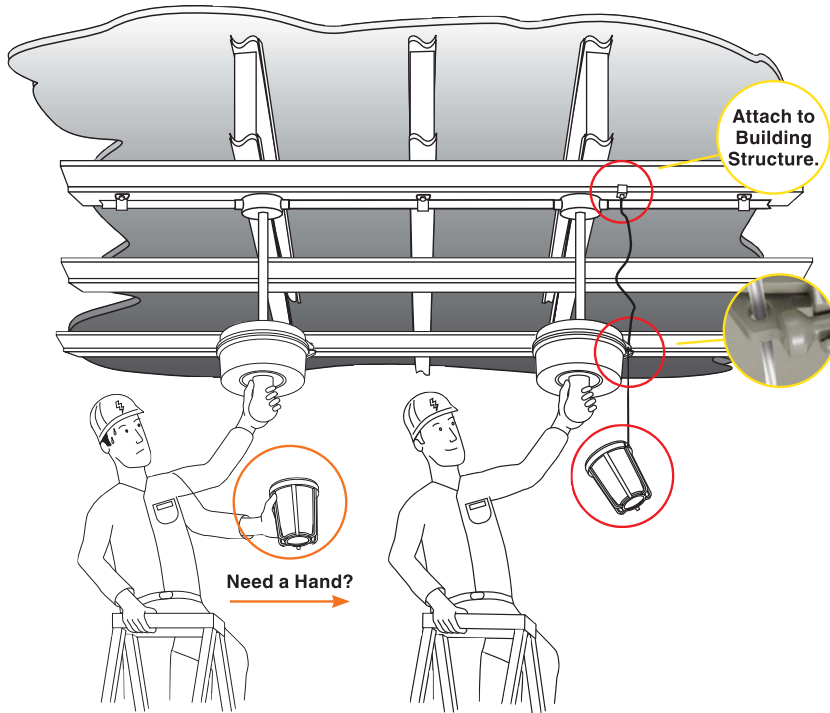
OPTICS											
	VMG17	VMR175 VMR171	VZRG1550	VZRG2550 VZRG2520 VZRP175⑥	VMG25	VMR255 VMR253 VMR251	VMG40	VMER40	VZRG4050 VZRG4020 VZRP175B	VMEP40®	
	GUARDS										
		VMAG17②	VMAG17②	VMRWG8③	VMRWGS③	VMAG25S③	VMAG25S③	VMAG40S③	VMERG③	VMRWGS③	VMRWGS③

- ① For reference VM5 Spin Top optics fit VM4 tanks, but VM3 tanks and optics are recommended for low wattage Spin Top applications. VM3 12" Spin Tops ship with a mogul-to-mogul extender for improved photometrics.
- ② Standard material, copper-free aluminum painted.
- ③ Standard material, 316 stainless steel.
- ④ Standard material, plated steel.
- ⑤ Tuffskin® is a registered trademark of Thomas Manufacturing, Co. Teflon® is a registered trademark of DuPont, Inc. Alzak is a registered trademark of Alcoa.
- ⑥ 175W max; not hazloc listed for H/D. Hazloc QL Induction
- ⑦ Type I (III) all-glass refractors align with fixture hinge. Ceiling mount unit utilizing these optics must have offset conduit feed.
- ⑧ For wall applications, mount must be spaced out.

CERTILITE® V REFLECTORS				
VMPSD40 Standard Dome Fiberglass White Reflector Dia: 16"	VMPA40 30° Angle Fiberglass White Reflector Dia: 16"	HRD400 Deep Aluminum White Reflector Dia: 21"	HRD400ALZ Deep Aluminum Anodized Reflector Dia: 21"	VMAGBC Bottom Closure for VMAG25S/VMAG40S



ACCESSORIES/REPLACEMENT PARTS



CERTILITE® DESIGN
LIGHTING DESIGN SOFTWARE

POWERFUL
Luminaire Layout and
Calculation Software



Software is used to determine number of fixtures required and their proper layout for various tasks and applications.

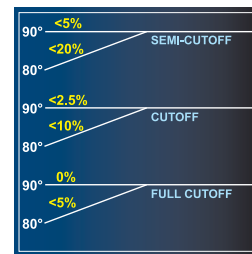
Contact your local Killark sales representative for availability.

SUSPENSION DEVICES④		
TANK	DESCRIPTION	CATALOG NUMBER
VM GLOBE & GUARD UNITS	"3rd hand" safety kits. 24" stainless cable holds globe using guard for lamp change out. Attaches to tank's built-in "Earthquake Tab".	VMAGSC①
VM (ALL TANKS)	10' Stainless Steel Safety Cable with loop grip. Drop limit 1'. Attaches to "Earthquake Tab" and to building structure (e.g. I-beam)."	VMSC10

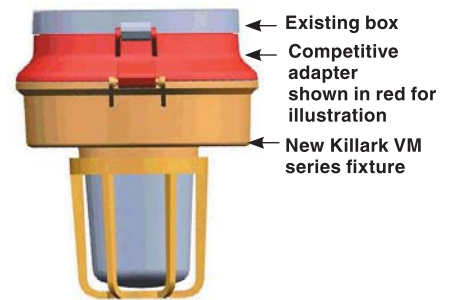
④ VM2, VM4 and VM5 units require VMAGBC bottom closure, sold separately, in addition to guard.

DARK SKY KITS		
VMDARK1	Gasket Kit	On VM1, VM2, VM3, VM4 "Full Cutoff" when used with HRD400 or HRD400ALZ On VM5 "Cutoff" when used with HRD400 or HRD400ALZ
VMER40	Gasket Kit	Enclosed Reflector "Full Cutoff" on VM2/VM4/VM5 as standard

Note: CertiLite® V luminaires may be configured for "Full Cutoff", or Semi-Cutoff photometric distribution.



Competitive adapters for upgrading existing fixtures to Killark, see VM mounting and adapter grid, page L222 for more information.



MISCELLANEOUS PARTS	
0735015B	Mogul Socket VM3, VM4, VM5
VMBNKIT	Barrel nut and long bolt adapts older CertiLite tanks to newer CertiLite® mounts.

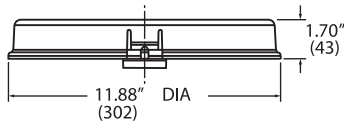
FUSE KITS
See catalog logic for factory installed fuses, or page L141-L142 for field installation kits.

Crouse-Hinds is a registered trademark of Crouse-Hinds.

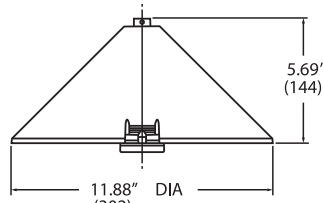


CERTILITE® V SERIES • MOUNTING BOX & FIXTURE

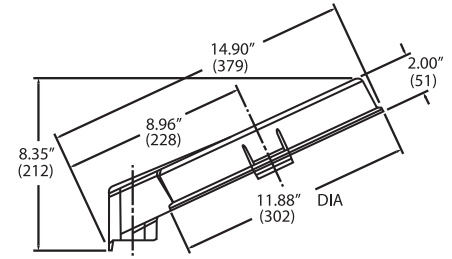
DIMENSIONS



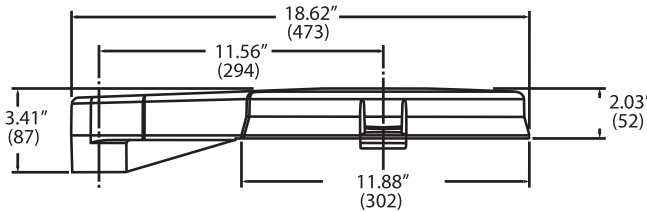
Pendant Mount



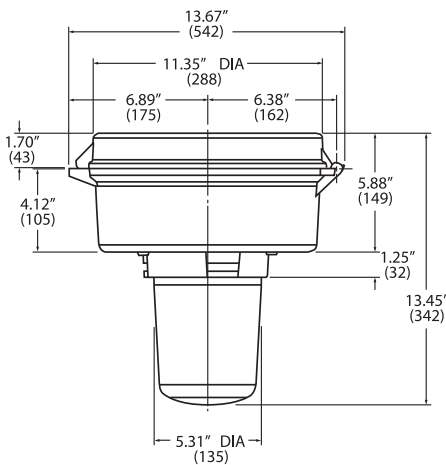
Cone Mount



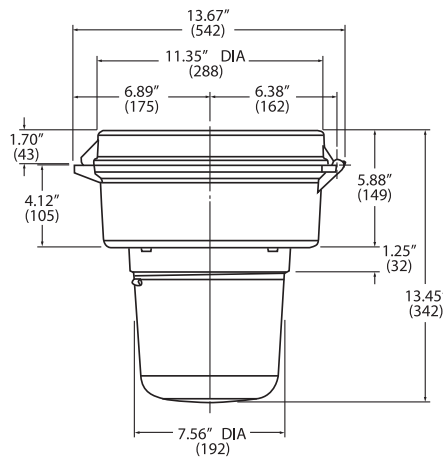
Stanchion(25°) Mount



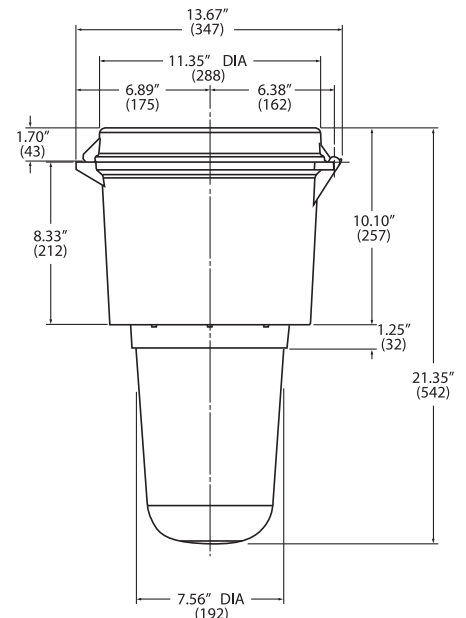
Stanchion(0°) Mount



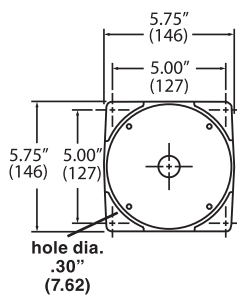
VM3 Fixture



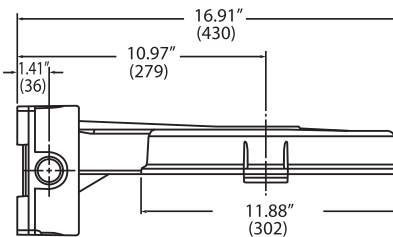
VM4 Fixture



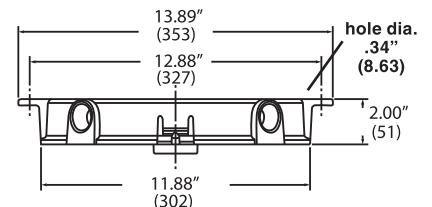
VM5 Fixture



Wall Bracket Mount



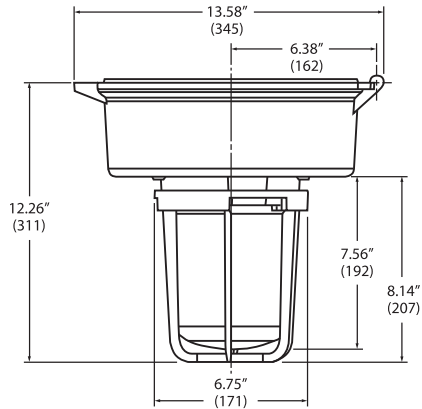
Ceiling Mount



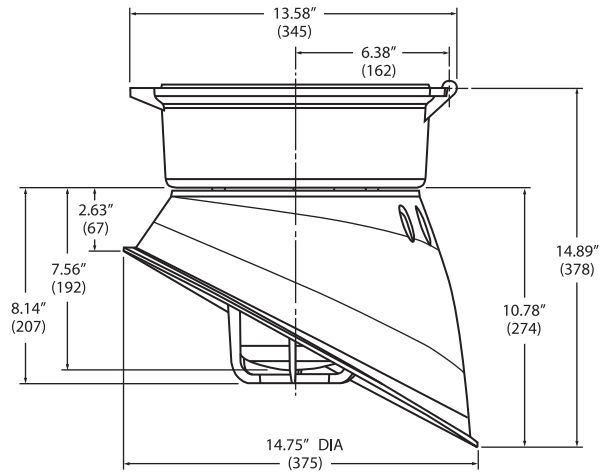
For VM1 & VM2 height, deduct 1.56" (40mm) from the VM3 or VM4 tank respectively, or overall dimensions with same mount and optic. All other dimensions are the same.



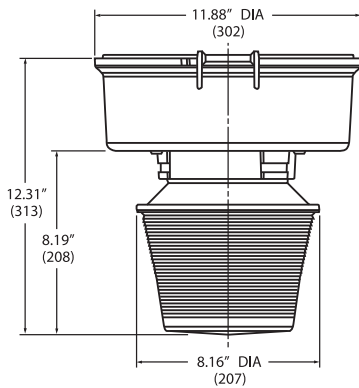
DIMENSIONS



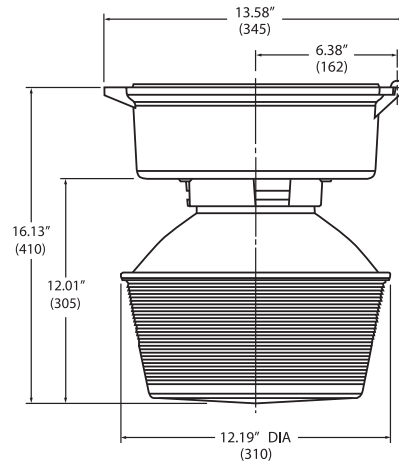
VM3 BALLAST TANK
5-1/2" OPTICS GLOBE OR REFRACTOR
VMAG17 GLOBE GUARD



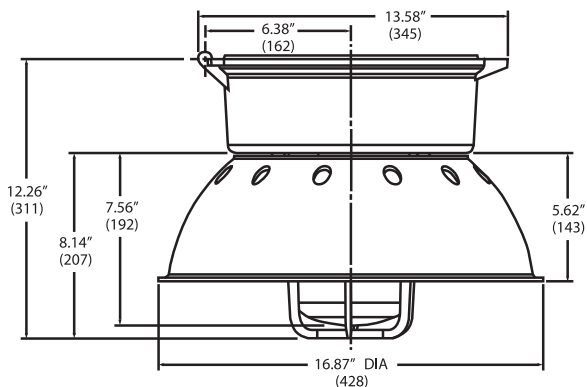
VM3 BALLAST TANK
VMG17 5-1/2" OPTICS GLOBE
VMMPA-40 ANGLED REFLECTOR



VM3 BALLAST TANK
VZRG-1550 8" SPUN REFRACTOR



VM3 BALLAST TANK
VZRG 12" SPUN REFRACTOR

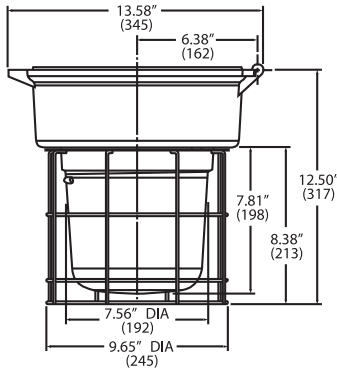


VM3 BALLAST TANK
VMG17 5-1/2" OPTICS GLOBE
VMPSD-40 DOME REFLECTOR

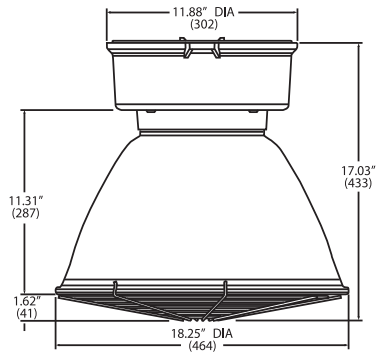
For VM1 & VM2 height, deduct 1.56" (40mm) from the VM3 or VM4 tank respectively, or overall dimensions with same mount and optic. All other dimensions are the same.



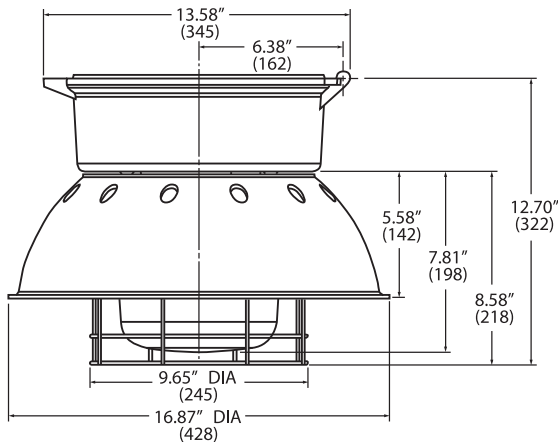
DIMENSIONS



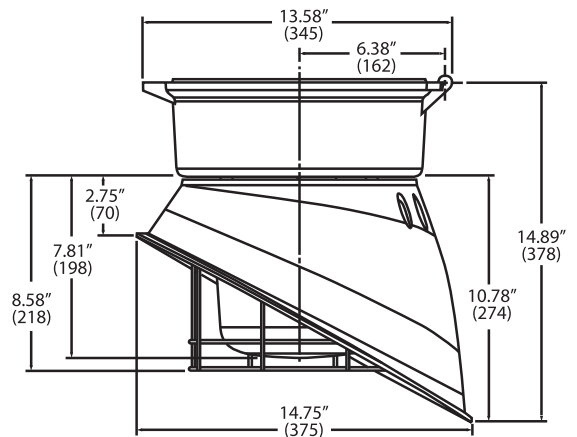
VM4 BALLAST TANK
7-3/4" OPTICS GLOBE (VMG25)
OR REFRACTOR (VMR25 SERIES)
VMAG255 WIRE GUARD



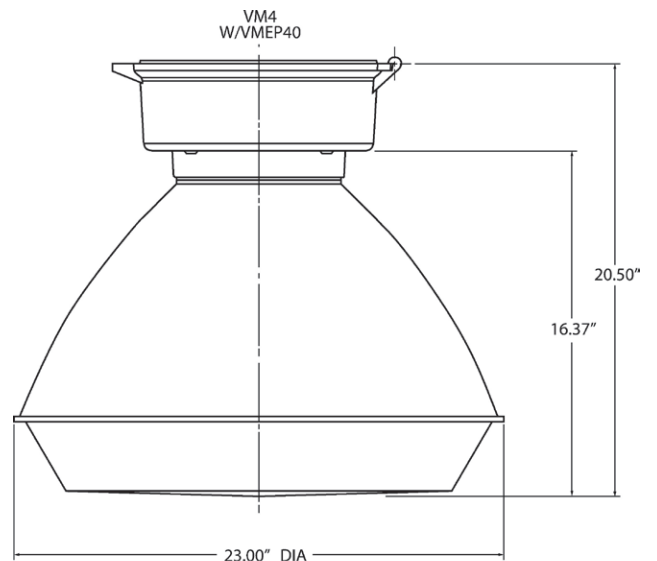
VM4 BALLAST TANK
VMER40 ENCLOSED REFLECTOR
VMERG GUARD



VM4 BALLAST TANK
VMG25 7-3/4" OPTICS GLOBE
VMAG255 WIRE GUARD
VMPSD-40 DOME REFLECTOR



VM4 BALLAST TANK
VMG25 7-3/4" OPTICS GLOBE
VMAG255 WIRE GUARD
VMMA-40 ANGLE REFLECTOR

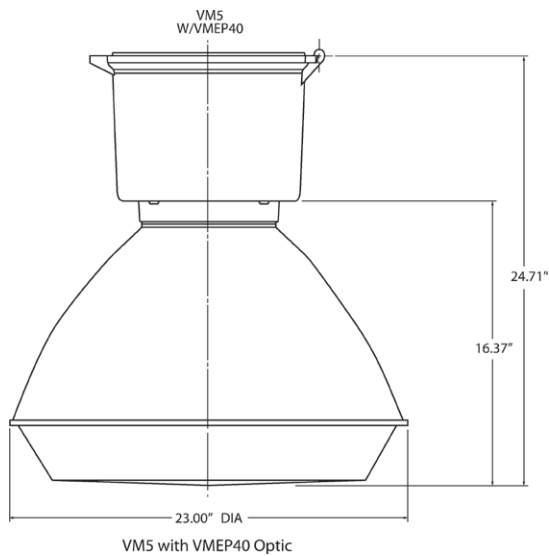
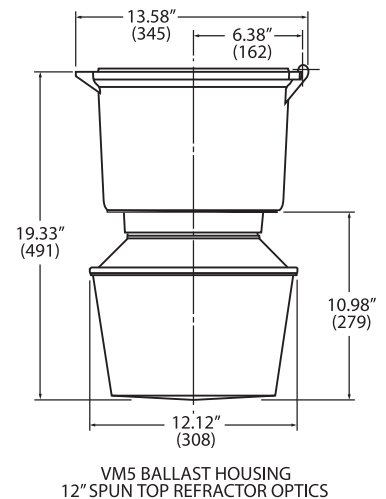
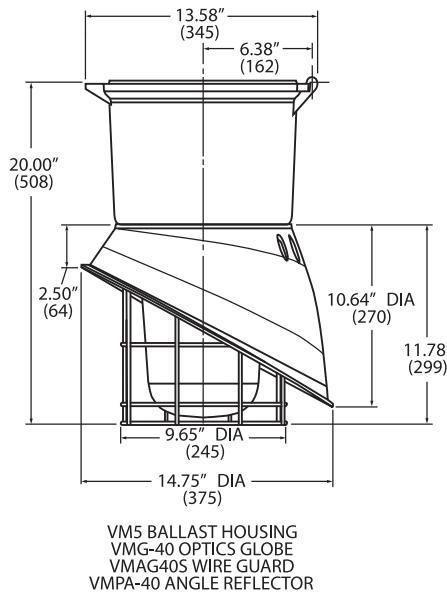
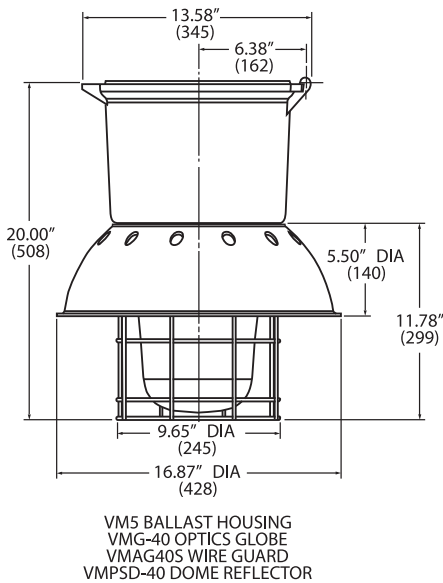
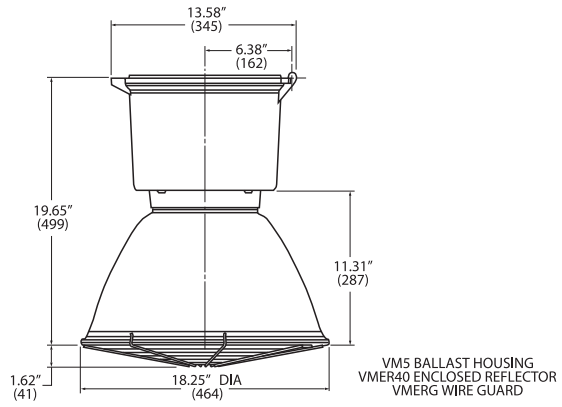
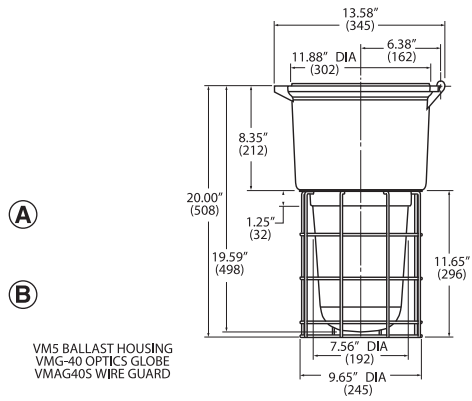


VM4 with VMPE40 Optic

For VM1 & VM2 height, deduct 1.56" (40mm) from the VM3 or VM4 tank respectively, or overall dimensions with same mount and optic. All other dimensions are the same.



DIMENSIONS



QL 165W uses VM5 tank and VMG25 series optics, VMAG25S guard

- A** 16.59 (421)
- B** 6.11 (409)

LIGHTING

CERTILITE® V SERIES



APPLICATION DATA FOR HAZARDOUS LOCATIONS

VM1 / VM2 SERIES THERMAL PERFORMANCE DATA ①													
CLASS I DIVISION 2 GROUPS A,B,C,D / ZONE 2 GROUPS IIC, IIB, IIA													
DESCRIPTION			VM1 SERIES**					VM2 SERIES**					
LAMP TYPE	LAMP WATTAGE	AMBIENT °C	GLOBE ONLY	GLOBE W/ REFLECTOR	VMR	REFRACTORS		GLOBE ONLY	GLOBE W/ REFLECTOR	REFRACTOR VMR	ENCLOSED REFLECTORS		SUPPLY WIRE °C
						VZRG 8"	VZRG 12"				VMER40	VMEP40	
HPS	35	40	T3C	T3C	T3C	T3C	T3C	T3C	T3C	T3C	T3C	T3C	60
		55	T3B	T3B	T3B	T3B	T3B	T3B	T3B	T3B	T3B	T3B	75
		65	T3A	T3A	T3A	T3A	T3A	T3A	T3A	T3A	T3A	T3A	75
HPS	50	40	T3	T3	T3	T3	T3	T3	T3	T3	T3	T3	60
		55	T3	T3	T3	T3	T3	T3	T3	T3	T3	T3	75
		65	T3	T3	T3	T3	T3	T3	T3	T3	T3	T3	90
HPS	70	40	T2C	T2C	T2C	T2C	T2C	T2C	T2C	T2C	T2C	T2C	75
		55	T2C	T2C	T2C	T2C	T2C	T2C	T2B	T2C	T2C	T2C	90
		65	T2B	T2B	T2B	T2B	T2B	T2B	T2B	T2B	T2B	T2B	90
HPS	100	40	T2B	T2B	T2B	T2B	T2B	T2B	T2B	T2B	T2B	T2B	75
		55	T2C	T2B	T2B	T2B	T2B	T2B	T2B	T2B	T2B	T2B	90
		65	—	—	—	—	—	—	—	—	—	—	—
HPS	150	40	325°C	325°C	325°C	325°C	325°C	325°C	325°C	325°C	325°C	325°C	90
		55	325°C	325°C	325°C	325°C	325°C	325°C	325°C	325°C	325°C	325°C	90
		65	—	—	—	—	—	—	—	—	—	—	—
MH	50	40	T3	T3	T3	T3	T3	T3	T3	T3	T3	T3	60
		55	T3	T3	T3	T3	T3	T2D	T2D	T2D	T2D	T2D	75
		65	T2D	T2D	T2D	T2D	T2D	T2D	T2D	T2D	T2D	T2D	90
MH	70	40	T2C	T2C	T2C	T2C	T2C	T2C	T2C	T2C	T2C	T2C	750
		55	T2C	T2B	T2C	T2C	T2C	T2C	T2C	T2C	T2C	T2C	75
		65	T2B	T2B	T2B	T2B	T2B	T2B	T2B	T2B	T2B	T2B	90
MH	100	40	T2B	T2B	T2B	T2B	T2B	T2A	T2A	T2B	T2B	T2B	75
		55	T2A	T2A	T2A	T2A	T2A	T2A	T2A	T2A	T2A	T2A	90
		65	T2A	T2A	T2A	T2A	T2A	T2A	T2A	T2A	T2A	T2A	105
MHP	150/125	40	350°C	350°C	350°C	350°C	350°C	325°C	325°C	325°C	325°C	325°C	90
		55	350°C	350°C	350°C	350°C	350°C	325°C	325°C	325°C	325°C	325°C	90
		65	—	—	—	—	—	—	—	—	—	—	—
MHP	175	40	450°C	450°C	450°C	450°C	450°C	450°C	450°C	450°C	450°C	450°C	90
		55	—	—	—	—	—	450°C	450°C	450°C	450°C	450°C	105
		65	—	—	—	—	—	—	—	—	—	—	—
QL	55	40	T3C	T3C	T3C	T3C	T3C	—	—	—	—	—	75
		55	—	—	—	—	—	—	—	—	—	—	—
		65	—	—	—	—	—	—	—	—	—	—	—

T-CODE & TEMPERATURE RANGE CONVERSION TABLE ° C															
T1	350	325	T2	T2A	T2B	T2C	T2D	T3	T3A	T3B	T3C	T4	T4A	T5	T6
351-450	326-350	301-325	281-300	261-280	231-260	216-230	201-215	181-200	166-180	161-165	136-160	121-135	101-120	86-100	<=85

** VM1 Series accepts 5-1/2" threaded optics; VM2 accepts 7-3/4" optics.

— Not available.

① Data does not apply to luminaires with auxiliary quartz lighting; consult factory with requirements.

The suitability of these fixtures for Class I Division 2 / Zone 2 locations must be determined for each application based on NEC® Articles 501.125(B) or 505.



APPLICATION DATA FOR HAZARDOUS LOCATIONS

VM1 / VM2 SERIES THERMAL PERFORMANCE DATA ①											
CLASS I ZONE 2 RESTRICTED BREATHING											
DESCRIPTION			VM1 SERIES**			VM2 SERIES**					
LAMP TYPE	LAMP WATTAGE	AMBIENT °C	GLOBE ONLY	GLOBE W/ REFLECTOR	REFRACTOR VMR	GLOBE ONLY	GLOBE W/ REFLECTOR	REFRACTOR VMR	ENCLOSED REFLECTORS		SUPPLY WIRE °C
									VMER40	VMEP40	
HPS	50	40	T5	T4	T5	T5	T4	T5	T4	T4	60
		55	T4	T4	T4	T4	T4	T4	T4	T4	75
		65	T4	T4	T4	T4	T4	T4	T4	T4	90
HPS	70	40	T4	T4	T4	T4	T4	T4	T4	T4	75
		55	T4	T4	T4	T4	T4	T4	T4	T4	90
		65	T4	T4	T4	T4	T4	T4	T4	T4	90
HPS	100	40	T3	T3	T3	T3	T3	T3	T3	T3	90
		55	T3	T3	T3	T3	T3	T3	T3	T3	90
		65	—	—	—	—	—	—	—	—	—
HPS	150	40	T3	T3	T3	T3	T3	T3	T3	T3	90
		55	T3	T3	T3	T3	T3	T3	T3	T3	90
		65	—	—	—	—	—	—	—	—	—
MH	50	40	T6	T5	T6	T5	T5	T5	T5	T5	60
		55	T4	T4	T4	T4	T4	T4	T4	T4	75
		65	T4	T4	T4	T4	T4	T4	T4	T4	90
MH	70	40	T5	T5	T5	T4	T4	T4	T4	T4	75
		55	T4	T4	T4	T4	T4	T4	T4	T4	75
		65	T4	T4	T4	T4	T4	T4	T4	T4	90
MH	100	40	T4	T4	T4	T4	T4	T4	T4	T4	75
		55	T3	T3	T3	T3	T3	T3	T3	T3	90
		65	T3	T3	T3	T3	T3	T3	T3	T3	105
MHP	150/125	40	T3	T3	T3	T3	T3	T3	T3	T3	90
		55	T3	T3	T3	T3	T3	T3	T3	T3	90
		65	—	—	—	—	—	—	—	—	—
MHP	175	40	T3	T3	T3	T3	T3	T3	T3	T3	90
		55	—	—	—	T3	T3	T3	T3	T3	105
		65	—	—	—	—	—	—	—	—	—
HPS	35	40	T6	T6	T6	T6	T6	T6	T6	T6	60
		55	T5	T5	T5	T5	T5	T5	T5	T5	75
		65	T5	T5	T5	T5	T5	T5	T5	T5	90

T-CODE & TEMPERATURE RANGE CONVERSION TABLE ° C															
T1	350	325	T2	T2A	T2B	T2C	T2D	T3	T3A	T3B	T3C	T4	T4A	T5	T6
351-450	326-350	301-325	281-300	261-280	231-260	216-230	201-215	181-200	166-180	161-165	136-160	121-135	101-120	86-100	<=85

** VM1 Series accepts 5-1/2" threaded optics; VM2 accepts 7-3/4" optics.

— Not available.

① Data does not apply to luminaires with auxiliary quartz lighting; consult factory with requirements.

The suitability of these fixtures for Class I Zone 2 AEx nAR II locations must be determined for each application based on NEC® Article 505.

LIGHTING

CERTILITE® V SERIES



APPLICATION DATA FOR HAZARDOUS LOCATIONS

VM1 / VM2 SERIES THERMAL PERFORMANCE DATA ^① CLASS II DIVISIONS 1 & 2 GROUPS E , F, G & CLASS III *													
DESCRIPTION			VM1 SERIES**					VM2 SERIES**					
LAMP TYPE	LAMP WATTAGE	AMBIENT °C	GLOBE ONLY	GLOBE W/ REFLECTOR	VMR	REFRACTORS		GLOBE ONLY	GLOBE W/ REFLECTOR	REFRACTOR VMR	ENCLOSED REFLECTORS		SUPPLY WIRE °C
						VZRG 8"	VZRG 12"				VMER40	VMEP40	
HPS	35	40	T4A	T4A	T4A	T4A	T4A	T6	T6	T6	T6	T6	60
		55	T4	T4	T4	T4	T4	T5	T5	T5	T5	T5	75
		65	T4	T4	T4	T4	T4	T4A	T4A	T4A	T4A	T4A	T4A
HPS	50	40	T4A	T4A	T4A	T4A	T4A	T6	T6	T6	T6	T6	60
		55	T4	T4	T4	T4	T4	T5	T5	T5	T5	T5	75
		65	T4	T4	T4	T4	T4	T5	T4A	T4A	T4A	T4A	T4A
HPS	70	40	T4A	T4A	T4A	T4A	T4A	T5	T5	T5	T5	T5	75
		55	T4	T4	T4	T4	T4	T4A	T4A	T4A	T4A	T4A	75
		65	T4	T4	T4	T4	T4	T4A	T4A	T4A	T4A	T4A	90
HPS	100	40	T3C	T3C	T3C	T3C	T3C	T4A	T4A	T4A	T4A	T4A	90
		55	T3C	T3C	T3C	T3C	T3C	T4	T4	T4	T4	T4	90
		65	—	—	—	—	—	—	—	—	—	—	—
HPS	150	40	T3C	T3C	T3C	T3C	T3C	T4	T4	T4	T4	T4	90
		55	—	—	—	—	—	T3C	T3C	T3C	T3C	T3C	90
		65	—	—	—	—	—	—	—	—	—	—	—
MH	50	40	T4A	T4A	T4A	T4A	T4A	T5	T5	T5	T5	T5	60
		55	T4	T4	T4	T4	T4	T4A	T4A	T4A	T4A	T4A	75
		65	T3C	T3C	T3C	T3C	T3C	T4A	T4A	T4A	T4A	T4A	90
MH	70	40	T4A	T4A	T4A	T4A	T4A	T5	T5	T5	T5	T5	75
		55	T4	T4	T4	T4	T4	T4A	T4A	T4A	T4A	T4A	75
		65	T3C	T3C	T3C	T3C	T3C	T4A	T4A	T4A	T4A	T4A	90
MH	100	40	T4	T4	T4	T4	T4	T4A	T4A	T4A	T4A	T4A	75
		55	T3C	T3C	T3C	T3C	T3C	T4	T4	T4	T4	T4	90
		65	T3C	T3C	T3C	T3C	T3C	T4	T4	T4	T4	T4	105
MHP	150/125	40	T3C	T3C	T3C	T3C	T3C	T4	T4	T4	T4	T4	90
		55	T3A	T3A	T3A	T3A	T3A	T3C	T3C	T3C	T3C	T3C	90
		65	—	—	—	—	—	—	—	—	—	—	—
MHP	175	40	—	—	—	—	—	T3C	T3C	T3C	T3C	T3C	90
		55	—	—	—	—	—	T3C	T3C	T3C	T3C	T3C	105
		65	—	—	—	—	—	—	—	—	—	—	—
QL	55	40	EFG	EFG	EFG	EFG	EFG	—	—	—	—	—	75

T-CODE & TEMPERATURE RANGE CONVERSION TABLE °C ^{②③}															
T1	350	325	T2	T2A	T2B	T2C	T2D	T3	T3A	T3B	T3C	T4	T4A	T5	T6
351-450	326-350	301-325	281-300	261-280	231-260	216-230	201-215	181-200	166-180	161-165	136-160	121-135	101-120	86-100	<=85

* Luminaries rated for Group G (= <165°C), T3B are also suitable for Class III applications; Luminaries rated for E & F ≤ 200°C (T3).

** VM1 Series accepts 5-1/2" threaded optics; VM2 accepts 7-3/4" optics.

— Not available.

① Data does not apply to luminaries with auxiliary quartz lighting; consult factory with requirements.

② Limit for E & F.

③ Limit for G & Class III.



APPLICATION DATA FOR HAZARDOUS LOCATIONS

VM1 / VM2 SERIES THERMAL PERFORMANCE DATA ① ②													
"SIMULTANEOUS PRESENCE" CLASS I DIVISION 2 (LAMP TEMPERATURE IN DUST CONDITIONS) & CLASS II DIVISION I													
DESCRIPTION			VM1 SERIES**					VM2 SERIES**					
LAMP TYPE	LAMP WATTAGE	AMBIENT °C	GLOBE ONLY	GLOBE W/ REFLECTOR	VMR	REFRACTORS		GLOBE ONLY	GLOBE W/ REFLECTOR	REFRACTOR VMR	ENCLOSED REFLECTORS		SUPPLY WIRE °C
						VZRG 8"	VZRG 12"				VMER40	VMEP40	
HPS	35	40	T3A	T3A	T3A	T3A	T3A	T2D	T2D	T2D	T2D	T2D	60
		55	—	—	—	—	—	—	—	—	—	—	—
		65	—	—	—	—	—	—	—	—	—	—	—
HPS	50	40	T2C	T2C	T2C	T2C	T2C	T2D	T2D	T2D	T2D	T2D	60
		55	—	—	—	—	—	—	—	—	—	—	—
		65	—	—	—	—	—	—	—	—	—	—	—
HPS	70	40	T2B	T2B	T2B	T2B	T2B	T2B	T2B	T2B	T2B	T2B	75
		55	—	—	—	—	—	—	—	—	—	—	—
		65	—	—	—	—	—	—	—	—	—	—	—
HPS	100	40	T2A	T2A	T2A	T2A	T2A	T2B	T2B	T2B	T2B	T2B	75
		55	—	—	—	—	—	—	—	—	—	—	—
		65	—	—	—	—	—	—	—	—	—	—	—
HPS	150	40	325°C	325°C	325°C	325°C	325°C	325°C	325°C	325°C	325°C	325°C	90
		55	—	—	—	—	—	—	—	—	—	—	—
		65	—	—	—	—	—	—	—	—	—	—	—
MH	50	40	T2B	T2B	T2B	T2B	T2B	T2C	T3C	T3C	T3C	T3C	75
		55	—	—	—	—	—	—	—	—	—	—	—
		65	—	—	—	—	—	—	—	—	—	—	—
MH	70	40	T2B	T2B	T2B	T2B	T2B	T2C	T2C	T2C	T2C	T2C	75
		55	—	—	—	—	—	—	—	—	—	—	—
		65	—	—	—	—	—	—	—	—	—	—	—
MH	100	40	T2	T2	T2	T2	T2	T2A	T2A	T2A	T2A	T2A	90
		55	—	—	—	—	—	—	—	—	—	—	—
		65	—	—	—	—	—	—	—	—	—	—	—
MHP	150/125	40	350°C	350°C	350°C	350°C	350°C	350°C	350°C	350°C	350°C	350°C	90
		55	—	—	—	—	—	—	—	—	—	—	—
		65	—	—	—	—	—	—	—	—	—	—	—
MHP	175	40	—	—	—	—	—	450°C	450°C	450°C	450°C	450°C	90
		55	—	—	—	—	—	—	—	—	—	—	—
		65	—	—	—	—	—	—	—	—	—	—	—

T-CODE & TEMPERATURE RANGE CONVERSION TABLE ° C															
T1	350	325	T2	T2A	T2B	T2C	T2D	T3	T3A	T3B	T3C	T4	T4A	T5	T6
351-450	326-350	301-325	281-300	261-280	231-260	216-230	201-215	181-200	166-180	161-165	136-160	121-135	101-120	86-100	<=85

** VM1 Series accepts 5-1/2" threaded optics; VM2 accepts 7-3/4" optics.

— Not available.

① Data does not apply to luminaries with auxiliary quartz lighting; consult factory with requirements.

② Table shows lamp temperature inside dust covered optic - see Class II table for Groups E, F, G and Class III data.



APPLICATION DATA FOR HAZARDOUS LOCATIONS

VM3/VM4 SERIES THERMAL PERFORMANCE DATA ^①													
CLASS I DIVISION 2 GROUPS A,B,C,D / ZONE 2 GROUPS IIC , IIB, IIA													
DESCRIPTION			VM3 SERIES**					VM4 SERIES**					
LAMP TYPE	LAMP WATTAGE	AMBIENT °C	GLOBE ONLY	GLOBE W/ REFLECTOR	VMR	REFRACTORS		GLOBE ONLY	GLOBE W/ REFLECTOR	REFRACTOR VMR	ENCLOSED REFLECTORS		SUPPLY WIRE °C
						VZRG 8"	VZRG 12"				VMER40	VMEP40	
HPS	50	40	T3B	T3B	T3B	T3B	T3B	T3C	T3C	T3C	T3C	T3C	90
		55	T3A	T3A	T3A	T3A	T3A	T3B	T3B	T3B	T3B	T3B	90
		65	T3	T3	T3	T3	T3	T3	T3	T3	T3	T3	90
HPS	70	40	T3	T3	T3	T3	T3A	T3A	T3A	T3A	T3A	T3A	90
		55	T3	T3	T3	T3	T3	T3	T3A	T3	T3	T3	90
		65	T3	T3	T3	T3	T3	T3	T3	T3	T3	T3	90
HPS	100	40	T2D	T2D	T2D	T2D	T3	T3	T3	T3	T3	T3	90
		55	T2C	T2C	T2C	T2C	T2C	T2D	T2D	T2D	T2D	T2D	90
		65	T2C	T2C	T2C	T2C	T2C	T2C	T2C	T2C	T2C	T2C	125
HPS	150	40	T2B	T2B	T2B	T2B	T2B	T2B	T2B	T2B	T2B	T2B	90
		55	T2B	T2B	T2B	T2B	T2B	T2B	T2B	T2B	T2B	T2B	90
		65	—	—	—	—	—	—	—	—	—	—	—
MH	70	40	T3B	T3A	T3B	T3A	T3C	T3C	T3C	T3C	T3C	T3C	90
		55	T3	T3	T3	T3	T3	T3C	T3B	T3C	T3C	T3C	90
		65	T2D	T2D	T2D	T3	T3	T3A	T3A	T3A	T3A	T3A	90
MH	100	40	T3	T3	T3	T3	T3A	T3A	T3	T3A	T3A	T3A	90
		55	T3	T3	T3	T3	T2D	T3	T3	T3	T3	T3	90
		65	T2D	T2D	T2D	T2D	T2D	T3	T3	T3	T3	T3	90
MH	175	40	T2A	T2A	T2A	T2B	T2B	T2B	T2B	T2B	T2B	T2B	90
		55	T2	T2	T2	T2	T2	T2A	T2A	T2A	T2A	T2A	125
		65	—	—	—	—	—	—	—	—	—	—	—
MH	250	40	325°C	325°C	325°C	T2	T2	T2	T2	T2	T2	T2	90
		55	—	—	—	—	—	—	—	—	—	—	—
		65	—	—	—	—	—	—	—	—	—	—	—
MHP	125/150/175	40	T2A	T2A	T2A	T2B	T2B	T2B	T2B	T2B	T2B	T2B	90
		55	T2A	T2A	T2A	T2A	T2A	T2A	T2A	T2A	T2A	T2A	125
		65	—	—	—	—	—	T2A	T2A	T2A	T2A	T2A	125
MHP	200	40	T2A	T2A	T2A	T2B	T2B	T2B	T2B	T2B	T2B	T2B	90
		55	T2	T2	T2	T2	T2	T2A	T2A	T2A	T2A	T2A	125
		65	—	—	—	—	—	—	—	—	—	—	—
QL	85	40	—	—	—	—	—	T3	T3	T3	T3	T3	75
		55	—	—	—	—	—	—	—	—	—	—	—
		65	—	—	—	—	—	—	—	—	—	—	—

T-CODE & TEMPERATURE RANGE CONVERSION TABLE °C															
T1	350	325	T2	T2A	T2B	T2C	T2D	T3	T3A	T3B	T3C	T4	T4A	T5	T6
351-450	326-350	301-325	281-300	261-280	231-260	216-230	201-215	181-200	166-180	161-165	136-160	121-135	101-120	86-100	<=85

** VM3 Series accepts 5-1/2" threaded optics; VM4 accepts 7-3/4" threaded optics.

— Not available.

① Data does not apply to luminaires with auxiliary quartz lighting; consult factory with requirements. The suitability of these fixtures for Class I Division 2 / Zone 2 locations must be determined for each application based on NEC® Articles 501.125(B) or 505.



APPLICATION DATA FOR HAZARDOUS LOCATIONS

VM3/VM4 SERIES THERMAL PERFORMANCE DATA ①											
CLASS I ZONE 2 RESTRICTED BREATHING											
DESCRIPTION			VM3 SERIES**			VM4 SERIES**					
LAMP TYPE	LAMP WATTAGE	AMBIENT °C	GLOBE ONLY	GLOBE W/ REFLECTOR	REFRACTOR VMR	GLOBE ONLY	GLOBE W/ REFLECTOR	REFRACTOR VMR	ENCLOSED REFLECTORS		SUPPLY WIRE °C
									VMER40	VMEP40	
HPS	50	40	T6	T6	T6	T6	T6	T6	T6	T6	90
		55	T5	T5	T5	T6	T6	T6	T6	T6	90
		65	T4	T4	T4	T5	T5	T5	T5	T5	90
HPS	70	40	T5	T5	T5	T6	T6	T6	T6	T6	90
		55	T5	T5	T5	T5	T5	T5	T5	T5	90
		65	T4	T4	T4	T5	T5	T5	T5	T5	90
HPS	100	40	T5	T5	T5	T5	T5	T5	T5	T5	90
		55	T4	T4	T4	T5	T5	T5	T5	T5	90
		65	T4	T4	T4	T4	T4	T4	T4	T4	125
HPS	150	40	T4	T4	T4	T4	T4	T4	T4	T4	90
		55	T3	T3	T3	T4	T4	T4	T4	T4	90
		65	—	—	—	—	—	—	—	—	—
MH	70	40	T5	T5	T5	T5	T6	T6	T6	T6	90
		55	T4	T4	T4	T5	T5	T5	T5	T5	90
		65	T4	T4	T4	T4	T4	T4	T4	T4	90
MH	100	40	T4	T4	T4	T5	T5	T5	T5	T5	90
		55	T4	T4	T4	T5	T4	T4	T4	T4	90
		65	T4	T4	T4	T4	T4	T4	T4	T4	90
MH	175	40	T3	T3	T3	T4	T4	T4	T4	T4	90
		55	T3	T3	T3	T4	T4	T4	T4	T4	125
		65	—	—	—	—	—	—	—	—	—
MH	250	40	T3	T3	T3	T3	T3	T3	T3	T3	90
		55	—	—	—	—	—	—	—	—	—
		65	—	—	—	—	—	—	—	—	—
MHP	150/175	40	T3	T3	T3	T4	T4	T4	T4	T4	90
		55	T3	T3	T3	T4	T4	T4	T4	T4	90
		65	—	—	—	T3	T3	T3	T3	T3	125
MHP	200	40	T3	T3	T3	T4	T4	T4	T4	T4	90
		55	T3	T3	T3	T3	T3	T3	T3	T3	125
		65	—	—	—	—	—	—	—	—	—

T-CODE & TEMPERATURE RANGE CONVERSION TABLE °C															
T1	350	325	T2	T2A	T2B	T2C	T2D	T3	T3A	T3B	T3C	T4	T4A	T5	T6
351-450	326-350	301-325	281-300	261-280	231-260	216-230	201-215	181-200	166-180	161-165	136-160	121-135	101-120	86-100	<=85

** VM3 Series accepts 5-1/2" threaded optics; VM4 accepts 7-3/4" threaded optics.

— Not available.

① Data does not apply to luminaires with auxiliary quartz lighting; consult factory with requirements. The suitability of these fixtures for Class I Zone 2 AEx nAR II locations must be determined for each application based on NEC® Article 505. Restricted breathing fixture with photo cell T3 Ⓢ only.



APPLICATION DATA FOR HAZARDOUS LOCATIONS

VM3/VM4 SERIES THERMAL PERFORMANCE DATA ① CLASS II DIVISIONS 1 & 2 GROUPS E, F, G & CLASS III*													
DESCRIPTION			VM3 SERIES**					VM4 SERIES**					
LAMP TYPE	LAMP WATTAGE	AMBIENT °C	GLOBE ONLY	GLOBE W/ REFLECTOR	VMR	REFRACTORS		GLOBE ONLY	GLOBE W/ REFLECTOR	REFRACTOR VMR	ENCLOSED REFLECTORS		SUPPLY WIRE °C
						VZRG 8"	VZRG 12"				VMER40	VMEP40	
HPS	50	40	T3C	T3C	T3C	T3C	T3C	T3B	T3B	T3B	T3B	T3B	90
		55	—	—	—	—	—	—	—	—	—	—	—
		65	—	—	—	—	—	—	—	—	—	—	—
HPS	70	40	T3C	T3C	T3C	T3C	T3C	T3B	T3B	T3B	T3B	T3B	90
		55	—	—	—	—	—	—	—	—	—	—	—
		65	—	—	—	—	—	—	—	—	—	—	—
HPS	100	40	T3C	T3C	T3C	T3C	T3C	T3B	T3B	T3B	T3B	T3B	90
		55	—	—	—	—	—	—	—	—	—	—	—
		65	—	—	—	—	—	—	—	—	—	—	—
HPS	150	40	T3C	T3C	T3C	T3C	T3C	T3B	T3B	T3B	T3B	T3B	90
		55	—	—	—	—	—	—	—	—	—	—	—
		65	—	—	—	—	—	—	—	—	—	—	—
MH	70	40	T3C	T3C	T3C	T3C	T3C	T3B	T3B	T3B	T3B	T3B	90
		55	—	—	—	—	—	—	—	—	—	—	—
		65	—	—	—	—	—	—	—	—	—	—	—
MH	100	40	T3C	T3C	T3C	T3C	T3C	T3B	T3B	T3B	T3B	T3B	90
		55	—	—	—	—	—	—	—	—	—	—	—
		65	—	—	—	—	—	—	—	—	—	—	—
MH	175	40	—	—	—	—	—	T3B	T3B	T3B	T3B	T3B	90
		55	—	—	—	—	—	—	—	—	—	—	—
		65	—	—	—	—	—	—	—	—	—	—	—
MH	250	40	—	—	—	—	—	T3B	T3B	T3B	T3B	T3B	90
		55	—	—	—	—	—	—	—	—	—	—	—
		65	—	—	—	—	—	—	—	—	—	—	—
MHP	150/175	40	—	—	—	—	—	T3B	T3B	T3B	T3B	T3B	90
		55	—	—	—	—	—	—	—	—	—	—	—
		65	—	—	—	—	—	—	—	—	—	—	—
MHP	200	40	—	—	—	—	—	T3B	T3B	T3B	T3B	T3B	90
		55	—	—	—	—	—	—	—	—	—	—	—
		65	—	—	—	—	—	—	—	—	—	—	—
QL	85	40	—	—	—	—	—	T3B	T3B	T3B	T4	T4	75
		55	—	—	—	—	—	—	—	—	—	—	—
		65	—	—	—	—	—	—	—	—	—	—	—

T-CODE & TEMPERATURE RANGE CONVERSION TABLE °C ②③															
T1	350	325	T2	T2A	T2B	T2C	T2D	T3	T3A	T3B	T3C	T4	T4A	T5	T6
351-450	326-350	301-325	281-300	261-280	231-260	216-230	201-215	181-200	166-180	161-165	136-160	121-135	101-120	86-100	<=85

* Luminaires rated for Group G (=165°C), T3B are also suitable for Class III applications; Luminaires rated for E & F ≤ 200°C (T3).

** VM3 Series accepts 5-1/2" threaded optics; VM4 accepts 7-3/4" optics.

— Not available.

① Data does not apply to luminaires with auxiliary quartz lighting; consult factory with requirements.

② Limit for E & F.

③ Limit for G & Class III.



APPLICATION DATA FOR HAZARDOUS LOCATIONS

VM3 / VM4 SERIES THERMAL PERFORMANCE DATA ① ②													
"SIMULTANEOUS PRESENCE" CLASS I DIVISION 2 (LAMP TEMPERATURE IN DUST CONDITIONS) & CLASS II DIVISION I													
DESCRIPTION			VM3 SERIES**					VM4 SERIES**					
LAMP TYPE	LAMP WATTAGE	AMBIENT °C	GLOBE ONLY	GLOBE W/ REFLECTOR	VMR	REFRACTORS		GLOBE ONLY	GLOBE W/ REFLECTOR	REFRACTOR VMR	ENCLOSED REFLECTORS		SUPPLY WIRE °C
						VZRG 8"	VZRG 12"				VMER40	VMEP40	
HPS	50	40	T3	T2D	T3	T3	T3	T3B	T3A	T3B	T3A	T3A	90
		55	—	—	—	—	—	—	—	—	—	—	—
		65	—	—	—	—	—	—	—	—	—	—	—
HPS	70	40	T3	T2D	T3	T3	T3	T3	T3	T3	T3	T3A	90
		55	—	—	—	—	—	—	—	—	—	—	—
		65	—	—	—	—	—	—	—	—	—	—	—
HPS	100	40	T2C	T2C	T2C	T2C	T2C	T2D	T2D	T2D	T2D	T3	90
		55	—	—	—	—	—	—	—	—	—	—	—
		65	—	—	—	—	—	—	—	—	—	—	—
HPS	150	40	T2A	T2A	T2A	T2A	T2A	T2B	T2B	T2B	T2B	T2B	90
		55	—	—	—	—	—	—	—	—	—	—	—
		65	—	—	—	—	—	—	—	—	—	—	—
MH	70	40	T3A	T3A	T3A	T3A	T3A	T3C	T3B	T3C	T3C	T3C	90
		55	—	—	—	—	—	—	—	—	—	—	—
		65	—	—	—	—	—	—	—	—	—	—	—
MH	100	40	T2D	T2D	T2D	T2D	T2D	T3	T3	T3	T3	T3	90
		55	—	—	—	—	—	—	—	—	—	—	—
		65	—	—	—	—	—	—	—	—	—	—	—
MH	175	40	—	—	—	—	—	T2A	T2A	T2A	T2A	T2A	90
		55	—	—	—	—	—	—	—	—	—	—	—
		65	—	—	—	—	—	—	—	—	—	—	—
MH	250	40	—	—	—	—	—	325°C	325°C	325°C	325°C	325°C	90
		55	—	—	—	—	—	—	—	—	—	—	—
		65	—	—	—	—	—	—	—	—	—	—	—
MHP	150/175	40	—	—	—	—	—	T2A	T2A	T2A	T2A	T2A	90
		55	—	—	—	—	—	—	—	—	—	—	—
		65	—	—	—	—	—	—	—	—	—	—	—
MHP	200	40	—	—	—	—	—	T2A	T2A	T2A	T2A	T2A	90
		55	—	—	—	—	—	—	—	—	—	—	—
		65	—	—	—	—	—	—	—	—	—	—	—

T-CODE & TEMPERATURE RANGE CONVERSION TABLE ° C															
T1	350	325	T2	T2A	T2B	T2C	T2D	T3	T3A	T3B	T3C	T4	T4A	T5	T6
351-450	326-350	301-325	281-300	261-280	231-260	216-230	201-215	181-200	166-180	161-165	136-160	121-135	101-120	86-100	<=85

** VM3 Series accepts 5-1/2" threaded optics; VM4 accepts 7-3/4" optics.

— Not available.

① Data does not apply to luminaries with auxiliary quartz lighting; consult factory with requirements.

② Table shows lamp temperature inside dust covered optic - see Class II table for Groups E, F, G and Class III data.



APPLICATION DATA FOR HAZARDOUS LOCATIONS

VM5 SERIES THERMAL PERFORMANCE DATA ①												
DESCRIPTION			CLASS I DIVISION 2 GROUPS A, B, C, D / ZONE 2 GROUPS IIC, IIB, IIA					CLASS I ZONE 2, "RESTRICTED BREATHING" ②				
LAMP TYPE	LAMP WATTAGE	AMBIENT °C	GLOBE ONLY	GLOBE W/ REFLECTOR	REFRACTOR VZRG 12"	ENCLOSED REFLECTORS		GLOBE ONLY	GLOBE W/ REFLECTOR	ENCLOSED REFLECTORS		SUPPLY WIRE °C
						VMER40	VMEP40			VMER40	VMEP40	
HPS	200	40	325°C	325°C	325°C	T2	T2	T3	T3	T4	T4	90
		55	350°C	350°C	350°C	325°C	325°C	T3	T3	T3	T3	125
		65	—	—	—	—	—	—	—	—	—	—
HPS	250	40	325°C	325°C	325°C	T2	T2	T3	T3	T4	T4	90
		55	350°C	350°C	350°C	325°C	325°C	T3	T3	T3	T3	125
		65	350°C	350°C	350°C	325°C	325°C	T3	T3	T4	T4	125
HPS	400	40	350°C	450°C	350°C	350°C	350°C	T3	T3	T3	T3	90
		55	450°C	—	450°C	450°C	450°C	T3	—	T3	T3	125
		65	—	—	—	—	—	—	—	—	—	—
HPS	600	40	—	—	—	450°C	450°C	—	—	T3	T3	90
		55	—	—	—	450°C	450°C	—	—	T3	T3	125
		65	—	—	—	—	—	—	—	—	—	—
MH	250	40	T2	325°C	T2	T2	T2	T3	T3	T3	T3	90
		55	—	—	—	—	—	—	—	—	—	—
		65	—	—	—	—	—	—	—	—	—	—
MH	400	40	T2	325°C	T2	T2	T2	T3	T3	T3	T3	90
		55	—	—	—	—	—	—	—	—	—	—
		65	—	—	—	—	—	—	—	—	—	—
MHP	250	40	T2B	T2B	T2B	T2B	T2B	T4	T4	T4	T4	90
		55	T2A	T2A	T2A	T2B	T2B	T3	T3	T3	T3	90
		65	—	—	—	—	—	—	—	—	—	—
MHP	320	40	T2B	T2B	T2B	T2B	T2B	T4	T4	T4	T4	90
		55	T2A	T2A	T2A	T2B	T2B	T3	T3	T3	T3	90
		65	T2A	—	T2A	T2A	T2A	T3	—	T3	T3	125
MHP	350	40	T2A	T2A	T2A	T2B	T2B	T3	T3	T4	T4	90
		55	T2	T2	T2A	T2A	T2A	T3	T3	T3	T3	125
		65	—	—	—	—	—	—	—	—	—	—
MHP	400	40	T2A	T2A	T2A	T2B	T2B	T3	T3	T4	T4	90
		55	T2	T2	T2A	T2A	T2A	T3	T3	T3	T3	125
		65	—	—	—	—	—	—	—	—	—	—
QL	165 ③	40	T3	T3	T3	T3A	T3A	T6	T5	T6	T6	75
		55	—	—	—	—	—	—	—	—	—	—
		65	—	—	—	—	—	—	—	—	—	—

T-CODE & TEMPERATURE RANGE CONVERSIONTABLE °C															
T1	350	325	T2	T2A	T2B	T2C	T2D	T3	T3A	T3B	T3C	T4	T4A	T5	T6
351-450	326-350	301-325	281-300	261-280	231-260	216-230	201-215	181-200	166-180	161-165	136-160	121-135	101-120	86-100	<=85

— Not available

① Data does not apply to luminaires with auxiliary quartz lighting; consult factory with requirements.

The suitability of these fixtures for Class I Zone 2 AEx nAR II locations must be determined for each application based on NEC® Article 505. Restricted breathing fixture with photo cell T3 Ⓢ only.

② See L82 for Restricted Breathing Information.

③ VM5Q uses VM4 optics including VMG25 and VMR25x all glass refractors.



APPLICATION DATA FOR HAZARDOUS LOCATIONS

VM5 SERIES THERMAL PERFORMANCE DATA ① ②													
DESCRIPTION			CLASS II DIVISION 1 & 2 GROUPS E, F, G & CLASS III*					SIMULTANEOUS PRESENCE ② LAMP TEMP. IN DUST CONDITIONS					
LAMP TYPE	LAMP WATTAGE	AMBIENT °C	GLOBE ONLY	GLOBE W/ REFLECTOR	REFRACTOR VZRG 12"	ENCLOSED REFLECTORS		GLOBE ONLY	GLOBE W/ REFLECTOR	REFRACTOR VZRG 12"	ENCLOSED REFLECTORS		SUPPLY WIRE °C
						VMER40	VMEP40				VMER40	VMEP40	
HPS	200	40	T3C	T3C	T4A	T4	T4	350°C	350°C	325°C	325°C	325°C	90
		55	—	—	T4	T3C	T3C	—	—	350°C	350°C	350°C	125
		65	—	—	—	—	—	—	—	—	—	—	—
HPS	250	40	T3C	T3C	T4A	T4	T4	350°C	350°C	325°C	325°C	325°C	90
		55	—	—	T4	T3C	T3C	—	—	350°C	350°C	350°C	125
		65	—	—	T4	T3C	T3C	—	—	350°C	350°C	350°C	125
HPS	400	40	T3B	T3B	T4	T4	T4	T1	T1	350°C	350°C	350°C	90
		55	—	—	T3C	T3B	T3B	—	—	T1	T1	T1	125
		65	—	—	—	—	—	—	—	—	—	—	—
MH	250	40	—	—	T4	T4	T4	—	—	325°C	325°C	325°C	90
		55	—	—	—	—	—	—	—	—	—	—	—
		65	—	—	—	—	—	—	—	—	—	—	—
MH	400	40	—	—	T4	T4	T4	—	—	325°C	325°C	325°C	90
		55	—	—	—	—	—	—	—	—	—	—	—
		65	—	—	—	—	—	—	—	—	—	—	—
MHP	250	40	—	—	T4	T4	T4	—	—	T2B	T2B	T2B	90
		55	—	—	T4	T4	T4	—	—	T2A	T2A	T2A	90
		65	—	—	—	—	—	—	—	—	—	—	—
MHP	320	40	—	—	T4	T4	T4	—	—	T2B	T2B	T2B	90
		55	—	—	T3C	T3C	T3C	—	—	T2A	T2A	T2A	90
		65	—	—	—	—	—	—	—	—	—	—	—
MHP	350	40	—	—	T4	T4	T4	—	—	T2A	T2A	T2A	90
		55	—	—	T3C	T3C	T3C	—	—	T2	T2	T2	125
		65	—	—	—	—	—	—	—	—	—	—	—
MHP	400	40	—	—	T4	T4	T4	—	—	T2A	T2A	T2A	90
		55	—	—	T3C	T3C	T3C	—	—	T2	T2	T2	125
		65	—	—	—	—	—	—	—	—	—	—	—
QL	165 ⑤	40	T3C	T3C	T3C	T3C	T3C	—	—	—	—	—	75
		55	—	—	—	—	—	—	—	—	—	—	—
		65	—	—	—	—	—	—	—	—	—	—	—

T-CODE & TEMPERATURE RANGE CONVERSION TABLE °C ③ ④															
T1	350	325	T2	T2A	T2B	T2C	T2D	T3	T3A	T3B	T3C	T4	T4A	T5	T6
351-450	326-350	301-325	281-300	261-280	231-260	216-230	201-215	181-200	166-180	161-165	136-160	121-135	101-120	86-100	<=85

* Luminaires rated for Group G (= <165°C), T3B are also suitable for Class III applications; Luminaires rated for E & F ≤ 200°C (T3).

— Not available.

*** Table shows lamp temperature inside optic dust conditions, see Class II table for Groups E, F, G data.

① Data does not apply to luminaires with auxiliary quartz lighting; consult factory with requirements.

② Table shows lamp temperature inside dust covered optic - see Class II table for Groups E, F, G and Class III data.

③ Limit for E & F.

④ Limit for G & Class III.

⑤ VM5Q uses VM4 optics including VMG25 and VMR25x all glass refractors.

LIGHTING

VM / EZ / KF HID SERIES



HID FIXTURES • BALLAST/FUSE KIT DATA

HID BALLAST DATA & FUSE KITS ①											
LAMP SOURCE	LAMP WATTS/TYPE	VOLTAGE	CURRENT (AMPS)			INPUT WATTS	BALLAST CIRCUIT ②	REGULATION	MIN. START	VM FUSE KIT ③	EZ FUSE KIT
			START	OPERATING	OPEN						
HPS	35 S-76	120	0.78	0.38	0.65	46	R/HPF	±5% VOLTAGE* ±5% WATTAGE	-40C -40F	1VM-2	—
HPS	50 S-68	120	0.58	0.58	1.24	66	HX/HPF	±5% VOLTAGE* ±12% WATTAGE	-40C -40F	1VM-5	1FK-5
		208	0.35	0.33	0.59					2VM-3	2FK-3
		240	0.30	0.29	0.50					2VM-3	2FK-3
		277	0.24	0.25	0.44					1VM-2	1FK-2
		220-240/50	0.32	0.32	0.55	66	HX/HPF	±10% VOLTAGE* ±10% WATTAGE	-40C -40F	1VM-2	1FK-2
HPS	70 S-62	120	0.75	0.81	1.45	93	HX/HPF	±5% VOLTAGE* ±12% WATTAGE	-40C -40F	1VM-5	1FK-5
		208	0.45	0.47	0.95					2VM-3	2FK-3
		240	0.35	0.40	0.75					2VM-2	2FK-2
		277	0.37	0.35	0.65					1VM-2	1FK-2
		480	0.21	0.21	0.36					2VM-2	2FK-2
		347	0.28	0.30	0.52					1VM-2	1FK-2
		220-240/50	0.45	0.46	0.75	94	HX/HPF	±5% VOLTAGE* ±5% WATTAGE	-40C -40F	1VM-2	1FK-2
HPS	100 S-54	120	1.30	1.15	2.20	130	HX/HPF	±5% VOLTAGE* ±12% WATTAGE	-40C -40F	1VM-7	1FK-7
		208	0.76	0.67	1.27					2VM-5	2FK-5
		240	0.66	0.58	1.10					2VM-3	2FK-3
		277	0.60	0.50	0.85					1VM-3	1FK-3
		480	0.35	0.29	0.55					2VM-3	2FK-3
		347	0.44	0.39	0.70					1VM-3	1FK-3
		220-240/50	0.56/0.51	0.67/0.62	1.28/1.17	130	HX/HPF	±5% VOLTAGE* ±12% WATTAGE	-40C -40F	1VM-4	1FK-4
HPS	150 (55 VOLT LAMP) S-55	120	2.00	1.65	2.80	188	HX/HPF	±5% VOLTAGE* ±12% WATTAGE	-40C -40F	1VM-10	1FK-10
		208	1.15	0.95	1.60					2VM-5	2FK-5
		240	1.00	0.83	1.40					2VM-5	2FK-5
		277	0.85	0.72	1.25					1VM-4	1FK-4
		480	0.50	0.42	0.70					2VM-2	2FK-2
		347	0.52	0.59	0.92					1VM-3	1FK-3
		220-240/50	1.27/1.16	0.91/0.83	1.52/1.40	188	HX/HPF	±5% VOLTAGE* ±12% WATTAGE	-40C -40F	1VM-5	1FK-5
HPS	200 S-66	120	1.50	2.20	1.30	240	CWA	±10% VOLTAGE* ±8% WATTAGE	-40C -40F	1VM-6	—
		208	0.90	1.28	0.75					2VM-4	—
		240	0.75	1.11	0.65					2VM-3	—
		277	0.65	0.96	0.60					1VM-3	—
		480	0.35	0.58	0.58					2VM-2	—
HPS	250 S-50	120	1.80	2.75	1.50	295	CWA	±10% VOLTAGE* ±5% WATTAGE	-40C -40F	1VM-7	1FK-7
		208	1.00	1.60	0.87					2VM-4	2FK-4
		240	0.90	1.38	0.75					2VM-4	2FK-4
		277	0.78	1.20	0.65					1VM-3	1FK-3
		480	0.38	0.69	0.37					2VM-2	2FK-2
		347	0.56	0.93	0.75					1VM-2	1FK-2
				220-240/50	1.00/0.90					0.91/0.83	0.90/0.80
HPS	400 S-51	120	2.82	4.30	1.83	464	CWA	±10% VOLTAGE* ±5% WATTAGE	-40C -40F	1VM-10	1FK-10
		208	1.56	2.48	1.15					2VM-8	2FK-8
		240	1.36	2.15	0.84					2VM-5	2FK-5
		277	1.18	1.86	0.71					1VM-5	1FK-5
		480	0.60	1.00	0.75					2VM-3	2FK-3
		347	1.05	1.40	0.75					1VM-5	1FK-5
		220-240/50	1.65/1.50	2.30/2.10	1.20/1.10	464	CWA	±10% VOLTAGE* ±5% WATTAGE	-40C -40F	1VM-6	1FK-6
HPS	1000 S-52	120	6.40	9.50	4.80	1100	CWA	±5% VOLTAGE ±10% WATTAGE	-30C -22C	KF FLOOD FUSES FACTORY ONLY. SEE LOGIC	
		208	3.80	5.50	2.70					CWA	
		240	3.20	4.75	2.40						
		277	2.80	4.15	2.20						
		480	1.50	2.30	1.90						
347	2.20	3.30	1.10								
MH	1000 M-47	120	7.80	9.00	4.50	1080	CWA	±10% VOLTAGE ±10% WATTAGE	-30C -22F	KF FLOOD FUSES FACTORY ONLY. SEE LOGIC	
		208	4.00	5.20	2.70						
		240	3.70	4.50	2.30						
		277	3.20	3.90	2.20						
		480	1.90	2.25	1.20						
		347	4.50/4.10	5.04/4.50	2.10/2.0						
MH	50 M-110	120	0.46	0.58	1.20	67	HX-HPF	±5% VOLTAGE ±10% WATTAGE	-30C -20F	1VM-3	1FK-3
		208	0.27	0.33	0.68						
		240	0.17	0.21	0.59						
		277	0.20	0.25	0.51						
		347	0.21	0.24	0.48						
MH	70 M-98	120	0.80	0.85	1.70	90	HX-HPF	±5% VOLTAGE ±12% WATTAGE	-30C -20F	1VM-4	1FK-4
		208	0.50	0.50	1.04						
		240	0.43	0.43	0.87						
		277	0.39	0.39	0.78						
		480	0.19	0.23	0.50						
		347	0.30	0.30	0.60						
MH	100 M-90	120	1.20	1.15	2.30	129	HX-HPF	±5% VOLTAGE ±12% WATTAGE	-30C -20F	1VM-6	1FK-6
		208	0.70	1.50	0.60						
		240	0.61	1.30	0.55						
		277	0.55	1.15	0.45						
		480	0.30	0.30	0.55						
		347	0.40	0.90	0.40						
		220-240/50	0.45/0.41	0.52/0.51	0.60/0.85	129	HX-HPF	±5% VOLTAGE ±12% WATTAGE	-30C -20F	1VM-2	1FK-2
MH	175 M-57	120	0.80	1.80	1.80	210	CWA	±10% VOLTAGE ±5% WATTAGE	-30C -20F	1VM-5	1FK-5
		208	0.42	1.04	1.04						
		240	0.42	0.90	0.90						
		277	0.35	0.78	0.78						
		480	0.22	0.45	0.45						
		347	0.42	0.62	0.62						
		230/50	0.60/0.55	0.98/0.90	0.97/0.89	210	CWA	±10% VOLTAGE ±5% WATTAGE	-30C -20F	1VM-2	1FK-2
MH	250 M-58	120	1.25	2.60	2.50	295	CWA	±10% VOLTAGE ±5% WATTAGE	-30C -20F	1VM-8	1FK-8
		208	0.65	1.50	1.58						
		240	0.60	1.30	1.25						
		277	0.50	1.12	1.10						
		480	0.25	0.65	0.65						
		347	0.90	0.95	0.65						
		220-240/50	0.94/0.86	1.35/1.24	1.20/1.10	295	CWA	±10% VOLTAGE ±5% WATTAGE	-30C -20F	1VM-3	1FK-3
MH	400 M-59	120	1.10	4.00	3.80	458	CWA	±10% VOLTAGE ±5% WATTAGE	-30C -20F	1VM-10	1FK-10
		208	0.70	2.30	2.20						
		240	0.52	2.00	1.90						
		277	0.45	1.75	1.65						
		480	0.38	1.00	1.00						
		347	1.20	1.40	1.35						
		220-240/50	1.30/1.19	2.20/2.00	2.10/1.93	458	CWA	±10% VOLTAGE ±5% WATTAGE	-30C -20F	1VM-4	2FK-4

① Fuse kits, for field installation, must be used within guidelines of governing Electric Codes. Fuses not permitted by CSA C22.2 no. 137 for Canada.

② All ballasts circuits are High Power Factor 90%+.

③ KFx HID fusing is factory only

* Lamp watts: within ANSI trapezoid limitations. Consult major lamp & ballast manufacturer catalogs if more detailed data is needed.



HID AND INDUCTION FIXTURES • BALLAST/FUSE KIT DATA

HID BALLAST DATA & FUSE KIT ①											
LAMP SOURCE	LAMP WATTS/TYPE	VOLTAGE	CURRENT (AMPS)			INPUT WATTS	BALLAST CIRCUIT ②	REGULATION	MIN. START	VM FUSE KIT ④	EZ FUSE KIT
			START	OPERATING	OPEN						
MHP	125 M-150	120	0.85	1.40	0.90	155	CWA	±10% VOLTAGE ±10% WATTAGE	-30C -20F	1VM-4	1FK-4
		208	0.50	0.80	0.55					2VM-3	2FK-3
		240	0.40	0.70	0.45					2VM-2	2FK-2
		277	0.35	0.60	0.40					1VM-2	1FK-2
		480	0.20	0.35	0.25					2VM-1	2FK-1
347	0.30	0.45	0.25	1VM-1	2FK-2						
MHP	150 M-102	120	1.75	1.60	3.65	185	HX-HPF	±5% VOLTAGE ±12% WATTAGE	-30C -20F	1VM-10	1FK-10
		208	1.30	1.00	2.10					2VM-5	2FK-5
		240	0.85	0.80	1.80					2VM-5	2FK-5
		277	0.77	0.70	1.58					1VM-4	1FK-4
		480	0.45	0.42	0.81					2VM-3	2FK-3
347	0.65	0.62	0.98	1VM-3	1FK-3						
MHP	175 M-137	120	0.95	1.80	1.80	208	CWA	±10% VOLTAGE ±10% WATTAGE	-30C -20F	1VM-5	1FK-5
		208	0.55	1.05	1.05					2VM-3	2FK-3
		240	0.45	0.90	0.90					2VM-3	2FK-3
		277	0.40	0.80	0.80					1VM-2	1FK-2
		480	0.25	0.50	0.45					2VM-2	2FK-2
347	0.40	0.70	0.60	1VM-2	1FK-2						
MHP	200 M-136	120	0.82	2.12	1.85	227	CWA	±10% VOLTAGE ±10% WATTAGE	-30C -20F	1VM-6	1FK-6
		208	0.47	1.22	1.06					2VM-4	2FK-4
		240	0.40	1.06	0.91					2VM-3	2FK-3
		277	0.35	0.93	0.80					1VM-3	1FK-3
		480	0.18	0.50	0.60					2VM-2	2FK-2
347	0.25	0.70	0.65	1VM-2	1FK-2						
MHP	750 M-149	120	4.50	7.1	5.15	825	CWA	±10% VOLTAGE ±10% WATTAGE	-30C -22F		
		208	2.60	4.1	2.95						
		240	2.25	3.55	2.55						
		277	1.95	3.10	2.2						
		480									
347											
MHP	875 M-166	120	6.15	7.90	4.25	945	CWA	±10% VOLTAGE ±10% WATTAGE	-30C -22F		
		208	3.55	4.55	2.45						
		240	3.05	3.95	2.15						
		277	2.65	3.45	1.85						
		480									
347											
MHP	1000 M-141	120	6.20	4.00	5.65	1080	CWA	CWA	-30C -22F		
		208	3.60	5.20	3.25						
		240	3.10	4.50	2.80						
		277	2.70	3.90	2.45						
		480									
347											
MHP	250 M-138	120	2.30	2.50	1.40	291	CWA	±10% VOLTAGE ±10% WATTAGE	-30C -20F	1VM-8	1FK-8
		208	1.30	1.45	0.80					2VM-5	2FK-5
		240	1.15	1.25	0.70					2VM-5	2FK-5
		277	1.00	1.10	0.60					1VM-3	1FK-3
		480	0.21	0.57	0.48					2VM-2	2FK-2
347	0.45	0.95	0.75	1VM-3	1FK-3						
MHP	320 M-132	120	1.80	3.25	2.30	368	CWA	±10% VOLTAGE ±10% WATTAGE	-30C -20F	1VM-8	1FK-8
		208	1.05	1.90	1.35					2VM-6	2FK-6
		240	0.30	1.65	1.15					2VM-5	2FK-5
		277	0.80	1.40	1.00					1VM-3	1FK-3
		480	0.45	0.80	0.60					2VM-5	2FK-5
347	0.70	1.10	0.80	1VM-3	1FK-3						
MHP	350 M-131	120	2.20	3.40	2.20	400	CWA	±10% VOLTAGE ±10% WATTAGE	-30C -20F	1VM-10	1FK-10
		208	1.30	2.00	1.30					2VM-7	2FK-7
		240	1.10	1.70	1.10					2VM-5	2FK-5
		277	1.00	1.50	1.00					1VM-5	1FK-5
		480	0.60	0.85	0.60					2VM-3	2FK-3
347	0.85	1.20	0.80	1VM-3	1FK-3						
MHP	400 M-135	120	2.85	3.80	2.20	452	CWA	±10% VOLTAGE ±10% WATTAGE	-30C -20F	1VM-10	1FK-10
		208	1.65	2.20	1.50					2VM-7	2FK-7
		240	1.45	1.90	1.10					2VM-5	2FK-5
		277	1.25	1.65	0.95					1VM-5	1FK-5
		480	0.75	1.00	0.60					2VM-3	2FK-3
347	1.10	1.35	0.75	1VM-4	1FK-4						

① Fuse kits, for field installation, must be used within guidelines of governing Electric Codes. Fuses not permitted by CSA C22.2 no.137 for Canada.

② All ballasts circuits are High Power Factor 90%+.

③ Nominal voltages measured at 115V or 230V.

④ KF HID fusing factory only

* Lamp watts: within ANSI trapezoid limitations. Consult major lamp & ballast manufacturer catalogs if more detailed data is needed.

QL INDUCTION BALLAST DATA							
LAMP SOURCE	LAMP WATTS/TYPE	VOLTAGE	INRUSH CURRENT .005 SEC	NOMINAL OPERATING CURRENT	THD	REGULATION	MIN. START
Induction	55	120	16A	.46A	<10%	±20V, ±2% W	-40C
		200-277	12A	.26A			-40F
Induction	85	120	16A	.73A	<10%	±20V, ±2% W	-40C
		200-277	12A	.40A			-40F
Induction	165	120	28A	1.42A	<10%	±20V, ±2% W	-40C
		200-277	24A	.74A			-40F



LIGHTING

INCANDESCENT/COMPACT FLUORESCENT/MEDIUM BASE HID



Class I, Div. 1 & 2, Groups C,D
Class I, Zones 1 & 2, Groups IIB, IIA
Class II, Div. 1 & 2, Groups E,F,G
Class III, Div. 1 & 2
 Suitable for wet locations
UL Marine Rated (US Only)
NEMA 3, 4, 4X
Factory Sealed

- Files E10514 and E91793 (Marine)

- Certified - File LR11713

FEATURES-SPECIFICATIONS

HOSTILELITE®

Applications

HostileLite® EM & EQ Series fixtures are designed for installations where moisture, dirt, dust, corrosion and vibration may be present, or NEMA 3 and 4x areas where wind, water, snow or high ambients can be expected. They can be used in locations made hazardous due to the presence of flammable or explosive gases, vapors and combustible dusts as defined by the NEC.

applications include classified areas such as paint manufacturing plants, ammunition facilities, oil and gas producing and refining plants, off-shore and dockside installations, tank farms, pipeline pumping stations and marine loading and fuel transfer terminals.

Features

- Four light sources—Incandescent, compact fluorescent, high pressure sodium and metal halide
- Mounting choice—Pendant, ceiling, 25° stanchion or 90° wall mount, all with “wireless” design that allows fast, easy fixture installation
- Factory sealed—No external seal needed. Simply wire mounting cap and thread on fixture to install
- Compact size—Medium base incandescent and HID lamps, plus PL fluorescent lamps allow smaller fixture design
- Corrosion resistant—Copper-free aluminum die-cast construction. Baked powder epoxy finish, electrostatically applied. Exposed hardware is 316 grade stainless steel

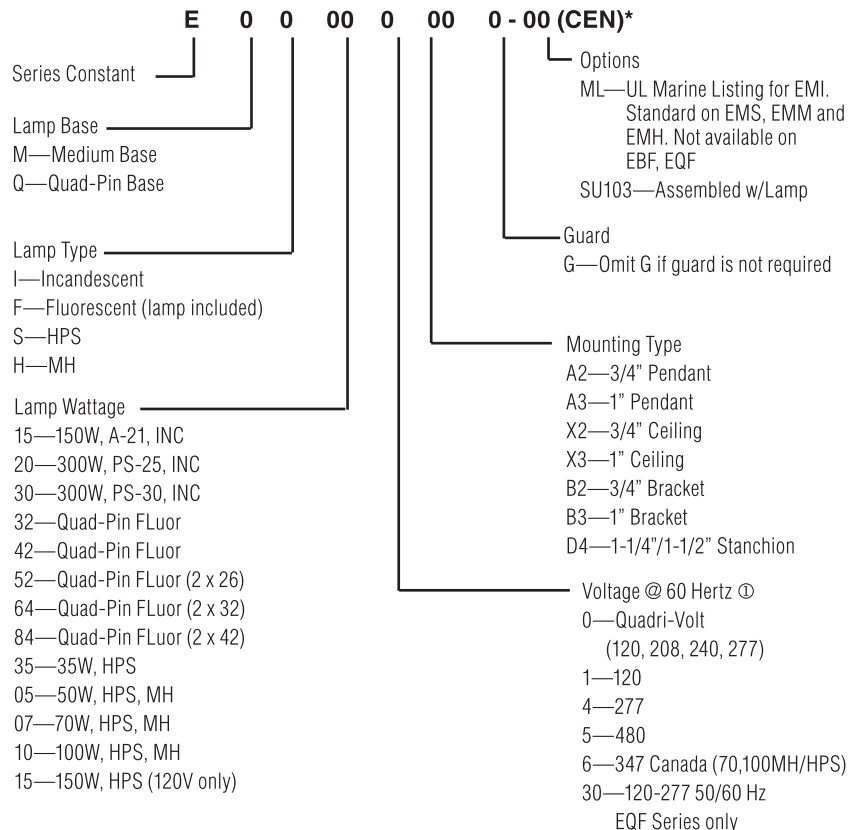
Accessories

- Available with or without guard, standard dome or 25° angle reflector, exit sign and inner colored globes

Compliances

- UL-844 Electric Lighting Fixtures for use in Hazardous Locations
- UL Marine Type Electric Lighting Fixtures
- UL-1598 Standard for Fluorescent, Incandescent and HID fixtures
- CSA C22.2 no. 137-M1981 Electric Luminaires for use in Hazardous Locations
- NEMA 3, 4, 4X, 7CD, 9EFG

Catalog Number Logic



*CEN (CENELEC) approval option available on certain models. See page L150 for more information.

① Consult factory for available lamp and voltage combinations.



EM/EQ SERIES

KILLARK

INCANDESCENT, 60-300W MEDIUM BASE; COMPACT FLUORESCENT, 13-84W



Pendant



Ceiling



Wall



Stanchion

Class I, Div. 1 & 2, Groups C,D
 Class I, Zones 1 & 2, Groups IIB, IIA
 Class II, Div. 1 & 2, Groups E,F,G
 Class III, Div. 1 & 2
 Suitable for wet locations
 Marine Rated (US Only)
 NEMA 3, 4, 4X
 Factory Sealed

UL LISTED - Files E10514 and E91793 (Marine)

SP Certified - File LR11713

FEATURES-SPECIFICATIONS

EM 60 – 300W MEDIUM BASE INCANDESCENT ①						
LAMP TYPE	LAMP/WATTS	LAMP SIZE	CATALOG NUMBER ④			
			PENDANT 3/4" ②	CEILING 3/4" ②	WALL 3/4" ②	STANCHION 1-1/4" ③
INC	60, 75, 100, 150	A-19, A-21	EMI15A2G	EMI15X2G	EMI15B2G	EMI15D4G
	100, 150, 200, 300	A-23, PS-25	EMI20A2G	EMI20X2G	EMI20B2G	EMI20D4G
	200, 300	PS-25, PS-30	EMI30A2G	EMI30X2G	EMI30B2G	EMI30D4G

EQF 26 - 42W WORLD VOLTAGE QUAD - PIN COMPACT FLUORESCENT ①						
LAMP TYPE	QUAD-PIN FLUORESCENT		CATALOG NUMBER ④			
	LAMP INCLUDED	LINE VOLTAGE	PENDANT 3/4" ②	CEILING 3/4" ②	WALL 3/4" ②	STANCHION 1-1/4" ③
COMPACT FLUOR.	26 Watt 5	120-277VAC 50-60Hz	EQF2630A2G	EQF2630X2G	EQF2630B2G	EQF2630D4G
	32 Watt 5	120-277VAC 50-60Hz	EQF3230A2G	EQF3230X2G	EQF3230B2G	EQF3230D4G
	42 Watt 5	120-277VAC 50-60Hz	EQF4230A2G	EQF4230X2G	EQF4230B2G	EQF4230D4G
	52 Watt (2 X 26)	120-277VAC 50-60Hz	EQF5230A2G	EQF5230X2G	EQF5230B2G	EQF5230D4G
	64 Watt (2 X 32)	120-277VAC 50-60Hz	EQF6430A2G	EQF6430X2G	EQF6430B2G	EQF6430D4G
	84 Watt (2 X 42)	120-277VAC 50-60Hz	EQF8430A2G	EQF8430X2G	EQF8430B2G	EQF8430D4G

- ① See Hazardous Location Application Data on pages L150 - L151 for specific suitability.
 - ② For 1" pendant, ceiling and wall hubs, substitute "3" for "2" in catalog number; example: EQF2630A3G.
 - ③ Stanchion conduit hub size supplied is 1-1/2" with 1-1/2" to 1-1/4" reducer for 1-1/4" mounting. (refer to catalog logic).
 - ④ Luminaire catalog numbers include guards. To order luminaire without guard, omit last letter "G" from catalog number.
 - ⑤ EQF 26-42 Watt fixtures use a tank extension ring and are 2.5" taller than EBF fixtures.
- NOTE: Reflectors must be ordered separately (see page L146). All luminaires are designed for mounting with lamp in base up position.



LIGHTING

HID, 35-150W MEDIUM BASE



Class I, Div. 1 & 2, Groups C,D
 Class I, Zones 1 & 2, Groups IIB, IIA
 Class II, Div. 1 & 2, Groups E,F,G
 Class III, Div. 1 & 2
 Suitable for wet locations
 Marine Rated (US Only)
 NEMA 3, 4, 4X
 Factory Sealed

LISTED - Files E10514 and E91793 (Marine)

Certified - File LR11713

FEATURES-SPECIFICATIONS

EM 35 - 150W MEDIUM BASE HIGH PRESSURE SODIUM ①④							
LAMP TYPE	LAMP WATTS	ANSI LAMP TYPE	VOLTAGE @60 HERTZ	CATALOG NUMBER ④			
				PENDANT 3/4" ②	CEILING 3/4" ②	WALL 3/4" ②	STANCHION 1-1/4" ③
HPS	35	S-76	120	EMS351A2G	EMS351X2G	EMS351B2G	EMS351D4G
	50	S-68	120, 208, 240, 277	EMS050A2G	EMS050X2G	EMS050B2G	EMS050D4G
	70	S-62	120, 208, 240, 277	EMS070A2G	EMS070X2G	EMS070B2G	EMS070D4G
	70	S-62	480	EMS075A2G	EMS075X2G	EMS075B2G	EMS075D4G
	100	S-54	120, 208, 240, 277	EMS100A2G	EMS100X2G	EMS100B2G	EMS100D4G
	150	S-55	120	EMS151A2G	EMS151X2G	EMS151B2G	EMS151D4G

EM 50 -100W MEDIUM BASE METAL HALIDE ①④							
LAMP TYPE	LAMP WATTS	ANSI LAMP TYPE	VOLTAGE @60 HERTZ	CATALOG NUMBER ④			
				PENDANT 3/4" ②	CEILING 3/4" ②	WALL 3/4" ②	STANCHION 1-1/4" ③
MH	50	M-110	120, 208, 240, 277	EMH050A2G	EMH050X2G	EMH050B2G	EMH050D4G
	70	M-98	120, 208, 240, 277	EMH070A2G	EMH070X2G	EMH070B2G	EMH070D4G
	100	M-90	120, 208, 240, 277	EMH100A2G	EMH100X2G	EMH100B2G	EMH100D4G

- ① See Hazardous Location Application Data on page L150 - L151 for specific suitability.
 - ② For 1" pendant, ceiling and wall hubs, substitute "3" for "2" in catalog number; example: EMS351A3G.
 - ③ Stanchion conduit hub size supplied is 1-1/2" with 1-1/2" to 1-1/4" reducer for 1-1/4" mounting. (refer to catalog logic).
 - ④ Luminaire catalog numbers include guards. To order luminaire without guard, omit last letter "G" from catalog number.
- NOTE: Reflectors must be ordered separately (see page L146). All luminaires are designed for mounting with lamp in base up position.



COMPONENT PARTS/ACCESSORIES



EMI15/20/EBF



EMI30 & HID



Pendant



Ceiling



Wall Bracket



25° Stanchion

UL LISTED - Files E10514 and E91793 (Marine)
SP Certified - File LR11713

Housing, Globe and Globe Support Assemblies^①

INCANDESCENT			
CATALOG NUMBER	LAMP TYPE	WATTS	VOLTS ^③
EMI15	A-19	60, 75	250 MAX. VAC
	A-19, A-21	100	
	A-21	150	
EMI20	A-23, PS-25	150	250 MAX. VAC
	A-23, PS-25	200	
	PS-25	300	
EMI30	PS-25	200	250 MAX. VAC
	PS-30	300	

FLUORESCENT WITH LAMP(S)*			
CATALOG NUMBER	ANSI LAMP TYPE	WATTS	VOLTS
EQF2630	Quad Pin Fluorescent	26	120-277 VAC 50-60Hz
EQF3230		32	
EQF4230		42	
EQF5230		52 (2X26)	
EQF6430		64 (2X32)	
EQF8430		84 (2X42)	

HPS			
CATALOG NUMBER	ANSI LAMP TYPE	WATTS	VOLTS @60HZ
EMS351	S-76	35	120
EMS050	S-68	50	Quad
EMS070	S-62	70	Quad
EMS075			480
EMS100	S-54	100	Quad
EMS105			480
EMS151			S-55

METAL HALIDE			
CATALOG NUMBER	ANSI LAMP TYPE	WATTS	VOLTS @60HZ
EMH050	M-110	50	Quadri-Volt
EMH070	M-98	70	Quadri-Volt
EMH100	M-90	100	Quadri-Volt

MOUNTING BOXES				
CATALOG NUMBER				HUB SIZE
PENDANT	CEILING	BRACKET	STANCHION	
EZA2	EZX2	EZB2	—	3/4"
EZA3	EZX3	EZB3	—	1"
—	—	—	EZD4*	1-1/4"/1-1/2"*

*1-1/2" furnished with 1-1/2"-1-1/4" reducer



HIC-BEIGE replacement wiring plug for EZBx Wall Bracket



Close up plug for EZ mounting boxes. Used for maintenance when fixture is removed for service.



EMG1



EMG2



EAC^②



Standard Dome



Angle Dome

GUARDS		
CATALOG NUMBER	SERIES	LAMP TYPE
EMG1	EMI15	INC
	EMI20	INC
	EQF (26, 32, 42)	Quad-Pin
EMG2	EMI30	INC
	EMS	HPS
	EMH	MH
	ESX	Strobe
	EQF (52, 64, 84)	Quad-Pin

Guards are cast of copper-free aluminum with electrostatically applied epoxy/polyester finish.

- * Consult factory for 52, 64 and 84 Watt availability.
- ① Assemblies may be ordered with the CEN (GENELEC) suffix. See page L148 for more information.
- ② Adapters for discontinued Killark "H" Series and Crouse Hinds[®] available.
- ③ UL fixture rating; socket rated 600V.

REFLECTORS		
CATALOG NUMBER		SERIES
STANDARD DOME	ANGLE	
ERSD15	ERA15	EMI15/EMI20
		EQF
ERSD30	ERA30	EMI30
		EMS
		EMH
		EQF (52, 64, 84)

Reflectors are aluminum with white finish.



FACTORY SEALED
 Class I, DIV. 1 BCD
 Class II, DIV. 1&2 EFG
 CLASS III
 NEMA 3, 4X IP66
 *40°C ambient T3 Rated

PHOTO CELL FIELD KITS WITH HKB - GL BOX AND COVER	
CATALOG NUMBER	VOLTS
VMHKPC1	120VAC
VMHKPC2	208-277VAC
VMHKPC3	347VAC



REPLACEMENT PARTS/ACCESSORIES



Exit Sign Accessory

Hazardous Locations Exit Sign

Applications

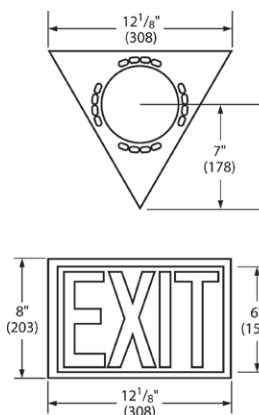
For use in hazardous areas to mark exits over doorways and in hallways.

Features

- Three sided illuminated sign visible from all three sides
- EXIT printed in 6" high red letters with 3/4" strokes as required by OSHA. Sign has open bottom providing light on exit area while illuminating the panel

EXIT SIGN	
CATALOG NUMBER	DESCRIPTION
HEXA-100	Fits EMI15, EMI20, EQF/EEQ Series without guard * (Fixture not included)

* EQF to 42W



REPLACEMENT FLUORESCENT LAMPS	
CATALOG NUMBER	SIZE & TYPE
MQL26	26W Quad-Pin
MQL32	32W Quad-Pin
MQL42	42W Quad-Pin



Replacement Globe & Support Assemblies

REPLACEMENT GLOBE AND GLOBE SUPPORTS			
CATALOG NUMBER ^①	SERIES	LAMP TYPE	MAX. WATTAGE
EMGS1	EMI15	INC	150
	EMI20	INC	300
	EQF	PL Quad-Pin Fluorescent	26, 32, 42
EMGS2 ^② EMGS3	EMI30	INC	300
	EMS	HPS	150
	EMH	MH	100
	EQF	PL Quad-Pin Fluorescent	52, 64, 84

^① EMGs1, EMGS3 are internally fluted glass.

^② EMGS2 is smooth clear glass used for ESX strobe.



EM Series

REPLACEMENT SOCKETS	
CATALOG NUMBER	DESCRIPTION
EMRS	EM Series E-26 Medium Base



Female EZTB



Male EZCB

REPLACEMENT CONNECTION BLOCKS	
CATALOG NUMBER	DESCRIPTION
EZTB	Female
EZCB	Male

COLORED GLOBE KITS FOR HAZARDOUS LOCATIONS ^③	
KIT NO.	GLOBE COLOR
KT-100SU41R	RED
KT-100SU41G	GREEN

Used to modify EMI20 Series only fixtures to accept a colored inner globe. The kit includes the globe plus an adapter assembly and mounting instructions.

^③ Maximum lamp size A-21 150 Watt.



BALLAST DATA

EM/EB BALLAST DATA								
LAMP SOURCE	LAMP WATTS/TYPE	VOLTAGE @ 60 HERTZ	START (AMPS)	OPERATING (AMPS)	OPEN (AMPS)	BALLAST CIRCUIT	REGULATION	MIN, START
Quad-Pin Fluorescent	26W	120-277	—	.24(120)/.11(277)	—	HPF	ELECTRONIC	0°F (-18°C)
	32W			.31(120)/.13(277)				
	42W			.38(120)/.18(277)				
Quad-Pin Fluorescent	52W (2X26)	120-277	—	.48(120)/.22(277)	—	HPF	ELECTRONIC	0°F (-18°C)
	64W (2X36)			.62(120)/.26(277)				
	84W (2X42)			.76(120)/.36(277)				
HPS	35W S-76	120	0.55	0.4	0.65	R-HPF ①	±5% Line Voltage*	0°F (-40°C)
HPS	50W S-68	120	0.58	0.58	1.24	HX-HPF ①	±5% Line Voltage*	40°F (-40°C)
		208	0.35	0.33	0.59			
		240	0.3	0.29	0.5			
		277	0.24	0.25	0.44			
HPS	70W S-62	120	0.75	0.81	1.45	HX-HPF ①	±5% Line Voltage*	40°F (-40°C)
		208	0.45	0.47	0.85			
		240	0.37	0.4	0.75			
		277	0.35	0.35	0.65			
HPS	100W S-54	120	1.3	1.15	2.2	HX-HPF ①	±5% Line Voltage*	40°F (-40°C)
		208	0.76	0.66	1.27			
		240	0.66	0.57	1.1			
		277	0.6	0.49	0.85			
HPS	150W S-55	120	2.2	1.5	2.35	HX-HPF ①	±5% Line Voltage*	40°F (-40°C)
		208	0.87	0.6	1.16			
		240	0.51	0.35	0.67			
		277	0.47	0.3	0.57			
MH	50W M-110	120	0.8	0.85	1.7	HX-HPF ①	±5% Line Voltage ±12% Lamp Watts	-20°F (-30°C)
		208	0.5	0.5	1.04			
		240	0.43	0.43	0.87			
		277	0.39	0.37	0.78			
MH	70W M-98	120	1.2	1.15	2.3	HX-HPF ①	±5% Line Voltage ±12% Lamp Watts	-20°F (-30°C)
		208	0.7	0.6	1.3			
		240	0.61	0.55	1.1			
		277	0.55	0.45	0.95			

* Lamp watts within ANSI Trapezoid limitations.

① Ballast circuits are High Power Factor 90%+.

LIGHTING

EM/EQ/ESX/EEQ SERIES



DIMENSIONS



Pendant



Ceiling



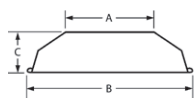
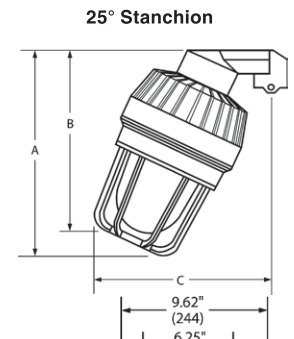
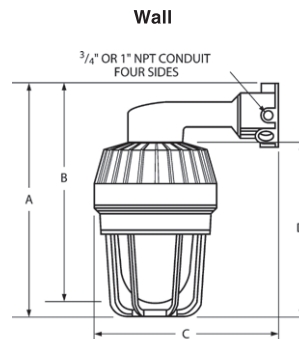
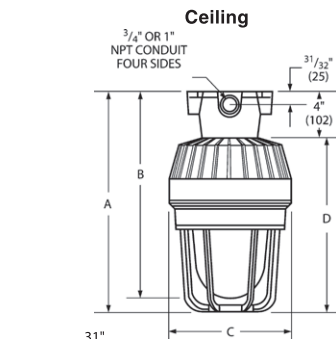
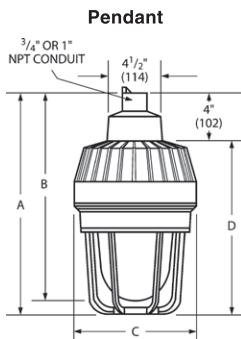
Wall



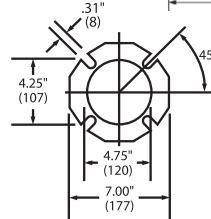
Stanchion

FEATURES-SPECIFICATIONS

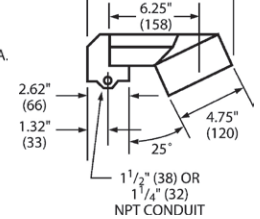
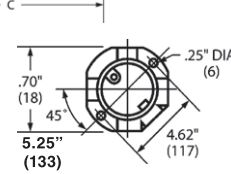
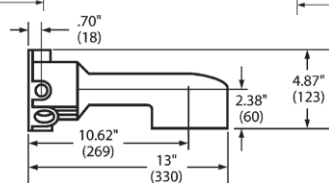
SERIES	EM/ EMB /ESX DIMENSIONS												STANCHION		
	PENDANT				CEILING				WALL				A	B	C
	A	B	C	D	A	B	C	D	A	B	C	D	A	B	C
EMI15	14-5/16"	13-11/16"	7-7/16"	10-5/16"	14-5/16"	13-11/16"	7-7/16"	10-5/16"	15-13/16"	14-7/16"	14-1/2"	10-5/16"	14"	13-1/4"	13"
EMI20	(363)	(346)	(188)	(261)	(363)	(347)	(188)	(261)	(385)	(366)	(369)	(26)	(256)	(337)	(330)
EQF to 42W	16-13/16"	16-3/16"	7-7/16"	12-5/8"	16-13/16"	16-3/16"	7-7/16"	12-5/8"	18-5/16"	16-15/16"	14-1/2"	12-5/8"	16-1/4"	15-3/4"	15-1/4"
EEQ	(427)	(411)	(188)	(321)	(427)	(411)	(188)	(321)	(465)	(430)	(368)	(321)	(413)	(400)	(387)
EMI30															
EMH															
EMS	15-15/16"	15-1/16"	8-13/16"	11-15/16"	15-15/16"	15-1/16"	8-13/16"	11-15/16"	16-13/16"	15-13/16"	15"	11-15/16"	15-1/8"	14"	13-1/2"
ESX	(404)	(382)	(224)	(303)	(404)	(382)	(224)	(303)	(426)	(404)	(379)	(303)	(384)	(356)	(343)
EQF 52, 64, 84															



Standard Dome



Angle



SERIES	REFLECTOR DIMENSIONS						
	STANDARD DOME			ANGLE			
	A	B	C	A	B	C	D
EMI15/EMI20	7-3/8"	14"	3-3/4"	7"	11-1/2"	7-3/4"	1"
EQF to 42W	(187)	(356)	(95)	(178)	(292)	(197)	(25)
EMI30/EMS	8-3/4"	16-1/8"	3-15/16"	8-3/4"	14-3/16"	7-3/4"	1"
EMH	(222)	(409)	(100)	(222)	(360)	(197)	(25)
EQF 52, 64, 84							



APPLICATION DATA



CEN Option

Applications

Killark EM/EB/ESX series fixtures are available with a European "Certificate of Conformity" from PTB (Physikalisch-Technische Bundesanstalt), the approval agency based in Germany. Fixtures with this rating will be useful for Original Equipment Manufacturers and others who build and ship apparatus into European markets.

This approval is granted by PTB with the use of a special ground lug and label. Fixtures carrying an EEx d IIB approval are automatically granted an IP54 (ingress protection) rating. See Temperature Code chart below for PTB certified ratings. Killark EM/EB/ESX fixtures with the PTB rating and labels still carry all UL & CSA ratings.

Fixture housing/globe/globe support assemblies (e.g. EM120 CEN) may be ordered with the CEN suffix. Complete fixture numbers, with the CEN suffix, will be shipped with the mounting boxes, guards and accessories as component parts. Reflectors and other accessory parts, as listed on page L146, may be used. Killark fixtures are NPT tapped and plugged with at least one conduit hole open.

Compliances

- EN 50014:1992
- EN 50018:1994
- EEx d IIB T6 (or T5-T2)
- PTB No. Ex-98.E.1076



EM/EB/EQ HAZARDOUS LOCATION DATA – CLASS I, DIV. 1 & 2 ①②							
FITURE SERIES	LAMP TYPE/SIZE MAX.	LAMP WATTS	RATED AMBIENT °C	SUPPLY WIRE SUITABLE FOR °C MIN.	CLASS I, DIVISIONS 1 & 2		
					MAXIMUM SURFACE TEMPERATURE °C		
					UL/CSA WITH OR WITHOUT REFLECTOR		
					TEMP. I.D.	ACTUAL TEMP.	UL/CSA GROUPS
EMI15	INC A-19	60	40	75	T6	79	C,D
			55	75	T6		C,D
			65	75	T4A		C,D
EMI15	INC A-19	75	40	75	T4A	103	C,D
			55	90	T4A		C,D
			65	90	T4		C,D
EMI15	INC A-19	100	40	75	T4A	103	C,D
			55	90	T4A		C,D
			65	90	T4		C,D
EMI15	INC A-21	100	40	75	T4A	101	C,D
			55	90	T4A		C,D
			65	90	T4		C,D
EMI15	INC A-21	150	40	75	T4	123	C,D
			55	90	T3C		C,D
			65	90	T3C		C,D
EMI20	INC A-23	100	40	90	T4A	107	C,D
			55	90	T4		C,D
			65	90	T4		C,D
EMI20	INC A-23	150	40	90	T4	132	C,D
			55	90	T3C		C,D
			65	125	T3C		C,D
EMI20	INC PS-25	150	40	90	T4	126	C,D
			55	125	T3C		C,D
			65	125	T3C		C,D
EMI20	INC A-23	200	40	90	T3C	146	C,D
			55	90	T3B		C,D
			65	125	T3A		C,D
EMI20	INC PS-25	200	40	90	T3C	154	C,D
			55	90	T3A		C,D
			65	125	T3A		C,D
EMI20	INC PS-25	300	40	90	T3	190	C,D
			55	125	T2D		C,D
			65				C,D
EMI30	INC PS-25	200	40	125	T3C	146	C,D
			55	125	T3B		C,D
			65	125	T3A		C,D
EMI30	INC PS-25	300	40	125	T3C	143	C,D
			55	125	T3B		C,D
			65	125	T3A		C,D
EMI30	INC PS-30	200	40	125	T3C	146	C,D
			55	125	T3B		C,D
			65	125	T3A		C,D
EMI30	INC PS-30	300	40	125	T3C	146	C,D
			55	125	T3B		C,D
			65	125	T3A		C,D
EQF26	1 26W Quad-Pin	26	40	75	T6	75	C,D
EQF32	1 32W Quad-Pin	32	40	75	T6	75	C,D
EQF42	1 42W Quad-Pin	42	40	75	T6	75	C,D
EQF52	2 26W Quad-Pin	52	40	75	T6	85	C,D
EQF64	2 32W Quad-Pin	64	40	75	T6	85	C,D
EQF84	2 42W Quad-Pin	84	40	75	T6	85	C,D
EMS35	ED17/S-76	35	40	75	T6	65	C,D
			55	90	T5		C,D
			65	90	T4A		C,D
EMS05	ED17/S-68	50	40	75	T6	68	C,D
			55	75	T6		C,D
			65	90	T5		C,D
EMS07	ED17/S-62	70	40	75	T6	83	C,D
			55	90	T5		C,D
			65	90	T4A		C,D
EMS100	ED17/S-54	100	40	75	T5	99	C,D
			55	90	T4A		C,D
			65	125	T4A		C,D
EMS151	ED17/S-55	150	40	75	T4A	119	C,D
			55	90	T4		C,D
			65	125	T3C		C,D
EMH05	BD17/M-110	50	40	75	T6	78	C,D
			55	90	T5		C,D
			65	125	T4A		C,D
EMH07	BD17/M-98	75	40	75	T5	95	C,D
			55	90	T4A		C,D
			65	125	T4A		C,D
EMH100	BD17/M-90	100	40	75	T4A	101	C,D
			55	90	T4		C,D
			65	125	T3C		C,D

① Do not install where marked operating temperature exceeds ignition temperature of hazardous atmosphere.
 ② See Class II table for simultaneous presence ratings.

MAXIMUM AMBIENT TEMPERATURE RANGE -20°C TO 40°C				
TYPE OF LUMINAIRE	TYPE OF ENCLOSURE	FORM OF THE LAMP	MAXIMUM WATTAGE	TEMP. CLASS
EMI15	EMx20	A-19/A-21	150W	T4
EMI20	EMx20	A-23/PS-25	300W	T3
EMI30	EMx30	PS-25/PS-30	300W	T2
EMH05	EMx30	BD17/M-110	50W	T6
EMH07	EMx30	BD17/M-98	70W	T5
EMH10	EMx30	BD17/M-90	100W	T4
EMS35	EMx30	ED17/S-76	35W	T6
EMS05	EMx30	ED17/S-68	50W	T6
EMS07	EMx30	ED17/S-62	70W	T5
EMS10	EMx30	ED17/S-54	100W	T5
EMS15	EMx30	ED17/S-55	150W	T4
ESXx120	EMx30	120V AC	0.17 A	T6
ESXx240	EMx30	240V AC	0.12 A	T6
ESXx1274	EMx30	12 TO 74 V DC	1.25 TI 0.2 A	T6



APPLICATION DATA

EM/EB/EQ HAZARDOUS LOCATION DATA – CLASS II, III, DIVISIONS 1 & 2 ①②																
FIXTURE SERIES	LAMP TYPE/SIZE MAX.	LAMP WATTS	RATED AMBIENT °C	SUPPLY WIRE SUITABLE FOR °C HOSEMIN.	CLASS II, DIV. 1 & 2 MAXIMUM SURFACE TEMPERATURE °C				UL/CSA GROUPS	CLASS III DIV. 1 & 2 UL/CSA SUITABILITY	UL MARINE LISTED	U.L. PAINT SPRAY SUITABILITY	UL/CSA TYPE (RAIN-TIGHT)	UL/CSA TYPE 4 (HOSE-DOWN) ③		
					UL/CSA WITHOUT REFLECTOR		UL/CSA WITH REFLECTOR									
					TEMP. I.D.	ACTUAL TEMP. °C	TEMP. I.D.	ACTUAL TEMP. °C								
EMI15	INC A-19	60	40	75	T3C	132	T3C	132	E,F,G	YES	YES	NO	YES	YES		
			55	75	T3A				E,F	NO	YES	NO	YES	YES		
			65	75	T3A				E,F							
EMI15	INC A-19	75	40	75	T3A	163	T3A	162	E,F	NO	YES	NO	YES	YES		
			55	90	T3A				E,F	NO	YES	NO	YES	YES		
			65	90	T3A				E,F	NO	YES	NO	YES	YES		
EMI15	INC A-19	100	40	75	T3A	163	T3A	162	E,F	NO	YES	NO	YES	YES		
			55	90	T3A				E,F	NO	YES	NO	YES	YES		
			65	90	T3A				E,F	NO	YES	NO	YES	YES		
EMI15	INC A-21	100	40	75	T3A	172	T3A	172	E,F	NO	YES	NO	YES	YES		
			55	90	T3				E,F	NO	YES	NO	YES	YES		
			65	90	T3				E,F	NO	YES	NO	YES	YES		
EMI15	INC A-21	150	40	75	N/A	192	T3	192	E,F	NO	YES	NO	YES	YES		
			55		N/A											
			65		N/A											
EMI20	INC A-23	100	40	90	T3A	166	T3A	166	E,F	NO	YES	NO	YES	YES		
			55	90	T3				E,F	NO	YES	NO	YES	YES		
			65		N/A											
EMI20	INC A-23	150	40	90	T3	196	T3A	178	E,F	NO	YES	NO	YES	YES		
			55	90	T3				E,F	NO	YES	NO	YES	YES		
			65		N/A											
EMI20	INC PS-25	150	40	90	N/A	N/A	N/A	N/A	NO	NO	YES	NO	YES	YES		
			55		N/A											
			65		N/A											
EMI20	INC A-23	200	40	90	N/A	N/A	N/A	N/A	NO	NO	YES	NO	YES	YES		
			55		N/A											
			65		N/A											
EMI20	INC PS-25	200	40	90	N/A	N/A	N/A	N/A	NO	NO	YES	NO	YES	YES		
			55		N/A											
			65		N/A											
EMI20	INC PS-25	300	40	90	N/A	N/A	N/A	N/A	NO	NO	YES	NO	YES	YES		
			55		N/A											
			65		N/A											
EMI30	INC PS-25	200	40	110	N/A	N/A	N/A	N/A	NO	NO	YES	NO	YES	YES		
			55		N/A											
			65		N/A											
EMI30	INC PS-25	300	40	110	N/A	N/A	N/A	N/A	NO	NO	YES	NO	YES	YES		
			55		N/A											
			65		N/A											
EMI30	INC PS-30	200	40	110	N/A	N/A	N/A	N/A	NO	NO	YES	NO	YES	YES		
			55		N/A											
			65		N/A											
EMI30	INC PS-30	300	40	110	N/A	N/A	N/A	N/A	NO	NO	YES	NO	YES	YES		
			55		N/A											
			65		N/A											
EQF26	1 26W Quad-Pin	26	40	75	T4	135	T4	135	E,F,G	YES	NO	YES	YES	YES		
			EQF32	1 32W Quad-Pin	32	40	75	T4	135	T4	135	E,F,G	YES	NO	YES	YES
			EQF42			1 42W Quad-Pin	42	40	75	T4	135	T4	135	E,F,G	YES	NO
EQF52	2 26W Quad-Pin	52	40					75	T4	135	T4	135	E,F,G	YES	NO	YES
EQF64			2 32W Quad-Pin	64	40			75	T4	135	T4	135	E,F,G	YES	NO	YES
EQF84					2 42W Quad-Pin	84	40	75	T4	135	T4	135	E,F,G	YES	NO	YES
EMS35	HPS S-70	35					40	75	T4A	116	T4A	116	E,F,G	YES	YES	YES
			55				N/A									
			65		N/A											
EMS05	HPS S-68	50	40	75	T4A	116	T4A	116	E,F,G	YES	YES	YES	YES	YES		
			55	75	T4				E,F,G							
			65	90	T3C				E,F,G							
EMS07	HPS S-62	70	40	75	T4A	116	T4A	116	E,F,G	YES	YES	YES	YES	YES		
			55	90	T4				E,F,G	YES	YES	YES	YES	YES		
			65	90	T3C				E,F,G	YES	YES	YES	YES	YES		
EMS100	HPS S-54	100	40	75	T3B	161	T3B	161	E,F,G	YES	YES	NO	YES	YES		
			55		N/A											
			65		N/A											
EMS150	HPS S-55	150	40	75	T3A	180	T3B	180	E,F	NO	YES	NO	YES	YES		
			55	90	T3				E,F	NO	YES	NO	YES	YES		
			65		N/A											
EMH05	MH M-110	50	40	75	T4	121	T4	121	E,F,G	YES	YES	YES	YES	YES		
			55	90	T3C				E,F	NO	YES	YES	YES	YES		
			65	110	T3B				E,F,G	NO	YES	YES	YES	YES		
EMH07	MH M-98	70	40	75	T4	121	T4	121	E,F,G	YES	YES	YES	YES	YES		
			55	90	T3C				E,F,G	YES	YES	YES	YES	YES		
			65	110	T3B				E,F,G	YES	YES	YES	YES	YES		
EMH100	MH M-90	100	40	75	T3C	153	T3C	153	E,F,G	YES	YES	NO	YES	YES		
			55	90	T3A				E,F,G	YES	YES	NO	YES	YES		
			65		N/A				NO	YES	YES	NO	YES	YES		

① Do not install where marked operating temperature exceeds ignition temperature of hazardous atmosphere.
 ② Fixtures rated for simultaneous presence as shown in Class II table (unless marked with N/A).
 ③ For UL-Marine and UL/CSA Type 4 listing add suffix "ML" to "EMI" Series fixture catalog number; standard on "EMS" and "EMH" series. Not available on "EQF" series.



MOGUL BASE HID FIXTURES



Class I, Div. 1 & 2 Groups C,D
 Class I, Zone 1 & 2, Groups IIB,IIA
 Class I, Zone 1, AEx d IIB
 Class II, Div. 1 & 2, Groups E,F,G
 Class III, Div. 1 & 2
 Suitable for wet locations
 Marine Rated (US Only)
 NEMA 3, 4, 4X
 Factory Sealed

UL LISTED - File E10514 and E91793

SP Certified - File LR11713

FEATURES-SPECIFICATIONS

HOSTILELITE®

HOSTILELITE® EZ fixtures are now available with Pulse Start Metal Halide ballasts. Pulse Start systems provide higher and better maintained light output with longer life compared standard metal halide systems. Pulse start and standard Metal Halide lamps and ballasts are not interchangeable.

Applications

HOSTILELITE® EZ Series mogul base fixtures are designed for installations where moisture, dirt, dust, corrosion and vibration may be present, or NEMA 3 and 4x areas where wind, water, snow or high ambients can be expected. They can be used in locations made hazardous due to the presence of flammable or explosive gases, vapors and combustible dusts as defined by the NEC.

Typical applications include classified areas such as paint manufacturing plants, ammunition facilities, oil and gas producing and refining plants, off-shore and dockside installations, tank farms, pipeline pumping stations and marine loading and fuel transfer terminals.

Features

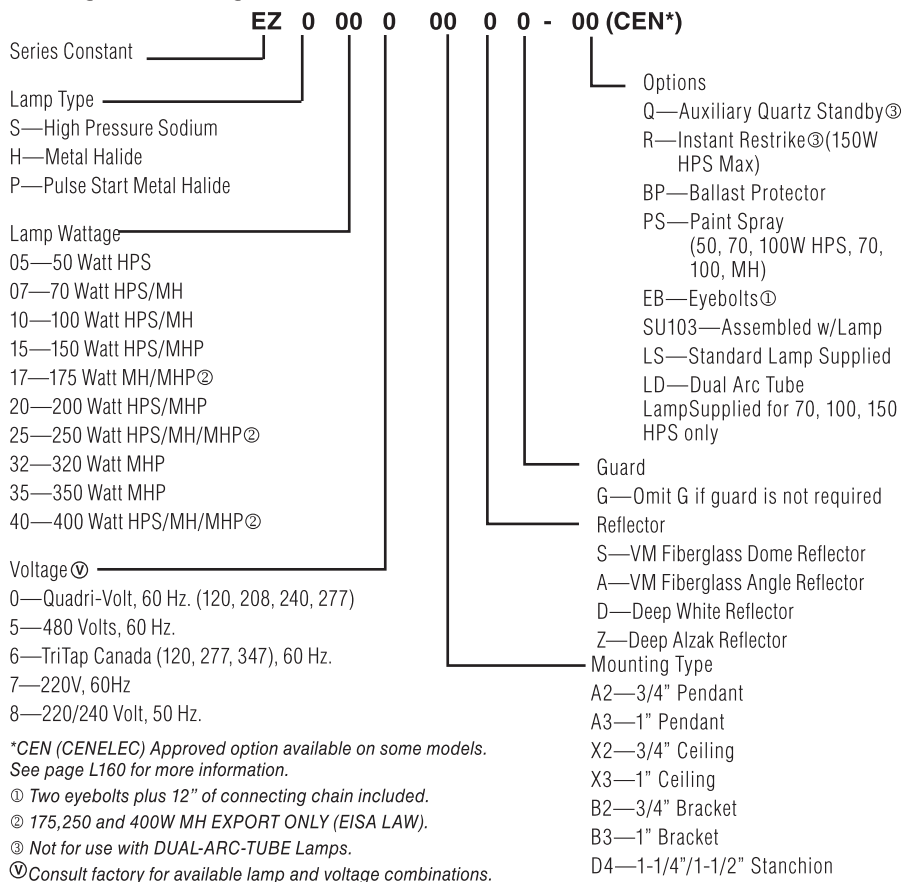
- Three light sources – High Pressure Sodium (50-400W), Metal Halide (70-400W) and Pulse Start Metal Halide (175-400W)
- HOSTILELITE® EZ fixtures are now available with Pulse Start Metal Halide ballasts
- Mounting choice –Pendant, ceiling, 25° stanchion or 90° wall mount, all with “wireless” design that allows fast, easy fixture installation or removal for maintenance. See pages L181-182 for trunnion mounted fixtures
- Factory sealed – No external seal needed. Simply wire mounting cap and thread on fixture to install

- Corrosion resistant – Copper-free aluminum die cast construction. Baked powder epoxy finish, electrostatically applied. Exposed hardware is 316 grade stainless steel
- Accessories – Available with or without guard, standard dome or angle reflector
- Options – EZ Series fixtures can be specified with instant restart for HPS lamps, auxiliary quartz circuit, ballast protector, and fuse kits. (See page L156 for details)

Compliances

- UL-844 Electric Lighting Fixtures for use in Hazardous Locations
- UL Marine Type Electric Lighting Fixtures
- UL-1598 Standard for HID Lighting Fixtures
- CSA C22.2 no. 137-M1981 Electric Luminaires for use in Hazardous Locations
- CSA C22.2 no. 94-1976 Special purpose enclosure
- NEMA 3, 4, 4x, 7CD, 9EFG

Catalog Number Logic





LIGHTING

HIGH PRESSURE SODIUM 50-400W MOGUL BASE HID

Class I, Div. 1 & 2 Groups C,D
 Class I, Zone 1 & 2, Groups IIB,IIA
 Class I, Zone 1, AEx d IIB
 Class II, Div. 1 & 2, Groups E,F,G
 Class III, Div. 1 & 2
 Suitable for wet locations
 Marine Rated (US Only)
 NEMA 3, 4, 4X
 Factory Sealed

LISTED - File E10514 and E91793 (Marine)

Certified - File LR11713

FEATURES-SPECIFICATIONS



Pendant



Ceiling



Wall



Stanchion

EZ 50- 400 WATT, HIGH PRESSURE SODIUM ①④						
WATTS	ANSI LAMP	VOLTAGE @ 60HZ	CATALOG NUMBER			
			PENDANT 3/4" ②	CEILING 3/4" ②	WALL 3/4" ②	STANCHION 1-1/4" ③
50	S-68	120, 208, 240, 277	EZS050A2G	EZS050X2G	EZS050B2G	EZS050D4G
		120, 277, 347	—	—	—	—
		480	—	—	—	—
70	S-62	120, 208, 240, 277	EZS070A2G	EZS070X2G	EZS070B2G	EZS070D4G
		120, 277, 347	EZS076A2G	EZS076X2G	EZS076B2G	EZS076D4G
		480	EZS075A2G	EZS075X2G	EZS075B2G	EZS075D4G
100	S-54	120, 208, 240, 277	EZS100A2G	EZS100X2G	EZS100B2G	EZS100D4G
		120, 277, 347	EZS106A2G	EZS106X2G	EZS106B2G	EZS106D4G
		480	EZS105A2G	EZS105X2G	EZS105B2G	EZS105D4G
150	S-55	120, 208, 240, 277	EZS150A2G	EZS150X2G	EZS150B2G	EZS150D4G
		120, 277, 347	EZS156A2G	EZS156X2G	EZS156B2G	EZS156D4G
		480	EZS155A2G	EZS155X2G	EZS155B2G	EZS155D4G
250	S-50	120, 208, 240, 277	EZS250A2G	EZS250X2G	EZS250B2G	EZS250D4G
		120, 277, 347	EZS256A2G	EZS256X2G	EZS256B2G	EZS256D4G
		480	EZS255A2G	EZS255X2G	EZS255B2G	EZS255D4G
400	S-51	120, 208, 240, 277	EZS400A2G	EZS400X2G	EZS400B2G	EZS400D4G
		120, 277, 347	EZS406A2G	EZS406X2G	EZS406B2G	EZS406D4G
		480	EZS405A2G	EZS405X2G	EZS405B2G	EZS405D4G

① See Hazardous Location Application Data on pages L160 - L161 for specific suitability.
 ② For 1 inch pendant, ceiling and wall hubs, substitute "3" for "2" in catalog number; example: **EZS070A3G**.
 ③ Stanchion conduit hub size supplied is 1-1/2" with 1-1/2" to 1-1/4" reducer for 1-1/4" mounting. (Refer to catalog logic).
 ④ Luminaire catalog numbers include guards. To order luminaire without guard, omit last letter "G" from catalog number.
 NOTE: Reflectors must be ordered separately (see page L157).

All luminaires are designed for mounting with lamp in base up position.



METAL HALIDE 70-400W MOGUL BASE HID

Class I, Div. 1 & 2 Groups C,D
 Class I, Zone 1 & 2, Groups IIB,IIA
 Class I, Zone 1, AEx d IIB
 Class II, Div. 1 & 2, Groups E,F,G
 Class III, Div. 1 & 2
 Suitable for wet locations
 Marine
 NEMA 3, 4, 4X
 Factory Sealed

LISTED - File E10514 and E91793 (Marine)

Certified - File LR11713

ORDERING INFORMATION



Pendant



Ceiling



Wall



Stanchion

EZ 70 - 400 WATT, METAL HALIDE ①④⑥						
WATTS	ANSI LAMP	VOLTAGE @ 60HZ	CATALOG NUMBER			
			PENDANT 3/4" ②	CEILING 3/4" ②	WALL 3/4" ②	STANCHION 1-1/4" ③
70 ⑥	M-98	120, 208, 240, 277	EZH070A2G	EZH070X2G	EZH070B2G	EZH070D4G
		120, 277,347	EZH076A2G	EZH076X2G	EZH076B2G	EZH076D4G
		480	EZH075A2G	EZH075X2G	EZH075B2G	EZH075D4G
100 ⑥	M-90	120, 208, 240, 277	EZH100A2G	EZH100X2G	EZH100B2G	EZH100D4G
		120, 277,347	EZH106A2G	EZH106X2G	EZH106B2G	EZH106D4G
		480	EZH105A2G	EZH105X2G	EZH105B2G	EZH105D4G
175 ⑥	M-575 n	120, 208, 240, 277	EZH170A2G	EZH170X2G	EZH170B2G	EZH170D4G
		120, 277,347	EZH176A2G	EZH176X2G	EZH176B2G	EZH176D4G
		480	EZH175A2G	EZH175X2G	EZH175B2G	EZH175D4G
250 ⑥	M-58	120, 208, 240, 277	EZH250A2G	EZH250X2G	EZH250B2G	EZH250D4G
		120, 277,347	EZH256A2G	EZH256X2G	EZH256B2G	EZH256D4G
		480	EZH255A2G	EZH255X2G	EZH255B2G	EZH255D4G
400 ⑥	M-59	120, 208, 240, 277	EZH400A2G	EZH400X2G	EZH400B2G	EZH400D4G
		120, 277,347	EZH406A2G	EZH406X2G	EZH406B2G	EZH406D4G
		480	EZH405A2G	EZH405X2G	EZH405B2G	EZH405D4G

① See Hazardous Location Application Data on pages L160 - L161 for specific suitability.
 ② For 1 inch pendant, ceiling and wall hubs, substitute "3" for "2" in catalog number; example: **EZH070A3G**.
 ③ Stanchion conduit hub size supplied is 1-1/2" with 1-1/2" to 1-1/4" reducer for 1-1/4" mounting. (Refer to catalog logic).
 ④ Luminaire catalog numbers include guards. To order luminaire without guard, omit last letter "G" from catalog number.
 ⑤ Will also operate 150W M107 Metal Halide Lamps.
 ⑥ 175, 250, 400W MH EXPORT ONLY (EISA LAW).
 NOTE: Reflectors must be ordered separately (see page L157).
 All luminaires are designed for mounting with lamp in base up position.



LIGHTING

PULSE START METAL HALIDE 150-400W MOGUL BASE HID

Class I, Div. 1 & 2 Groups C,D
 Class I, Zone 1 & 2, Groups IIB,IIA
 Class I, Zone 1, AEx d IIB
 Class II, Div. 1 & 2, Groups E,F,G
 Class III, Div. 1 & 2
 Suitable for wet locations
 Marine
 NEMA 3, 4, 4X
 Factory Sealed

LISTED - File E10514 and E91793 (Marine)

Certified - File LR11713

ORDERING INFORMATION



Pendant



Ceiling



Wall



Stanchion

EZ 150 - 400 WATT, PULSE START METAL HALIDE ①④⑥						
WATTS	ANSI LAMP	VOLTAGE @ 60HZ	CATALOG NUMBER			
			PENDANT 3/4" ②	CEILING 3/4"②	WALL 3/4" ②	STANCHION 1-1/4" ③
150	M-102 M-142	120, 208, 240, 277	EZP150A2G	EZP150X2G	EZP150B2G	EZP150D4G
		120,277,347	EZP156A2G	EZP156X2G	EZP156B2G	EZP156D4G
		480	EZP155A2G	EZP155X2G	EZP155B2G	EZP155D4G
175	M-137	120, 208, 240, 277	EZP170A2G	EZP170X2G	EZP170B2G	EZP170D4G
		120,277,347	EZP176A2G	EZP176X2G	EZP176B2G	EZP176D4G
		480	EZP175A2G	EZP175X2G	EZP175B2G	EZP175D4G
250	M-138	120, 208, 240, 277	EZP250A2G	EZP250X2G	EZP250B2G	EZP250D4G
		120,277,347	EZP256A2G	EZP256X2G	EZP256B2G	EZP256D4G
		480	EZP255A2G	EZP255X2G	EZP255B2G	EZP255D4G
320	M-132	120, 208, 240, 277	EZP320A2G	EZP320X2G	EZP320B2G	EZP320D4G
		120,277,347	EZP326A2G	EZP326X2G	EZP326B2G	EZP326D4G
		480	EZP325A2G	EZP325X2G	EZP325B2G	EZP325D4G
350	M-131	120, 208, 240, 277	EZP350A2G	EZP350X2G	EZP350B2G	EZP350D4G
		120,277,347	EZP356A2G	EZP356X2G	EZP356B2G	EZP356D4G
		480	EZP355A2G	EZP355X2G	EZP355B2G	EZP355D4G
400	M-135	120, 208, 240, 277	EZP400A2G	EZP400X2G	EZP400B2G	EZP400D4G
		120,277,347	EZP406A2G	EZP406X2G	EZP406B2G	EZP406D4G
		480	EZP405A2G	EZP405X2G	EZP405B2G	EZP405D4G

① See Hazardous Location Application Data on pages L160 - L161 for specific suitabilities.
 ② For 1 inch pendant, ceiling and wall hubs, substitute "3" for "2" in catalog number; example: **EZP170A3G**.
 ③ Stanchion conduit hub size supplied is 1-1/2" with 1-1/2" to 1-1/4" reducer for 1-1/4" mounting. (Refer to catalog logic).
 ④ Luminaire catalog numbers include guards. To order luminaire without guard, omit last letter "G" from catalog number.
 NOTE: Reflectors must be ordered separately (see page L157).
 All luminaires are designed for mounting with lamp in base up position.



COMPONENT PARTS/ACCESSORIES/OPTIONS • HID FIXTURES

Mounting Boxes



Pendant



Ceiling



EAC^①



Wall Bracket



25° Stanchion



HIC-BEIGE replacement wiring plug for EZBx Wall Bracket



EZCUP Close up plug for EZ mounting boxes. Used for maintenance when fixture is removed for service.



Replacement Globe & Support Assemblies

REPLACEMENT GLOBE & GLOBE SUPPORT ASSEMBLY

SERIES	LAMP TYPE	WATTAGE	CATALOG NUMBER
EZS	HPS	50-150	EZGS1
EZH	MH	70-250	
EZP	MHP	150, 175, 250	
EZS	HPS	250, 400	EZGS2
EZH	MH	400	
EZP	MHP	320-400	

MOUNTING BOXES				
HUB SIZE	CATALOG NUMBER			
	PENDANT	CEILING	BRACKET	STANCHION
3/4"	EZA2	EZX2**	EZB2	—
1"	EZA3	EZX3	EZB3	—
1-1/4" / 1-1/2"	—	—	—	EZD4*

* Supplied as 1-1/2" NPT with 1-1/2" x 1-1/4" reducer
 ** 25 cu. in. below EZTB tangs.

EZ OPTIONS

Instant Restart Option

Factory installed special ignitor provides hot lamp instant restart of HPS lamps after power interruption of up to 1 minute. Available for 50, 70, 100 and 150 watt HPS lamps only. Add suffix "R" to fixture catalog number (50/60 Hz).


Quartz Emergency Lamp

Factory installed special auxiliary quartz relay and D.C. bayonet base socket installed to accept 100 watt, 120 volt quartz (100Q/DC) lamps only. Lamps not supplied. Refer to Hazardous Location Application Data chart to verify suitability. Add suffix "Q" to fixture catalog number.

Ballast Protection Cutout

Optional factory installed special ballast protector replaces the standard HPS ignitor and applies starting pulse to the lamp for 10 to 15 seconds each time voltage is supplied to the ballast. If the lamp has not ignited by the end of the time period, the starter will cease pulsing. Used to eliminate the continuous high voltage pulsing of the ignitor when end of life, lamp cycling, or missing lamp conditions exist. Available for 70, 100, 150, 250 and 400 watt HPS fixtures. Add suffix "BP" to fixture catalog number.

Notes: BP & R cannot be used together.
 Q & R cannot be used together.



FACTORY SEALED
 Class I, DIV. 1 BCD
 Class II, DIV. 1&2 EFG
 CLASS III
 NEMA 3, 4X IP66
 *40°C ambient T3 Rated

PHOTO CELL FIELD KITS WITH HKB - GL BOX AND COVER

VMHKPC1	120VAC
VMHKPC2	208-277VAC
VMHKPC3	347VAC



LIGHTING

COMPONENT PARTS/ACCESSORIES

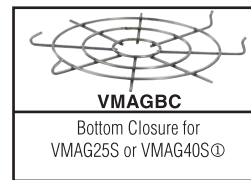


EZG1



VMAG40S

GUARDS				
CATALOG NUMBER	SERIES	LAMP TYPE	WATTAGE	DESCRIPTION
EZG1	EZS	HPS	50-150	Painted cast aluminum
	EZH	MH	70-250	
	EZP	MHP	150, 175, 250	
VMAG40S	EZH	MH	400	Cadmium plated steel
	EZP	MHP	320-400	



[Ⓢ] For VMAG40S with bottom closure order part number VMAG40SBC.



VMPSD40



EZTB



VMPA40



HRD400
HRD400ALZ (pictured)



EZCB



EZMO

REFLECTORS	
CATALOG NUMBER	DESCRIPTION
VMPSD40	Standard dome. fiberglass reinforced polyester
VMPA40	30° Angle fiberglass reinforced polyester
HRD400	Deep dome. Aluminum with white finish [Ⓢ]
HRD400ALZ	Deep dome with specular anodized finish [Ⓢ]

REPLACEMENT CONNECTION BLOCKS AND LAMP SOCKET	
CATALOG NUMBER	DESCRIPTION
EZTB	Female (goes in splice box)
EZCB	Male (goes in top of fixture body)
EZMO	Replacement lamp socket with gasket

[Ⓢ] For clearance, wall mount models require standoff of 1/2" if not bottom feed; 1-1/2" if bottom feed.



BALLAST HOUSING WITH GLOBE SUPPORT ASSEMBLY



Housing Globe & Globe Support Assemblies

FEATURES-SPECIFICATIONS

HPS HOUSING GLOBE & GLOBE SUPPORT ASSEMBLIES ^①			
WATTS	ANSI LAMP TYPE	VOLTAGE	CATALOG NUMBER
50	S-68/HPS	120, 208, 240, 277/60Hz	EZS050
		220, 240V/50Hz	EZS058
70	S-62/HPS	120, 208, 240, 277/60Hz	EZS070
		480 60Hz	EZS075
		120, 277, 347/60Hz	EZS076
		220, 240V/50Hz	EZS078
100	S-54/HPS	120, 208, 240, 277/60Hz	EZS100
		480 60Hz	EZS105
		120, 277, 347/60Hz	EZS106
150	S-55/HPS	120, 208, 240, 277/60Hz	EZS150
		480 60Hz	EZS155
		120, 277, 347/60Hz	EZS156
250	S-50/HPS	220, 240V/50Hz	EZS158
		120, 208, 240, 277/60Hz	EZS250
		480 60Hz	EZS255
400	S-51/HPS	120, 277, 347/60Hz	EZS256
		220, 240V/50Hz	EZS258
		120, 208, 240, 277/60Hz	EZS400
400	S-51/HPS	480 60Hz	EZS405
		120, 277, 347/60Hz	EZS406
		220, 240V/50Hz	EZS408

^① HPS and MH assemblies may be ordered with the CEN (CENELEC) suffix; see page L160 for more information.

METAL HALIDE HOUSING GLOBE & GLOBE SUPPORT ASSEMBLIES ^①			
WATTS	ANSI LAMP TYPE	VOLTAGE	CATALOG NUMBER
70	M-98/MH	120, 208, 240, 277/60Hz	EZH070
		120, 277, 347V/60Hz	EZH076
		480 60Hz	EZH075
100	M-90/MH	220/240V/50Hz	EZH078
		120, 208, 240, 277/60Hz	EZH100
		120, 347V/60Hz	EZH106
175	M-57/MH	120, 220, 240V/50Hz	EZH108
		480 60Hz	EZH105
		120, 208, 240, 277/60Hz	EZH170
250	M-58/MH	480 60Hz	EZH175
		120, 277, 347V/60Hz	EZH176
		220, 240V/50Hz	EZH178
400	M-59/MH	120, 208, 240, 277/60Hz	EZH250
		480 60Hz	EZH255
		120, 277, 347V/60Hz	EZH256
400	M-59/MH	220, 240V/50Hz	EZH258
		120, 208, 240, 277/60Hz	EZH400
		480 60Hz	EZH405
400	M-59/MH	120, 277, 347/60Hz	EZH406
		220, 240V/50Hz	EZH408

PULSE START HOUSING GLOBE & GLOBE SUPPORT ASSEMBLIES			
WATTS	ANSI LAMP TYPE	VOLTAGE	CATALOG NUMBER
175 ^②	M137/MHP	120, 208, 240, 277/60Hz	EZP170
		480	EZP175
		120, 277, 347V/60Hz	EZP176
250	M138/MHP	120, 208, 240, 277/60Hz	EZP250
		480	EZP255
		120, 277, 347V/60Hz	EZP256
320	M132/MHP	220, 240V/50Hz	EZP258
		120, 208, 240, 277/60Hz	EZP320
		480	EZP325
350	M131/MHP	120, 277, 347V/60Hz	EZP326
		220, 240V/50Hz	EZP328
		120, 208, 240, 277/60Hz	EZP350
400	M135/MHP	480	EZP355
		120, 277, 347V/60Hz	EZP356
		220, 240V/50Hz	EZP358
400	M135/MHP	120, 208, 240, 277/60Hz	EZP400
		480	EZP405
		120, 277, 347V/60Hz	EZP406
400	M135/MHP	220, 240V/50Hz	EZP408

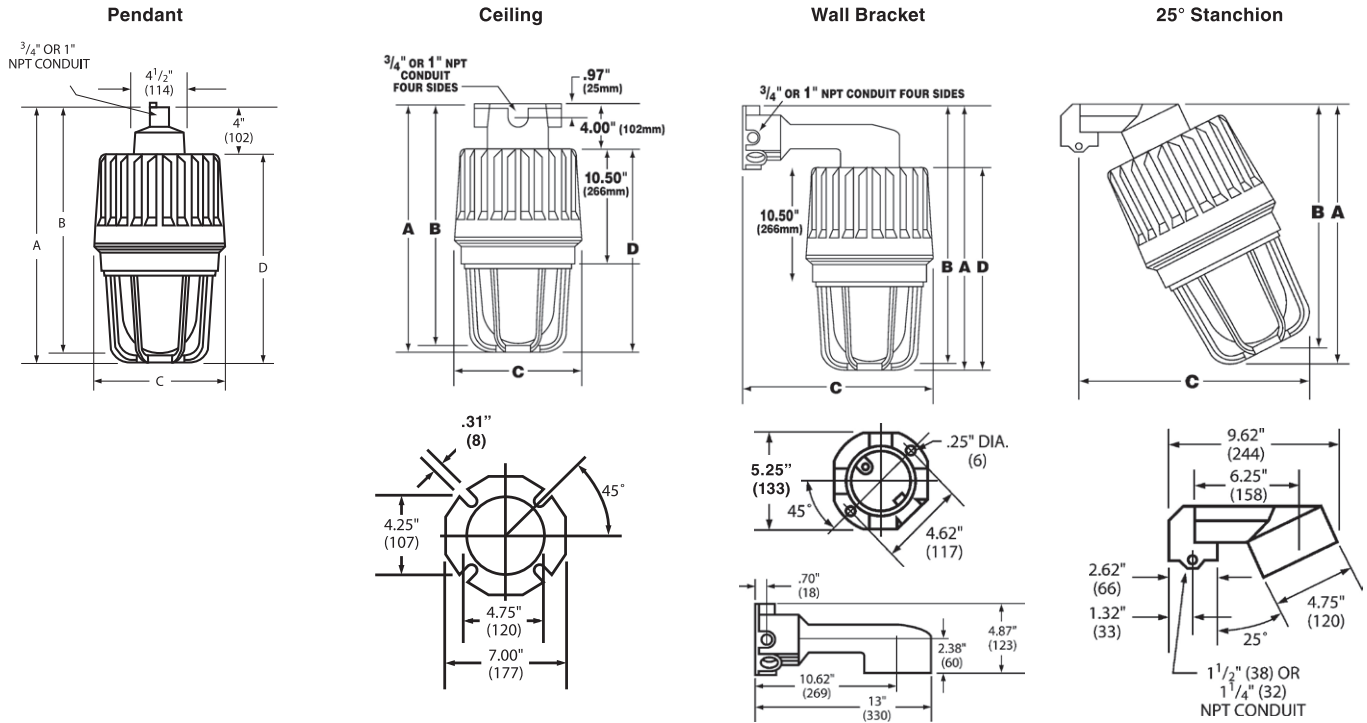
^② For 150 Watt, change "7" to "5" in catalog number. Example EZP150.

NOTE: See pages L141 - L142 for ballast data & fuse kit information.



LIGHTING

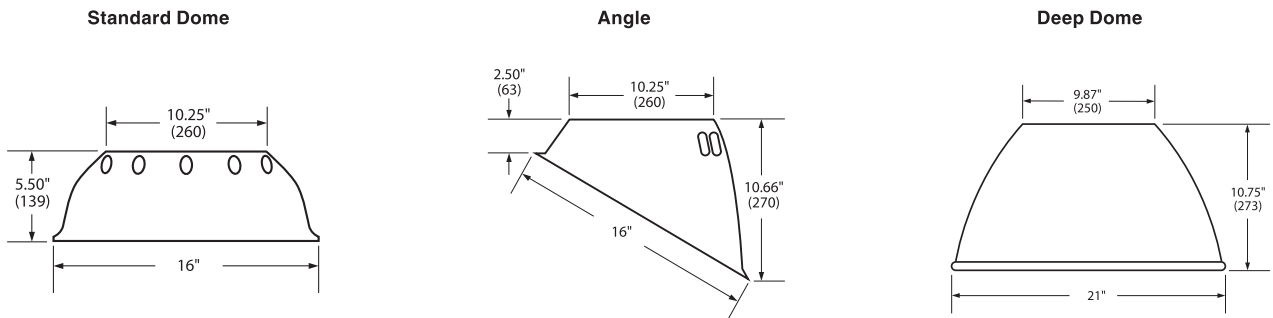
DIMENSIONS



MOUNTING DIMENSIONS															
	PENDANT				CEILING				BRACKET				STANCHION		
	A	B	C	D	A	B	C	D	A	B	C	D	A	B	C
50-250W* EZL LED	22" (558)	21-1/4" (539)	11-1/4" (285)	18" (457)	22" (558)	21-1/4" (539)	11-1/4" (285)	18" (457)	22-7/8" (580)	22-1/8" (561)	16-3/4" (425)	18" (457)	24-7/8" (631)	24" (609)	19-13/16" (503)
250-400W**	26-1/4" (666)	24-1/4" (615)	11-1/4" (285)	22-1/4" (565)	26-1/4" (666)	24-1/4" (615)	11-1/4" (285)	22-1/4" (565)	26-7/8" (682)	24-7/8" (631)	16-3/4" (425)	22-1/4" (565)	28-1/2" (724)	26-11/16" (678)	21-1/2" (546)

* 50, 70, 100, and 150W HPS; 70, 100, 175 and 250W MH; 150, 175, 250W MHP.
 ** 250 and 400W HPS, 400W MH; 320, 350, 400W MHP.

Reflector Dimensions





CLASS I APPLICATION DATA FOR HAZARDOUS LOCATIONS

EZ HAZARDOUS LOCATION DATA—CLASS I, DIVISIONS 1 & 2 ①②④							
LAMP			RATED AMBIENT °C	SUPPLY WIRE SUITABLE FOR °C MIN.	CLASS I, DIVISIONS 1 & 2 MAXIMUM SURFACE TEMPERATURE UL/CSA		
SERIES	TYPE	WATTS			TEMP. I. D. W/O QTZ.	TEMP. I. D. W/QTZ. L	UL/CSA GROUPS
EZH	HPS	50	40	85	T5	T4	C,D
			55	85	T5	N/A	C,D
			65	85	T4A	N/A	C,D
		70	40	85	T5	T4	C,D
			55	85	T5	N/A	C,D
			65	85	T4A	N/A	C,D
	100	40	85	T5	T4	C,D	
		55	85	T5	N/A	C,D	
		65	85	T4A	N/A	C,D	
		150	40	85	T4A	T4	C,D
			55	85	T4A	N/A	C,D
			65	85	T4	N/A	C,D
250	40	85	T3C	T3C	C,D		
	55	85	T3C	N/A	C,D		
	400	40	85	T3C	T3C	C,D	
		40	85	T3C	T3C	C,D	
EZH	MH	70	40	85	T4A	N/A	C,D
			55	85	T4A	N/A	C,D
			65	85	T4A	N/A	C,D
		100	40	85	T4A	N/A	C,D
			55	85	T4A	N/A	C,D
			65	85	T4A	N/A	C,D
	175	40	85	T4	T3C	C,D	
		55	85	T4	N/A	C,D	
		65	85	T4	N/A	C,D	
	250	40	85	T3C	T3C	C,D	
		55	85	T3C	N/A	C,D	
		65	85	T3C	N/A	C,D	
400	40	85	T3A	T3A	C,D		
	40	85	T3A	T3A	C,D		
	40	85	T3A	T3A	C,D		
	40	85	T3A	T3A	C,D		
	40	85	T3A	T3A	C,D		
	40	85	T3A	T3A	C,D		
EZH	MHP	150 or 175	40	85	T4	T3C	C,D
			55	85	T4	N/A	C,D
		250	40	85	T3C	T3C	C,D
			55	25	T3C	N/A	C,D
		320	40	85	T3A	T3A	C,D
		350	40	85	T3A	T3A	C,D
400	40	85	T3A	T3A	C,D		



CEN Options

Applications

Killark EZ series fixtures are available with a European “Certificate of Conformity” from PTB (Physikalisch-Technische Bundesanstalt), the approval agency based in Germany. Fixtures with this rating will be useful for Original Equipment Manufacturers and others who build and ship apparatus into European markets.

This approval is granted by PTB with the use of a special ground lug and label. Fixtures carrying an EEx d IIB approval are automatically granted an IP54 (ingress protection) rating. See Temperature Code chart below for PTB certified ratings. Killark EZ fixtures with the PTB rating and labels still carry all UL & CSA ratings.

Fixture housing/globe/globe support assemblies (e.g. EMS050 CEN) may be ordered with the CEN suffix. Complete fixture numbers, with the CEN suffix, will be shipped with the mounting boxes, guards and accessories as component parts. Reflectors and other accessory parts, as listed on page L157, may be used. Killark fixtures are NPT tapped and plugged with at least one conduit hole open.

Compliances

- EN 50014:1992
- EN 50018:1994

EEx d IIB T6 (or T5-T2)
PTB No. Ex-98.E.1076

Notes for Class I, II, III Application Data Tables.

① Instant restrike limited to 55°C ambient maximum.

* ② Temperature code ID marked with an asterisk on Class II table are listed for simultaneous use in Class I, Groups C, D, and Class II, Groups E, F, G or Groups E, F.

③ Fixtures marked “N/A” not suitable for Class II applications when supplied with auxiliary quartz.

④ See Class II table for fixtures suitable for locations having deposits of readily combustible paint residue (paint spray booths).

Do not install where marked operating temperature exceeds ignition temperature of hazardous atmosphere.

MAXIMUM AMBIENT TEMPERATURE RANGE - 20° C TO 40° C				
TYPE OF LUMINAIRE	TYPE OF ENCLOSURE	FORM OF THE LAMP	MAXIMUM WATTAGE	TEMPERATURE CLASS
EZH50	EZx25	ED28/M-110	50W	T4
EZH70	EZx25	ED28/M-98	70W	T4
EZH10	EZx25	ED28/M-90	100W	T4
EZH15	EZx25	ED28/M-102	150W	T4
EZH17	EZx25	ED28/M-57	175W	T4
EZH25	EZx25	ED28/M-58	250W	T3
EZH40	EZx40	ED37/M-59	400W	T3
EZS50	EZx25	ED23-1/2/S-68	50W	T4
EZS70	EZx25	ED23-1/2/S-62	70W	T4
EZS10	EZx25	ED23-1/2/S-54	100W	T4
EZS15	EZx25	ED23-1/2/S-55	150W	T4
EZS25	EZx40	ED18/S-50	250W	T3
EZS40	EZx40	ED18/S-51	400W	T3



CLASS II/III APPLICATION DATA FOR HAZARDOUS LOCATIONS

EZ HAZARDOUS LOCATION DATAJ- CLASS II & III , DIVISIONS 1 & 2 ^{① ②}															
LAMP			RATED AMBIENT °C	SUPPLY WIRE SUITABLE FOR C°	CLASS II, DIV. 1 & 2, MAX. SURFACE TEMP. UL/CSA SUITABILITY				CLASS III, DIV. 1 & 2 UL/CSA SUITABILITY		UL-595 MARINE	U.L. PAINT SPRAY SUITABILITY ^④	UL/CSA TYPE 3 (RAINTIGHT)	UL/CSA TYPE 4 (HOSEDOWN)	
LAMP					TEMP. I.D. W/O QTZ.	TEMP. I.D. WITH QTZ ^③	GROUPS		W/O QTZ. WITH QTZ. ^③	W/O QTZ.					WITH QTZ.
							W/O QTZ.	WITH QTZ.							
EZS	HPS	50	40	85	T3C*	T3B*	E, F	E, F, G	YES	YES	YES	YES	YES	YES	
			85	85	T3C*	N/A	E, F, G	N/A	YES	NO	YES	NO	YES	YES	
			55	T3B*	N/A	E, F, G	N/A	YES	NO	YES	NO	YES	YES		
EZS	HPS	70	85	T3C*	T3B*	E, F, G	E, F, G	YES	NO	YES	YES	YES	YES	YES	
			55	85	T3C*	N/A	E, F, G	N/A	YES	NO	YES	NO	YES	YES	
			65	85	T3B*	N/A	E, F, G	N/A	YES	YES	YES	NO	YES	YES	
EZS	HPS	100	40	85	T3C*	T3B*	E, F, G	E, F, G	YES	NO	YES	YES	YES	YES	
			55	85	T3C*	N/A	E, F, G	N/A	YES	NO	YES	NO	YES	YES	
			65	85	T3B	N/A	E, F, G	N/A	YES	YES	YES	NO	YES	YES	
EZS	HPS	150	40	85	T3C*	T3B*	E, F, G	E, F, G	YES	YES	YES	NO	YES	YES	
			55	85	T3C*	N/A	E, F,	N/A	YES	YES	YES	NO	YES	YES	
			65	85	T3B*	N/A	E, F, G	N/A	YES	YES	YES	NO	YES	YES	
EZS	HPS	250	40	85	T3	T3	E, F	E, F	NO	NO	YES	NO	YES	YES	
EZS	HPS	400	40	85	N/A	N/A	N/A	N/A	NO	NO	YES	NO	YES	YES	
EZH	MH	70	40	85	T4A	N/A	E, F,	N/A	YES	NO	YES	YES	YES	YES	
			55	85	T4	N/A	E, F, G	N/A	YES	NO	YES	NO	YES	YES	
			65	85	T3C	N/A	E, F,	N/A	YES	NO	YES	NO	YES	YES	
EZH	MH	100	40	85	T4A	N/A	E, F, G	N/A	YES	NO	YES	YES	YES	YES	
			55	85	T4	N/A	E, F, G	N/A	YES	NO	YES	NO	YES	YES	
			65	85	T3C	N/A	E, F, G	N/A	YES	NO	YES	NO	YES	YES	
EZH	MH	175	40	85	T3C*	T3A*	E, F, G	N/A	YES	NO	YES	NO	YES	YES	
			55	85	T3C*	N/A	E, F, G	N/A	YES	NO	YES	NO	YES	YES	
EZH	MH	250	40	85	N/A	N/A	N/A	N/A	NO	NO	YES	NO	YES	YES	
EZH	MH	400	40	85	N/A	N/A	N/A	N/A	NO	NO	YES	NO	YES	YES	
EZP	MHP	150 or 175	40	85	T3C*	T3A*	E, F, G	EF	YES	NO	YES	NO	YES	YES	
			55	85	T3C*	N/A	E, F, G	N/A	YES	NO	YES	NO	YES	YES	
EZP	MHP	250	40	85	N/A	N/A	N/A	N/A	NO	NO	YES	NO	YES	YES	
EZP	MHP	320,350	40	85	N/A	N/A	N/A	N/A	NO	NO	YES	NO	YES	YES	
EZP	MHP	400	40	85	N/A	N/A	N/A	N/A	NO	NO	YES	NO	YES	YES	

Notes for Class I, II, III Application Data Tables.

① Instant restrike limited to 55°C ambient maximum.

* ② Temperature code ID marked with an asterisk on Class II table are listed for simultaneous use in Class I, Groups C, D, and Class II, Groups E, F, G or Groups E, F.

③ Fixtures marked "NO" or "N/A" are not suitable for Class II or II applications when supplied with auxiliary quartz.

④ Suitability for locations having deposits of readily combustible paint residue (paint spray booths).

Do not install where marked operating temperature exceeds ignition temperature of hazardous atmosphere.

TABLE N.E.C . 500 - 5 (D)

I.D. NUMBER	DEGREES C	DEGREES F
T1	450	842
T2	300	572
T2A	280	536
T2B	260	500
T2C	230	446
T2D	215	419
T3	200	392
T3A	180	356
T3B	165	329
T3C	160	320
T4	135	275
T4A	120	248
T5	100	212
T6	85	185



FLUORESCENT FIXTURES



Class I, Div. 2, Groups A,B,C,D^①
 Class I, Zone 2, Groups IIC, IIB, IIA
 Class II, Div. 1 & 2, Groups E,F,G^⑤
 Class III, Div. 1 & 2
 Suitable for wet locations
 NEMA 3, 4

CSF[®] US Certified - File LR11713

FEATURES-SPECIFICATIONS

LINEARLITE[®]*

* marca registrada MEXICO

Applications

LINEARLITE DBF fluorescent fixtures are designed for general and task lighting of areas where flammable gases or vapors or combustible dusts may exist due to abnormal conditions resulting in the creation of a Class I, Division 2 or Class II or III, Div. 1 or 2, hazardous location as defined in the NEC. Also for lighting non-hazardous wet locations indoors and outdoors.

Features

- Sheet steel 20 ga. housing with continuous weld prevents foreign matter from entering enclosure
- Lens frame assembly has silicon rubber gasketing and heat tempered glass lens
- Electrostatically applied polyester finish

See page L207 for DBFE Emergency Models.

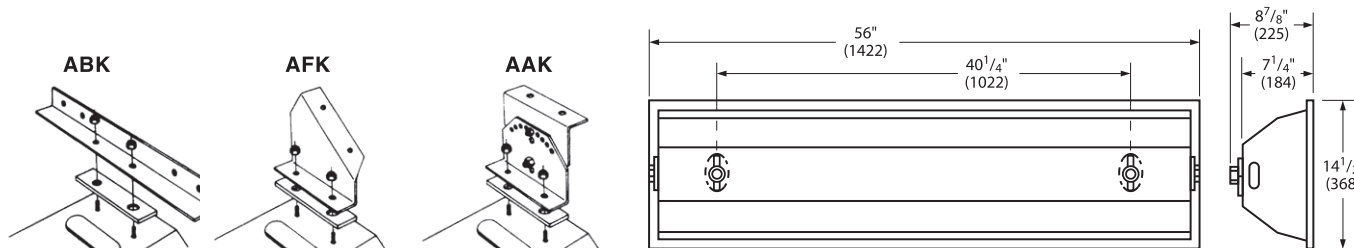
DBF FLUORESCENT FIXTURES				
CATALOG NUMBER	CONDUIT SIZE ^③	NUMBER OF LAMPS	LINE VOLTAGE	DESCRIPTION
DBF32302	3/4"	2	120-277V 50/60 HZ	32W T8 electronic ballast 265 MA 0°F start
DBF4012 ^④			120V 60 Hz	40W rapid start electronic F40T12 medium bi-pin 430MA
DBF4042			277V 60 Hz	
DBF6012 ^④			120V 60 Hz	60W rapid start high output F48T12/HO recessed double contact 800MA
DBF6042			277V 60 Hz	
DBF32303	3/4"	3	120-277V 50/60 HZ	32W T8 electronic ballast 265 MA 0°F start
DBF4013			120V 60 Hz	40W rapid start electronic F40T12 medium bi-pin 430MA
DBF4043			277V 60 Hz	
DBF6013			120V 60 Hz	60W rapid start high output F48T12/HO recessed
DBF6043			277V 60 Hz	

Standard ballast starting temperature for 40 watt is 50°F.
 Ballasts are Class P Type with internal, automatic, thermally-activated protective device.
 Optional external ballast fusing availability by adding suffix FB.
 For other voltages consult factory.
 60 watt high output ballasts are standard -20°F start.
 Fixtures are supplied without lamps. To order with lamps installed add suffix WL.
^① UL/CSA Class I, Div. 2
^② Hubs can be relocated in field to fixture end for feed-thru wiring.
^③ Change 1 to 8 for 230V 50 Hz.
^④ CSA Class II, Div. 1

MOUNTING HARDWARE ^②	
CATALOG NUMBER	DESCRIPTION
ABK	Angle bar chain bracket
AFK	45° fixed angle bracket
AAK	45° adjustable angle bracket
DBF-HUB	Replacement hub
DBF-DL	Door & Lens

© Must be ordered separately. Brackets sold as sets.

DBF HAZARDOUS LOCATION APPLICATION DATA ^{① ⑤}								
NUMBER OF LAMPS	LAMP WATTS	RATED AMBIENT °C	SUPPLY WIRE SUITABLE FOR °C MIN.	CLASS I, DIV. 2, GROUPS A, B, C, D MAX. LAMP TEMP. °C UL/CSA TEMP/I.D.	CLASS II, DIV. 1 & 2 GROUPS E, F, G CLASS MAX. SURFACE DIV TEMP. °C SUITABILITY UL/CSA TEMP/I.D.	CLASS III DIV. 1 & 2 UL/CSA	NEMA TYPE 3 (RAINTIGHT)	NEMA TYPE 4 (HOSEDOWN)
2	32/40	40	90	T6 (85°C/185°F) T6	T6 (85°C/185°F)	YES	YES	YES
3	32/40	40	90	T5 (100°C/212°F) T6	T6 (85°C/185°F)	YES	YES	YES
2	60	40	90	T4A (120°C/248°F)	T6 (85°C/185°F)	YES	YES	YES
3	60	40	90	T4 (138°C/275°F) T6	T6 (85°C/185°F)	YES	YES	YES





LIGHTING

316 STAINLESS FLUORESCENT FIXTURES



Class I, Div. 2, Groups A,B,C,D
Class I, Zone 2, Groups IIC, IIB, IIA
Class II, Div. 1 & 2, Group E,F,G
AEx nAII, Ex nAII
Wet Locations
NEMA 4X
IP66

LINEARLITE® *
 * marca registrada MEXICO

Certified - File LR11713
ABS Type Approval

Applications

LINEARLITE® rugged 316 stainless fluorescent fixtures are suitable for wet, harsh, corrosive and hazardous locations. The LZ2S Series can be used in Class I, Division 2 and Zone 2 hazardous vapors and in Class II combustible dust areas typically found in refineries, chemical plants, waste water & sewage treatment facilities, as well as in tunnels, food processing and coastal areas.

ABS (American Bureau of Shipping) type approval for use on decks, vessels, platforms, barges, ships and boats. Also suitable for docks and marinas.

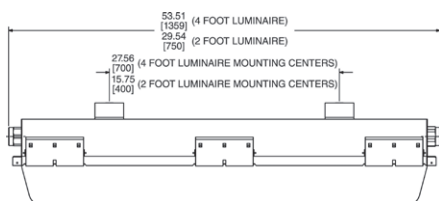
Features

- NEMA 4X & IP66 rated stainless enclosure with Lexan® impact resistant polycarbonate lens.
- Two 3/4" NPT stainless hubs - one at each end (includes aluminum 3/4" close-up plug and two 3/4" x 1/2" reducers for maximum user flexibility).
- Two 1/4" - 20 stainless bushings furnished in top of fixture for threaded rod.

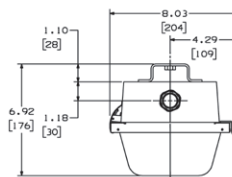
Lexan® is a registered trademark of General Electric

Additional Data

- L208 - Emergency models
- L165 - Ballast data
- L166 - Mounting accessories/ Replacement parts



See LZ2N Logic for Options



LZ2S STAINLESS			
NUMBER OF LAMPS/WATTS	VOLTAGE AC 60 HZ	DESCRIPTION	LZ2S
BIAXIAL LAMP TYPE FIXTURES			
1-40W	120-277V	2' 1-Lamp Biaxial Electronic 50/60 Hz, 0°F Start 4-Pin	LZ2S40130
1-55W	120-277V	2' 1-Lamp Biaxial Electronic 50/60 Hz, 0°F Start 4-Pin	LZ2S55130
2-40W	120-277V	2' 2-Lamp Biaxial Electronic 50/60 Hz, 0°F Start 4-Pin	LZ2S40230
4-40W	120-277V	4' 4-Lamp Biaxial Electronic 50/60 Hz, 0°F Start 4-Pin	LZ2S40430
DOUBLE - ENDED LAMP TYPE FIXTURES			
2-17W	120-277V	2' 2-Lamp T-8 Electronic 50/60 Hz, 0°F Start Medium Bi-Pin	LZ2S17230
3-17W	120-277V	2' 3-Lamp T-8 Electronic 50/60 Hz, 0°F Start Medium Bi-Pin	LZ2S17330
2-28W	120-277V 50-60 Hz	4' 2-Lamp T-5 Electronic 0°F Start Miniature Bi-Pin	LZ2S28230
3-28W	120-277V 50-60 Hz	4' 3-Lamp T-5 Electronic 0°F Start Miniature Bi-Pin	LZ2S28330
2-32W k	120-277V 347V	4' 2-Lamp T-8 Electronic 50/60 Hz 0°F Start Medium Bi-Pin	LZ2S32230 ② LZ2S32215
3-32W	120-277V 347V	4' 3-Lamp T-8 Electronic 50/60 Hz 0°F Start Medium Bi-Pin	LZ2S32330 LZ2S32315
2-40W	120V 277V 230V 50 Hz④	4' 2-Lamp T-12 Electronic Medium Bi-Pin Start 50°F 40W/60°F 34W	LZ2S40201 LZ2S40204 LZ2S40208
2-44W	120V 277V	4' 2-Lamp T-8 Electronic -20°F Start High Output Recessed Double Contact	LZ2S44230
2-54W 3-54W	120-277V	4' 2-Lamp T5 Electronic 50/60 Hz, -20°F Start Miniature Bi-Pin	LZ2S54230 LZ2S54330
2-60W	120-277V	4' 2-Lamp T-12 Electronic -20°F Start High Output Recessed Double Contact	LZ2S60230

① 50 Hz ballast is magnetic.

② Add suffix 55C for 2X 32W 120V-277V # L32S32230-55C.

LZ2S, LZ2SE HAZARDOUS LOCATION APPLICATION DATA									
NUMBER OF LAMPS/WATTS	RATED AMBIENT °C	SUITABLE FOR °C SUPPLY WIRE	CLASS I, DIV. 2 MAX. SURFACE TEMP.			CLASS II, DIV. 1 & 2 MAX. SURFACE TEMP.			CLASS III DIV. 1 & 2 SUITABILITY
			TEMP.	T-CODE	GROUPS	TEMP.	T-CODE	GROUPS	
1 X 40W BIAxIAL	40°	75	160°C	T3C	A, B, C, D	100°C	T5	E, F, G	Yes
1 X 55W BIAxIAL	40°	60	160°C	T3C	A, B, C, D	100°C	T5	E, F, G	Yes
2 X 40W BIAxIAL	40°	75	160°C	T3C	A, B, C, D	100°C	T5	E, F, G	Yes
4 X 40W BIAxIAL	40°	75	160°C	T3C	A, B, C, D	100°C	T5	E, F, G	Yes
2 X 17W	40°	60	85°C	T5	A, B, C, D	100°C	T5	E, F, G	Yes
3 X 17W	40°	60	85°C	T5	A, B, C, D	100°C	T5	E, F, G	Yes
2 X 28W	40°	60	120°C	T4A	A, B, C, D	100°C	T5	E, F, G	Yes
3 X 28W	40°	60	120°C	T4A	A, B, C, D	100°C	T5	E, F, G	Yes
2 X 32W	40°	60	85°C	T6	A, B, C, D	100°C	T5	E, F, G	Yes
2 X 32W	55° I	90	100°C	T5	A, B, C, D	N/A	N/A	N/A	N/A
3 X 32W	40°	60	85°C	T6	A, B, C, D	100°C	T5	E, F, G	Yes
2 X 40W	40°	60	120°C	T4A	A, B, C, D	100°C	T5	E, F, G	Yes
2 X 44W	40°	60	120°C	T4A	A, B, C, D	100°C	T5	E, F, G	Yes
2 X 54W	40°	75	160°C	T3C	A, B, C, D	100°C	T5	E, F, G	Yes
3 X 54W	35° m	75	165°C	T3B	A, B, C, D	N/A	N/A	N/A	Yes
2 X 60W	40°	75	135°C	T4	A, B, C, D	100°C	T5	E, F, G	Yes

③ LZ2SE, 40°C max. battery models.

④ T-code measured at 40°C, ambient max. 30°C.



LZ2N SERIES

KILLARK

NON-METALLIC FLUORESCENT FIXTURES



4' Nominal Style



2' Nominal Style

Class I, Div. 2 Groups A,B,C,D
Class I, Zones 2, Groups IIC,IIB,IIA
Class II, Div. 1 & 2, Groups F,G
AEx nAll, Ex nAll
Wet Locations
NEMA 4X, IP66

CSF US Certified - File LR11713

NSF Food Handling
ABS Type Approval

LZ2N/LZ2S luminaires contain no exposed glass and carry Class II, "G" ratings required for many food processing areas.

FEATURES-SPECIFICATIONS

LINEARLITE® *

* marca registrada MEXICO

Applications

LINEARLITE® rugged Non-Metallic fluorescent fixtures are suitable for wet, harsh and hazardous locations. Use where enclosed and gasketed fixtures are required to withstand exposure to moisture, dust and corrosives. The LZ2N Series can also be used in Class I, Division 2 and Zone 2 hazardous vapors and in Class II areas where combustible dusts may exist. Typical areas used are in refineries, chemical plants, waste water & sewage treatment facilities, as well as in tunnels, food processing and coastal areas.

ABS (American Bureau of Shipping) type approval for use on decks, vessels, platforms, barges, ships and boats. Also suitable for docks and marinas.

NSF (National Sanitation Foundation) approved for "Food Handling" areas, typically requiring non-glass lighting.

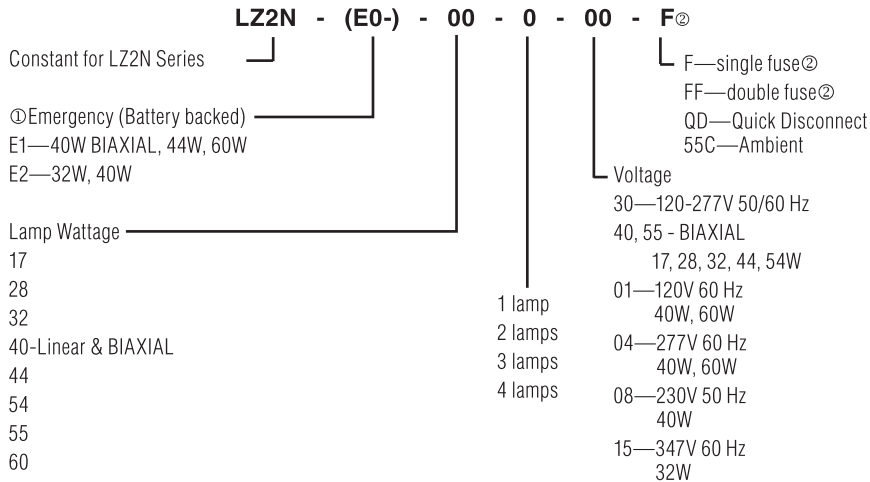
Features

- Lexan® Clear Lens, impact resistant polycarbonate
- Housing-one piece fiberglass reinforced polyester, NEMA 4X & IP66 rated.
- Two 3/4" NTP aluminum hubs - one at each end (includes one 3/4" close-up plug and two 3/4" x 1/2" reducers for maximum user flexibility)
- Two 1/4"-20 aluminum bushings furnished in top of fixture for threaded rod
- 2' and 4' luminaires
- Lamp types-
Linear 17, 28, 32, 40, 44, 54, 60W
Long compact 40, 55W (single ended)
- Electronic ballast standard
- World voltage (most models) 120 thru 277V, 50/60 Hz

Lexan® is a registered trademark of General Electric

Quick release diffuser clamp and hinged cover requires no special tools.

Catalog Number Logic



- ⓪ See page L206 for complete catalog grid listing.
- ⓪ Fuses not for marine or Canadian use.
- ⓪ 55°C ambient suitability 2 or 3 lamp 32W C1D2 120V-277V only.

LZ2N, LZ2NE HAZARDOUS LOCATION APPLICATION DATA											
NUMBER OF LAMPS/WATTS	RATED AMBIENT °C	SUITABLE FOR °C SUPPLY WIRE	CLASS I, DIV. 2 MAX. SURFACE TEMP.			CLASS II, DIV. 1 & 2 MAX. SURFACE TEMP.			CLASS III DIV. 1 & 2 SUITABILITY	NEMA 4X IP66	
			TEMP.	T-CODE	GROUPS	TEMP.	T-CODE	GROUPS			
2 X 17W	40°	60	85°C	T5	A, B, C, D	100°C	T5	F, G	Yes	Yes	
3 X 17W	40°	60	85°C	T5	A, B, C, D	100°C	T5	F, G	Yes	Yes	
1 X 40W BIAxIAL	40°	60	100°C	T5	A, B, C, D	100°C	T5	F, G	Yes	Yes	
1 X 55W BIAxIAL	40°	60	160°C	T3C	A, B, C, D	100°C	T5	F, G	Yes	Yes	
2 X 40W BIAxIAL	40°	60	100°C	T5	A, B, C, D	100°C	T5	F, G	Yes	Yes	
4 X 40WBIAxIAL	40°	60	120°C	T4A	A, B, C, D	100°C	T5	F, G	Yes	Yes	
2 X 28W	40°	60	120°C	T4A	A, B, C, D	100°C	T5	F, G	Yes	Yes	
3 X 28W	40°	60	120°C	T4A	A, B, C, D	100°C	T5	F, G	Yes	Yes	
2 X 32W	40°	75	85°C	T6	A, B, C, D	100°C	T5	F, G	Yes	Yes	
2 X 32W	55°⓪	90	100°C	T5	A, B, C, D	N/A	N/A	N/A	Yes	Yes	
3 X 32W	40°	75	85°C	T6	A, B, C, D	100°C	T5	F, G	Yes	Yes	
3 X 32W	55°⓪	90	100°C	T5	A, B, C, D	N/A	N/A	N/A	Yes	Yes	
2 X 40W	40°	60	120°C	T4A	A, B, C, D	100°C	T5	F, G	Yes	Yes	
2 X 44W	40°	60	100°C	T5	A, B, C, D	100°C	T5	F, G	Yes	Yes	
2 X 54W T5	40°	75	160°C	T3C	A, B, C, D	100°C	T5	F, G	Yes	Yes	
3 X 54W T5	40°	75	180°C	T3A	A, B, C, D	120°C	T4A	F, G	Yes	Yes	
2 X 60W	40°	75	135°C	T4	A, B, C, D	100°C	T5	F, G	Yes	Yes	



LIGHTING

NON-METALLIC FLUORESCENT FIXTURES

LZ2N NON-METALLIC			
NUMBER OF LAMPS/WATTS	VOLTAGE AC 60 HZ	DESCRIPTION	LZ2N
BIAXIAL LAMP TYPE FIXTURES			
1-40W	120-277V	2' 1-Lamp Biaxial Electronic 50/60 Hz 0°F Start 4-Pin	LZ2N40130
1-55W	120-277V	2' 1-Lamp Biaxial Electronic 50/60 Hz 0°F Start 4-Pin	LZ2N55130
2-40W	120-277V	2' 2-Lamp Biaxial Electronic 50/60 Hz 0°F Start 4-Pin	LZ2N40230
4-40W	120-277V	4' 4-Lamp Biaxial Electronic 50/60 Hz 0°F Start 4-Pin	LZ2N40430
DOUBLE-ENDED LAMP TYPE FIXTURES			
2-17W	120-277V	2' 2-Lamp T8 Electronic 50/60 Hz 0°F Start Medium Bi-Pin	LZ2N17230
3-17W	120-277V	2' 3-Lamp T8 Electronic 50/60 Hz 0°F Start Medium Bi-Pin	LZ2N17330
2-28W	120-277V	4' 2-Lamp T-5 Electronic 50/60 Hz 0°F Start Miniature Bi-Pin	LZ2N28230
3-28W	120-277V	4' 3-Lamp T-5 Electronic 50/60 Hz 0°F Start Miniature Bi-Pin	LZ2N28330
2-32W	120-277V 347V	4' 2-Lamp T-8 Electronic 50/60 Hz 0°F Start Medium Bi-Pin	LZ2N32230 ^④ LZ2N32215
3-32W	120-277V 347V	4' 3-Lamp T-8 Electronic 50/60 Hz 0°F Start Medium Bi-Pin	LZ2N32330 ^④ LZ2N32315
2-40W	120V 277V 230V 50 Hz ^②	4' 2-Lamp T-12 Electronic, Medium Bi-Pin Start 50°F 40W/60°F 34W	LZ2N40201 LZ2N40204 LZ2N40208
2-44W	120-277V	4' 2-Lamp T-8 Electronic -20°F Start High Output 50/60 Hz Recessed Double Contact	LZ2N44230
2-54W	120-277V	4' 2-Lamp T-5 Electronic 50/60 Hz -20°F Start Miniature Bi-Pin	LZ2N54230
3-54W	120-277V	4' 2-Lamp T-5 Electronic 50/60 Hz -20°F Start Miniature Bi-Pin	LZ2N54330
2-60W	120-277V	4' 2-Lamp T-12 Electronic -20°F Start High Output 50/60 Hz Recessed Double Contact	LZ2N60230

See page L208 for LZ2NE Non-metallic and LZ2SE 316 Stainless Emergency Models

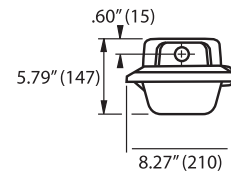
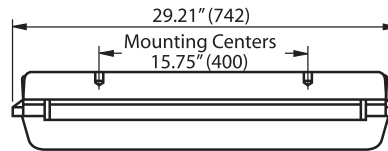
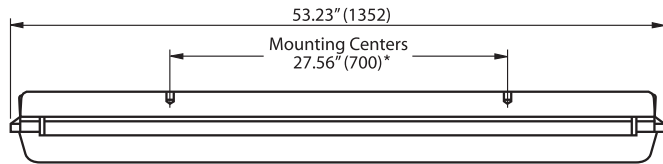
LZ2N AND LZ2S BALLAST DATA ^①					
NUMBER OF LAMPS / WATTS	VOLTAGE	LINE CURRENT AMPS		INPUT WATTS	STARTING TEMPERATURE
1 X 40W BIAXIAL	120-277V	.35 (120V)	.15 (277V)	39	0°F (-18°C)
1 X 55W BIAXIAL	120-277V	.49 (120V)	.22 (277V)	58	0°F (-18°C)
2 X 40W BIAXIAL	120-277V	.60 (120V)	.28 (277V)	78	0°F (-18°C)
4 X 40W BIAXIAL	120-277V	1.32 (120V)	.56 (277V)	156	0°F (-18°C)
2 X 17W	120-277V	.32 (120V)	.14 (277V)	38	0°F (-18°C)
3 X 17W	120-277V	.39 (120V)	.17 (277V)	48	0°F (-18°C)
2 X 28W	120-277V	.55 (120V)	.23 (277V)	66	0°F (-18°C)
3 X 28W	120-277V	.83 (120V)	.35 (277V)	99	0°F (-18°C)
2 X 32W	120-277V	.54 (120V)	.24 (277V)	65	0°F (-18°C)
3 X 32W	120-277V	.71 (120V)	.31 (277V)	85	0°F (-18°C)
2 X 40W	120-277V	.62 (120V)	.24 (277V)	71	50°F (10°C) I
2 X 44W	120-277V	.84 (120V)	.36 (277V)	99	-20°F (-29°C)
2 X 54W	120-277V	1.00 (120V)	.43 (277V)	120	-20°F (-29°C)
3 X 54W	120-277V	1.52 (120V)	.66 (277V)	182	-20°F (-29°C)
2 X 60W	120-277V	1.13 (120V)	.48 (277V)	125	-20°F (-29°C)

^① Includes normal powered LZ2NE and LZ2SE models, lamps not included.
^② Magnetic ballast.
^③ 50°C 34T12; 60°F 40T12.
^④ See LOGIC for 55°C ambient suitability.



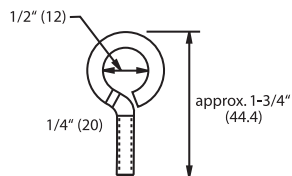
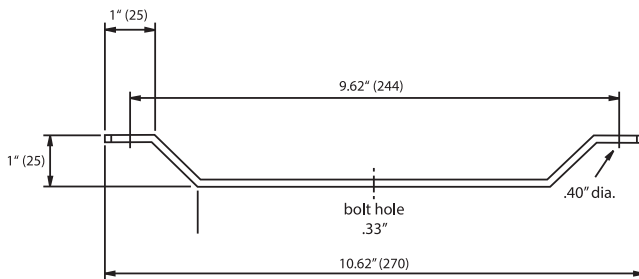
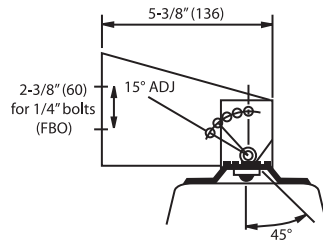
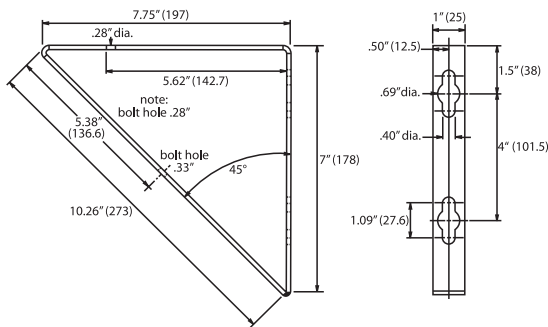
DIMENSIONS, ACCESSORIES

Dimensions LZ2N, LZ2NE Series



* Mounting Centers are 1/4-20" tapped for user all thread rod or below accessories.

Mounting Accessories for all LZ2N, LZ2S Series



Wall Bracket Set[Ⓜ]
Part Number LZWB
 Stainless Steel (natural finish)

Adjustable Wall Bracket Set[Ⓜ]
Part Number LZAB
 Stainless Steel bracket with ceramic coated pivot bolt

Ceiling Bracket Set[Ⓜ]
Part Number LZCB
 Stainless Steel (natural finish)

Eyebolt Set
Part Number LZEB
 Stainless Steel bolt with lockwasher & nut (natural finish)

Suspension Chains (2 required)
Part Number HFX-SC
 36" length plated steel chain with snap link ends. For use with LZEB

Ⓜ Dimensions in () are millimeters.
 Ⓜ Product accessories have hardware for attachment to fixture; hardware to attach to wall/ceiling F.B.O.
 NOTE: Eyebolts are 316 Series, brackets are 300 Series Stainless Steel.

REPLACEMENT PARTS:	
LZ2N4LENS	4' Lens only LZ2N/LZ2S
LZ2N2LENS	2' Lens only LZ2N/LZ2S
LZ2N4BAR	4' Locking Bar only LZ2N
LZ2N2BAR	2' Locking Bar only LZ2N
LZ2S-LATCH	Latch and Spring



LIGHTING

BIAXIAL (LONG TWIN TUBE)



Class I, Div. 1 & 2, Groups C,D
Class I, Zones 1 & 2, Groups IIB, IIA
Class II, Div. 1 & 2, Groups E,F,G
Class III, Div. 1 & 2
NEMA 3, 4X, 7(C,D) 9(E,F,G)
Suitable for wet locations
Suitable for paint spray booths

UL LISTED - File E12976 and E89665 (Marine)
SP Certified - File LR11713

Applications

Biaxial single ended lamp type HFX-T fixtures provide greater efficiency and lumen output than standard models. Designed for installations where moisture, dirt, dust, corrosion and vibration may be present, or NEMA 3 and 4X areas where wind, water and snow can be expected. They can also be used in locations made hazardous due to the presence of flammable or explosive gases, vapors and combustible ducts as defined by the NEC.

Typical applications include classified areas such as inside paint spray booths, paint manufacturing plants, ammunition facilities, oil and gas producing and refining plants, off-shore and dockside installations, tank farms, pipeline pumping stations and marine loading and fuel transfer terminals.

Features

- UL Listed and labeled for use inside paint spray booths and rooms
- 2' nominal compact models facilitate use in areas too small for nominal 4' models, or where the light must be confined
- Standard ballast is 120-277V at 50/60 Hz
- 0°F starting temperature

See page L209 for HFXE Emergency Models

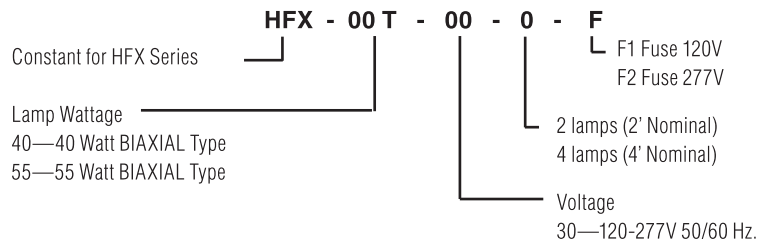
- Construction is strong lightweight corrosion resistant copper-free aluminum alloy, less than 4/10 of 1%
- All external hardware is corrosion resistant 316 stainless steel
- UL Listed externally fused ballast option; protects fixture on line side of ballast, prevents ballast burnout
- Suitable for use in both indoor and outdoor wet locations
- Relamping easily accomplished by removing screw in cap and socket
- Factory sealed construction

- Extruded aluminum reflectors are easily removable for cleaning. White baked enamel finish

Compliances

- UL-1570, Standard for Fluorescent Lighting Fixtures
- UL Marine Type Lighting Fixtures
- UL-844, Standard for Lighting Fixtures for Hazardous Locations
- CSA C22.2 137-M1981
- Meets requirements of NFPA 70-1987 Article 516 and NFPA standard 33

Catalog Number Logic



HFX-T BIAxIAL TYPE LIGHT FIXTURES ① ②				
CATALOG NUMBER	CONDUIT SIZE	LINE VOLTAGE	DESCRIPTION	PROFILE
HFX-40T-302	3/4"	120V-277V 50/60 Hz	2' 2 Lamp 40W BIAxIAL T5	 Two Glass Tubes 2' or 4' Nominal
HFX-55T-302			2' 2 Lamp 55W BIAxIAL T5	
HFX-40T-304			4' 4 Lamp 40W BIAxIAL T5	
HFX-55T-304			4' 4 Lamp 55W BIAxIAL T5	

① See page L171 for ballast current information.
 ② Consult HFX page L172 for dimensions and accessories.

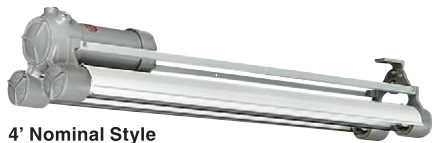
DESCRIPTION	RATED AMBIENT °C	SUITABLE FOR °C SUPPLY WIRE	CLASS I, DIV. 1 & 2 MAX. SURFACE TEMP			CLASS II, DIV. 1 & 2 MAX. SURFACE TEMP			CLASS III DIV. 1 & 2 SUITABILITY	UL MARINE	PAINT SPRAY SUITABLE	NEMA 3 & 4X
			TEMP.	T-CODE	GROUPS	TEMP.	T-CODE	GROUPS				
			HFX-T 40W 2 LAMP	40	60	85	T6	C, D				
HFX-T 55W 2 LAMP	40	60	85	T6	C, D	120°C	T4A	E, F, G	Yes	Yes	Yes	Yes
HFX-T 40W 4 LAMP	40	60	85	T6	C, D	120°C	T4A	E, F, G	Yes	Yes	Yes	Yes
HFX-T 55W 4 LAMP	40	60	85	T6	C, D	120°C	T4A	E, F, G	Yes	Yes	Yes	Yes



HFX-T SERIES

KILLARK

BIAXIAL LONG TWIN TUBE ACCESSORIES, PHOTOMETRIC DATA



4' Nominal Style

**FLUORESCENT FIXTURE-
HFX-40T-302**

Lamp Type F40/2G11/835/RS
2' – 2 40 Watt Biaxial 3150 Lumens each.

Total Bare Lamp Lumens 6300

For 55W Biaxial multiply by 1.52.

**FLUORESCENT FIXTURE-
HFX-40T-304**

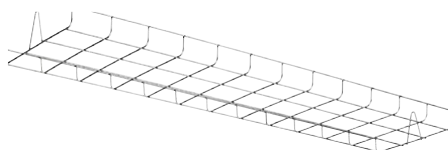
Lamp Type F40/2G11/835/RS
4' – 4 40 Watt Biaxial 3150 Lumens each.

Total Bare Lamp Lumens 12600

For 55W Biaxial multiply by 1.52.

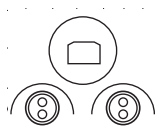


2' Nominal Style

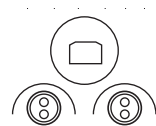


WIRE GUARD ①	
CATALOG NUMBER	DESCRIPTION
2HFX-G2	302 HFX-T Models
2HFX-G4	304 HFX-T Models

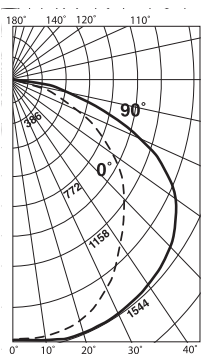
① 316 Stainless Steel



ZONAL LUMENS	
ZONE	LUMENS
0-30	826
0-40	1447
0-60	2977
0-90	4638

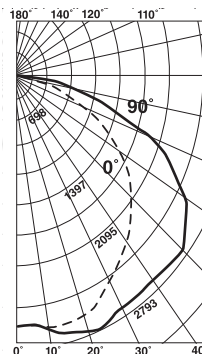


ZONAL LUMENS	
ZONE	LUMENS
0-30	2197
0-40	3685
0-60	7650
0-90	9559



VERT. ANGLE	0	22.5	45	67.5	90	ZONAL LUMENS
0	1530	1530	1530	1530	1530	1530
5.0	1533	1524	1520	1533	1531	145.8
10.0	1515	1509	1515	1527	1526	1526
15.0	1484	1486	1508	1531	1544	428.0
20.0	1435	1453	1492	1526	1543	1543
25.0	1379	1410	1464	1511	1540	676.4
30.0	1310	1355	1427	1485	1530	1530
35.0	1227	1286	1377	1448	1490	858.9
40.0	1132	1209	1313	1403	1440	1440
45.0	1028	1123	1242	1354	1389	953.7
50.0	913	1024	1168	1287	1328	1328
55.0	783	902	1083	1205	1236	941.8
60.0	649	781	982	1094	1090	1090
65.0	507	667	862	875	857	765.8
70.0	346	543	641	601	600	600
75.0	197	396	408	425	428	407.7
80.0	72	218	224	242	240	240
85.0	14	74	56	52	51	58.8
90.0	1	10	6	7	8	8

Efficiency 83.2%



VERT. ANGLE	0	22.5	45	67.5	90	ZONAL LUMENS
0	2625	2625	2625	2625	2625	2625
5.0	2606	2607	2611	2617	2620	249.3
10.0	2581	2589	2592	2716	2726	2726
15.0	2521	2641	2693	2738	2756	762.6
20.0	2559	2597	2692	2766	2793	2793
25.0	2393	2450	2564	2653	2685	1181.0
30.0	2254	2335	2477	2590	2635	2635
35.0	2102	2207	2381	2528	2587	1485.7
40.0	1959	2094	2306	2502	2571	2571
45.0	1778	1951	2236	2473	2544	1707.9
50.0	1609	1793	2106	2325	2387	2387
55.0	1404	1612	1966	2189	2234	1697.1
60.0	1140	1369	1701	1890	1942	1942
65.0	928	1202	1542	1680	1698	1423.7
70.0	676	984	1268	1390	1377	1277
75.0	425	735	871	860	889	825.8
80.0	204	473	548	623	643	643
85.0	58	202	256	246	251	234.9
90.0	15	36	44	53	60	60

Efficiency 76%

COEFFICIENTS OF UTILIZATION - ZONAL CAVITY METHOD						
% EFFECTIVE CEILING CAVITY REFLECTAN 1CC	80	70	50	30	10	0
% WALL REFLECTANCE 1W	70 50 30 10	70 50 30 10	50 30 10	50 30 10	50 30 10	0
ROOM CAVITY RATIO RCR	20% EFFECTIVE FLOOR CAVITY REFLECTANCE					
0	.99 .99 .99 .99	.97 .97 .97	.92 .92 .92	.88 .88 .88	.85 .85 .85	.83
1	.90 .86 .82 .79	.88 .84 .81 .78	.80 .78 .75	.77 .75 .73	.74 .72 .71	.69
2	.81 .74 .68 .63	.79 .73 .67 .63	.70 .65 .61	.67 .63 .60	.64 .61 .58	.56
3	.74 .65 .58 .52	.72 .63 .57 .51	.61 .55 .50	.58 .54 .50	.56 .52 .49	.47
4	.67 .57 .49 .43	.65 .56 .49 .43	.54 .47 .42	.52 .46 .42	.50 .45 .41	.39
5	.62 .50 .43 .37	.60 .50 .42 .37	.48 .41 .36	.46 .40 .36	.44 .39 .35	.34
6	.57 .45 .37 .32	.55 .44 .37 .32	.43 .36 .31	.41 .36 .31	.40 .35 .31	.29
7	.52 .41 .33 .28	.51 .40 .33 .28	.39 .32 .28	.38 .32 .27	.36 .31 .27	.25
8	.49 .37 .30 .25	.47 .36 .30 .25	.35 .29 .24	.34 .29 .24	.33 .28 .24	.23
9	.45 .34 .27 .22	.44 .33 .27 .22	.32 .26 .22	.32 .26 .22	.31 .25 .22	.2
10	.43 .31 .24 .20	.41 .31 .24 .20	.30 .24 .20	.29 .24 .20	.28 .23 .20	.18

SPACING TO MOUNTING HEIGHT RATIO - 1.28 0-180°
SPACING TO MOUNTING HEIGHT RATIO - 1.50 90-270°

Test No. BAL12360

COEFFICIENTS OF UTILIZATION - ZONAL CAVITY METHOD						
% EFFECTIVE CEILING CAVITY REFLECTAN 1CC	80	70	50	30	10	0
% WALL REFLECTANCE 1W	70 50 30 10	70 50 30 10	50 30 10	50 30 10	50 30 10	0
ROOM CAVITY RATIO RCR	20% EFFECTIVE FLOOR CAVITY REFLECTANCE					
0	.90 .90 .90 .90	.88 .88 .88 .88	.84 .84 .84	.81 .81 .81	.77 .77 .77	.76
1	.82 .78 .74 .71	.80 .76 .73 .70	.73 .70 .68	.70 .68 .65	.67 .65 .63	.62
2	.74 .67 .61 .57	.72 .66 .60 .56	.63 .58 .55	.60 .56 .53	.58 .55 .52	.50
3	.67 .58 .52 .46	.65 .57 .51 .46	.55 .49 .45	.52 .48 .44	.50 .47 .43	.42
4	.61 .51 .44 .39	.59 .50 .43 .38	.48 .42 .38	.46 .41 .37	.45 .40 .37	.35
5	.56 .45 .38 .33	.54 .44 .38 .33	.43 .37 .32	.41 .36 .32	.40 .35 .31	.30
6	.51 .41 .33 .28	.50 .40 .33 .28	.38 .32 .28	.37 .32 .28	.36 .31 .27	.26
7	.47 .37 .30 .25	.46 .36 .29 .25	.35 .29 .24	.34 .28 .24	.33 .28 .24	.22
8	.44 .33 .27 .22	.43 .33 .26 .22	.32 .26 .22	.32 .26 .22	.31 .25 .22	.20
9	.41 .30 .24 .20	.40 .30 .24 .20	.29 .23 .19	.28 .23 .19	.27 .23 .19	.18
10	.38 .28 .22 .18	.37 .28 .22 .18	.27 .21 .17	.26 .21 .17	.25 .21 .17	.16

SPACING TO MOUNTING HEIGHT RATIO - 1.28 0-180°
SPACING TO MOUNTING HEIGHT RATIO - 1.52 90-270°

Test No. BAL12361

See page L209 for HFXE Emergency Models



LIGHTING

FLUORESCENT FIXTURES



- Class I, Div. 1 & 2, Groups C,D
- Class I, Zones 1 & 2, Groups IIB, IIA
- Class II, Div. 1 & 2, Groups E,F,G
- Class III, Div. 1 & 2
- NEMA 3, 4X, 7(C,D) 9(E,F,G)
- Suitable for wet locations
- Suitable for paint spray booths

UL LISTED - File E12976 and E89665 (Marine)
SP Certified - File LR11713

FEATURES-SPECIFICATIONS

Applications

HFX Series fluorescent fixtures are designed for installations where moisture, dirt, dust, corrosion and vibration may be present, or NEMA 3 and 4X areas where wind, water and snow can be expected. They can also be used in locations made hazardous due to the presence of flammable or explosive gases, vapors and combustible ducts as defined by the NEC.

Typical applications include classified areas such as inside paint spray booths, paint manufacturing plants, ammunition facilities, oil and gas producing and refining plants, off-shore and dockside installations, tank farms, pipeline pumping stations and marine loading and fuel transfer terminals.

- Extruded aluminum reflectors are easily removable for cleaning. White baked enamel finish
- Optional 316 stainless steel wire guard for added protection
- Threaded O-Ring gasketed covers provide easy access to lamp chambers, ballast and wiring compartment
- UL Listed externally fused ballast option; protects fixture on line side of ballast, prevents ballast burnout
- Suitable for use in both indoor and outdoor wet locations
- Relamping from either end permits easy access, speed and flexibility in relamping

- Spring loaded sockets on both lamp ends provide positive electrical contact and improved vibration resistance

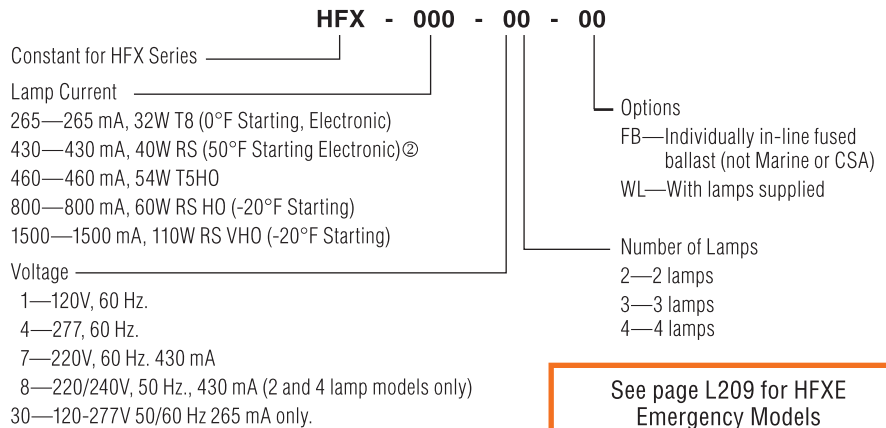
Compliances

- UL-1570, Standard for Fluorescent Lighting Fixtures
- UL Marine Type Lighting Fixtures
- UL-844, Standard for Lighting Fixtures for Hazardous Locations
- CSA C22.2 137-M1981
- Meets requirements of NFPA 70-1987 Article 516 and NFPA standard 33

Features

- UL Listed and labeled for use inside paint spray booths and rooms
- Construction is strong lightweight corrosion resistant copper-free aluminum alloy, less than 4/10 of 1%
- Class P ballast(s) with internal automatic thermally activated protective device
- All external hardware is corrosion resistant 316 stainless steel to provide maintenance free long life
- UL factory sealed construction (no external seals required). Saves installation time and cost
- Electronic energy efficient ballasts are standard on 430 mA fixtures and meet the requirements of many states

Catalog Number Logic



See page L209 for HFXE Emergency Models

HFX, HFXE HAZARDOUS LOCATION APPLICATION DATA ①													
DESCRIPTION	LAMP WATTS	RATED AMBIENT °C	SUITABLE FOR °C SUPPLY WIRE	CLASS I, DIV. 1 & 2 MAX. SURFACE TEMP			CLASS II, DIV. 1 & 2 MAX. SURFACE TEMP			CLASS III DIV. 1 & 2 SUITABILITY	UL MARINE	PAINT SPRAY SUITABLE	NEMA 3 & 4
				TEMP.	T-CODE	GROUPS	TEMP.	T-CODE	GROUPS				
HFX	32	40	90	100°C	T5	C, D	120°C	T4A	E, F, G	Yes	Yes	Yes	Yes
HFX	40	40	90	100°C	T5	C, D	120°C	T4A	E, F, G	Yes	Yes	Yes	Yes
HFX	54	40	90	100°C	T5	C, D	120°C	T4A	E, F, G	Yes	Yes	Yes	Yes
HFX	60	40	90	100°C	T5	C, D	120°C	T4A	E, F, G	Yes	Yes	Yes	Yes
HFX	110	40	90	100°C	T5	C, D	120°C	T4A	E, F, G	Yes	Yes	Yes	Yes

① Ratings apply to all 2, 3, and 4 lamp models.
 ② 430 MA ballasts 60°F start with 34 watt lamps.



FLUORESCENT FIXTURES



Class I, Div. 1 & 2, Groups C,D
Class I, Zones 1 & 2, Groups IIB, IIA
Class II, Div. 1 & 2, Groups E,F,G
Class III, Div. 1 & 2
NEMA 3, 4X, 7(C,D) 9(E,F,G)
Suitable for wet locations
Suitable for paint spray booths

LISTED - File E12976 and E89665 (Marine)
 Certified - File LR11713

FEATURES-SPECIFICATIONS

HFX FLUORESCENT LIGHT FIXTURES ① ②				
CATALOG NUMBER	CONDUIT SIZE	LINE VOLTAGE @60 HERTZ	DESCRIPTION	NUMBER OF LAMPS
HFX-265-302	3/4"	120V-277V 50/60 Hz	32W T8 electronic ballast 265MA	 Two Glass Tubes 4' Nominal
HFX-460-302		120V-277V 50/60 Hz	54W T5HO Electronic Ballast 460MA	
HFX-430-12		120V	40W rapid start electronic F40T12 medium Bi-Pin 430MA	
HFX-430-42		277V		
HFX-800-12		120V	60W rapid start high output F48T12/HO recessed double contact 800MA	
HFX-800-42		277V		
HFX-1500-12		120V	110W rapid start VHO F48T12/VHO recessed double contact 1500MA	
HFX-1500-42	277V			
HFX-265-303	3/4"	120V-277V 50/60 Hz	32W T8 electronic ballast 265MA	 Three Glass Tubes 4' Nominal
HFX-460-303		120V-277V 50/60 Hz	54W T5HO Electronic Ballast 460MA	
HFX-430-13		120V	40W rapid start electronic F40T12 medium Bi-Pin 430MA	
HFX-430-43		277V		
HFX-800-13		120V	60W rapid start high output F48T12/HO recessed double contact 800MA	
HFX-800-43		277V		
HFX-1500-13		120V	110w rapid start VHO F48T12/VHO recessed double contact 1500MA	
HFX-1500-43	277V			
HFX-265-304	3/4"	120V-277V 50/60 Hz	32W T8 electronic ballast 265MA	 Four Glass Tubes 4' Nominal
HFX-460-304		120V-277V 50/60 Hz	54W T5HO Electronic Ballast 460MA	
HFX-430-14		120V	40W rapid start electronic F40T12 medium Bi-Pin 430MA	
HFX-430-44		277V		
HFX-800-14		120V	60W rapid start high output F48T12/HO recessed double contact 800MA	
HFX-800-44		277V		
HFX-1500-14		120V	110W rapid start VHO F48T12/VHO recessed double contact 1500MA	
HFX-1500-44	277V			

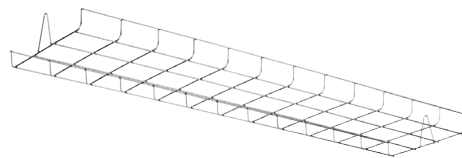
① Standard ballasts starting temperatures:
 32 Watt (265MA) Electronic 0°F
 40 Watt (430MA) Electronic 50°F, 60°F with 34 Watt lamps
 60 Watt (800MA) Electronic -20°F
 110 Watt (1500MA) Electronic -20°F

optional cold weather electromagnetic ballast (0°F starting 40 Watt 430MA) add suffix CW to catalog number.

② Optional UL listed in-line ballast fusing is available by adding suffix FB to catalog number (UL only).

③ Safety chain accessory catalog number HFX-SC available, supplied standard with 4 lamp fixtures.

WIRE GUARD	
CATALOG NUMBER	DESCRIPTION
2HFX-G4	2-Lamp 316 grade stainless steel
3HFX-G4	3-Lamp 316 grade stainless steel



See page L209 for HFXE Emergency Models

4 lamp fixture requires two 2HFX-G4 guards.



BALLAST DATA



Class I, Div. 1 & 2, Groups C,D
 Class I, Zones 1 & 2, Groups IIB, IIA
 Class II, Div. 1 & 2, Groups E,F,G
 Class III, Div. 1 & 2
 NEMA 3, 4X, 7(C,D) 9(E,F,G)
 Suitable for wet locations
 Suitable for paint spray booths

LISTED - File E12976 and E89665 (Marine)

Certified - File LR11713

FEATURES-SPECIFICATIONS

HFX BALLAST DATA					
CATALOG NUMBER	NO. OF LAMPS	VOLTAGE	LINE CURRENT AMPS	INPUT WATTS	STARTING TEMPERATURE
32 WATT T-8 ELECTRONIC 48" 265mA					
HFX-265-302	2	120-277	0.54 (120V) 0.24 (277V)	71	0°F (-18°C)
HFX-265-303 ①	3	120-277	0.71 (120V) 0.31 (277V)	88	0°F (-18°C)
HFX-265-304	4	120-277	1.10 (120V) 0.48 (277V)	142	0°F (-18°C)
54 WATT T-5HO ELECTRONIC 48" 460mA					
HFX-460-302	2	120-277	1.00 - .45	118	-20°F (-29°C)
HFX-460-303	3	120-277	1.55 - .67	177	-20°F (-29°C)
40 WATT RAPID START ELECTRONIC T-12 MEDIUM BI-PIN 48" 430mA					
HFX-430-12	2	120	0.51Ⓞ	60	60°F (16°C)
HFX-430-42	2	277	0.22Ⓞ	60	60°F (16°C)
HFX-430-13 ①	3	120	0.69 Ⓞ	91	60°F (16°C)
HFX-430-43 ①	3	277	0.30Ⓞ	91	60°F (16°C)
HFX-430-14	4	120	1.02Ⓞ	120	60°F (16°C)
HFX-430-44	4	277	0.44Ⓞ	120	60°F (16°C)
40 WATT BIAXIAL TYPE					
HFX-40T-302	2	120-277 50/60 Hz	0.63 (120V) 0.27 (277V)	76	0°F (-18°C)
HFX-40T-304	4	120-277 50/60 Hz	1.32 (120V) 0.54 (277V)	156	0°F (-18°C)
55 WATT BIAXIAL TYPE					
HFX-55T-302	2	120-277 50/60 Hz	0.94 (120V) 0.41 (277V)	112	-20°F (-29°C)
HFX-55T-304	4	120-277 50/60 Hz	1.97 (120V) 0.84 (277V)	232	-20°F (-29°C)
60 WATT RAPID START HIGH OUTPUT T-12 RECESSED DOUBLE CONTACT 48" 800mA					
HFX-800-12	2	120	1.4	135	-20°F (-29°C)
HFX-800-42	2	277	0.61	145	-20°F (-29°C)
HFX-800-13	3	120	2.4	260	-20°F (-29°C)
HFX-800-43	3	277	1.03	235	-20°F (-29°C)
HFX-800-14	4	120	2.8	270	-20°F (-29°C)
HFX-800-44	4	277	1.22	290	-20°F (-29°C)
110 WATT RAPID START VERY HIGH OUTPUT T-12 RECESSED DOUBLE CONTACT 48" 1500mA					
HFX-1500-12	2	120	2.1	242	-20°F (-29°C)
HFX-1500-42	2	277	0.92	242	-20°F (-29°C)
HFX-1500-13	3	120	3.38	376	-20°F (-29°C)
HFX-1500-43	3	277	1.48	377	-20°F (-29°C)
HFX-1500-14	4	120	4.2	484	-20°F (-29°C)
HFX-1500-44	4	277	1.84	484	-20°F (-29°C)

① 3 lamp 265mA and 430mA fixtures use a single ballast.

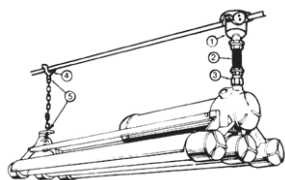
Ⓞ Line current and 60°F start using 34 Watt lamps. Start temperature for 40 Watt lamps is 50°F (10°C). 40 Watt lamps current approximately 24% higher.



HFX(T) SERIES

KILLARK

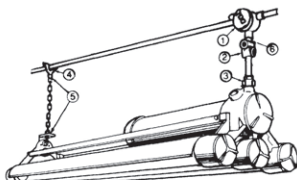
BALLAST DATA



Dummy (non-powered) end lowers for relamping clearance, which is required when fixtures are mounted in close proximity. Flexible mounting provides free swing and impact protection.

1. Splice Box/Fixture Hanger (HXB)
2. Flexible Pendant Hanger (EKJ)
3. Union (GUM)
4. Rigid Support Saddle Bracket (KFHS)
5. Support Hook (KEFHM)

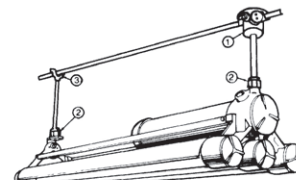
Note: Leave extra links to support fixture in relamping position. Chain furnished by others.



Dummy (non-powered) end lowers for relamping clearance, which is required when fixtures are mounted in close proximity.

1. Splice Box/Fixture Hanger (XFH)
2. Swivel Hanger (KESD)
3. Union (GUM)
4. Rigid Support Saddle Bracket (KFHS)
5. Support Hook (KEFHM)
6. 3/4" Rigid Threaded Nipple

Note: Leave extra links to support fixture in relamping position. Chain furnished by others.



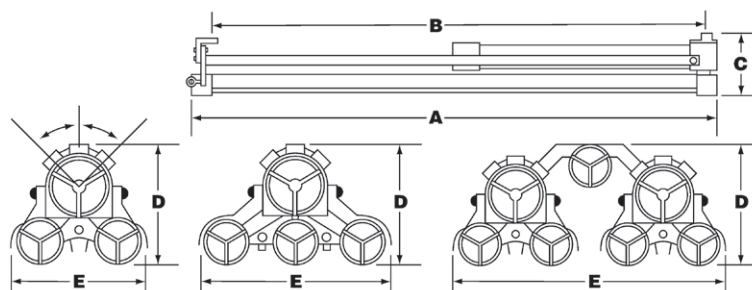
Rigid mounted—for installations where relamping can be accomplished without lowering dummy end.

1. Splice Box/Fixture Hanger (HXB)
2. Union (GUM)
3. Rigid Support Saddle Bracket (KFHS)

For wall mounting, use securely fastened 3/4" pipe 6" or less in length. Floor flange (furnished by others) recommended for dummy end as well as chain or cable providing vertical strain relief from above fixture. Chain furnished by others.

MOUNTING HARDWARE			
CATALOG NUMBER	HUB SIZE	LENGTH	DESCRIPTION
HXB-12	1/2"	—	HXB SERIES Splice Box/ 3/4" Fixture Hanger
HXB-22	3/4"	—	
EKJ-24	3/4"	4	EKJ SERIES Flexible Pendant Hanger
EKJ-26	3/4"	6	
EKJ-28	3/4"	8	
EKJ-210	3/4"	10	
EKJ-212	3/4"	12	
EKJ-215	3/4"	15	
EKJ-218	3/4"	18	
GUM-2	3/4"		GU SERIES Male Union

MOUNTING HARDWARE		
CATALOG NUMBER	HUB SIZE	DESCRIPTION
XFH-22	3/4"	XFH SERIES Splice box/fixture hanger
KESD-75	3/4"	KESD SERIES Swivel Hanger 15° swivel drop from center and full 360° free swing
KFHS-5075	3/4"	KFHS SERIES Rigid support saddle bracket for fluorescent fixtures (dummy end) Will support 350 lbs. and straddle Max. 1-1/4" conduit
KEFHM-75	3/4"	KEFHM SERIES Safety support hook with 3/4" male end For dummy end of fixture Will support 200 lbs. screw closed 3/8" jaw opening
HFX-SC	—	HFX SERIES Safety chain (36" length plated steel), standard on 4-tube fixture



HFX DIMENSIONS								
HFX MODEL	CONDUIT SIZE	DIMENSIONS						NET WEIGHT
		A	B	C	D	E		
Nominal 2"	2 Tubes	3/4-14 NPT	28-15/16" (735)	24-3/8" (619)	9-3/32" (231)	9-3/32" (231)	11" (279)	36.0 Lbs.
Nominal 4"	2 Tubes	3/4-14 NPT	52-13/16" (1367)	48-3/8" (1229)	9-3/32" (231)	9-3/32" (231)	11" (279)	47.7 Lbs.
Nominal 4"	3 Tubes	3/4-14 NPT	52-13/16" (1367)	48-3/8" (1229)	9-3/32" (231)	9-3/32" (231)	15-5/8" (397)	63.0 Lbs.
Nominal 4"	4 Tubes	3/4-14 NPT	52-13/16" (1367)	48-3/8" (1229)	9-3/32" (231)	10-1/8" (257)	23" (584)	99.9 Lbs.



LIGHTING

QUARTZ FLOODLIGHTS

SP US Certified



QL-500K



QL-1505K

FEATURES-SPECIFICATIONS

Applications

Provides maximum light output with low initial cost. Designed for instant turn-on and high illumination levels where H.I.D. costs are prohibitive. Used to illuminate construction sites, security areas, sports areas, sign lighting and other applications.

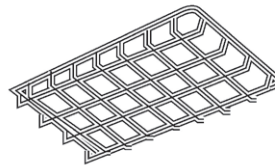
QL Series Features

- Tempered Glass Lens Assembly—Thermal shock-and impact-resistant glass lens mounted in a die cast aluminum door frame
- Cast Aluminum Housing—The cast aluminum body is designed with a specialized heat dissipating fin system for cooler operation
- Versatile Mounting—The standard unit has a 1/2 inch swivel knuckle with cast construction for strength and durability
- High Temperature Gasketing—A weathertight seal is provided by a high temperature silicone door gasket
- Exclusive Socket System—This two-piece, high temperature socket allows easy relamping and prevents socket from binding
- Reflector—Linear parabolic reflector system provides maximum light out
- High Temperature Gasketing—A weathertight seal is provided by a high temperature silicone gasket attached to the housing. Four lens clips positively seal the lens to the gasket with consistent pressure to assure a weathertight seal
- Versatile Mounting—The standard unit has a 1/2 inch swivel knuckle with cast construction for strength and universal aiming

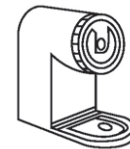
QL QUARTZ FLOODLIGHTS				
CATALOG NUMBER	LAMP AND WATTAGE	BEAM SPREAD	WEIGHT	E.P.A. SQ. FT.
QL-500K ①	300/500	Wide	4 Lbs. (1.8)	0.53
QL-500K-WQ ②	300/500	Wide	4 Lbs. (1.8)	0.53
QL-1505K ③	1000/1500	Wide	6 Lbs. (2.7)	0.86
QL-1505K-WQ ②③	1000/1500	Wide	6 Lbs. (2.7)	0.86

- ① Lamps not included.
- ② Lamps supplied-shipped separately. 500W 120V, 1500 240V.
- ③ 1500W models must be aimed 10° or more below horizontal.

ACCESSORIES /REPLACEMENT PARTS		
DESCRIPTION	QL-500K	QL-1505K
Guard	QL-5G	QL-15G
Trunnion Box	TRNDB	
Lens ONLY	0461330B	0461331B
Socket (2 Required)	K800-2166-0108	0732016B
1/2" Knuckle	K20750110214	
Lens Gasket	K265-0481-0307	

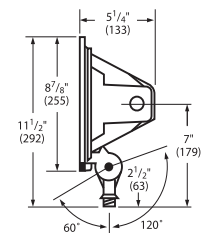
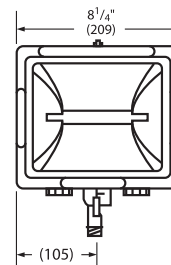
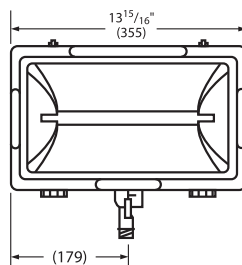


Guard



Trunnion Box

Dimensions





FLOODLIGHTS, 150-1000W HID



Class I, Div. 2 Groups A,B,C,D[Ⓢ]
Class I, Zone 2, Groups IIC,IIB,IIA (nR[Ⓣ])
Suitable for wet locations
NEMA 4X
IP66

ABS Type Approval

Type approval for shipboard use[Ⓢ]

FEATURES-SPECIFICATIONS

Applications

KF series floodlights can be used in industrial installations where flammable gases or vapors may exist due to abnormal conditions resulting in the creation of a Class I, Div. 2 hazardous location as defined by the NEC. Also can be used where general corrosive atmospheric conditions exist such as ocean piers, marinas and costal areas.

Designed for heavy duty applications where long life and maintenance-free service are essential.

Features

- Rugged weathertight housing of copper-free aluminum with corrosion resistant bronze finish
- Wide beam distribution
- Thermal shock, impact-resistant lens
- Continuous silicone gasketing
- All external hardware is corrosion resistant including HubbellGard[®] ceramic coated screws
- Trunnion mounting-heavy gauge, hot dip galvanized steel mounting with stainless steel hardware
- 3/4" NPT entry on back lower left

Catalog Logic

KF P 40 0 -76 NR F1 P1 AS

- | | | | | | |
|------|--|----------------|-------------------------|---|---|
| 1 | 2 | 3 | 4 | 5 | 6 |
| 1 | KF - Series Constant (aluminum flood) | | | | |
| 2 | Lamp Type | | | | |
| | S = High Pressure Sodium | | | | |
| | H = Metal Halide | | | | |
| | P = Pulse Start Metal Halide | | | | |
| 3 | Wattage | | | | |
| | 07 = 70 Watt (HPS) | | | | |
| | 10 = 100 Watt (HPS) | | | | |
| | 15 = 150 Watt (MHP, HPS) | | | | |
| | 17 = 175 Watt (MH, MHP) [Ⓢ] | | | | |
| | 20 = 200 Watt (MHP) | | | | |
| | 25 = 250 Watt (MH, MHP, HPS) [Ⓢ] | | | | |
| | 32 = 320 Watt (MHP) | | | | |
| | 35 = 350 Watt (MHP) | | | | |
| | 40 = 400 Watt (MH, MHP, HPS) [Ⓢ] | | | | |
| | 100 = 1000 Watt (MH, HPS)mno | | | | |
| 4 | Voltage*1 | | | | |
| | 0 = Quad - 120, 208, 240, 277V - 60Hz | | | | |
| | 5 = 480V | | | | |
| | 6 = Tri - 120, 277, 347V (for Canada only) | | | | |
| | 7 = 220V 60Hz | | | | |
| | 8 = 220/240V 50 Hz | | | | |
| 5 | -76 Series Constant (7 x 6 optic pattern) | | | | |
| 6 | Options | | | | |
| | • NR - Ex nR Restricted Breathing (Ex nR II) | | | | |
| | • IR - Instant Restrike 150W HPS** | | | | |
| | • BP - 150 - 400 HPS** | | | | |
| | • Fuse option 400W max. (not for Marine or CSA) | | | | |
| | F1 single 120V | F5 double 480V | | | |
| | F2 double 208V | F6 single 347V | | | |
| | F3 double 240V | F7 double 220V | | | |
| | F4 single 277V | F8 single 230V | | | |
| 50Hz | • Photocell option (400W max.) | | | | |
| | P1 120V | P2 208-277V | P2 347V | | |
| | • Terminal Blocks | | | | |
| | TBx | x=1-8 | x = voltage code | | |
| | TBLx | Lx=1-8 | loopingx = voltage code | | |
| | • Lamps | | | | |
| | AS = Assembled Standard Lamp | | | | |
| | AD = Assembled Dual-Arc-Tube Lamp; | | | | |
| | 150, 250, 400HPS only | | | | |

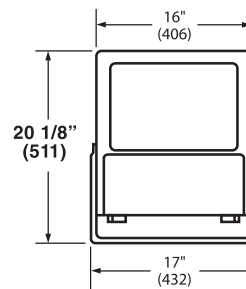
[Ⓢ] Not suitable for submersion or wave impact.
[Ⓢ] MH175,250,400 are EXPORT ONLY (EISA LAW).
[Ⓢ] Consult factory for other available voltage/lamp combinations.
[Ⓢ] 1000 Watt fixture aiming angle limited to 45°-135° (no straight up or down) 1000 Watt fixtures are rated and listed for 40° ambient.
[Ⓢ] Use Phillips C1000S52/ED37 11-1/2" lamp for 1000 HPS.

[Ⓢ] Use 11-1/2" BT37 lamp available from GE, Venture or Phillips (MH).
[Ⓢ] NR suffix Restricted Breathing models provide lower T-codes - Requires sealed entry.
[Ⓢ] Consult T-code chart for suitability.
 T-Codes=>306 are suitable for Groups B,C,D only.
 ** IR & BP cannot be ordered together.

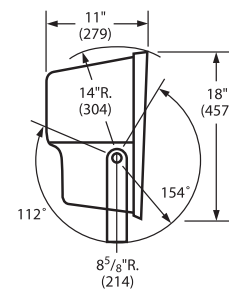


Elevated Ambients to 55°C

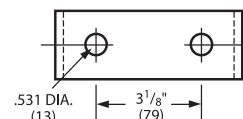
Consult T-Code Chart for suitability.



Front



Side



Trunnion Mounting Detail



LIGHTING

ORDERING INFORMATION • ACCESSORIES



KFS-6



KFCB



KFWB



K4040



4041

ORDERING INFORMATION

MH, PULSE START ORDERING INFORMATION*			
CATALOG NUMBER	LAMP AND WATTAGE	VOLTS ④	BEAM SPREAD H° X V°
KFP150-76 KFP155-76	150 MHP M-102/142	QUAD 480	7 (145°) X 6 (114°)
KFP170-76 KFP175-76	175 MH M-137/152	QUAD 480	7 (145°) X 6 (114°)
KFP200-76 KFP205-76	200 MH M-136	QUAD 480	7 (145°) X 6 (114°)
KFP250-76 KFP255-76	250 MHP M-138	QUAD 480	7 (145°) X 6 (114°)
KFP320-76 KFP325-76	320 MHP M-132	QUAD 480	7 (145°) X 6 (114°)
KFP350-76 KFP355-76	350 MHP M-131	QUAD 480	7 (145°) X 6 (114°)
KFP400-76 KFP405-76	400 MHP M-135	QUAD 480	7 (145°) X 6 (114°)

KF MOUNTING ACCESSORIES ①	
CATALOG NUMBER	DESCRIPTION
KFS-6	Steel slipfitter for 2" pipe (2-3/8" o.d.) tenon. Slips 3.75" over pipe
KFCB	Heavy duty cast-iron crossarm fitting for horizontal trunnion
KFWB	Heavy duty wall mount and/or pipe clamp fitting Clamps 2" pipe (2-3/8" o.d.) thru 2-1/2" pipe (2-7/8" o.d.)
K4040	Heavy duty steel wall bracket. (Must use with KFCB crossarm fitting)
4041	Heavy duty steel wall bracket 2" pipe (2-3/8" o.d.) tenon fitting
KF-DOOR	Replacement Door & Lens assembly

① Fittings available to adapt trunnion mount floodlights to crossarms, poles and walls. Must be ordered separately.

HPS, MH, START ORDERING INFORMATION*				
CATALOG NUMBER	LAMP AND WATTAGE	VOLTS ④	BEAM SPREAD H° X V°	
KFS070-76 KFS075-76	70 HPS S-62	QUAD 480	7 (144°) X 6 (113°)	
KFS100-76 KFS105-76	100 HPS S-54	QUAD 480	7 (145°) X 6 (114°)	
KFS150-76 KFS155-76	150 HPS S-55	QUAD 480	7 (144°) X 6 (113°)	
KFS250-76 KFS255-76	250 HPS S-50	QUAD 480	7 (144°) X 6 (113°)	
KFS400-76 KFS405-76	400 HPS S-51	QUAD 480	7 (144°) X 6 (113°)	
KFS1000-76 KFS1005-76	1000 HPS S-52 ⑤⑥	QUAD 480	7 (130°) X 6 (114°)	
EXPORT ONLY	KFH170-76 KFH175-76	170 MH M-57	QUAD 480	7 (145°) X 6 (114°)
	KFH250-76 KFH255-76	250 MH M-58	QUAD 480	7 (145°) X 6 (114°)
	KFH400-76 KFH405-76	400 MH M-59	QUAD 480	7 (146°) X 6 (119°)
	KFH1000-76 KFH1005-76	1000 MH M-47 ④⑥	QUAD 480	7 (145°) X 6 (114°)

* Consult T-Code Chart for hazardous location suitability.

④ Consult factory for other available voltages.

⑤ 1000 watt fixture aiming angle limited to 45°-135° (no straight up or down) 1000 watt fixtures are rated and listed for 40° ambient.

⑥ Use Philips C1000S52/ED37 11-1/2" lamp.

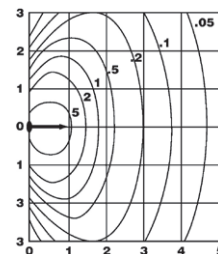


APPLICATION DATA • PHOTOMETRICS

HAZARDOUS LOCATION APPLICATION DATA

LUMINAIRE WATTAGE	AMBIENT	C1D2 T-CODE ^①	C1Z2NR T-CODE ^②	SUPPLY WIRE C [°]	AIMING RANGE & DIAGRAM ^③	
70W HPS	40C	T2B	T4	75	180° - 0°	A
	55C	T2B	T4	75	180° - 0°	A
	65C	T2B	T4	90	180° - 0°	A
100W HPS	40C	T2B	T4	75	180° - 0°	A
	55C	T2B	T4	75	180° - 0°	A
	65C	T2B	T4	91	180° - 0°	A
150W HPS	40C	T2B	T4	75	180° - 0°	A
	55C	T2B	T4	90	180° - 0°	A
	65C	T2B	T4	105	180° - 0°	A
250W HPS	40C	325C	T4	90	180° - 0°	A
	55C	325C	T3	105	180° - 0°	A
	65C	325C	T3	105	135° - 0°	B
400W HPS	40C	357C	T3	90	180° - 0°	A
	50C	363C	T3	105	135° - 0°	B
	55C	XXX	XXX	NA	XXX	NA
1000W HPS	40C	T1	T2	110	135°-45°	C
	55C	XXX	XXX	NA	XXX	NA
	65C	XXX	XXX	NA	XXX	NA
175MH	40C	350C	T4	90	180° - 0°	A
	55C	350C	T3	105	180° - 0°	A
	65C	325C	T4	105	135° - 45°	C
250W MH	40C	350C	T4	90	180° - 0°	A
	55C	350C	T3	105	180° - 0°	A
	65C	325C	T4	105	135° - 45°	C
400W MH	40C	325C	T3	105	135° - 0°	B
	55C	301C	T3	105	90° - 45°	D
	65C	XXX	XXX	NA	XXX	NA
1000W MH	40C	442C	T2	110	135°-45°	C
	55C	XXX	XXX	NA	XXX	NA
	65C	XXX	XXX	NA	XXX	NA
150W MHP	40C	325C	T4	90	180° - 0°	A
	55C	325C	T3	90	180° - 0°	A
	65C	325C	T3	105	180° - 0°	A
175W MHP	40C	325C	T4	90	180° - 0°	A
	55C	325C	T3	90	180° - 0°	A
	65C	325C	T4	105	180° - 0°	A
200W MHP	40C	325C	T4	90	180° - 0°	A
	55C	325C	T3	90	180° - 0°	A
	65C	325C	T5	105	180° - 0°	A
250W MHP	40C	350C	T3	90	180° - 0°	A
	55C	350C	T3	105	180° - 0°	A
	65C	XXX	XXX	NA	180° - 0°	NA
320W MHP	40C	366C	T3	90	180° - 0°	A
	55C	366C	T3	105	180° - 0°	A
	65C	XXX	XXX	NA	XXX	NA
350W MHP	40C	350C	T3	90	180° - 0°	A
	55C	350C	T3	105	135° - 45°	C
	65C	XXX	XXX	NA	XXX	XXX
400W MHP	40C	350C	T3	90	180° - 0°	A
	55C	325C	T3	105	135° - 45°	C
	65C	XXX	XXX	NA	XXX	XXX

PHOTOMETRIC DATA
KF SERIES

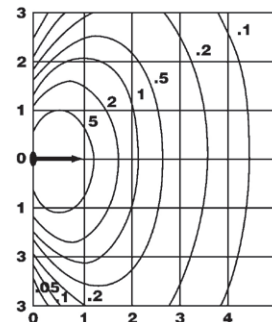


KFH-XXX-76

IES Type—7H x 6V (146° x 119°)
Source—Metal Halide (Clear) 34000 Lumens
Wattage—400 (ANSI M59)
For 250W MH multiply by .6
For 1000W MH multiply by 3.1
Mounting Height (Grid Value)—25 feet
Aiming Angle—45°
Test Number—HP-00738

CONVERSION CHART

MOUNTING HEIGHT (FEET)	20	25	28	30	35
CORRECTION FACTOR	1.56	1	80	0.69	0.51



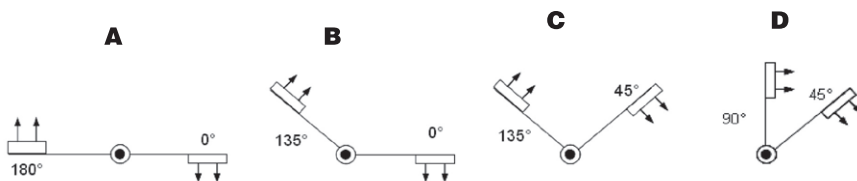
KFS-XXX-76

IES Type—7H x 6V (144° x 117°)
Source—High Pressure Sodium (Clear) 50000 Lumens
Wattage—400 (ANSI S51)
For 150W HPS multiply by .32
For 250W HPS multiply by .6
For 1000W HPS multiply by 2.5
Mounting Height (Grid Value)—25 feet
Aiming Angle—45°
Test Number—HP-00740

CONVERSION CHART

MOUNTING HEIGHT (FEET)	23	25	30	35	40
CORRECTION FACTOR	1.18	1	0.69	0.51	0.39

Aiming Figures Based on Ambient & Lamp^③



- ① Temperatures equal or higher than 306°C are suitable for Groups B,C,D only.
- ② C1D2 NR Restricted Breathing requires Sealed Entry.
- ③ Aiming angle limited by ambient temperature and lamp type - See Diagrams.

① In converting to a different mounting height, multiply all footcandle values by the correction factor and convert the grid size to the mounting height selected. Example: to convert 25 foot to 30 foot mounting height, multiply all footcandle values by .69. (Grid now becomes 30 replacing 25). To convert footcandles to Lux, multiply values by 10.76. To convert feet to meters, divide values by 3.281.



LIGHTING

MARINE FLOODLIGHTS, 150-400W HID



Class I Div. 2, Groups A,B,C,D*
AEx nR/Ex nR**
Class I Zone 2, IIC, IIB, IIA*

- UL 1598 HID Marine for Wet Locations
UL 844 Hazardous Locations
- CSA C22.2 9.9-9.6 General Requirements
CSA C22.2 137-M1981 Hazardous Locations
CSA Enclosure type IP66/67

ABS Type Approval for Shipboard Use
* Consult temperature data table on next page to determine application suitability.

FEATURES-SPECIFICATIONS



Applications

- Offshore production platforms
- Refineries
- Offshore drilling rigs and barges
- Ocean-going vessels
- Commercial fishing vessels
- Ports, wharfs and jetties
- Waste water and sewage treatment facilities
- Any type of washdown, corrosive, abrasive, or dirty environment.

Features and Benefits

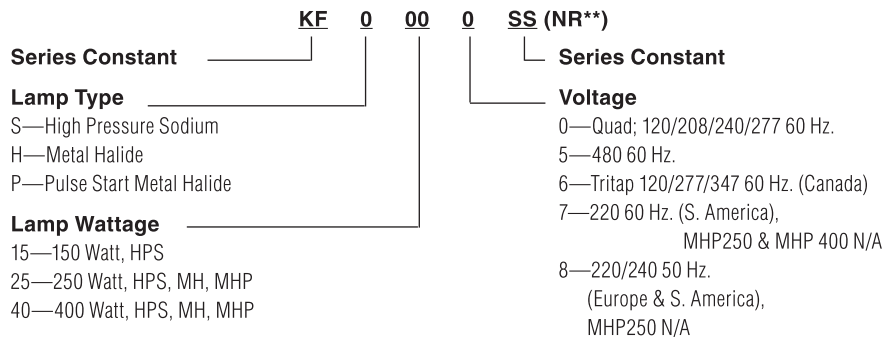
- Type 316 Stainless Steel Housing. 16-gauge housing ensures low corrosion and long life, reducing maintenance costs
- Rugged quick-release 316 SS Lens Latches. No hardware seizing on disassembly saves maintenance time and money. Only tool needed is a screwdriver
- 316 SS Safety Lens Door Chains. Enables hands-free safe re-lamping
- 316 SS Mounting Yoke Reliable and safe installation
- Highly efficient photometrics and excellent asymmetrical distribution. Photometrics above 85%. Minimizes the number of required fixtures to deliver desired light levels. Saves in energy costs
- Hot-dipped Galvanized Steel Mounting Accessories. Corrosion resistant in marine and corrosive environments, assuring reliable installation
- 316 SS 3/4" Conduit Hub. Maintains grounding continuity. Watertight seal. Corrosion resistant
- Silicone Gasketed Lens Door Frame. Provides watertight seal, protecting interior from moisture and corrosives

KFSS STAINLESS STEEL FLOOD LIGHTS			
CATALOG NUMBER	LAMP TYPE AND CIRCUIT	VOLTAGE	BEAM SPREAD H° X V°
KFS150SS KFS156SS	150 HPS S-55	120/208/240/277 @60Hz 120/277/347 @60 Hz	6 (118) x 6 (118)
KFS250SS KFS256SS	250 HPS S-50	120/208/240/277 @60Hz 120/277/347 @60 Hz	6 (118) x 6 (118)
KFS400SS KFS406SS	400 HPS S-51	120/208/240/277 @60Hz 120/277/347 @60 Hz	6 (118) x 6 (118)
KFH250SS KFH256SS	250 MH ① M-58	120/208/240/277 @60Hz 120/277/347 @60 Hz	6 (118) x 6 (118)
KFP250SS KFP256SS	250 MHP ② M-138	120/208/240/277 @60Hz 120/277/347 @60 Hz	6 (118) x 6 (118)
KFH400SS KFH406SS	400 MH ① M-59	120/208/240/277 @60Hz 120/277/347 @60 Hz	6 (118) x 6 (118)
KFP400SS KFP406SS	400 MHP ② M-135	120/208/240/277 @60Hz 120/277/347 @60 Hz	6 (118) x 6 (118)

① Mercury Vapor Lamps of the same wattage may be used if desired.
② Use a Pulse Start Metal Halide Lamp rated for Horizontal Position.

KFSS ACCESSORIES	
CATALOG NUMBER	DESCRIPTION
KFS-6G	Steel slipfitter for 2" pipe (2-3/8" O.D.) tenon. Hot-dipped galvanized (bolts included)
K4040G	Steel wall/pole bracket. Hot-dipped galvanized (bolts included)
KFCBG	Cross arm fitting for horizontal trunnion. Hot-dipped galvanized (bolts included)

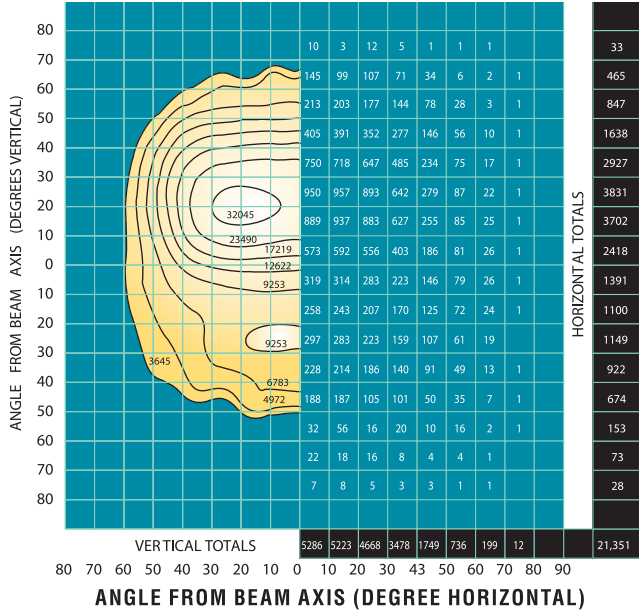
Catalog Number Logic





MARINE FLOODLIGHTS

**AVERAGE OF RIGHT- LEFT SIDES
ISO CANDELA CURVES LUMEN DISTRIBUTION**



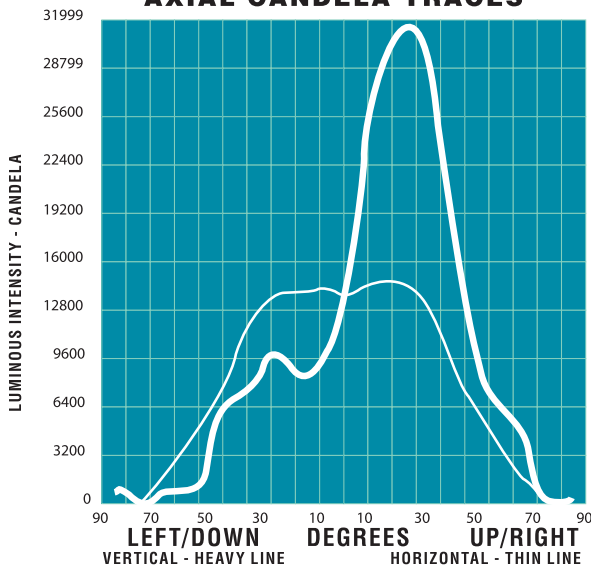
MARINE FLOODLIGHTS

ANGLE FROM BEAM AXIS (DEGREES HORIZONTAL)

Test Number: HP-07477 Lumens: 50,000
 Source: HPS IES/NEMA Type: 6H x 6V
 Lamp: ED-18 Maximum Beam Candlepower: 36,447
 Lamp Watts: 400 Average Maximum Candlepower: 32,045
 LCL: 5.75" Total Efficiency: 85.41%

	HORIZONTALLY	VERTICALLY	LUMENS	EFFICIENCY
BEAM	81.8	41.0	22,196	44.39%
FIELD	118.4	118.6	40,591	81.18%

AXIAL CANDELA TRACES



MARIGARD TEMPERATURE CODES

LAMP		RATED AMBIENT C°	CLASS 1 DIV. 2 TEMP. (CODE)	CLASS 1 ZONE 2 TEMP. (CODE)	EX NR ①	SUPPLY WIRE C°
TYPE	WATTAGE					
HPS	150	40	270°C (T2A)	270°C (T2)	T4	90°C
HPS	150	55	285°C (T2)	285°C (T2)	T4	90°C
HPS	150	65	295°C (T2)	295°C (T2)	T3	110°C
HPS	250	40	380°C (T1)	380°C (T1)	T3	90°C
HPS	250	55	395°C (T1)	395°C (T1)	T3	110°C
HPS	400	40	380°C (T1)	380°C (T1)	T3	110°C
MH-MHP-MV	250	40	365°C (T1)	365°C (T1)	T3	110°C
MH-MHP-MV	250	55	380°C (T1)	380°C (T1)	T2	110°C
MH-MHP-MV	400	40	365°C (T1)	365°C (T1)	T3	110°C

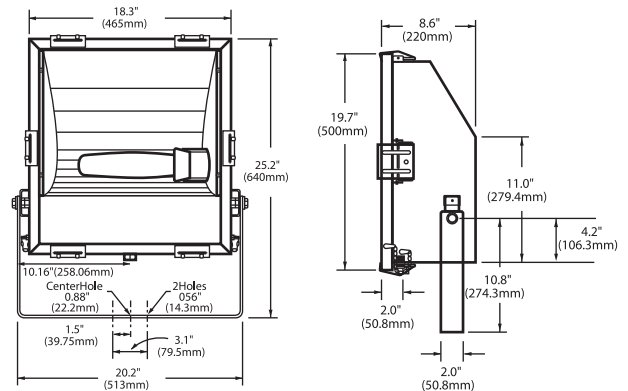
① Ex nR with NR adder. Allows lower T-CODE approvals through the use of sealed cable entrance fittings. See fittings section or select other gland/connector as appropriate for type of cable used.



Rugged yet easy-to-open 316 SS Latches require no special tools!



Two 316 SS Lens Chains allow for hands-free maintenance!





LIGHTING

WALLPACK, 70-175W HID

Class I, Div. 2, Groups A,B,C,D
Class I, Zone 2, Groups IIC, IIB, IIA
NEMA 4X

Certified



Wall Pack Luminaires

FEATURES-SPECIFICATIONS

CERTITE®

Applications

KWP Wall Luminaires are ideally suited for applications requiring a pleasing aesthetic appearance or hazardous location suitability in a compact energy saving fixture. Units are of copper-free aluminum construction for cool operation with a bronze electrostatically applied powder-coat finish. Suitable for locations such as perimeter security lighting, parking areas, factories and parking garages.

Features

- Aluminum with Bronze finish 1/2" hub on either side for conduit entry
- Mogul Porcelain Socket
- Reflector is specular aluminum precision formed for optimal performance
- Suitability for 40°C ambient, 90°C supply wire required
- Lens thermal shock and impact resistant prismatic borosilicate glass
- Full front access available for lamp or ballast service by hinging front door
- Two Hubbell Guard® Corrosion resistant hex head fasteners provide water-tight seal for door gasket
- Options include: factory installed photo cells, fusing, instant restrike, ballast protector and lamps

Compliances

- UL 1598 Standard for Luminaires
- UL 844 Standard for lighting fixtures for hazardous locations
- CSA C22 no. 137-M1981 electric luminaires for use in hazardous locations
- Enclosed and gasketed
- NEMA 3, 4X

Catalog Logic

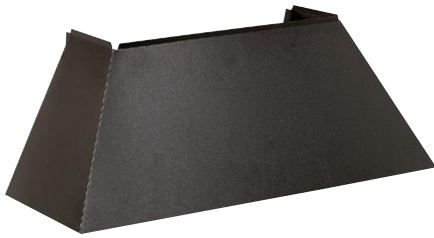
KWP	P	15	0	P1
1	2	3	4	5

1	KWP - Series Constant (Wallpack)
2	Lamp Type S = High Pressure Sodium H = Metal Halide P = Metal Halide Pulse
3	Wattage 05 = 50 Watt HPS 07 = 70 Watt (HPS, MH) 10 = 100 Watt (HPS, MH) 15 = 150 Watt (HPS, MHP) 17 = 175 Watt (MH, MHP)
4	Voltage 0 = 120, 208, 240, 277V @ 60Hz (QUAD) 5 = 480 @60Hz 6 = 120, 277, 347 @ 60Hz (for Canada) 7 = 220 @ 60Hz 8 = 220/240V @ 50Hz
5	Options FUSING - (Not for Canada or Marine applications) F1 single 120V 60Hz F5 double 480V 60Hz F2 double 208V 60Hz F6 single 347V 60Hz F3 double 240V 60Hz F7 double 220V 60Hz F4 single 277V 60Hz F8 single 230V 50Hz Photocells (Factory installed) P1 120V P2 208-277V (field connection to correct ballast tap) P3 347V Other Options IR Instant Restrike HPS to 150w - not available with BP BP Ballast Protector HPS - Not available with IR Terminal Blocks Assembly with Lamps TBx x=1-8 AS Standard lamp TBLx x=1-8 looping AD Dual-Arc-Tube (70-150 HPS)

See VM HID Ballast Table for current data



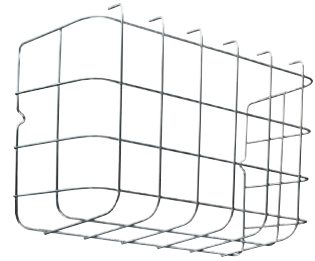
WALLPACK, 70-175W HID



Glare Shield



Clear Shield



Wire Guard

ORDERING INFORMATION

HPS, MH, MHP ORDERING INFORMATION*				
CATALOG NUMBER	LAMP TYPE	VOLTAGE	T-CODE AT 40°C	
KWPS050	50 HPS	QUAD	2150C	
	S-68	480	(T2D)	
KWPS070	70 HPS	QUAD	2150C	
	S-62	480	(T2D)	
KWPS100	100 HPS	QUAD	2150C	
	S-54	480	(T2D)	
KWPS150	150 HPS	QUAD	2600C	
	S-55	480	(T2B)	
KWPH070	70 MH	QUAD	2000C	
	M-98	480	(T3)	
KWPH100	100 MH	QUAD	2000C	
	M-90	480	(T3)	
EXPORT ONLY	KWPH170	175 MH	QUAD	2600C
	KWPH175	M-57	480	(T2B)
EISA	KWPP150	150 MHP	QUAD	2600C
	KWPP155	M102/142	480	(T2B)
	KWPP170	175 MHP	QUAD	2600C
	KWPP175	M137/152	480	(T2B)

* For other voltages, see logic.

KWP ACCESSORIES	
CATALOG NUMBER	DESCRIPTION
PGPS	Clear Shield (Polycarbonate) for Protecting Lens
PGWG	Wire Guard, Cadmium Plated Steel
PVLV	Glare Shield Full Cutoff Visor - Formed Bronze Aluminum Forces light to Walkway
KWPLENS	Replacement Door and Lens

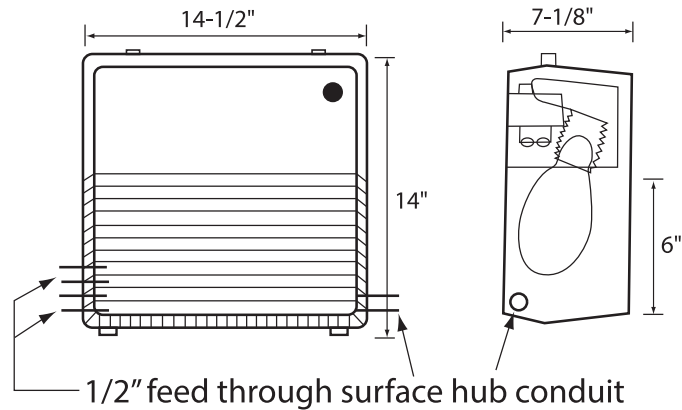


Photo Cell Field Kits for Harsh NEMA 4X and Class I, Div. 2 Locations*

PHOTO CELL FIELD KITS ①	
CATALOG NUMBER	VOLTS
VMFSPC1	120VAC
VMFSPC2	208-277VAC
VMFSPC3	347VAC

Order single gang FS back box separately.

Can be used to control several luminaires.

* 40°C ambient max. T3 to 400W max.

① Includes factory drilled FSBC cover and gasket.





LIGHTING

HID FLOODLIGHT FIXTURES



Shown with optional VMPSD40 reflector

Class I, Div. 1 & 2, Groups C,D
Class I, Zones 1 & 2, Groups IIB,IIA
NEMA 3, 4, 4X, 7(C,D)
Marine
Factory Sealed

UL LISTED - file E10514

CSA LR11713

FEATURES-SPECIFICATIONS

Applications

HOSTILELITE® EZ series trunnion mount luminaires provide directional lighting in both vertical and horizontal planes when used with floodlight mounting hardware.

Typical applications include refineries, drilling rigs and platforms, loading docks, bulk fuel loading terminals, and pipeline pumping stations.

Features

- Three light sources
 - » High Pressure Sodium (50-400W)
 - » Metal Halide (70-400)
 - » Metal Halide Pulse (175-400)

- Trunnion mounted—Trunnion yoke of 316 grade stainless steel attaches via mounting blocks to fixture ballast housing
- Factory sealed—No external seal needed
- Corrosion resistant—Fixture of copper-free aluminum die cast construction. Baked powder epoxy finish, electro-statically applied. Exposed hardware of 316 grade stainless steel
- Accessories—Guards, reflectors and mounting hardware available. Must be ordered separately, see illustration
- Mounting method—See page L180 for typical installation using mounting accessories

Compliances

- UL-844 Electric Lighting Fixtures for use in Hazardous Locations
- UL-1598 Standard for HID Lighting Fixtures
- CSA C22.2 no. 137-M1981 Electric Luminaires for use in Hazardous Locations
- NEMA 3, 4, 4X, 7CD

EZ HAZARDOUS LOCATION APPLICATION DATA									
FIXTURE SERIES	LAMP TYPE	LAMP WATTS	SUITABLE AMBIENT °C	SUPPLY WIRE MIN. °C	CLASS I, DIV. 1 & 2 ① MAX. SURFACE TEMP.		TYPE 3 (RAINTIGHT)	TYPE 4 (HOSEDOWN)	TYPE 4X (CORROSION RESISTANT)
					TEMP. I.D. (ACTUAL TEMP.)	GROUPS			
EZS	HPS	50	40	85	T4 (135°C)	C,D	YES	YES	YES
EZS	HPS	70	40	85	T4 (135°C)	C,D	YES	YES	YES
EZS	HPS	100	40	85	T4 (135°C)	C,D	YES	YES	YES
EZS	HPS	150	40	85	T4 (135°C)	C,D	YES	YES	YES
EZS	HPS	250	40	85	T3C (160°C)	C,D	YES	YES	YES
EZS	HPS	400	40	85	T3 (200°C)	C,D	YES	YES	YES
EZH	MH	70	40	85	T4A (120°C)	C,D	YES	YES	YES
EZH	MH	100	40	85	T4A (120°C)	C,D	YES	YES	YES
EZH	MH	175 ②	40	85	T3B (165°C)	C,D	YES	YES	YES
EZH	MH	250 ②	40	85	T3A (180°C)	C,D	YES	YES	YES
EZH	MH	400 ②	40	85	T2D (215°C)	C,D	YES	YES	YES
EZP	MHP	175/200	40	85	T3C (160°C)	C,D	YES	YES	YES
EZP	MHP	250/320	40	85	T3 (200°C)	C,D	YES	YES	YES
EZP	MHP	350/400	40	85	T2D (215°C)	C,D	YES	YES	YES

① T-Code with or without reflector.

② EXPORT ONLY (EISA LAW).



HID FLOODLIGHT FIXTURES



Shown with optional VMPSD40 reflector ③

Class I, Div. 1 & 2, Groups C,D
Class I, Zones 1 & 2, Groups IIB,IIA
NEMA 3, 4, 4X, 7(C,D)
Factory Sealed

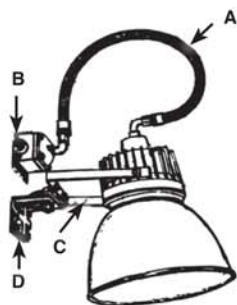
UL LISTED E10514

SP LR 11713

FEATURES-SPECIFICATIONS

Installation Method

Typical EZ Series trunnion mounted luminaire using conduit hardware.



- A. Flexible coupling. See page L220 for EKJ series
- B. Splice box. See page L2221 for JL/JAL series
- C. Trunnion yoke supplied with EZ-T series floodlight fixture
- D. Mounting accessory wall mount (KFWB) shown. See page L175 for this and other fittings available to adapt trunnion mount floodlights to crossarms, poles or walls

EZ 50 – 400W HPS FLOODLIGHTS ①②③				
WATTS	ANSI LAMP TYPE	VOLTAGE @60 HERTZ	HUB SIZE	CATALOG NUMBER
50 HPS	S-68	120, 208, 240, 277	3/4" ①	EZS050A2-T
70 HPS	S-62	120, 208, 240, 277		EZS070A2T
100 HPS	S-54	120, 208, 240, 277		EZS100A2-T
150 HPS	S-55	120, 208, 240, 277		EZS150A2-T
250 HPS	S-50	120, 208, 240, 277		EZS250A2-T
400 HPS	S-51	120, 208, 240, 277		EZS400A2-T

EZ 70 – 400W MH FLOODLIGHTS ①②③				
WATTS	ANSI LAMP TYPE	VOLTAGE @60 HERTZ	HUB SIZE	CATALOG NUMBER
70 MH	M-98	120, 208, 240, 277	3/4" ①	EZH070A2-T
100 MH	M-90	120, 208, 240, 277		EZH100A2-T
175 MH ⑥	M-57	120, 208, 240, 277		EZH170A2-T
250 MH ⑥	M-58	120, 208, 240, 277		EZH250A2-T
400 MH ⑥	M-59	120, 208, 240, 277		EZH400A2-T

EZ 175-400 W MH PULSE FLOODLIGHTS ①②③				
WATTS	ANSI LAMP TYPE	VOLTAGE @60 HERTZ	HUB SIZE	CATALOG NUMBER
175 MHP	M-137/M-152	120, 208, 240, 277	3/4" ①	EZP170A2-T
200 MHP	M-136	120, 208, 240, 277		EZP200A2-T
250 MHP	M-138/M153	120, 208, 240, 277		EZP250A2-T
320 MHP	M-132/M154	120, 208, 240, 277		EZP320A2-T
350 MHP	M-131	120, 208, 240, 277		EZP350A2-T
400 MHP	M-135/M155	120, 208, 240, 277		EZP400A2-T

EZH400A2G-TS	
Base Catalog Number (INC/"T")	S-Standard Dome Cat. No. VMPSD-40
Guard	D-Deep Dome Cat. No. HRD-400
Trunnion	Z-Deep Dome Cat. No. HRD-400ALZ

① Luminaire catalog numbers provide for a single 3/4" NPT flexible conduit connection only. For 1" NPT conduit connection, substitute "3" for "2" in catalog number; example: EZS050A3-T.

② Consult page L158 for other available voltage.

③ Accessories may be ordered with fixture as a single catalog number with the following logic. Components shipped separately.

④ Optional Accessory.

⑤ EXPORT ONLY (EISA LAW).

EZ ACCESSORIES ③		
CATALOG NUMBER	DESCRIPTION	
EZG1	HPS 50-150 MH 175-250 MV 100-250	Guard
VMAG40S	HPS 250-400 MH, MV 400	
VMPSD40	Standard dome	Reflector
HRD400	Deep dome white	
HRD400ALZ	Deep dome*	

* Specular anodized finish.



LIGHTING

NON-METALLIC CORROSION RESISTANT HAZARDOUS FIXTURES



Pendant Incandescent



Pendant Fluorescent



Ceiling Incandescent



Ceiling Fluorescent

Class I, Div. 2, Groups A,B,C,D
 Class I, Zone 2, Groups IIC,IIB,IIA
 Class II, Div. 2, Groups F,G
 Class III
 UL Marine Rated (US only)
 NEMA 3, 4, 4X, IP66

Certified - File LR11713

ABS Type Approval

to the following standards:

- UL 1598 Standard for luminaires
- UL 1598A Marine type luminaires
- UL 844 Standard for lighting fixtures for hazardous locations
- CSA C22.2 no. 137-M1981 electric luminaires for use in hazardous locations
- Enclosed and gasketed
- NEMA 3, 4X, IP66

FEATURES - SPECIFICATIONS

ENVIORITE® II

Applications

Designed specifically for corrosive & wet NEMA 4X and hazardous environments.

Typical applications include manufacturing plants, chemical and petrochemical processing facilities, sewage treatment plants, off-shore and dockside installations, agricultural, commercial/industrial, mining and marine facilities.

Features

- NV2 Series non-metallic light fixtures combine an outstanding balance of strength, stiffness, toughness and electrical properties
- Energy and labor saving fluorescent or incandescent models
- Accessories include polycarbonate dome reflectors and wall extension
- Molded from 30% glass-filled thermoset polyester for high strength
- Resists corrosive effects of most chemicals, hydrocarbons and solvents
- Designed for indoor and outdoor, globe down applications.

PENDANT 3/4" FIXTURE W/CLEAR GLOBE & GUARD		
TYPE	STANDARD GLOBE	TEMPERED GLOBE
15 W Incan.	NV2IG15ASG	NV2IG15AHG
13 W Fluor.	NV2FG13ASG	NV2FG13AHG
18 W Fluor.	NV2FG18ASG	NV2FG18AHG
26 W Fluor.	NV2FG26ASG	NV2FG26AHG
32 W Fluor.	NV2FG32ASG	NV2FG32AHG
42 W Fluor.	NV2FG42ASG	NV2FG42AHG

CEILING 3/4" FIXTURE W/CLEAR GLOBE & GUARD*		
TYPE	STANDARD GLOBE	TEMPERED GLOBE
150 W Incan.	NV2IG15XSG	NV2IG15XHG
13 W Fluor.	NV2FG13XSG	NV2FG13XHG
18 W Fluor.	NV2FG18XSG	NV2FG18XHG
26 W Fluor.	NV2FG26XSG	NV2FG26XHG
32 W Fluor.	NV2FG32XSG	NV2FG32XHG
42 W Fluor.	NV2FG42XSG	NV2FG42XHG

WALL 3/4" FIXTURE W/CLEAR GLOBE & GUARD*		
TYPE	STANDARD GLOBE	TEMPERED GLOBE
150 W Incan.	NV2IG15BSG	NV2IG15BHG
13 W Fluor.	NV2FG13BSG	NV2FG13BHG
18 W Fluor.	NV2FG18BSG	NV2FG18BHG
26 W Fluor.	NV2FG26BSG	NV2FG26BHG
32 W Fluor.	NV2FG32BSG	NV2FG32BHG
42 W Fluor.	NV2FG42BSG	NV2FG42BHG

*Notes:

Tempered Globes are required for Wet Location applications

All assemblies are unit packed with required components (not assembled)

Fluorescent unit pack models (only) include the lamp Reflector is sold separately. For wall mounting with reflector, the NVEXTG extension is required and sold separately

Fluorescent models use "world voltage" ballasts for 120VAC through 277VAC 50/60Hz applications

Incandescent models 277VAC max.

For M20 ceiling units change "X" in part # to "M". For wall units change "B" to "W".

M20 Pendant not available.

* Incandescent lamp bulb size A

Colored Globe Options**

Example: NV2IG15ASG-R for Ruby Standard Globe or NV2IG15AHG-R for Ruby Tempered Globe

SUFFIX AND AVAILABLE COMBINATIONS		
COLOR	STANDARD GLOBE	TEMPERED GLOBE
Amber	A	A
Blue	B	BG
Ruby	R	R
Green	G	NA
Purple	P	NA
Blue-Green	BG	BG

**Tempered globes are required for wet locations.

T-CODES @ 40°C MAX; WITH OR WITHOUT REFLECTOR						
GLOBE TYPE	CLASS II DIV.2		CLASS II DIV.2		MINIMUM START	
	CLEAR	COLOR	CLEAR	COLOR	°C	°F
75 W	T2C	T2B	T3C	-	-	-
100 W	T2A	T2	T3C	-	-	-
150 W	T2B	T2	-	-	-	-
13 Fluor	T3C	T3C	T4A	T4A	-20	-4
18 Fluor	T3C	T3C	T4A	T4A	-20	-4
26 Fluor	T3B	T3A	T4A	T4A	-20	-4
32 Fluor	T3B	T3A	T4A	T4A	-20	-4
42 Fluor	T2D	T2C	T4A	T4A	-20	-4

Min. supply wire Fluor. 60°C, Incan. 90°C

FLUORESCENT OPERATING MAX. AMPS		
TYPE	120 VAC	277 VAC
13W Fluor	0.144	0.067
18W Fluor	0.158	0.073
26W Fluor	0.22	0.097
32W Fluor	0.285	0.128
42W Fluor	0.38	0.166



NV2 SERIES

KILLARK

NON-METALLIC CORROSION RESISTANT HAZARDOUS FIXTURES



Wall Mount Incandescent



Wall Mount Fluorescent



Wall Mount with Extension and Dome Reflector accessories

Class I, Div. 2, Groups A,B,C,D
 Class I, Zone 2, Groups IIC,IIB,IIA
 Class II, Div. 2, Groups F,G
 Class III
 UL Marine Rated (US only)
 NEMA 3, 4, 4X, IP66

Certified - File LR11713

ABS Type Approval

COMPONENT PARTS



Pendent



Ceiling/Wall



Wall Elbow



Ceiling/Wall (Interior Detail)



Incandescent



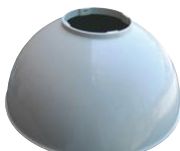
Fluorescent



Globe



Guard



Reflector



Extension



Gray Blank



Clear

NV2 SPLICE BOXES - INCLUDES SILICONE GASKETS & BRASS SCREWS			
CATALOG NUMBER	DESCRIPTION		
NV2AG	Pendant	3/4" NPT	Pendant splice box includes a 316 stainless steel set screw at the conduit connection
NV2XG [Ⓢ]	Ceiling Box	3/4" NPT	Ceiling box vol. 24 cu. inches
NV2MG [Ⓢ]		M20	
NV2BG	Wall Bracket		Use with NV2XG or NV2MG for wall mount

NV2 BODIES	
CATALOG NUMBER	DESCRIPTION
NV2IG15	Incandescent Body with E-26 medium base socket; fixture rated voltage 277VAC max.
NV2FG13	13 W Fluorescent Body World Voltage 120V - 277V 50/60Hz
NV2FG18	18 W Fluorescent Body World Voltage 120V - 277V 50/60Hz
NV2FG26	26 W Fluorescent Body World Voltage 120V - 277V 50/60Hz
NV2FG32	32 W Fluorescent Body World Voltage 120V - 277V 50/60Hz
NV2FG42	42 W Fluorescent Body World Voltage 120V - 277V 50/60Hz

NV2 GLASS GLOBES & GUARDS K		
CATALOG NUMBER	DESCRIPTION	
VCG-100	Clear	150 watt Lamp size A-21 max.
VCGP-100	Clear, Tempered	
NV2GG		Guard

NV2 REFLECTORS AND EXTENSION	
CATALOG NUMBER	DESCRIPTION
NVPSD12	White Polycarbonate Reflector (secured by guard)
NVEXTG	Extension (for wall mount fixture with reflector)

BLANK COVERS FOR NV2 XG CEILING BOXES	
CATALOG NUMBER	DESCRIPTION
NV2CG	Gray Cover
NV2CC [Ⓢ]	Clear Cover

NV2 F FLUORESCENT REPLACEMENT LAMPS AND BALLASTS		
CATALOG NUMBER	DESCRIPTION	
MQL13	13 W Quad-Pin Lamp 900 Lumens	BKF131830 13/18 WATT REP. BALLAST
MQL18	18 W Quad-Pin Lamp 1200 Lumens	
MQL26	26 W Quad-Pin Lamp 1800 Lumens	
MQL32	32 W Quad-Pin Lamp 2400 Lumens	
MQL42	42 W Quad-Pin Lamp 3200 Lumens	BKF26324230 26/32/42 WATT REP. BALLAST

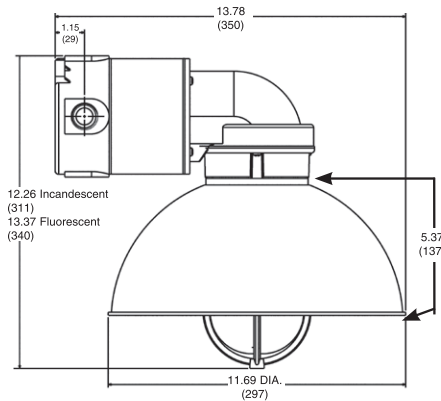
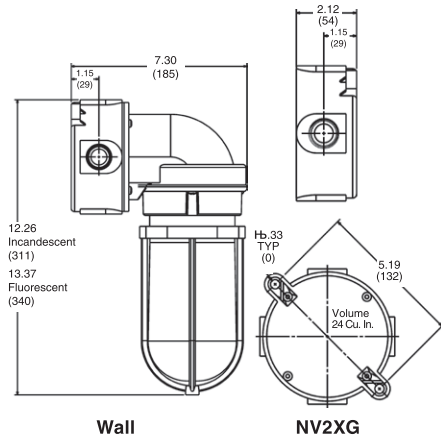
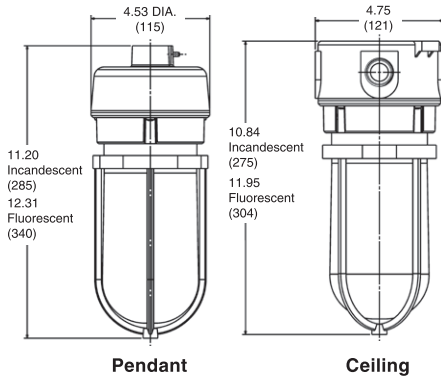
[Ⓢ] NV2 ceiling (wall) boxes have 4 10-32 brass inserts with 2 ground screws. May be used for wet locations, as terminal/junction, boxes, or instruments using 'clear' blank cover.

[Ⓢ] Use tempered globes for wet locations.



DIMENSIONS, CROSS REFERENCE, PHOTOMETRIC DATA

DIMENSIONS*



Wall mount with optional reflector and with extension. Extension required only for wall mount units using reflector.

* NOTE: Dimensional diagrams show incandescent models, but include height also for fluorescent.

NV TO NV2 CROSS REFERENCE PHOTOMETRICS

OLD	NEW#	NEW DESCRIPTION
-----	------	-----------------

Complete Fixtures

NVA15GG	NV2IG15ASG	INC 150W PEND STD GLOBE/GRD
NVA15GHG	NV2IG15AHG	INC 150W PEND TEMPER GLB/GRD
NVX15GG	NV2IG15XSG	INC 150W CEIL STD GLOBE/GRD
NVX15GHG	NV2IG15XHG	INC 150W CEIL TEMPER GLB/GRD
NVB15GG	NV2IG15BSG	INC 150W WALL STD GLOBE/GRD
NVB15GHG	NV2IG15BHG	INC 150W WALL TEMPER GLB/GRD
NVQA18GG	NV2FG18ASG	FL18 120-277 PEND STD GLOB/GRD
NVQA18GHG	NV2FG18AHG	FL18 120-277 PEND TEM GLOB/GRD
NVQX18GG	NV2FG18XSG	FL18 120-277 CEIL STD GLOB/GRD
NVQX18GHG	NV2FG18XHG	FL18 120-277 CEIL TEM GLOB/GRD
NVQB18GG	NV2FG18BSG	FL18 120-277 WALL STD GLOB/GRD
NVQB18GHG	NV2FG18BHG	FL18 120-277 WALL TEM GLOB/GRD

Components

NVA	NV2AG	3/4" Pendant
NVX	NV2XG	3/4" Ceiling (Wall) Box
NVB	NV2BG	Elbow, use with Ceiling Box
NVQFC	NV2FG18	Fluorescent Body 120-277VAC 50/60Hz
NVQFC184	NV2FG18	Fluorescent Body 120-277VAC 50/60Hz
NVFC	NV2IG15	Incandescent Body
NVFC-LT	NV2IG15	Incandescent Body
NVG	NV2GG	Guard
NVQ-18	MQL18	18W Compact Fluor. Lamp
NVBC	NV2CG	Blank Cover w/Two Gaskets
NVSG	NV2CG	Use Blank Cover's extra gasket

① "4" for 277VAC Fluorescent no longer required

② Insulated socket incandescent no longer needed for 90c wire

Key New Features:

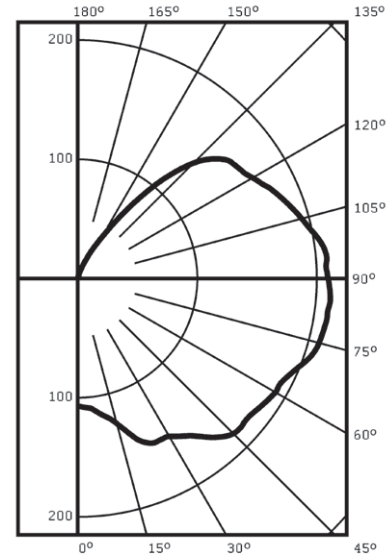
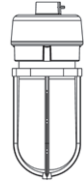
- Certified for Hostile Locations: Class I Div 2; Class II Div 2; N4X; IP66
- ABS Approval
- 120-277VAC 50/60Hz World Voltage Ballasts on Fluorescents
- Four new Fluorescent Wattages: 13, 26, 32, 42
- Only 90° C wire for Incandescent suitable for Marine with 150A
- New Dome Reflector
- Colored "100" Series globes can be ordered in assemblies
- M20 Metric ceiling/wall box
- Four 10-32 bosses in ceiling box for user applications
- Clear Blank covers available for user applications

Backward Compatibility:

- NVG & NV2GG are interchangeable
- Globes are interchangeable
- Old NV Incandescent and Fluorescent bodies will fit new NV2 Boxes and Elbow, but assembly is Wet Location listed only
- New NV2IG15 Incandescent will fit old NV Boxes and Elbow
- New NV2FGx Fluorescent will fit old NVX box, not pendant or elbow
- Reflectors will fit old bodies for pendant or ceiling applications

NV2IG15 Incandescent
With Globe & Guard

Candlepower - 150 Watt
A-21 lamp 2850 lumens
For 75 Watt multiply by .42
For 100 Watt multiply by .61



ZONE	LUMENS	%LAMP	%FIXT
0- 30	117	4.1	5.6
0- 40	219	7.7	10.5
0- 60	528	18.5	25.3
0- 90	1172	41.1	56.1
90-120	608	21.3	29.1
90-130	754	26.5	36.1
90-150	903	31.7	43.3
90-180	915	32.1	43.9
0-180	2087	73.2	100.0

TOTAL LUMINAIRE EFFICIENCY = 73.2 %

COEFFICIENTS OF UTILIZATION - ZONAL CAVITY METHOD

% EFFECTIVE FLOOR CAVITY REFLECTANCE 0.20	20% Effective Floor Cavity Reflectance					
	80	70	50	30	10	0
% WALL REFLECTANCE 1w	70 50 30 10	70 50 30 10	50 30 10	50 30 10	50 30 10	0
ROOM CAVITY RATIO RC/RW	20% Effective Floor Cavity Reflectance					
0	.79 .79 .79 .79	.74 .74 .74 .74	.64 .64 .64	.54 .54 .54	.45 .45 .45	.41
1	.69 .64 .59 .55	.63 .59 .55 .51	.50 .47 .44	.41 .39 .37	.34 .32 .30	.26
2	.61 .53 .47 .42	.56 .49 .44 .39	.41 .37 .33	.34 .31 .28	.27 .25 .23	.19
3	.55 .46 .39 .33	.50 .42 .36 .31	.35 .30 .26	.29 .25 .22	.23 .20 .18	.14
4	.49 .40 .33 .27	.45 .37 .30 .25	.31 .26 .21	.25 .21 .18	.20 .17 .14	.11
5	.45 .35 .28 .23	.41 .23 .26 .21	.27 .22 .18	.22 .18 .15	.18 .14 .12	.09
6	.41 .31 .24 .19	.38 .29 .22 .18	.24 .19 .15	.20 .16 .12	.16 .12 .10	.08
7	.38 .28 .21 .16	.35 .26 .20 .15	.22 .17 .13	.18 .14 .11	.14 .11 .08	.06
8	.35 .25 .19 .14	.32 .23 .17 .13	.20 .15 .11	.16 .12 .09	.13 .10 .07	.06
9	.33 .23 .17 .12	.30 .21 .15 .12	.18 .13 .10	.15 .11 .08	.12 .09 .06	.05
10	.30 .21 .15 .11	.28 .19 .14 .10	.16 .12 .09	.14 .10 .07	.11 .08 .06	.04

SPACING CRITERION = 2.3

TEST NO. 1716



INCANDESCENT COPPER-FREE ALUMINUM FIXTURES

Enclosed & Gasketed

UL LISTED - File E27731

SP Certified - File LR11851



INTRODUCTION AND ORDERING INFORMATION

V Series

Enclosed & Gasketed

Applications

- Locations requiring durable, protected lighting fixtures
- Wet and dirt laden locations
- Industrial environments requiring enclosed and gasketed (vapor tight) fixtures
- Fixtures intended for base-up mounting
- Heat resistant glass globes recommended for wet locations

Features

- Electrostatically applied epoxy/polyester finish
- Modular design
- Hubs are threaded for attachment to conduit
- Set screws in pendant fixture
- Copper-free aluminum (less than .004%)



PENDANT MOUNT WITH VGA SPLICE BOX								
FIXTURE TYPE	LAMP WATT	HUB SIZE	CATALOG NUMBER		CONSISTS OF			
			FIXTURE W/ GLOBE	FIXTURE W/ GLOBE & GUARD	MOUNTING BOX	FIXTURE BODY	CLEAR GLOBE*	GUARD (if selected)
100	150	1/2"	VUAG-1-100Ⓢ	VUAGG-1-100Ⓢ	VGA-1	VFC-100	VCG-100	VAG-100
		3/4"	VUAG-2-100Ⓢ	VUAGG-2-100Ⓢ	VGA-2	VFC-100	VCG-100	VAG-100
200	300	1/2"	VUAG-1-200Ⓢ	VUAGG-1-200Ⓢ	VGA-1	VFC-200	VCG-200	VAG-200
		3/4"	VUAG-2-200Ⓢ	VUAGG-2-200Ⓢ	VGA-2	VFC-200	VCG-200	VAG-200

CEILING MOUNT WITH FEET USING VBC SPLICE BOX AND VBA ADAPTER								
FIXTURE TYPE	LAMP WATT	HUB SIZE	CATALOG NUMBER		CONSISTS OF			
			FIXTURE W/ GLOBE	FIXTURE W/ GLOBE & GUARD	MOUNTING BOX/ ADAPTER	FIXTURE BODY	CLEAR GLOBE*	GUARD (if selected)
100	150	1/2"	VUXG-1-100Ⓢ	VUXGG-1-100Ⓢ	VBC-1 + VBA	VFC-100	VCG-100	VAG-100
		3/4"	VUXG-2-100Ⓢ	VUXGG-2-100Ⓢ	VBC-2 + VBA	VFC-100	VCG-100	VAG-100
200	300	1/2"	VUXG-1-200Ⓢ	VUXGG-1-200Ⓢ	VBC-1 + VBA	VFC-200	VCG-200	VAG-200
		3/4"	VUXG-2-200Ⓢ	VUXGG-2-200Ⓢ	VBC-2 + VBA	VFC-200	VCG-200	VAG-200

CEILING MOUNT WITH VGX SPLICE BOX								
FIXTURE TYPE	LAMP WATT	HUB SIZE	CATALOG NUMBER		CONSISTS OF			
			FIXTURE W/ GLOBE	FIXTURE W/ GLOBE & GUARD	MOUNTING BOX	FIXTURE BODY	CLEAR GLOBE*	GUARD (if selected)
100	150	1/2"	VUXG-1-100Ⓢ	VUXGG-1-100Ⓢ	VGX-1	VFC-100	VCG-100	VAG-100
		3/4"	VUXG-2-100Ⓢ	VUXGG-2-100Ⓢ	VGX-2	VFC-100	VCG-100	VAG-100
200	300	1/2"	VUXG-1-200Ⓢ	VUXGG-1-200Ⓢ	VGX-1	VFC-200	VCG-200	VAG-200
		3/4"	VUXG-2-200Ⓢ	VUXGG-2-200Ⓢ	VGX-2	VFC-200	VCG-200	VAG-200

CEILING MOUNT WITH VGC SPLICE BOX - FEED THROUGH								
FIXTURE TYPE	LAMP WATT	HUB SIZE	CATALOG NUMBER		CONSISTS OF			
			FIXTURE W/ GLOBE	FIXTURE W/ GLOBE & GUARD	MOUNTING BOX	FIXTURE BODY	CLEAR GLOBE*	GUARD (if selected)
100	150	1/2"	VUXG-1-100Ⓢ	VUXGG-1-100Ⓢ	VGC-1	VFC-100	VCG-100	VAG-100
		3/4"	VUXG-2-100Ⓢ	VUXGG-2-100Ⓢ	VGC-2	VFC-100	VCG-100	VAG-100
200	300	1/2"	VUXG-1-200Ⓢ	VUXGG-1-200Ⓢ	VGC-1	VFC-200	VCG-200	VAG-200
		3/4"	VUXG-2-200Ⓢ	VUXGG-2-200Ⓢ	VGC-2	VFC-200	VCG-200	VAG-200

* For other colors, order globes and fixture components separately.

Ⓢ Fixture supplied as component unit pack when ordered by this catalog number.

Ⓢ Catalog number for ordering convenience; fixture is shipped as components as listed in catalog number table.

LIGHTING

V SERIES • WEATHERPROOF



INCANDESCENT COPPER-FREE ALUMINUM FIXTURES



ORDERING INFORMATION



CEILING MOUNT WITH VGH SPLICE BOX - DEAD END								
FIXTURE TYPE	LAMP WATT	HUB SIZE	CATALOG NUMBER		CONSISTS OF			
			FIXTURE W/ GLOBE	FIXTURE W/ GLOBE & GUARD	MOUNTING BOX	FIXTURE BODY	CLEAR GLOBE*	GUARD (if selected)
100	150	1/2"	VUHG-1-100 [Ⓜ]	VUHGG-1-100 [Ⓜ]	VGH-1	VFC-100	VCG-100	VAG-100
		3/4"	VUHG-2-100 [Ⓜ]	VUHGG-2-100 [Ⓜ]	VGH-2	VFC-100	VCG-100	VAG-100
200	300	1/2"	VUHG-1-200 [Ⓜ]	VUHGG-1-200 [Ⓜ]	VGH-1	VFC-200	VCG-200	VAG-200
		3/4"	VUHG-2-200 [Ⓜ]	VUHGG-2-200 [Ⓜ]	VGH-2	VFC-200	VCG-200	VAG-200



CEILING MOUNT WITH VXA DEEP 5 - HUB SPLICE BOX								
FIXTURE TYPE	LAMP WATT	HUB SIZE	CATALOG NUMBER		CONSISTS OF			
			FIXTURE W/ GLOBE	FIXTURE W/ GLOBE & GUARD	MOUNTING BOX	FIXTURE BODY	CLEAR GLOBE*	GUARD (if selected)
100	150	1/2"	VXAG-110 [Ⓜ]	VXAGG-110 [Ⓜ]	VXA-1	VFC-100	VCG-100	VAG-100
		3/4"	VXAG-210 [Ⓜ]	VXAGG-210 [Ⓜ]	VXA-2	VFC-100	VCG-100	VAG-100
200	300	1/2"	VXAG-120 [Ⓜ]	VXAGG-120 [Ⓜ]	VXA-1	VFC-200	VCG-200	VAG-200
		3/4"	VXAG-220 [Ⓜ]	VXAGG-220 [Ⓜ]	VXA-2	VFC-200	VCG-200	VAG-200



CEILING MOUNT WITH VBA ADAPTER FOR ROUND OUTLET BOX								
FIXTURE TYPE	LAMP WATT	HUB SIZE	CATALOG NUMBER		CONSISTS OF			
			FIXTURE W/ GLOBE	FIXTURE W/ GLOBE & GUARD	BOX ADAPTER	FIXTURE BODY	CLEAR GLOBE*	GUARD (if selected)
100	150	1/2"	VOB-100 [Ⓜ]	VOBG-100 [Ⓜ]	VBA	VFC-100	VCG-100	VAG-100
200	300	3/4"	VOB-200 [Ⓜ]	VOBG-200 [Ⓜ]	VBA	VFC-200	VCG-200	VAG-200



CEILING MOUNT WITH VFPS ADAPTER FOR SQUARE OR OCTAGON OUTLET BOX								
FIXTURE TYPE	LAMP WATT	HUB SIZE	CATALOG NUMBER		CONSISTS OF			
			FIXTURE W/ GLOBE	FIXTURE W/ GLOBE & GUARD	BOX ADAPTER	FIXTURE BODY	CLEAR GLOBE*	GUARD (if selected)
100	150	1/2"	VFCA-100 [Ⓜ]	VFCA-100 [Ⓜ]	VFPS	VFC-100	VCG-100	VAG-100
200	300	3/4"	VFCA-200 [Ⓜ]	VFCA-200 [Ⓜ]	VFPS	VFC-200	VCG-200	VAG-200

NOTES: Mounts directly to steel 4" square and 3-1/2" or 4" octagon outlet box. Supplied with gasket.

* For other colors, order globe and fixture components separately.

Ⓜ Fixture supplied as component unit pack when ordered by this catalog number.

Ⓜ Catalog number for ordering convenience; fixture is shipped as components as listed in catalog number table.



INCANDESCENT COPPER-FREE ALUMINUM FIXTURES



ORDERING INFORMATION



WALL MOUNT WITH FEET USING VBC SPLICE BOX AND VB ELBOW								
FIXTURE TYPE	LAMP WATT	HUB SIZE	CATALOG NUMBER		CONSISTS OF			
			FIXTURE W/ GLOBE	FIXTURE W/ GLOBE & GUARD	MOUNTING BOX/ELBOW	FIXTURE BODY	CLEAR GLOBE*	GUARD (if selected)
100	150	1/2"	VFBG-1-100Ⓢ	VFBGG-1-100Ⓢ	VBC-1+VB-1	VFC-100	VCG-100	VAG-100
		3/4"	VFBG-2-100Ⓢ	VFBGG-2-100Ⓢ	VBC-2+VB-2	VFC-100	VCG-100	VAG-100
200	300	1/2"	VFBG-1-200Ⓢ	VFBGG-1-200Ⓢ	VBC-1+VB-1	VFC-200	VCG-200	VAG-200
		3/4"	VFBG-2-200Ⓢ	VFBGG-2-200Ⓢ	VBC-2+VB-2	VFC-200	VCG-200	VAG-200



WALL MOUNT WITH VB ELBOW TO MOUNT TO 4" OUTLET BOX								
FIXTURE TYPE	LAMP WATT	HUB SIZE	CATALOG NUMBER		CONSISTS OF			
			FIXTURE W/ GLOBE	FIXTURE W/ GLOBE & GUARD	MOUNTING ELBOW	FIXTURE BODY	CLEAR GLOBE*	GUARD (if selected)
100	150	1/2"	VFBG-110Ⓢ	VFBGG-110Ⓢ	VB-1	VFC-100	VCG-100	VAG-100
		3/4"	VFBG-210Ⓢ	VFBGG-210Ⓢ	VB-2	VFC-100	VCG-100	VAG-100
200	300	1/2"	VFBG-120Ⓢ	VFBGG-120Ⓢ	VB-1	VFC-200	VCG-200	VAG-200
		3/4"	VFBG-220Ⓢ	VFBGG-220Ⓢ	VB-2	VFC-200	VCG-200	VAG-200

Mounts directly to VJ or VB Series or 4" steel outlet boxes. One hub in back, supplied with gasket.



WALL MOUNT-WITH VFL ELBOW FOR DIRECT MOUNT TO V SERIES SPLICE BOXES								
FIXTURE TYPE	LAMP WATT	HUB SIZE	CATALOG NUMBER		CONSISTS OF			
			FIXTURE W/ GLOBE	FIXTURE W/ GLOBE & GUARD	MOUNTING ELBOW	FIXTURE BODY	CLEAR GLOBE**	GUARD (if selected)
100	150	-	VOBL-100Ⓢ	VOBLG-100Ⓢ	VFL	VFC-100	VCG-100	VAG-100
200	300	-	VOBL-200Ⓢ	VOBLG-200Ⓢ	VFL	VFC-200	VCG-200	VAG-200



STANCHION MOUNT FOR 1 - 1/4" THREADED PIPE								
FIXTURE TYPE	LAMP WATT	HUB SIZE	CATALOG NUMBER		CONSISTS OF			
			FIXTURE W/ GLOBE	FIXTURE W/ GLOBE & GUARD	MOUNTING ELBOW	FIXTURE BODY	CLEAR GLOBE*	GUARD (if selected)
100	150	1-1/4"	VD-410GⓈ	VD-410GGⓈ	VD-4	VFC-100	VCG-100	VAG-100
200	300	1-1/4"	VD-420GⓈ	VD-420GGⓈ	VD-4	VFC-200	VCG-200	VAG-200

*For other colors, order globe and fixture components separately.

Ⓢ Fixture supplied as component unit pack when ordered by this catalog number.

Ⓢ Catalog number for ordering convenience; fixture is shipped as components as listed in catalog number table.



INCANDESCENT NEMA 4 - CLASS I, DIV. 2 ALUMINUM FIXTURES

Class I, Div. 2, Groups A,B,C,D
Class I, Zone 2, Groups IIC,IIB,IIA
NEMA 3, 4*

UL LISTED - File E10514

UL-1571 Standard for incandescent fixtures

UL-844 Standard for hazardous location fixtures

SP Certified - File LR11713



Pendant

FEATURES-SPECIFICATIONS

Applications

Killark "V" Series Vaportight fixtures are now available Third Party Certified for use in certain hazardous as well as wet locations which require durable, protected lighting fixtures.

Wet and dirt laden industrial environments such as walkways, tunnels, loading docks, stairwells, etc. made hazardous by the presence of flammable vapors as defined by the NEC.

Fixtures intended for base-up mounting only.

Heat resistant (tempered) glass globes recommended for wet locations*.

* Wet location when used with tempered glass.

Features

Killark Vaportight assemblies using VXFC bodies & tempered glass have all the features & advantages of "V" Enclosed & Gasketed" models plus:

- Heavy-duty silicone gasketing for NEMA 4 requirements
- Third party tested & labeled for use in C1D2 areas
- Modular design permits selection of splice box, fixture body, globe, guard and reflector for specific or custom applications
- Existing V Series mounting boxes may be retrofitted to upgrade to NEMA 4; C1D2 suitability
- Copper-free aluminum construction with electrostatically applied epoxy/polyester finish resists corrosion



Ceiling

APPLICATION DATA ①			
FIXTURE TYPE	LAMP SIZE	GLOBE TYPE	TEMPERATURE CODE @ 40°C
100	A-19 60W	colored & clear	T2C (230°C)
100	A-19 70W	colored & clear	T2D (215°C)
100	A-19 100W	colored & clear	T2A (280°C)
100	A-21 100W	colored & clear	T2B (260°C)
100	A-21 150W	colored & clear	T2 (300°C)
200	A-23 150W	colored & clear	T2A (280°C)
200	PS-25 150W	colored & clear	T2B (260°C)
200	A-23 200W	colored & clear	T2 (300°C)
200	PS-25 200W	colored & clear	T2A (280°C)
200	PS-25 300W	colored & clear	(350°C)

① Suitability based on base up installation



INCANDESCENT NEMA 4 - CLASS I, DIV. 2 ALUMINUM FIXTURES



FEATURES-SPECIFICATIONS



PENDANT MOUNT WITH VGA SPlice BOX							
FITURE TYPE	LAMP WATT	HUB SIZE	CATALOG NUMBER	CONSISTS OF			
			FITURE W/ GLOBE & GUARD	MOUNTING BOX	FITURE BODY	CLEAR GLOBE*	GUARD
100	150	1/2"	VUAGG-1-100PX ①	VGA-1	VXFC-100 N34	VCGP-100	VAG-100
		3/4"	VUAGG-2-100PX ①	VGA-2	VXFC-100 N34	VCGP-100	VAG-100
200	300	1/2"	VUAGG-1-200PX ①	VGA-1	VXFC-200 N34	VCGP-200	VAG-200
		3/4"	VUAGG-2-200PX ①	VGA-2	VXFC-200 N34	VCGP-200	VAG-200

CEILING FIXTURE WITH VGX SPlice BOX							
FITURE TYPE	LAMP WATT	HUB SIZE	CATALOG NUMBER	CONSISTS OF			
			FITURE W/ GLOBE & GUARD	MOUNTING BOX	FITURE BODY	CLEAR GLOBE*	GUARD
100	150	1/2"	VUXGG-1-100PX ①	VGX-1	VXFC-100 N34	VCGP-100	VAG-100
		3/4"	VUXGG-2-100PX ①	VGX-2	VXFC-100 N34	VCGP-100	VAG-100
200	300	1/2"	VUXGG-1-200PX ②	VGX-1	VXFC-200 N34	VCGP-200	VAG-200
		3/4"	VUXGG-2-200PX ②	VGX-2	VXFC-200 N34	VCGP-200	VAG-200

CEILING FIXTURE WITH MOUNTING FEET USING VBC SPlice BOX & VBA ADAPTER							
FITURE TYPE	LAMP WATT	HUB SIZE	CATALOG NUMBER	CONSISTS OF			
			FITURE W/ GLOBE & GUARD	MOUNTING BOX/ ADAPTER	FITURE BODY	CLEAR GLOBE*	GUARD
100	150	1/2"	VUXBGG-1-100PX ①	VBC-1+VBA	VXFC-100 N34	VCGP-100	VAG-100
		3/4"	VUXBGG-2-100PX ①	VBC-2+VBA	VXFC-100 N34	VCGP-100	VAG-100
200	300	1/2"	VUXBGG-1-200PX ①	VBC-1+VBA	VXFC-200 N34	VCGP-200	VAG-200
		3/4"	VUXBGG-2-200PX ①	VBC-2+VBA	VXFC-200 N34	VCGP-200	VAG-200

STANCHION MOUNT FOR 1 - 1/4" THREADED PIPE							
FITURE TYPE	LAMP WATT	HUB SIZE	CATALOG NUMBER	CONSISTS OF			
			FITURE W/ GLOBE & GUARD	MOUNTING BOX/ ADAPTER	FITURE BODY	CLEAR GLOBE*	GUARD
100	150	1-1/4"	VD-410GGPX ①	VD-4	VXFC-100 N34	VCGP-100	VAG-100
200	300	1-1/4"	VD-420GGPX ①	VD-4	VXFC-200 N34	VCGP-200	VAG-200

WALL FIXTURE WITH MOUNTING FEET USING VBC SPlice BOX & VB ELBOW							
FITURE TYPE	LAMP WATT	HUB SIZE	CATALOG NUMBER	CONSISTS OF			
			FITURE W/ GLOBE & GUARD	MOUNTING BOX/ELBOW	FITURE BODY	CLEAR GLOBE*	GUARD
100	150	1/2"	VFBGG-1-100PX ①	VBC-1 + VB-1	VXFC-100 N34	VCGP-100	VAG-100
		3/4"	VFBGG-2-100PX ①	VBC-2 + VB-2	VXFC-100 N34	VCGP-100	VAG-100
200	300	1/2"	VFBGG-1-200PX ①	VBC-1 + VB-1	VXFC-200 N34	VCGP-200	VAG-200
		3/4"	VFBGG-2-200PX ①	VBC-2 + VB-2	VXFC-200 N34	VCGP-200	VAG-200

* For other colors, order globes and mounting components separately.

① Fixture supplied as component unit pack when ordered by this catalog number.

② NEMA 3, 4 when used with tempered glass.



LIGHTING

COMPONENT PARTS/ACCESSORIES • INCANDESCENT FIXTURES

VFC Fixture Bodies

Fixture bodies contain lamp receptacle and are threaded to accept globes, guards and reflectors. These fixture bodies are designed for metallic boxes and mount directly to V Series splice boxes. They may also be mounted to VJ Series, VB Series or other 4" outlet boxes with the use of the appropriate adapter plate. Each fixture body is supplied with gaskets.



VFC-100
VXFC-100 N34 ①



VFC-200
VXFC-200 N34 ①

V FIXTURE BODIES	
CATALOG NUMBER	DESCRIPTION
VFC-100	150W max. Enclosed & Gasketed Fixture Body
VFC-200	300W max. Enclosed & Gasketed Fixture Body
VXFC-100 N34	150W max. NEMA 3,4 - Class I, Div. 2 Fixture Body ①
VXFC-200 N34	300W max. NEMA 3,4 - Class I, Div. 2 Fixture Body ①

① Use VXFC body with tempered globe for NEMA 3, 4 - Class I, Div. 2 applications. VXFC body is Class I, Div. 2 only (not N3, N4) when used with standard globes. Consult temperature table for suitability.

V Splice Boxes

For use with types 100 and 200 fixture bodies



VGA



VGH



VGC



VGX



VXA



VBC

V SPLICE BOXES			DESCRIPTION
CATALOG NUMBER	HUB SIZE & QTY.		
VGA-1	1/2" 1		Pendant mount
VGA-2	3/4" 1		
VGH-1	1/2" 1		Ceiling mount
VGH-2	3/4" 1		
VGC-1	1/2" 2		Ceiling mount
VGC-2	3/4" 2		
VGX-1	1/2" 4		Ceiling mount
VGX-2	3/4" 4		
VXA-1	1/2" 5		Ceiling mount, deep box
VXA-2	3/4" 5		
VBC-1*	1/2" 4		Ceiling mount, with 3 close-up plugs (requires VBA Adapter)
VBC-2*	3/4" 4		
VXAB	- -		Blank close-up plate (less gasket)

* Volume cu. in. is 18.



VBA



VFPS

V ADAPTER MOUNTING PLATES	
CATALOG NUMBER	DESCRIPTION
VBA	Adapts fixture body to VB, VJ or steel 3-1/2" & 4" splice boxes. Supplied with gasket.
VFPS	Adapts fixture body to steel 4" square outlet boxes or 3-1/2" or 4" octagon boxes



VB



VFL



VD

V MOUNTING BRACKETS			
CATALOG NUMBER	HUB SIZE	QTY.	DESCRIPTION
VB-1	1/2"	1	Wall mount to VJ or VB boxes
VB-2	3/4"	1	Wall mount to VJ or VB boxes
VFL	—	—	Wall mount to V boxes directly or to VJ, VB boxes with VBA adapter
VD-4	1-1/4"	1	Stanchion mount



COMPONENT PARTS/ACCESSORIES • INCANDESCENT FIXTURES



150 W Max.
Lamp Size A-21



300 W Max.
Lamp Size PS-25



Polycarbonate



Poly Color Globe

V GLASS GLOBES		
CATALOG NUMBER		DESCRIPTION
150 W A-21 LAMP	300 W PS-25 LAMP	
VCG-100	VCG-200	Clear
VCGP-100	VCGP-200	Clear Tempered. Thermal and shock resistant ①
VCGPT-100	—	Clear Tempered with silicone coating ②
VAMG-100	VAMG-200	Amber
VAMGP-100	—	Amber Tempered ①
VGG-100	VGG-200	Blue Green
VGGP-100	VGGP-200	Blue Green Tempered ①
VBG-100	—	Blue
VBGP-100	—	Blue Tempered ①
VRG-100	VRG-200	Ruby
VRGP-100	VRGP-200	Ruby Tempered ①
VRSG-100	—	Green
VPG-100	—	Purple
VWG-100	—	White Glass
VWGP-100	—	White Tempered Glass
75 W A-19 LAMP	150 W A-21 LAMP	Polycarbonate. Cannot be used with guard or in high ambient temperature locations (40°C/104°F max.) Not UL Listed.
VPLCG-100	VPLCG-200	

① Recommended for use with VXFC fixture base.

② TM Thomas Manufacturing.



Body To Splice Box
Gasket
100 or 200 Series
VTG Standard
VTG-S Silicone (pictured)



Globe Gasket
100 Series Standard - 15871AABB
200 Series Standard - VTGG (pictured)
100 Series Silicone - VTGG1-S
200 Series Silicone - VTGG2-S



V GUARDS	
CATALOG NUMBER	DESCRIPTION
VAG-100	100 Series Vaportite guard
VAG-200	200 Series Vaportite guard

V REFLECTORS		
CATALOG NUMBER	DESCRIPTION	
VPRSD-100	100 Series Vaportite Reflector	16 3/8" Dia. 5 5/8" High. White polypropylene for pendant & ceiling applications. Not for use with wall or stanchion models.
VPRSD-200	200 Series Vaportite Reflector	

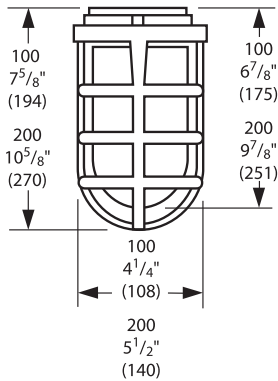
V SERIES GASKET			
CATALOG NUMBER		TYPE	DESCRIPTION
100 SERIES	200 SERIES		
VTG		VFC	Fixture body to splice box
VTG-S		VXFC	Silicone, Fixture body to splice box
VBNB		—	Replacement Gaskets for VB-1/VB-2 and VBA
15871AABB	VTGG	VFC	Globe gasket
VTGG1-S	VTGG2-S	VFXC	Silicone, globe gasket

V LAMP SOCKET	
CATALOG NUMBER	DESCRIPTION
VRME	For fixture types 100 and 200

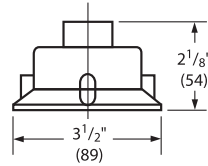


LIGHTING

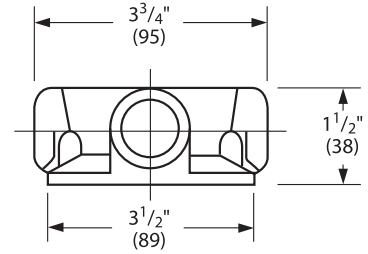
DIMENSIONS



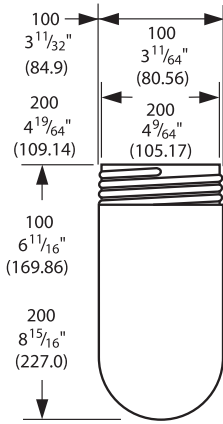
V Fixture
w/o Splice Box



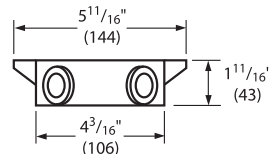
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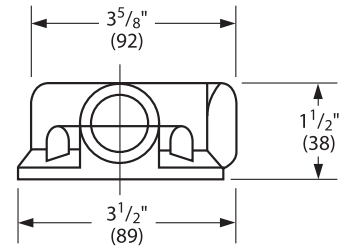
VGC VGX



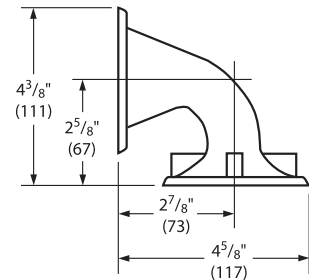
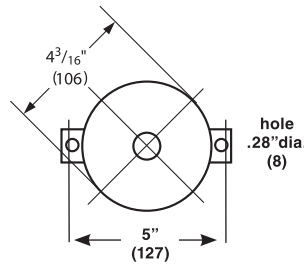
V Fixture
Globes



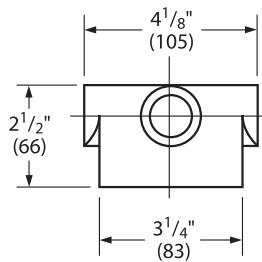
VBC-1 & VBC-2



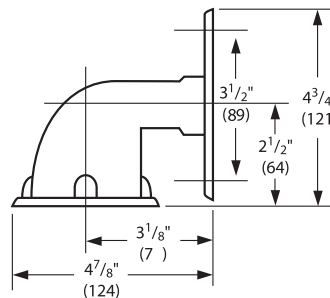
VGH



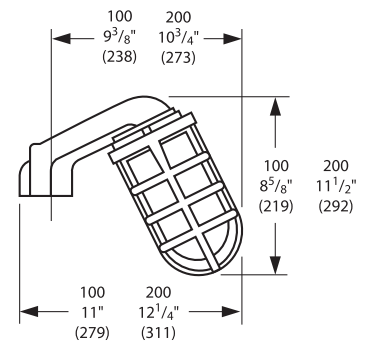
VFL



VXA



VB



V Stanchion



DV/XHL/XHLF SERIES

KILLARK

SPECIAL APPLICATION INCANDESCENT FIXTURES AND HAND LAMPS



DAG Guard

Class II, Div. 1 & 2 Groups E,F,G[Ⓢ]
Class III

LISTED - File E12976

Certified - File LR11713

FEATURES-SPECIFICATIONS

DV DUST-IGNITION PROOF

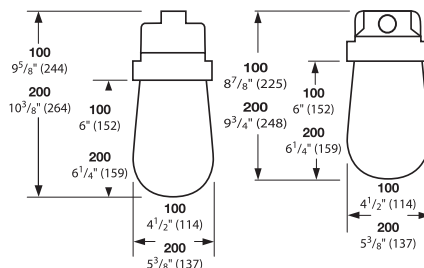
Applications

For hazardous locations where suspended metal, carbon (coal, etc.), and grain dusts create explosive or ignitable mixtures with the air.

Features

- Cast of corrosion resistant aluminum alloy with electrostatically applied epoxy/polyester finish
- Ceiling mounted units supplied with 4 hubs.

Dimensions



Pendant 100-200

Ceiling 100-200

DV 100/200				
MODEL SIZE	LAMP SIZE	HUB	CATALOG NUMBER	
			PENDANT	CEILING
TYPE 100	100 Watt A-21	1/2"	DVA-110	DVX-110
	150 Watt A-23	3/4"	DVA-210	DVX-210
TYPE 200	150 Watt PS-25	1/2"	DVA-120	DVX-120
	200 Watt PS-25	3/4"	DVA-220	DVX-220

ACCESSORIES/REPLACEMENT PARTS			
FIXTURE TYPE	CATALOG NUMBER		
	GLASS GLOBE	WIRE GUARD	REPLACEMENT SOCKET
100	DCGE-10	DAG-100	VRME
200	DCGE-20	DAG-200	VRME

[Ⓢ] Temperature code T3B, use supply wire suitable for 150° C.

XHL SERIES HAND LAMPS

XHL Series Hand Lamps are a handy accessory to the ACCEPTOR® Series. Used as a supplemental illumination source for areas where flammable materials are present such as processed finished goods, storage vats or handling areas.



XHL

XHLF

Features XHL Incandescent

- Phenolic handle for long service in rugged conditions
- Aluminum guard
- Heat and impact resistant globe
- Supplied with an A-21 100 Watt (100A/RS) Rough Service lamp
- Supplied with 2 grommets for use with either 14/3 or 16/3 user furnished SO cable

CATALOG NUMBER	DESCRIPTION
XHL-100	Handlamp
XHL-GL	Replacement Globe
XHLG	Replacement Guard
XHLS	Replacement Socket

XHL Incandescent

Class I, Div. 1 & 2, Groups C, D
Class I, Zones 1 & 2, Groups IIB, IIA

LISTED File No. E97760

Certified File No. LR10019

Features XHLF Fluorescent (120 VAC)

- No exposed metal parts
- Furnished with 26 watt 1800 Lumen fluorescent lamp and light shield
- Supplied with grommet for use with 16/3 user furnished SO cable

CATALOG NUMBER	DESCRIPTION
XHLF26	Fluorescent hand lamp
XHLF26-50KP	Fluorescent hand lamp with 50' of 16/3 SOW cord and 15A Acceptor plug

XHLF Fluorescent

Class I, Div. 1 & 2, Groups C,D
Class I, Zones 1 & 2, Groups IIB, IIA
Class II, Div. 1 & 2, Groups F,G

US Listed File No. E97760



LIGHTING

NON-METALLIC/NON-GLASS FIXTURES



Pendant Fluorescent



Ceiling Incandescent



Wall Mount Fluorescent

**Class II, Div. 2, Groups F,G
NEMA 3, 4, 4X**

CS Certified* - File LR11713

UL to the following standards:

- UL 1598 Standard for luminaires
- UL 844 Standard for lighting fixtures for hazardous locations
- CSA C22.2 no. 137-M1981 electric luminaires for use in hazardous locations
- Enclosed and gasketed
- NEMA 3, 4X

FEATURES-SPECIFICATIONS

ENVIRO^{RITE}® II

Applications

Designed specifically for corrosive & wet NEMA 4X and hazardous dust environments.

Typical applications include food processing, sewage treatment plants, off-shore and dockside installations and agricultural.

Features

- NVP Series non-metallic light fixtures combine an outstanding balance of strength, stiffness, toughness and electrical properties
- Polycarbonate lens
- Energy and labor saving fluorescent or incandescent models
- Molded from 30% glass-filled thermoset polyester for high strength
- Resists corrosive effects of most chemicals, hydrocarbons and solvents
- Designed for indoor and outdoor globe down applications
- All assemblies are unit packed with required components (not assembled)
- Fluorescent unit pack models (only) include the lamp
- Fluorescent models use "world voltage" ballasts for 120VAC through 277VAC 50/60Hz applications
- For M20 ceiling units change "X" in part # to "M". For wall units change "B" to "W". M20 Pendant not available
- Photometrics "similar" to those shown on L185.

PENDANT 3/4" CLEAR POLYCARBONATE GLOBE & GUARD*	
40W Incan. ①	NVPIG40AG
13 W Fluor.	NVPFG13AG
18 W Fluor.	NVPFG18AG
26 W Fluor.	NVPFG26AG

CEILING 3/4" CLEAR POLYCARBONATE GLOBE & GUARD*	
40W Incan. ①	NVPIG40XG
13 W Fluor.	NVPFG13XG
18 W Fluor.	NVPFG18XG
26 W Fluor.	NVPFG26XG

WALL 3/4" CLEAR POLYCARBONATE GLOBE & GUARD*	
40W Incan. ①	NVPIG40BG
13 W Fluor.	NVPFG13BG
18 W Fluor.	NVPFG18BG
26 W Fluor.	NVPFG26BG

NEW!
NON-GLASS

Self-ballasted CFL's for 26W ①

APPLICATION DATA ①					
WATTAGE & TYPE	CLASS II DIV.2 CLEAR OR COLOR	MIN. START		CURRENT FLUOR. VAC	
		C°	F°	120V	277V
40W ①	F, G	—	—	—	—
13 Fluor	F, G	-20°C	-4°F	0.144	0.067
18 Fluor	F, G	-20°C	-4°F	0.158	0.073
26 Fluor	F, G	-20°C	-4°F	0.22	0.097

① Incandescent models w/medium base socket marked for 40W 277V Max or self-ballasted CFL's to 26W max, lamps F.O.B

POLYCARBONATE GLOBE OPTIONS FOR ASSEMBLIES: RED OR GREEN	
For RED polycarbonate add -R e.g. NVPIG75AG-R	
For GREEN polycarbonate add -G e.g. NVPIG75AG-G	

COMPONENTS **	
CATALOG NUMBER	DESCRIPTION
NVPIG40 ①	Incandescent Body with E26 socket; 40W Max ①
NVPFG13	13W Fluor Body & 120 - 277VAC 50/60Hz Ballast (less lamp)
NVPFG18	18W Fluor Body & 120 - 277VAC 50/60Hz Ballast (less lamp)
NVPFG26	26W Fluor Body & 120 - 277VAC 50/60Hz Ballast (less lamp)
NV2AG	3/4" Pendant splice box
NV2XG	3/4" Ceiling splice box
NV2BG	Elbow (used between NV2XG and Fixture Body)
NV2GG	Guard
VPLCG100	Clear Poly Globe 40W "A" MAX
VPLCG100R	Red Poly Globe 40W "A" MAX
VPLCG100G	Green Poly Globe 40W "A" MAX

* Reflectors shown on L184 are not recommended - globe taper prevents guard from holding reflector securely.
** For 13-26W Quad Pin Lamps and Replacement Ballasts see page L184.



INCANDESCENT FIXTURES

E INCANDESCENT

Consult factory for Ratings



EPG-2-200



EXG-2-200



EBG-2-200



HG-200

Applications

For hazardous locations including where Group A or Group B gases are present, indoors or outdoors.

General, local or supplementary lighting in areas where Group A or Group B gases are manufactured, used or handled.

Features

- Cast of corrosion resistant aluminum alloy with electrostatically applied epoxy/polyester finish
- For 200 watt or 300 watt PS-30 medium base lamps. Fixture for lamp base-up mounting only
- Omit "G" in catalog number to omit guard

E INCANDESCENT FIXTURE	
CATALOG NUMBER	DESCRIPTION
EPG-2-200	Pendant 3/4" hub
EXG-2-200	Ceiling 3/4" hub
EBG-2-200	Bracket 3/4" hub

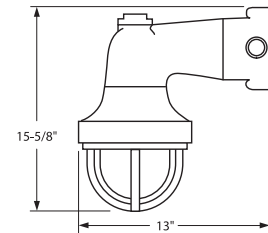
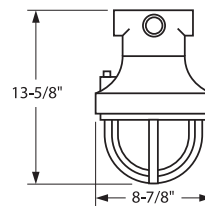
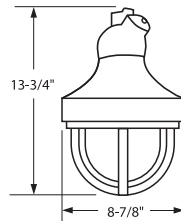
Note: For 200 watt or 300 watt PS-30 lamps. Fixture for lamp base-up mounting only.

E ACCESSORIES	
CATALOG NUMBER	DESCRIPTION
HG-200	Guard
EGSA-200	Globe w/ support assembly
HRME*	Replacement socket
ERSD30	Dome reflector
ERA30	Angle reflector

* Also fits discontinued H series medium base fixtures

E APPLICATION DATA							
LAMP WATTS	RATED AMBIENT °C	CLASS I, DIV. 1 & 2		CLASS II, DIV. 1 & 2		CLASS III SUITABILITY	SUPPLY WIRE °C
		T-CODE	GROUPS	T-CODE	GROUPS		
200	40	T4	A, B, C, D	T3C	E, F, G	YES	90
300	40	T3C	A, B, C, D	T3A	E, F	NO	150

Groups A,B Rated



LIGHTING

VE3Q / VE4Q SERIES



COMPACT FLUORESCENT EMERGENCY FIXTURES



CERTELITE® E
EMERGENCY

FEATURES-SPECIFICATIONS

Applications

CERTELITE® VEQ Emergency Lighting fixtures provide continuous illumination under normal power and switch to emergency battery backup during power outages. Emergency Units ONLY are available that operate only when normal power fails.

Units contain battery unit(s) that provides the OSHA required 90 minutes of illumination for egress.

VExQ units are designed for general and task lighting in indoors or outdoors where flammable gases or vapors, combustible dusts, or simultaneous presence may exist and create a hazardous location, as defined by the NEC.

Use Push-To-Test station suitable for area of use for testing purposes.

Features

- Quad-Pin triple-tube (VExQ) long-life compact fluorescent lamps included
- World Voltage on Quad-Pin VExQ Series: 120 through 277VAC; 50 through 60 Hz
- LED charging indicator light visible through lens
- Pre-wired terminal block for easy power connection
- Two lamp models include two independent redundant systems
- Six mounting splice box types - Pendant, Ceiling, Wall bracket, Cone Top, 25° Angle Stanchion, Straight Stanchion.
- Normally shipped as components for fast delivery, or may be ordered factory assembled.
- Options for Fuses and Quick Disconnect

Standard Materials

- Ballast tank and splice box – copper-free aluminum alloy with baked powder epoxy/polyester finish, electrostatically applied. External hardware – 316 SS.

Compliances

- UL1598 Standard for luminaires
- UL1598A Marine type luminaire
- UL-844 Standard for lighting fixtures for hazardous locations
- CSA C22.2 no. 137-M1981 electric luminaires for use in hazardous locations
- UL-924 Emergency Lighting
- Enclosed and gasketed
- NEMA 3, 4X IP66
- UL 60079-15 - Electrical apparatus for Explosive Gas Atmospheres with Type of Protection “n” (Restricted Breathing and non-sparking).

VE3Q/VE4Q

Class I, Div. 2, Groups A,B,C,D ①
Class I, Zone 2, Groups IIC, IIB, IIA
Class II, Div. 1 & 2, Groups E,F,G
Class III
NEMA 3, 4, 4X
IP66



Class I, Zone 2 AEx nAnR ②
Class I, Zone 2 Ex nR ②

Accessories

- VEXA100B 3-sided Exit sign: (Use w/o guard)
- VEXA400 4-sided Exit sign: (Use w/o guard)
- VMPSD40 Dome and VMPPA40 Angle Reflectors (see page L125)
- XCS-0B3-PTT “Push-To-Test” n.c Stanchion (order SWB box separately)

Options

- RD - Red paint housing, mount, guard (VMAG17, VMAG25S)
- F, FF - Factory fused; F = Single fuse for 120V, 230V 50 Hz (VExQ); FF = Double fuse for 208V, 220V 60 Hz, 240V

Note: VE3x dimensions are the same as VM3
VE4x dimensions are the same as VM4
See L128-L129 for more information

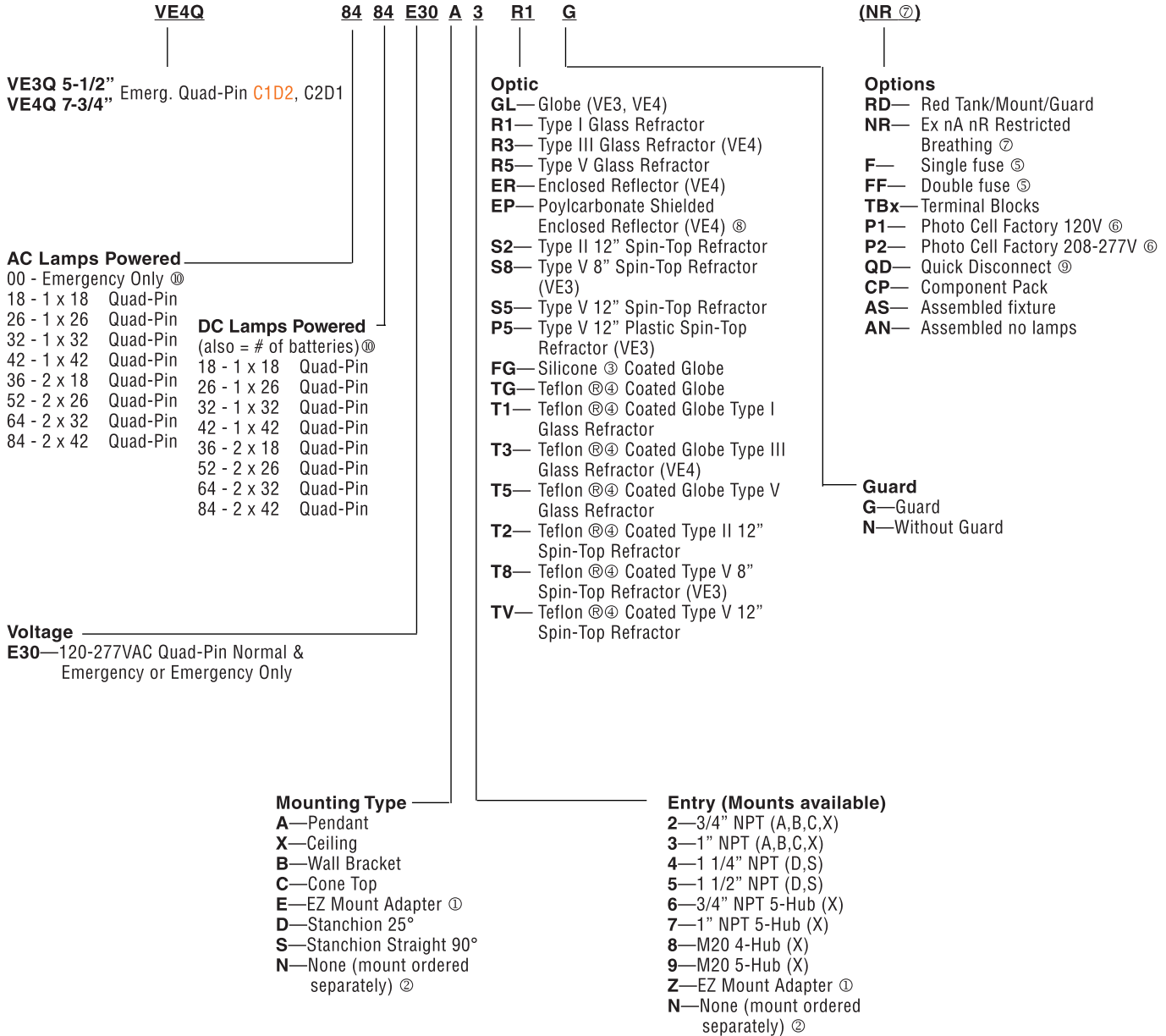
Photometrics similar to VQ1F Series.

FEATURES	BENEFITS
<p>Swing-Barrel Nut Patented Tank Mounting System</p>	<ul style="list-style-type: none"> • Stainless-to-Stainless securement • Takes load off during installation • Uses ordinary tools • Saves time and labor
<p>Sealed Optic Zone 2 AEx nAR Restricted Breathing (suffix NR)</p>	NO External Seals. Lower T-codes, Suitable for Class I Div. 2 Classified areas per the NEC®. See L84 for more information.
<p>All glass refractors</p>	Compact (5-1/2" thread size, types I & V) Standard (7-3/4", thread size, types I, III, V) Enhances user selection flexibility
<p>"EZ" mount adapter</p>	Easier Maintenance, saves labor, move fixture from the ladder to the workbench
<p>Photo controls -Class I Div. 2 / N4X areas</p>	Available as Field or Factory Installed to save energy when light not required. For AC ballast only.
<p>Earthquake Tab - Built-in attachment point for safety cables</p>	Secures fixture to structure in case of conduit failure. "3rd hand" accessories for lamp change out. See L83 for more information.



CATALOG ORDERING LOGIC

CertiLite® E Catalog Number Logic; 13-84W Battery Backed (Compact Fluorescent) Fixtures



① Completes as "EZ", conduit mounting boxes ordered separately.
② NN mount ordered separately.
③ Silicone coated globe for additional impact protection.
④ Teflon® is a registered trademark of DuPont, Inc.
⑤ Fusing not for Marine or Canadian installations
⑥ Photo cells for Class I, Div. 2 only. VExx Models
⑦ Restricted Breathing - See L84 for more information.

⑧ Not for use with wall or straight (90°) Stanchion.
⑨ QD = Quick Disconnect. Allows easy tank removal for maintenance. Electrician simply unplugs de-energized tank from supply circuit.
⑩ Wattages cannot be mixed e.g. 4232 or 6484.

LIGHTING

VE3Q / VE4Q SERIES



COMPACT FLUORESCENT EMERGENCY FIXTURES



Tank 3 Pendant
w/ 5-1/2"
Globe & Guard



Tank 4 Ceiling
w/ 7-3/4"
Globe & Guard



Tank 3 Wall
w/ 5-1/2"
Reflector & Guard



Tank 4 Cone
w/ 7-3/4"
Globe & Guard

13 - 84 WATT EMERGENCY FIXTURES - 3/4 "PENDANT (* * CEILING - WALL - CONE) COMPACT FLUORESCENT

WATTS/ TYPE	VOLTAGE	GLOBE & GUARD	5-1/2" OPTIC THREAD SIZE ②		7-3/4" OPTIC THREAD SIZE ②		
			TYPE V GLASS REFRACTOR & GUARD	8 "SPIN-TOP TYPE V REFRACTOR & GUARD	GLOBE & GUARD	TYPE V GLASS REFRACTOR & GUARD	12" SPIN-TOP TYPE V REFRACTOR & GUARD
18W (1x18) Emer Only	120 to 277 50-60Hz	VE3Q0018E30A2GLG	VE3Q0018E30A2R5G	VE3Q0018E30A2S8G	VE4Q0018E30A2GLG	VE4Q0018E30A2R5G	VE4Q0018E30A2S5G
36W (2x18) Emer Only	120 to 277 50-60Hz	VE3Q0036E30A2GLG	VE3Q0036E30A2R5G	VE3Q0036E30A2S8G	VE4Q0036E30A2GLG	VE4Q0036E30A2R5G	VE4Q0036E30A2S5G
18W (1x18) Normal/Emer	120 to 277 50-60Hz	VE3Q1818E30A2GLG	VE3Q1818E30A2R5G	VE3Q1818E30A2S8G	VE4Q1818E30A2GLG	VE4Q1818E30A2R5G	VE4Q1818E30A2S5G
36W (2x18) Normal/Emergency	120 to 277 50-60Hz	VE3Q3618E30A2GLG	VE3Q3618E30A2R5G	VE3Q3618E30A2S8G	VE4Q3618E30A2GLG	VE4Q3618E30A2R5G	VE4Q3618E30A2S5G
36W (2x18) Normal/Emer	120 to 277 50-60Hz	VE3Q3636E30A2GLG	VE3Q3636E30A2R5G	VE3Q3636E30A2S8G	VE4Q3636E30A2GLG	VE4Q3636E30A2R5G	VE4Q3636E30A2S5G
26W (1x26) Emer Only	120 to 277 50-60Hz	VE3Q0026E30A2GLG	VE3Q0026E30A2R5G	VE3Q0026E30A2S8G	VE4Q0026E30A2GLG	VE4Q0026E30A2R5G	VE4Q0026E30A2S5G
52W (2x26) Emer Only	120 to 277 50-60Hz	VE3Q0052E30A2GLG	VE3Q0052E30A2R5G	VE3Q0052E30A2S8G	VE4Q0052E30A2GLG	VE4Q0052E30A2R5G	VE4Q0052E30A2S5G
26W (1x26) Normal/Emer	120 to 277 50-60Hz	VE3Q2626E30A2GLG	VE3Q2626E30A2R5G	VE3Q2626E30A2S8G	VE4Q2626E30A2GLG	VE4Q2626E30A2R5G	VE4Q2626E30A2S5G
52W (2x26) Normal/Emergency	120 to 277 50-60Hz	VE3Q5226E30A2GLG	VE3Q5226E30A2R5G	VE3Q5226E30A2S8G	VE4Q5226E30A2GLG	VE4Q5226E30A2R5G	VE4Q5226E30A2S5G
52W (2x26) Normal/Emer	120 to 277 50-60Hz	VE3Q5252E30A2GLG	VE3Q5252E30A2R5G	VE3Q5252E30A2S8G	VE4Q5252E30A2GLG	VE4Q5252E30A2R5G	VE4Q5252E30A2S5G
32W (1x32) Emer Only	120 to 277 50-60Hz	VE3Q0032E30A2GLG	VE3Q0032E30A2R5G	VE3Q0032E30A2S8G	VE4Q0032E30A2GLG	VE4Q0032E30A2R5G	VE4Q0032E30A2S5G
64W (2x32) Emer Only	120 to 277 50-60Hz	VE3Q0064E30A2GLG	VE3Q0064E30A2R5G	VE3Q0064E30A2S8G	VE4Q0064E30A2GLG	VE4Q0064E30A2R5G	VE4Q0064E30A2S5G
32W (1x32) Normal/Emer	120 to 277 50-60Hz	VE3Q3232E30A2GLG	VE3Q3232E30A2R5G	VE3Q3232E30A2S8G	VE4Q3232E30A2GLG	VE4Q3232E30A2R5G	VE4Q3232E30A2S5G
64W (2x32) Normal/Emer	120 to 277 50-60Hz	VE3Q6432E30A2GLG	VE3Q6432E30A2R5G	VE3Q6432E30A2S8G	VE4Q6432E30A2GLG	VE4Q6432E30A2R5G	VE4Q6432E30A2S5G
64W (2x32) Normal/Emer	120 to 277 50-60Hz	VE3Q6464E30A2GLG	VE3Q6464E30A2R5G	VE3Q6464E30A2S8G	VE4Q6464E30A2GLG	VE4Q6464E30A2R5G	VE4Q6464E30A2S5G
42W (1x42) Emer Only	120 to 277 50-60Hz	VE3Q0042E30A2GLG	VE3Q0042E30A2R5G	VE3Q0042E30A2S8G	VE4Q0042E30A2GLG	VE4Q0042E30A2R5G	VE4Q0042E30A2S5G
84W (2x42) Emer Only	120 to 277 50-60Hz	VE3Q0084E30A2GLG	VE3Q0084E30A2R5G	VE3Q0084E30A2S8G	VE4Q0084E30A2GLG	VE4Q0084E30A2R5G	VE4Q0084E30A2S5G
42W (1x42) Normal/Emer	120 to 277 50-60Hz	VE3Q4242E30A2GLG	VE3Q4242E30A2R5G	VE3Q4242E30A2S8G	VE4Q4242E30A2GLG	VE4Q4242E30A2R5G	VE4Q4242E30A2S5G
84W (2x42) Normal/Emergency	120 to 277 50-60Hz	VE3Q8442E30A2GLG	VE3Q8442E30A2R5G	VE3Q8442E30A2S8G	VE4Q8442E30A2GLG	VE4Q8442E30A2R5G	VE4Q8442E30A2S5G
84W (2x42) Normal/Emer	120 to 277 50-60Hz	VE3Q8484E30A2GLG	VE3Q8484E30A2R5G	VE3Q8484E30A2S8G	VE4Q8484E30A2GLG	VE4Q8484E30A2R5G	VE4Q8484E30A2S5G

① See hazardous location data page L204 for application suitability

② VE3x models use 5-1/2" CertiLite® VM optics accessories; VE4x models use 7-3/4" VM optics accessories.

** Grid is populated with 3/4" Pendant models with Optic Guards, to omit guard change last G to N e.g. VE3Q001*E10A2GLN

- 3/4" Ceiling models change A2 to X2

- 3/4" Wall Bracket models change A2 to B2

- 3/4" Cone-top models change A2 to C2

- For 1" change to A3, X3, B3, or C3



COMPACT FLUORESCENT EMERGENCY FIXTURES



**Tank 1 Stanchion 25°
w/5-1/2"
Globe & Guard**



**Tank 4 Stanchion Straight
w/ 7-3/4"
Refractor & Guard**



**Tank 3 EZ Adapter
w/ 5-1/2"
Refractor & Guard**

13 - 84 WATT EMERGENCY FIXTURES - 25 ° STANCHION (* * STRAIGHT STANCHION, EZ ADAPTER) COMPACT FLUORESCENT							
DESCRIPTION			5-1/2" OPTIC THREAD SIZE ②		7-3/4" OPTIC THREAD SIZE ②		
WATTS / TYPE	VOLTAGE	GLOBE & GUARD	TYPE V GLASS REFRACTOR & GUARD	8 SPIN-TOP TYPE V REFRACTOR & GUARD	GLOBE & GUARD	TYPE V GLASS REFRACTOR & GUARD	12 SPIN-TOP TYPE V REFRACTOR & GUARD
18W (1x18) Emer Only	120 to 277 50-60Hz	VE3Q0018E30D5GLG	VE3Q0018E30D5R5G	VE3Q0018E30D5S8G	VE4Q0018E30D5GLG	VE4Q0018E30D5GLG	VE4Q0018E30D5S5G
36W (2x18) Emer Only	120 to 277 50-60Hz	VE3Q0036E30D5GLG	VE3Q0036E30D5R5G	VE3Q0036E30D5S8G	VE4Q0036E30D5GLG	VE4Q0036E30D5GLG	VE4Q0036E30D5S5G
18W (1x18) Normal/Emer	120 to 277 50-60Hz	VE3Q1818E30D5GLG	VE3Q1818E30D5R5G	VE3Q1818E30D5S8G	VE4Q1818E30D5GLG	VE4Q1818E30D5GLG	VE4Q1818E30D5S5G
36W (2x18) Normal	120 to 277 50-60Hz	VE3Q3618E30D5GLG	VE3Q3618E30D5R5G	VE3Q3618E30D5S8G	VE4Q3618E30D5GLG	VE4Q3618E30D5GLG	VE4Q3618E30D5S5G
18W (1x18) Emergency		VE3Q3618E30D5GLG	VE3Q3618E30D5R5G	VE3Q3618E30D5S8G	VE4Q3618E30D5GLG	VE4Q3618E30D5GLG	VE4Q3618E30D5S5G
36W (2x18) Normal/Emer	120 to 277 50-60Hz	VE3Q3636E30D5GLG	VE3Q3636E30D5R5G	VE3Q3636E30D5S8G	VE4Q3636E30D5GLG	VE4Q3636E30D5GLG	VE4Q3636E30D5S5G
26W (1x26) Emer Only	120 to 277 50-60Hz	VE3Q0026E30D5GLG	VE3Q0026E30D5R5G	VE3Q0026E30D5S8G	VE4Q0026E30D5GLG	VE4Q0026E30D5GLG	VE4Q0026E30D5S5G
52W (2x26) Emer Only	120 to 277 50-60Hz	VE3Q0052E30D5GLG	VE3Q0052E30D5R5G	VE3Q0052E30D5S8G	VE4Q0052E30D5GLG	VE4Q0052E30D5GLG	VE4Q0052E30D5S5G
26W (1x26) Normal/Emer	120 to 277 50-60Hz	VE3Q2626E30D5GLG	VE3Q2626E30D5R5G	VE3Q2626E30D5S8G	VE4Q2626E30D5GLG	VE4Q2626E30D5GLG	VE4Q2626E30D5S5G
52W (2x26) Normal	120 to 277 50-60Hz	VE3Q5226E30D5GLG	VE3Q5226E30D5R5G	VE3Q5226E30D5S8G	VE4Q5226E30D5GLG	VE4Q5226E30D5GLG	VE4Q5226E30D5S5G
26W (1x26) Emergency		VE3Q5226E30D5GLG	VE3Q5226E30D5R5G	VE3Q5226E30D5S8G	VE4Q5226E30D5GLG	VE4Q5226E30D5GLG	VE4Q5226E30D5S5G
52W (2x26) Normal/Emer	120 to 277 50-60Hz	VE3Q5252E30D5GLG	VE3Q5252E30D5R5G	VE3Q5252E30D5S8G	VE4Q5252E30D5GLG	VE4Q5252E30D5GLG	VE4Q5252E30D5S5G
32W (1x32) Emer Only	120 to 277 50-60Hz	VE3Q0032E30D5GLG	VE3Q0032E30D5R5G	VE3Q0032E30D5S8G	VE4Q0032E30D5GLG	VE4Q0032E30D5GLG	VE4Q0032E30D5S5G
64W (2x32) Emer Only	120 to 277 50-60Hz	VE3Q0064E30D5GLG	VE3Q0064E30D5R5G	VE3Q0064E30D5S8G	VE4Q0064E30D5GLG	VE4Q0064E30D5GLG	VE4Q0064E30D5S5G
32W (1x32) Normal/Emer	120 to 277 50-60Hz	VE3Q3232E30D5GLG	VE3Q3232E30D5R5G	VE3Q3232E30D5S8G	VE4Q3232E30D5GLG	VE4Q3232E30D5GLG	VE4Q3232E30D5S5G
64W (2x32) Normal	120 to 277 50-60Hz	VE3Q6432E30D5GLG	VE3Q6432E30D5R5G	VE3Q6432E30D5S8G	VE4Q6432E30D5GLG	VE4Q6432E30D5GLG	VE4Q6432E30D5S5G
32W (1x32) Emergency		VE3Q6432E30D5GLG	VE3Q6432E30D5R5G	VE3Q6432E30D5S8G	VE4Q6432E30D5GLG	VE4Q6432E30D5GLG	VE4Q6432E30D5S5G
64W (2x32) Normal/Emer	120 to 277 50-60Hz	VE3Q6464E30D5GLG	VE3Q6464E30D5R5G	VE3Q6464E30D5S8G	VE4Q6464E30D5GLG	VE4Q6464E30D5GLG	VE4Q6464E30D5S5G
42W (1x42) Emer Only	120 to 277 50-60Hz	VE3Q0042E30D5GLG	VE3Q0042E30D5R5G	VE3Q0042E30D5S8G	VE4Q0042E30D5GLG	VE4Q0042E30D5GLG	VE4Q0042E30D5S5G
84W (2x42) Emer Only	120 to 277 50-60Hz	VE3Q0084E30D5GLG	VE3Q0084E30D5R5G	VE3Q0084E30D5S8G	VE4Q0084E30D5GLG	VE4Q0084E30D5GLG	VE4Q0084E30D5S5G
42W (1x42) Normal/Emer	120 to 277 50-60Hz	VE3Q4242E30D5GLG	VE3Q4242E30D5R5G	VE3Q4242E30D5S8G	VE4Q4242E30D5GLG	VE4Q4242E30D5GLG	VE4Q4242E30D5S5G
84W (2x42) Normal	120 to 277 50-60Hz	VE3Q8442E30D5GLG	VE3Q8442E30D5R5G	VE3Q8442E30D5S8G	VE4Q8442E30D5GLG	VE4Q8442E30D5GLG	VE4Q8442E30D5S5G
42W (1x42) Emergency		VE3Q8442E30D5GLG	VE3Q8442E30D5R5G	VE3Q8442E30D5S8G	VE4Q8442E30D5GLG	VE4Q8442E30D5GLG	VE4Q8442E30D5S5G
84W (2x42) Normal/Emer	120 to 277 50-60Hz	VE3Q8484E30D5GLG	VE3Q8484E30D5R5G	VE3Q8484E30D5S8G	VE4Q8484E30D5GLG	VE4Q8484E30D5GLG	VE4Q8484E30D5S5G

① See hazardous location data page L204 for application suitability

② VE3x models use 5-1/2" CertiLite® V VM optics accessories; VE4x models use 7-3/4" VM optics accessories.

** Grid is populated with 1-1/2" 25° Stanchion models with Optic Guards, to omit guard change last G to N e.g. VE3Q0018E10A2GLN

- 1-1/2" Straight models change D5 to S5 - 1-1/4" Stanchions change "5" to "4" e.g. D4 or S4

- EZ adapter models require EZ Mounts to energize

LIGHTING

VE3Q / VE4Q SERIES



COMPONENTS



Tank 3
5-1/2" Optic Thread Size



Tank 4
7-3/4" Optic Thread Size

BALLAST-BATTERY TANKS WITH LAMPS						
	DESCRIPTION		INITIAL LUMENS			
	WATTS/ TYPE	VOLTAGE	5-1/2" OPTIC THREAD SIZE ②	7-3/4" OPTIC THREAD SIZE ③	NORMAL AC	EMER. BATTERY
CLASS I DIV 2, CLASS II DIV 1, N4X, IP66 J	18W (1 x 18) Emer Only	120 to 277 50-60Hz	VE3Q0018E30	VE4Q0018E30	—	400
	36W (2 x 18) Emer Only	120 to 277 50-60Hz	VE3Q0036E30	VE4Q0036E30	—	800
	18W (1x18) Normal/Emer	120 to 277 50-60Hz	VE3Q1818E30	VE4Q1818E30	1200	400
	36W (2x18) Normal	120 to 277 50-60Hz	VE3Q3618E30	VE4Q3618E30	2400	400
	18W (1x18) Emergency				—	800
	36W (2x18) Normal/Emer	120 to 277 50-60Hz	VE3Q3636E30	VE4Q3636E30	2400	800
	26W 1 x 26 Emer Only	120 to 277 50-60Hz	VE3Q0026E30	VE4Q0026E30	—	425
	52W 2 x 26 Emer Only	120 to 277 50-60Hz	VE3Q0052E30	VE4Q0052E30	—	850
	26W (1x26) Normal/Emer	120 to 277 50-60Hz	VE3Q2626E30	VE4Q2626E30	1800	425
	52W (2x26) Normal	120 to 277 50-60Hz	VE3Q5226E30	VE4Q5226E30	3600	425
	26W (1x26) Emergency				—	850
	52W (2x26) Normal/Emer	120 to 277 50-60Hz	VE3Q5252E30	VE4Q5252E30	3600	850
	32W (1 x 32) Emer Only	120 to 277 50-60Hz	VE3Q0032E30	VE4Q0032E30	—	525
	64W (2 x 32) Emer Only	120 to 277 50-60Hz	VE3Q0064E30	VE4Q0064E30	—	1050
	32W (1x32) Normal/Emer	120 to 277 50-60Hz	VE3Q3232E30	VE4Q3232E30	2400	525
	64W (2x32) Normal	120 to 277 50-60Hz	VE3Q6432E30	VE4Q6432E30	4800	525
	32W (1x32) Emergency				—	1050
	64W (2x32) Normal/Emer	120 to 277 50-60Hz	VE3Q6464E30	VE4Q6464E30	4800	1050
	42W (1 x 42) Emer Only	120 to 277 50-60Hz	VE3Q0042E30	VE4Q0042E30	—	700
	84W (2 x 42) Emer Only	120 to 277 50-60Hz	VE3Q0084E30	VE4Q0084E30	—	1400
42W (1x42) Normal/Emer	120 to 277 50-60Hz	VE3Q4242E30	VE4Q4242E30	3200	700	
84W (2x42) Normal	120 to 277 50-60Hz	VE3Q8442E30	VE4Q8442E30	6400	700	
42W (1x42) Emergency				—	1400	
84W (2x42) Normal/Emer	120 to 277 50-60Hz	VE3Q8484E30	VE4Q8484E30	6400	1400	

① See hazardous location data page L204 for application suitability



VE3Q / VE4Q SERIES

KILLARK

COMPONENTS



Pendant



Ceiling



Wall



Cone Top



25° Stanchion



Straight Stanchion



EZ Adapter*
VMEZA



Tank Adapter

MOUNTING SPLICE BOXES

CATALOG NUMBER

HUB SIZE	PENDANT	FLEXIBLE PENDANT	CEILING 4 HUB	CEILING 5 HUB	WALL	CONE TOP	25° STANCHION	90° STANCHION
3/4"	VMA2B	VMF2B	VMX2B	VMX6B	VMB2B	VMC2B	—	—
1"	VMA3B	VMF3B	VMX3B	VMX7B	VMB3B	VMC3B	—	—
1-1/4"	—	—	—	—	—	—	VMD4B	VMS4B
1-1/2"	—	—	—	—	—	—	VMD5B	VMS5B
M-20	—	—	VMX8B**	VMX9B	—	—	—	—

*VMEZA is used between a ballast tank and an EZ mount-ordered separately. See L83 for more information.

**VMX8B furnished with 3 non-metallic plugs.

OPTICS & GUARDS

DESCRIPTION	5-1/2" OPTIC THREAD SIZE		7-3/4" OPTIC THREAD SIZE	
	OPTICS	GUARD	OPTICS	GUARD
Globe (glass)	VMG17	VMAG17	VMG25	VMAG25S
Reflector (all glass) Type V	VMR175	VMAG17	VMR255	VMAG25S
Reflector (all glass) Type I	VMR171	VMAG17	VMR251	VMAG25S
Reflector (all glass) Type III	—	—	VMR253	VMAG25S
Reflector (spin top glass) 8" Type V	VZRG1550	VMRWG8	—	—
Reflector (spin top glass) 12" Type V	VZRG2550	VMRWG	VZRG4050	VMRWG
Reflector (spin top glass) 12" Type II	VZRG2520	VMRWG	VZRG4020	VMRWG
Reflector (spin top plastic) 12" Type V	VZRP175	VMRWG	—	—
Enclosed Reflector (glass lens)	—	—	VMER40	VMERG
Enclosed Reflector (plastic lens)	—	—	VMEP40	—



DE3B/VE3B/VE3Q
5-1/2" Optic



DE4B/VE4B/VE4Q
7-3/4" Optic

OPTICS	VMG17	VMR175 VMR171	VZRG1550	VZRG2550 VZRG2520 VZRP175	VMG25	VMR255 VMR253 VMR251	VMG40	VMER40	VZRG4050 VZRG4020	VMEP40
	OPTICS									
GUARDS	VMAG17	VMAG17	VMRWG8	VMRWGS	VMAG25S	VMAG25S	VMAG40S	VMERG	VMRWG8	
	GUARDS									

REFLECTORS

VMPSD40 Standard Dome Fiberglass White Reflector Dia: 16"	VMPA40 30 O Angle Fiberglass White Reflector Dia: 16"	HRD400 Deep Aluminum White Reflector Dia: 21"	HRD400ALZ Deep Aluminum Anodized Reflector Dia: 21"	VMAGBC Bottom Closure for VMAG25S/VMAG40S

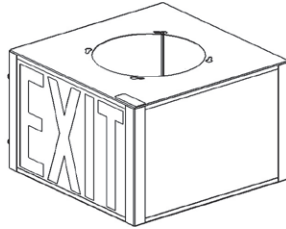
LIGHTING

VE3Q / VE4Q SERIES

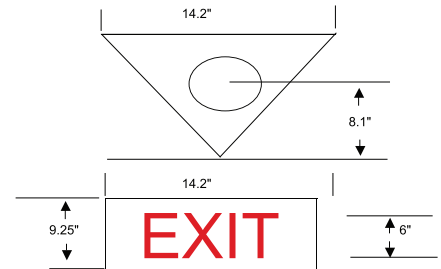


COMPONENTS/APPLICATION DATA

VEXA400 4-Sided EXIT for all Models
 Letters are 3/4" x 8" Red on white
 Unit includes 3 EXIT Faces and
 2 Blank for Maximum Flexibility
 Dimensions: 14.56" x 9.22"



VEXA100B 3-Sided EXIT Accessory for xE3x models
 Letters are 3/4" x 6" Red on White



VEXA100B Exit Accessory Dimensions

FEATURES-SPECIFICATIONS

REPLACEMENT BATTERY UNITS	
WATTAGE/TYPE	CATALOG NUMBER
18/26/32/42W QUAD-PIN	KFBP7

REPLACEMENT LAMPS	
WATTAGE/TYPE	CATALOG NUMBER
18W QUAD-PIN	MQL18
26W QUAD-PIN	MQL26
32W QUAD-PIN	MQL32
42W QUAD-PIN	MQL42

BALLAST DATA*						
LAMP WATTS	VOLTAGE AC	START	OPERATING	INPUT WATTS	BALLAST CIRCUIT	REGULATION
26WATT (1X13)	120 / 277	0.39/35	0.3	16	NPF	—
26WATT (2X13)	120 / 277	0.78/70	0.6	32	NPF	—
18 WATT (1X18)	120 THROUGH 277	—	.16@120V / .07 @277V	19	HPF	—
26WATT (1X26)	120 THROUGH 277	—	.27@120V / .13 @277V	29	HPF	ELECTRONIC
32WATT (1X32)	120 THROUGH 277	—	.31@120V / .15 @277V	36	HPF	ELECTRONIC
42WATT (1X42)	120 THROUGH 277	—	.37@120V / .17 @277V	46	HPF	ELECTRONIC
36 WATT (2X18)	120 THROUGH 277	—	.32@120V / .14 @277V	38	HPF	—
52WATT (2X26)	120 THROUGH 277	—	.54@120V / .26 @277V	58	HPF	ELECTRONIC
64WATT (2X32)	120 THROUGH 277	—	.62@120V / .30 @277V	72	HPF	ELECTRONIC
84WATT (2X42)	120 THROUGH 277	—	.74@120V / .34 @277V	92	HPF	ELECTRONIC

* Add per battery prox .6 amp for charging current. Prox 24 hours to full recharge after full discharge.



COMPONENTS/APPLICATION DATA

APPLICATION DATA									
CATALOG SERIES*	LAMP WATTS	AMBIENT DEG. C	CLASS I DIVISION 2		CLASS I ZONE 2 NR II		CLASS II DIVISION 1 ^①		SUPPLY WIRE TEMP. MIN. °C
			GLOBE OR REFRACTOR ①	GLOBE + REFLECTOR	GLOBE OR REFRACTOR ②	GLOBE + REFLECTOR	GLOBE OR REFRACTOR ①	GLOBE + REFLECTOR	
VE3Q0018	1 X 18	40	T6	T6	T6	T6	T3B (EFG)	T3C (EFG)	60
VE3Q0036	2 X 18	40	T3C	T3C	T6	T6	T3B (EFG)	T3C (EFG)	60
VE3Q1818	1 X 18	40	T3A	T3A	T6	T6	T3B (EFG)	T3C (EFG)	60
VE3Q3618	2 X 18	40	T3C	T3C	T6	T6	T3B (EFG)	T3C (EFG)	60
VE3Q3636	2 X 18	40	T3C	T3C	T6	T6	T3B (EFG)	T3C (EFG)	60
VE3Q0026	1 X 26	40	T6	T6C	T6	T6	T3B (EFG)	T3C (EFG)	75
VE3Q0052	2 X 26	40	T2D	T2D	T6	T6	T3B (EFG)	T3C (EFG)	75
VE3Q2626	1 X 26	40	T3A	T3A	T6	T6	T3B (EFG)	T3C (EFG)	60
VE3Q5226	2 X 26	40	T2D	T2D	T5	T6	T3B (EFG)	T3C (EFG)	75
VE3Q5252	2 X 26	40	T2D	T2D	T5	T6	T3B (EFG)	T3C (EFG)	75
VE3Q0032	1 X 32	40	T6	T6	T6	T6	T3B (EFG)	T3C (EFG)	75
VE3Q0064	2 X 32	40	T2D	T2D	T6	T6	T3B (EFG)	T3C (EFG)	75
VE3Q3232	1 X 32	40	T3A	T3A	T6	T6	T3B (EFG)	T3C (EFG)	60
VE3Q6432	2 X 32	40	T2D	T2D	T5	T6	T3B (EFG)	T3C (EFG)	75
VE3Q6464	2 X 32	40	T2D	T2D	T5	T6	T3B (EFG)	T3C (EFG)	75
VE3Q0042	1 X 42	40	T6	T6	T6	T6	T3B (EFG)	T3C (EFG)	75
VE3Q0084	2 X 42	40	T2B	T2B	T6	T6	T3B (EFG)	T3C (EFG)	75
VE3Q4242	1 X 42	40	T3A	T3A	T6	T6	T3B (EFG)	T3C (EFG)	60
VE3Q8442	2 X 42	40	T2B	T2B	T4	T6	T3B (EFG)	T3C (EFG)	75
VE3Q8484	2 X 42	40	T2B	T2B	T4	T6	T3B (EFG)	T3C (EFG)	75
VE4Q0018	1 X 18	40	T3C	T3C	T6	T6	T4A (EFG)	T4A (EFG)	60
VE4Q0036	2 X 18	40	T3C	T3C	T6	T6	T4A (EFG)	T4A (EFG)	60
VE4Q1818	1 X 18	40	T3C	T3C	T6	T6	T4A (EFG)	T4A (EFG)	60
VE4Q3618	2 X 18	40	T3C	T3C	T6	T6	T4A (EFG)	T4A (EFG)	60
VE4Q3636	2 X 18	40	T3C	T3C	T6	T6	T4A (EFG)	T4A (EFG)	60
VE4Q0026	1 X 26	40	T3C	T3C	T6	T6	T4A (EFG)	T4A (EFG)	60
VE4Q0052	2 X 26	40	T3C	T3C	T6	T6	T4A (EFG)	T4A (EFG)	60
VE4Q2626	1 X 26	40	T3C	T3C	T6	T6	T4A (EFG)	T4A (EFG)	60
VE4Q5226	2 X 26	40	T3	T3	T6	T6	T4A (EFG)	T4A (EFG)	75
VE4Q5252	2 X 26	40	T3	T3	T6	T6	T4A (EFG)	T4A (EFG)	75
VE4Q0032	1 X 32	40	T3	T3	T6	T6	T4A (EFG)	T4A (EFG)	75
VE4Q0064	2 X 32	40	T3	T3	T6	T6	T4A (EFG)	T4A (EFG)	75
VE4Q3232	1 X 32	40	T3	T3	T6	T6	T4A (EFG)	T4A (EFG)	75
VE4Q6432	2 X 32	40	T3	T3	T6	T6	T4A (EFG)	T4A (EFG)	75
VE4Q6464	2 X 32	40	T3	T3	T6	T6	T4A (EFG)	T4A (EFG)	75
VE4Q0042	1 X 42	40	T3	T3	T6	T6	T4A (EFG)	T4A (EFG)	75
VE4Q0084	2 X 42	40	T3	T3	T6	T6	T4A (EFG)	T4A (EFG)	75
VE4Q4242	1 X 42	40	T3	T3	T6	T6	T4A (EFG)	T4A (EFG)	75
VE4Q8442	2 X 42	40	T3	T3	T6	T6	T4A (EFG)	T4A (EFG)	75
VE4Q8484	2 X 42	40	T3	T3	T6	T6	T4A (EFG)	T4A (EFG)	75

① T-codes for Refractors include VMR "All Glass" and VZ Spin-Top Types.

② Models suitable for Class II Div. 1 are also suitable for Class III.



LIGHTING

NON-METALLIC EMERGENCY OPTION SURFACE MOUNT LUMINAIRES



Wall Mounted



Ceiling Mounted



Exit Sign



FEATURES-SPECIFICATIONS

ENVIORITE®

Surface Mount Luminaires

13-26W Fluorescent

Applications

Killark's NWP Series of fluorescent luminaires are designed for task lighting of wet & corrosive NEMA 4X environments and hazardous locations.

Typical uses include manufacturing plants, chemical and petrochemical processing facilities, sewage treatment plants, off-shore and dockside installations, agricultural, commercial, industrial, and mining facilities.

NWP surface mount luminaires contain no exposed glass and carry Class II, F&G ratings required for many food processing areas.

Features

- Non-metallic housing has a lightweight yet robust low profile construction
- Can be wall mounted or ceiling mounted in horizontal or vertical position
- Energy and labor saving fluorescent
- Emergency and normal power models available.
- Emergency version has internal battery which provides 90 minutes of illumination in the event of a power failure
- Resists corrosive effects of most chemicals, hydrocarbons and solvents
- Designed for indoor and outdoor applications
- Includes fluorescent lamp
- 'World Voltage' ballasts for 120VAC through 277VAC 50/60Hz installations
- Wiring terminals are included as standard

Materials

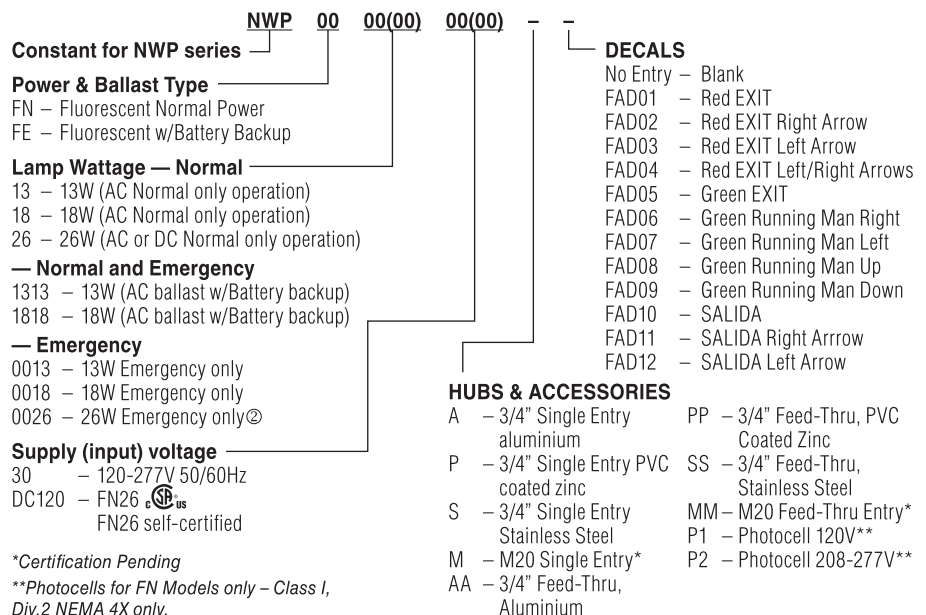
- Enclosure - High strength polycarbonate
- Gasket - Silicone
- External Hardware - Stainless steel
- Lens - Lexan®
- Entry - One 3/4" NPT copper-free aluminum hub with 3/4 x 1/2" reducer is standard. A second hub may be purchased separately.

Lexan® is a registered trademark of General Electric

Class I, Div. 2, Groups A,B,C,D
 Class I, Zone 2, Groups IIC, IIB, IIA
 Class II, Div. I, Groups F,G
 Class III
 Marine
 NEMA 3, 4, 4X
 IP66

cSP us Certified - File LR11713

Catalog Number Logic



NWP WALLPACK 13 - 26W FLUORESCENT WITH ONE 3/4" ALUMINUM HUB					
LAMP	VOLTAGE	DESCRIPTION	CATALOG NUMBER①	MAX. AMBIENT SUITABILITY③	MIN START
NORMAL POWER MODELS - AMBIENT SUITABILITY 40°C MAX.					
1-13W	120-277V 50/60HZ	13W WALL OR CEILING	NWPFN1330A	40°C	15°C
1-18W	120-277V 50/60HZ	18W WALL OR CEILING	NWPFN1830A	40°C	15°C
1-26W	120-277V 50/60HZ	26W WALL OR CEILING	NWPFN2630A	40°C	15°C
1-26W	120V DCK	26W WALL OR CEILING	NWPFN26DC120A	40°C	15°C
NORMAL AND EMERGENCY MODELS					
1-13W	120-277V 50/60HZ	13W WALL OR CEILING	NWPFE131330A	35°C	15°C
1-18W	120-277V 50/60HZ	18W WALL OR CEILING	NWPFE181830A	30°C	15°C
EMERGENCY ONLY MODELS - AMBIENT SUITABILITY 40°C MAX.					
1-13W	120-277V 50/60HZ	13W WALL OR CEILING	NWPFE001330A	40°C	0°C
1-18W	120-277V 50/60HZ	18W WALL OR CEILING	NWPFE001830A	40°C	0°C
1-26W	120-277V 50/60HZ	26W WALL OR CEILING	NWPFE002630A	40°C	0°C
1-26W	120V DC2	26W WALL OR CEILING	NWPFE0026DC120A	40°C	0°C

① Provided with one 3/4 aluminum hub as standard.

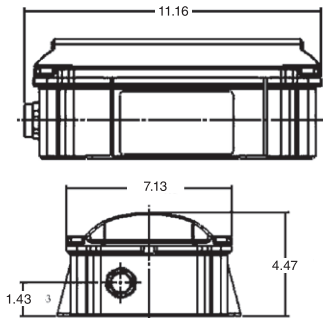
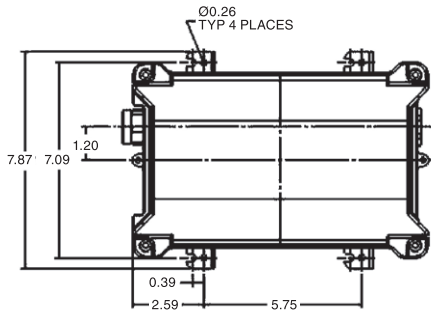
② NWPFN120V DC model is cCSAus, NWPFE 120V DC emergency-only model is Killark self-certified.

③ T-code measurements taken in 40°C ambient; operating ambient reduced for normal and emergency models to maintain battery performance.



NON-METALLIC EMERGENCY OPTION SURFACE MOUNT LUMINAIRES

Keyhole Slots Provided for Ease in Mounting



TECHNICAL DATA

T-CODES @ 40C ③					
WATTS	Class I Div. 2		Class II Div. 2	Minimum Start	
	①	②		C°	F°
13W	T3	T6	F,G	-15	4
18W	T3	T3	F,G	-15	4
26W	T3	T3	F,G	-15	4

- ① Normal power or normal + emergency
- ② Emergency only models
- ③ See catalog grids for ambient suitability

BOLT ON EXIT SIGN



Catalog Number NWP-EXIT-SIGN DESCRIPTION

Bolt-on Exit Sign accessory includes hardware to mount to fixture and ability to make arrows left, right or none. Construction white painted steel and nonglass red diffuser, with bottom opening for downlight.

ACCESSORIES

FIELD HUB KITS	
CATALOG #	DESCRIPTION
NWP-HUBA	Aluminum hub, gasket, locknut
NWP-HUBP	Precoated zinc hub, gasket, locknut
NWP-HUBS	Stainless steel hub, gasket, locknut
NWP-HUBM	M20 Plated Brass

PHOTOMETRICS

NWPFN2630x
Candlepower - 26 Watt
CFL26 lamp 1800 lumens
For 13 Watt multiply by .50
For 18 Watt multiply by .67



FLUORESCENT OPERATING MAX. AMPS

TYPE	120VAC	277VAC
13W Fluorescent	.144	.067
18W Fluorescent	.158	.073
26W Fluorescent	.22	.097

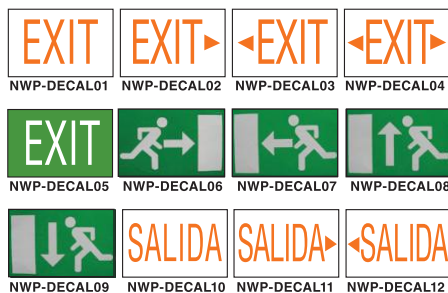
Use .1 Amp for 'Emergency Only' units, or as an adder for Normal & Emergency models.

Zonal Lumen Summary

Zone	Lumens	%Lamp	%Fixt
0-30	275	15.30%	20.30%
0-40	463	25.70%	34.20%
0-60	886	49.20%	65.50%
0-90	1301	72.30%	96.10%
90-120	52	2.90%	3.90%
90-130	52	2.90%	3.90%
90-150	52	2.90%	3.90%
90-180	52	2.90%	3.90%
0-180	1353	75.20%	100

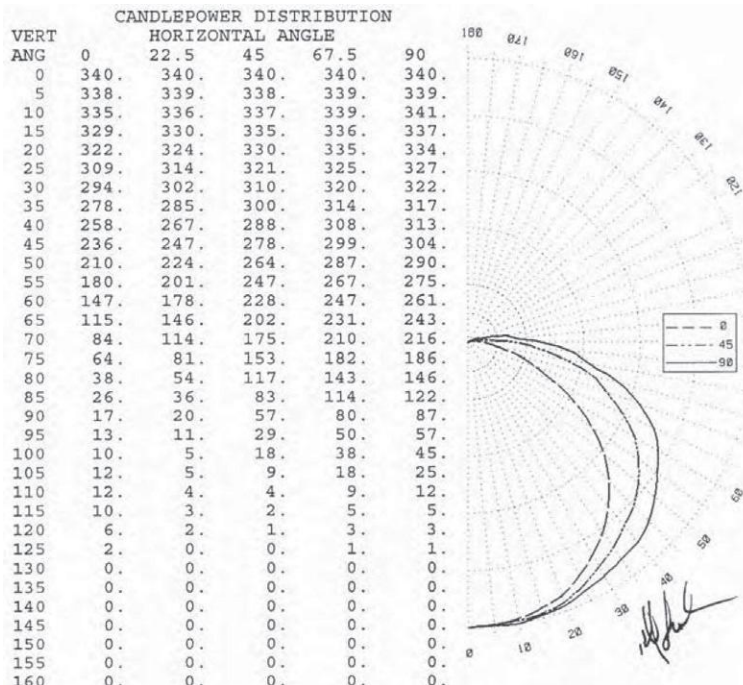
Total Luminaire Efficiency = 75.2%
Space to Mt. Ht. Ratio: End 1.3; Side 1.4
Certified Report BAL 15312.0

SELF ADHESIVE DECALS



Optional decal styles available upon request - Minimums apply.
Factory installed decals, order as FAD___. Example FAD01.

NWP REPLACEMENT PARTS & LAMPS	
CATALOG #	DESCRIPTION
NWP-LENSONLY	Replacement Lens
NWP-KFBP7	Replacement battery pack
MQL13	13W Quad-pin lamp
MQL18	18W Quad-pin lamp
MQL26	26W Quad-pin lamp



LIGHTING

DBFE SERIES



LINEAR FLUORESCENT EMERGENCY LIGHTING



Class I, Div. 2, Groups A,B,C,D
Class I, Zone 2, Groups IIC, IIB, IIA
Class II, Div. 2 Groups F,G
NEMA 3, 4

- UL Listed
Compliances: UL 44; UL 81570, UL924
- UL Wet Location Listed (Indoor & Outdoor)

FEATURES-SPECIFICATIONS

LINEAR/LITE®* E

* marca registrada MEXICO

EMERGENCY

Applications

LINEAR/LITE DBFE Emergency Lighting fixtures provide continuous illumination under normal power and switch to emergency battery backup during power outages. Units contain a battery unit that provides the OSHA required 90 minutes of illumination for egress.

Units are designed for general and task lighting in areas where flammable gases or vapors or combustible dusts may exist due to abnormal conditions, and create a Division 2 hazardous location, as defined by the NEC.

Features

- Sheet steel 20 ga. housing with continuous weld prevents foreign matter from entering enclosure
- Lens frame assembly has silicon rubber gasketing and heat tempered glass lens
- Electrostatically applied polyester finish
- NEMA 4 construction for wet locations
- LED charging indicator light visible through lens
- Push-To-Test Button mounted on sloping side of fixture - allows end-to-end mounting of fixtures

DBFE FLUORESCENT EMERGENCY LIGHTING				
CATALOG NUMBER	CONDUIT SIZE	NUMBER OF LAMPS	LINE VOLTAGE	DESCRIPTION
DBFE232302	3/4"	2	120-277V 50/60 Hz	32W T8 electronic ballast 0°F start Medium bi-pin base
DBFE24012			120V 60 Hz	32W T8 electronic ballast 0°F start Medium bi-pin base
DBFE16012 DBFE16042			277V 60 Hz	32W T8 electronic ballast 0°F start Medium bi-pin base
DBFE232303	3/4"	3	120-277V 50/60 Hz	32W T8 electronic ballast 0°F start Medium bi-pin base
DBFE24013			120V 60 Hz	32W T8 electronic ballast 0°F start Medium bi-pin base
DBFE24043			277V 60 Hz	32W T8 electronic ballast 0°F start Medium bi-pin base
KFBP7	(32/40 or 60 Watt) Replacement battery unit			

Notes: Emergency unit will start lamps at 0°F
 32W T8 Electronic ballast minimum start is 0°F;
 40W ballast is electronic with 50°F start (add CW for electromagnetic 0°F);
 60W electromagnetic ballast start -20°F
 32W & 40W units operate 2 Lamps in emergency mode for maximum illumination
 60W units operate a single lamp. 3 Lamp 60W emergency units not available.
 For dimensional data and mounting accessories, see DBF series page L162.
 Digit after E is number of lamps energized during power loss.

EMERGENCY LUMEN CHART		
LAMPS	INITIAL LUMENS	AFTER 90 MINUTES
2 32W Lamps	625	455
2 40W Lamps	610	420
1 60W Lamp	780	460

DBFE HAZARDOUS LOCATION APPLICATION DATA							
NO. OF LAMPS	LAMP WATTS	RATED AMBIENT °C	SUPPLY WIRE SUITABLE FOR °C MIN	CLASS I, DIV. 2, GROUPS A,B,C,D MAX. LAMP TEMP. °C UL/CSA TEMP./I.D.	CLASS II, DIV. 2, GROUPS E,F,G MAX. SURF. TEMP. °C UL/CSA TEMP./I.D.	NEMA TYPE 3 (RAINTIGHT)	NEMA TYPE 4 (HOSEDOWN)
2	32/40	40	90	T6 (85°C/185°F)	T6 (85°C/185°F)	YES	YES
3	32/40	40	90	T5 (100°C/212°F)	T6 (85°C/185°F)	YES	YES
2	60	40	90	T4A (120°C/248°F)	T6 (85°C/185°F)	YES	YES



LZ2NE/LZ2SE SERIES

KILLARK

EMERGENCY FLUORESCENT



LZ2SE 4' Stainless

LZ2NE 2' Non-metallic

Class I, Div. 2 Groups A,B,C,D
Class I, Zones 2, Groups IIC,IIB,IIA
Class II, Div. 1 & 2, Groups E[Ⓢ], F,G
AEx nAll, Ex nAll
Wet Locations
NEMA 4X
IP66

CS Certified - File LR11713

ABS Type Approval
NSF Food Handling [Ⓢ]

FEATURES-SPECIFICATIONS

LINEARLITE[®]* E

* marca registrada MEXICO EMERGENCY

Applications

LINEARLITE Emergency Lighting fixtures provide continuous illumination under normal power and switch to emergency battery back-up during power outages. Units contain a battery unit that provides the OSHA required 90 minutes of illumination for egress.

Units are available in non-metallic or 316 Stainless construction and designed for wet, harsh and corrosive environments. The LZ2NE and LZ2SE Series can also be used in Class I, Division 2 and Zone 2 hazardous vapors and in Class II areas where combustible dusts may exist. Typical areas used are in refineries, chemical plants, waste water & sewage treatment facilities, as well as in tunnels, food processing and coastal areas.

ABS (American Bureau of Shipping) type approval for use on decks, vessels, platforms, garages, ships and boats. Also suitable for docks and marinas.

- Ⓢ LZ2SE only for Group E
- Ⓢ LZ2NE is NSF approved

Features

- NEMA 4 & IP66 rated enclosure
- Housing-one piece fiberglass reinforced polyester or 316 Stainless Steel
- Clear Lexan[®] impact resistant polycarbonate lens (Lexan is a registered trademark of General Electric)
- Two 3/4" NTP hubs - one at each end (includes one 3/4" close-up plug and two 3/4" X 1/2" reducers for maximum user flexibility)
- Two 1/4"- 20 bushings furnished in top of fixture for threaded rod

LZ2NE / LZ2SE BATTERY- BACKED				
NUMBER OF LAMPS/WATTS	VOLTAGE AC 60 HZ	DESCRIPTION	LZ2NE [Ⓢ]	LZ2SE [Ⓢ]
BIAXIAL LAMP TYPE FIXTURES				
1 - 40W [Ⓢ]	120 - 277 V	2' 1 - L amp Biaxial Electronic 50 / 60 Hz 0°F Start 4 -Pin	LZ2NE1 - 40130	LZ2SE1 - 40130
1 - 55W [Ⓢ]	120 - 277 V	2' 1 - L amp Biaxial Electronic 50 / 60 Hz 0°F Start 4 -Pin	LZ2NE1 - 55130	LZ2SE1 - 55130
2 - 40W [Ⓢ]	120 - 277 V	2' 2 - L amp Biaxial Electronic 50 / 60 Hz 0°F Start 4 -Pin	LZ2NE1 - 40230	LZ2SE1 - 40230
4 - 40W [Ⓢ]	120 - 277 V	4' 4 - L amp Biaxial Electronic 50 / 60 Hz 0°F Start 4 -Pin	LZ2NE - 40430	LZ2SE1 - 40430
DOUBLE - ENDED LAMP TYPE FIXTURES				
2 - 17W [Ⓢ]	120 - 277 V	2' 2 - Lamp T-8 Electronic 50/60 Hz 0°F Start Medium Bi-Pin	LZ2NE2 - 17230	LZ2SE2 - 17230
3 - 17W [Ⓢ]	120 - 277 V	2' 3 - Lamp T-8 Electronic 50/60 Hz 0°F Start Medium Bi-Pin	LZ2NE2 - 17330	LZ2SE2 - 17330
2 - 28W [Ⓢ]	120 - 277 V	4' 2 - Lamp T-5 Electronic 50/60 Hz 0°F Start Miniature Bi-Pin	LZ2NE1 - 28230	LZ2SE1 - 28230
3 - 28W [Ⓢ]	120 - 277 V	4' 3 - Lamp T-8 Electronic 50/60 Hz 0°F Start Miniature Bi-Pin	LZ2NE1 - 28330	LZ2SE1 - 28330
2 - 32W [Ⓢ] 2 - 32W [Ⓢ]	120 - 277 V 120 - 277 V 347 V	4' 2 - Lamp T-8 Electronic 50/60 Hz 0°F Start Medium Bi-Pin	LZ2NE1 - 32230 LZ2NE2 - 32230 LZ2NE2 - 32215	LZ2SE1 - 32230 LZ2SE2 - 32230 LZ2SE2 - 32215
3 - 32W [Ⓢ] 3 - 32W [Ⓢ]	120 - 277 V 120 - 277 V 347 V	4' 3 - Lamp T-8 Electronic 50/60 Hz 0°F Start Medium Bi-Pin	LZ2NE1 - 32330 LZ2NE2 - 32330 LZ2NE2 - 32315	LZ2SE1 - 32330 LZ2SE2 - 32330 LZ2SE2 - 32315
2 - 40W [Ⓢ]	120 V 277 V 230 V 50 Hz [Ⓢ]	4' 2-Lamp T-12 Electronic Medium Bi- Pin Start 50°F 40W/60°F 34W	LZ2NE2 - 40201 LZ2NE2 - 40204 LZ2NE2 - 40208	LZ2SE2 - 40201 LZ2SE2 - 40204 LZ2SE2 - 40208
2 - 44W [Ⓢ]	120 - 277 V	4' 2-Lamp T-8 Electronic -20°F Start High Output Recessed Double Contact	LZ2NE1 - 44230	LZ2SE1 - 44230
2 - 54W [Ⓢ]	120 - 277 V	4' 2 - Lamp T-5 Electronic 50/60 - 20°F Start Miniature Bi - Pin	LZ2NE1 - 54230	LZ2SE1 - 54230
2 - 60W [Ⓢ]	120 - 277 V	4' 2-Lamp T-12 Electronic -20°F Start High Output Recessed Double Contact	LZ2NE1 - 60201	LZ2SE1 - 60230

Ⓢ Digit after E is number of lamps energized during power loss. For optional fused ballasts, add to catalog number F1 for 120V, F4 for 277V, F8 for 230V. Fusing no for marine or Canadian use. Lamps not included.

Ⓢ Magnetic ballast

REPLACEMENT BATTERY UNIT	
ⓈKFBP7	ⓈKFBP7HO

EMERGENCY LUMEN CHART	
LAMPS	INITIAL LUMENS
2 X 17 T8	550
1 X 40 BIAxIAL	900
1 X 55 BIAxIAL	950
1 X 28 T5	1175
1 X 32 T8 (E1)	925
2 X 32 T8 (E2)	625
2 X 40 T12	610
1 X 44 T8	950
1 X 54 T5	1200
1 X 60 T12	780



LIGHTING

LINEAR FLUORESCENT EMERGENCY LIGHTING



4' Nominal Style



2' Nominal Style

Class I, Div. 1 & 2, Groups C,D
Class I, Zones 1 & 2, Groups IIB, IIA
Class II, Div. 1 & 2, Groups E,F,G
Class III, Div. 1 & 2
NEMA 3, 7(C,D) 9(E,F,G)
Suitable for wet locations



- File E12976 and E89665 (Marine)
 3 UL 924, UL 844



Certified - File LR11713

FEATURES-SPECIFICATIONS

Applications

HFXE Series Emergency Lighting fixtures provide continuous illumination under normal power and switch to emergency battery backup during power outages. Units contain a battery unit that provides the OSHA required 90 minutes of illumination for egress.

Units are designed for installations where moisture, dirt, dust, corrosion and vibration may be present, or wet locations where wind, water and snow can be expected. They can also be used in locations made hazardous due to the presence of flammable or explosive gases, vapors and combustible ducts as defined by the NEC.

Features

- Construction is strong lightweight corrosion resistant copper-free aluminum alloy, less than 4/10 of 1%
- All external hardware is corrosion resistant 316 stainless steel to provide maintenance free long life
- World voltage ballasts standard on 32W and BIAxIAL models (120-277V 50/60 Hz)
- LED charging indicator light on ballast enclosure.

See page L172 for Dimensions and Accessories

HFXE FLUORESCENT EMERGENCY LIGHTING				
CATALOG NUMBER ^{①②}	CONDUIT SIZE	LINE VOLTAGE	DESCRIPTION	PROFILE
HFXE2-265-302	3/4"	120-277V 50/60 Hz	32W T8 electronic ballast 265MA	 Two Glass Tubes 4' Nominal
HFXE2-430-12		120V 60 Hz	40W T12 electronic ballast 430MA	
HFXE2-430-42		277V 60 Hz	40W T12 electronic ballast 430MA	
HFXE2-460-302		120V-277V 50/60 Hz	54W T5HO Electronic Ballast 460MA	
HFXE1-800-12		120V 60 Hz	60W T12 electronic ballast 800MA	
HFXE1-800-42		277V 60 Hz	60W T12 electronic ballast 800MA	
HFXE2-265-303	3/4"	120-277V 50/60 Hz	32W T8 electronic ballast 265MA	 Three Glass Tubes 4' Nominal
HFXE2-430-13		120V 60 Hz	40W T12 electronic ballast 430MA	
HFXE2-430-43		277V 60 Hz	40W T12 electronic ballast 430MA	
HFXE2-460-303		120V-277V 50/60 Hz	54W T5HO Electronic Ballast 460MA	
HFXE1-800-13		120V 60 Hz	60W T12 electronic ballast 800MA	
HFXE2-265-304	3/4"	120-277V 50/60 Hz	32W T8 electronic ballast 265MA	 Four Glass Tubes 4' Nominal
HFXE2-430-14		120V 60 Hz	40W T12 electronic ballast 430MA	
HFXE2-430-44		277V 60 Hz	40W T12 electronic ballast 430MA	
HFXE1-800-14		120V 60 Hz	60W T12 electronic ballast 800MA	
HFXE1-800-44		277V 60 Hz	60W T12 electronic ballast 800MA	
BIAxIAL SERIES				
HFXE1-40T-302	3/4"	120-277V 50/60 Hz	2' 2 Lamp 40W BIAxIAL	 Two Glass Tubes 4' Nominal
HFXE1-55T-302			2' 2 Lamp 55W BIAxIAL	
HFXE1-40T-304			4' 4 Lamp 40W BIAxIAL	
HFXE1-55T-304			4' 4 Lamp 55W BIAxIAL	

① Digit after "E" in catalog logic indicates number of lamps energized in emergency mode.

② Consult non-emergency HFX pages L164-169 for thermal, dimensional and other data, plus for available accessories. 40W & 60W are not available with universal voltage or 240V 50Hz ballasts.

③ 1,2 and 3 tube models are third party certified. 4 tube models are self-certified.

NOTES: For fusing, add suffix F1 for 120V; F4 for 277V.

Emergency unit will start lamps at 0°F

32W T8 electronic ballast minimum start is 0°F

40W ballast is electronic with 50°F start

60W ballast start at -20°F

32W & 40W units operate 2 lamps in emergency mode for a maximum illumination

60W and BIAxIAL units operate a single lamp. 3 lamp 277V 60W emergency units not available.

Replacement Battery Pack #KFBP10

EMERGENCY LUMEN CHART		
LAMPS	INITIAL LUMENS	AFTER 90 MINUTES
2 32W lamps	1350	900
2 40W lamps	1100	640
1 60W lamp	1200	810
1 40W BIAxIAL	900	540
1 55W BIAxIAL	900	465



COMPACT FLUORESCENT EMERGENCY LIGHTING



Class I, Div. 1 & 2, Groups C,D
Class I, Zones 1 & 2, Groups IIB, IIA
Class II, Div. 1 & 2, Groups E,F,G
Class III
NEMA 3

UL Complies: UL 844; UL 1570, UL924 (File E162407)

UL Wet Location Listed (Indoor & Outdoor)
 Rated for 40C° ambient. Minimum start 0° C

Temperature codes:

Class I C,D T6;

Class II E,F,G T4;

Suitable for Class III

SP Certified File LR11713

FEATURES-SPECIFICATIONS

HOSTILELITE® E

EMERGENCY

Applications

HOSTILELITE® EEQ Emergency Lighting fixtures provide continuous illumination under normal power and switch to emergency battery backup during power outages. Emergency Units ONLY are available that operate only when normal power fails.

Units contain battery unit that provides the OSHA required 90 minutes of illumination (same lamp) for egress.

Units are designed for general and task lighting indoors or outdoors where flammable gases or vapors or combustible dusts exist and create a hazardous location, as defined by the NEC.

See Page L211 for available Push-To-Test hazardous location control stations.

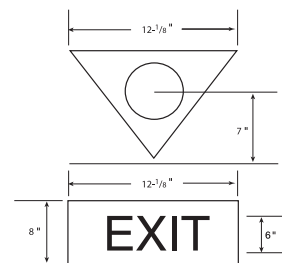
Features

- Quad-Pin long-life triple-tube compact fluorescent lamps included
- Choice of Pendant, Ceiling, Wall or Stanchion mount
- Factory Sealed - No external seal required
- Corrosion resistant-Copper-free aluminum (less than 4/10 of 1%) die-cast construction w/Baked-on epoxy/polyester powder finish
- Exposed hardware is 316 grade stainless steel
- LED charging indicator light visible through lens

Accessories

Exit sign: Model **HEXA-100** (note omit 2nd "G" in catalog number for globe-only fixture).

Reflectors: Use standard dome **ERSD15** or angle model **ERA15**.



EEQ 26 , 32 & 42 WATT EMERGENCY- ONLY MODE FIXTURES

QUAD-PIN FLUOR. LAMP INCLUDED	LINE VOLTAGE @ 50/60 HZ	CATALOG NUMBER ③④⑥			
		PENDANT 3/4" ①	CEILING 3/4" ①	BRACKET 3/4" ①	STANCHION 1-1/4" ②
26Watt	120 - 277VAC ⑤	EEQ0026E30A2G	EEQ0026E30X2G	EEQ0026E30B2G	EEQ0026E30D4G
32Watt	120 - 277VAC ⑤	EEQ0032E30A2G	EEQ0032E30X2G	EEQ0032E30B2G	EEQ0032E30D4G
42Watt	120 - 277VAC ⑤	EEQ0042E30A2G	EEQ0042E30X2G	EEQ0042E30B2G	EEQ0042E30D4G

EEQ 26 , 32 & 42 WATT NORMAL & EMERGENCY MODE FIXTURES

QUAD-PIN FLUOR. LAMP INCLUDED	LINE VOLTAGE @ 50/60 HZ	CATALOG NUMBER ③④⑥			
		PENDANT 3/4" ①	CEILING 3/4" ①	BRACKET 3/4" ①	STANCHION 1-1/4" ②
26Watt	120 - 277VAC ⑤	EEQ2626E30A2G	EEQ2626E30X2G	EEQ2626E30B2G	EEQ2626E30D4G
32Watt	120 - 277VAC ⑤	EEQ3232E30A2G	EEQ3232E30X2G	EEQ3232E30B2G	EEQ3232E30D4G
42Watt	120 - 277VAC ⑤	EEQ4242E30A2G	EEQ4242E30X2G	EEQ4242E30B2G	EEQ4242E30D4G

① Pendant, Ceiling & Bracket models may be changed to 1" hubs by changing the 12th character from 2 to 3; e.g. EEQ2626E10A3GG.

② Stanchion fixtures are 1-1/2" with a 1-1/2 to 1-1/4" reducer.

③ Omit 2nd "G" for globe-only fixture for use with HEXA-100 Exit Accessory.

④ Standard color for fixtures is Killark beige. Add -R for RED adder.

⑤ All EEQ fixtures are factory set to 120V and can be changed to 277V in field by following included instructions. Replacement battery pack kit KFBP9.

⑥ EEQ fixtures use a tank extension ring and are 2-1/2" taller than EBF fixtures.

⑦ Photometric characteristics similar to EBF26, except adjusted for lumen output.

LUMEN OUTPUT ⑦

LAMP SOURCE	NORMAL POWER	EMERG. POWER
26Watt	1800	450
32Watt	2400	575
42Watt	3200	750

BALLAST DATA

LAMP WATTS	VOLTAGE	OPERATING AMPS	INPUT WATTS	BALLAST CIRCUIT	REGULATION
26Watt (1x26)	120 / 277 VAC	.24@120V /.11 @277V	29	HPF	Electronic
32Watt (1X32)	120 / 277 VAC	.31@120V /.13 @277V	36	HPF	Electronic
42Watt (1x42)	122 / 277 VAC	.38@120V /.17 @277V	46	HPF	Electronic



LIGHTING

HALOGEN LAMP EMERGENCY LIGHTING



Class I, Div. 1 & 2, Groups C,D
Class I, Zones 1 & 2, Groups IIB, IIA
Class II, Div. 1 & 2 Groups E,F,G
Class III, Div. 1 & 2
NEMA 7CD, 9EFG

- Listed File E162407
UL-844 Electric Lighting Fixtures for use in Hazardous Locations
- UL-924 Emergency Lighting & Power Equipment Certified File LR11713

FEATURES-SPECIFICATIONS

HOSTILE LITE® E EMERGENCY

Applications

Where required by NEC, Life Safety Code, etc., to provide illumination during interruption of normal power to lighting system.

Hazardous Locations (gas, vapor, dust), include such areas as: Oil & Gas Refining, Production & Storage, Grain Processing, Paint Manufacture.

Features

- Patented design three high intensity lamps can be independently adjusted to provide custom emergency lighting to a specific area
- Three 20 watt MR16 lamps included
- Pendant, bracket and ceiling mounting styles for a mounting arrangement that suits any lighting layout
- Remote hazardous location test station (included) allows testing of fixture at a convenient ground level location
- Factory wired for 120V; can be field changed to 208/240/277V.
- Four tough, long life lead-acid batteries require no maintenance and have a 12 VDC output of 60 watts for 90 minutes
- Safety disconnect feature automatically disconnects lamps from battery if globe is removed
- Solid state battery charger has a low voltage disconnect feature
- Red pilot light, easily visible inside globe, indicates AC power is being supplied to batter charger

- Fixture housings are factory sealed by the electro-mechanical connection block
- The only wiring required is attaching supply wires to the integral female connection block in the mounting cap. Threading fixture onto mounting cap makes the electrical connection
- Electrical continuity is not made during assembly or disassembly without five or more threads secured to insure a flame path
- Suitable in ambients 0°C to 40°C
- Patented design

EBB ACCESSORIES	
CATALOG NUMBER	DESCRIPTION
EZG1	Guard (die cast aluminum)
VMPSD40	Reflector (standard dome)
EBB-L12	MR16 12 volt lamp
17505AAAB	MR16 lamp socket
EBB-RB	Rechargeable battery (4 used per unit)
EBB-BC	Battery charger (circuit board)
EBB-TRANS*	Transformer Kit 120, 208, 240, 277V
EBB-PL	LED pilot light



Remote test station (included) allows "Push-To-Test" at a location convenient to the user. ②

EBB HALOGEN EMERGENCY LIGHTING						
ANSI LAMP TYPE	WATTS	VOLTAGE ①	HUB SIZE	CATALOG NUMBER		
				PENDANT	WALL	CEILING
MR16	3x20W	120, 208, 240, 277V	3/4"	EBB32010A2	EBB32010B2	—
			1"	EBB32010A3	EBB32010B3	EBB32010X3

① Suitable for 220V/50Hz.

HAZARDOUS LOCATION APPLICATION DATA					
LAMP TYPE	LAMP WATTS	RATED AMBIENT DEGREES	MAX SURFACE TEMPERATURE		
			CLASS I	CLASS II	SIMULTANEOUS CLASS I & II
MR16 Halogen	60W Total	40°C	T6 (85°C)	T5 (100°C)	T5 (100°C)

Note: EBB Series fixtures should not be stored for extended periods before energizing.

* Replaces #17506AAAB.

② Furnished with 3/4" feed thru mounting box. For Push-To-Test N.C. momentary cover only. Use also with HFXE, VE3Q, EEQ, and LZ2NE. Cover only XCS-0B2-PTT. Order SWB back box separately.



HALOGEN LAMP EMERGENCY LIGHTING



Pendant



Ceiling



Wall Mount

FEATURES-SPECIFICATIONS

Dimensions: See EZ 50-250 Watt dimensions on page L159

Factory sealed; external seals not required

Cast of copper-free Aluminum (Less than 0.4% copper)

Electrostatically applied epoxy polyester finish is baked on for high density corrosion protection

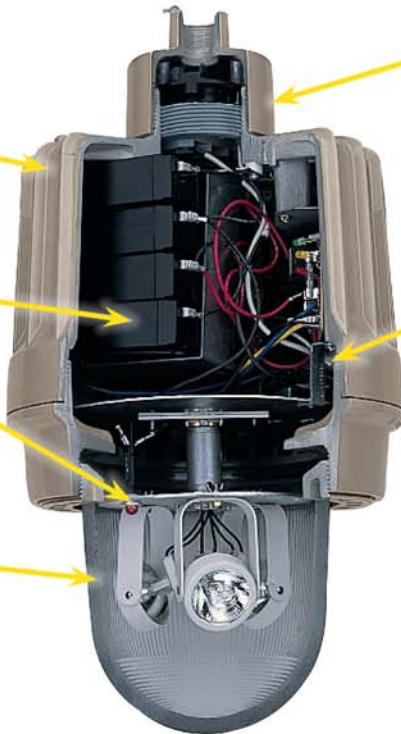
Four lead-acid batteries are maintenance free and provide 60 watts to the lamps for 90 minutes*

Red pilot light indicates AC power flow to battery charger

Lamps automatically disconnect from battery if globe is disengaged

Glass globe prestressed for heat and impact resistance - Globe is internally fluted on sides and prismatic on bottom

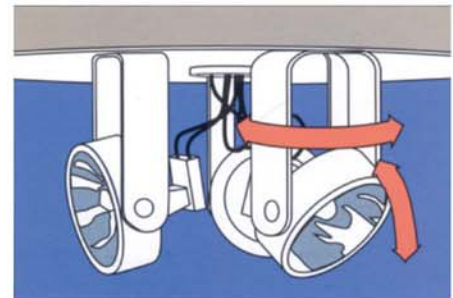
* EBB Series fixtures should not be stored for extended periods before energizing.



Wireless assembly of fixture tank to mounting cap — Electro-mechanical male/female block allows fast, easy installation and bench top servicing without disconnecting supply wires

Nameplate displays Third Party Certifications and ratings in English and French (large red plate identifies it as an emergency fixture)

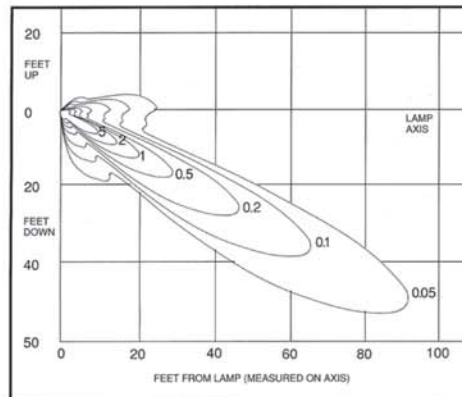
Acme double lead threads assure quick and trouble free assembly



Lamps adjustable on 2 axis for maximum aiming flexibility.

VEXA400 Exit Accessory

- White painted steel frame
- 8" Red Letters
- 5 Panes: 3 Exit and 2 Blank
- Fits EBB and VE4Q with globe only
- Dimensions: 14.57" x 9.22"
- Spanish Available VEXA400-SALIDA



Photometrics

Typical vertical ISO foot candle distribution.

One 20 watt lamp aimed at 20° below horizontal.

Note: Some minor variations in light spread will occur as each lamp is rotated up/down within the glass globe.



LIGHTING

STROBE SIGNAL LIGHT



Class I, Div. 1 & 2, Groups C,D
 Class I, Zones 1 & 2, Groups IIB, IIA
 Class II, Div. 1 & 2 Groups E,F,G
 Class III, Div. 1 & 2
 Suitable for wet locations
 UL Marine Rated (US only)
 NEMA 3, 4X
 Factory sealed

UL LISTED - File E84609

SPB Certified - File LR11713

FEATURES-SPECIFICATIONS

HOSTILELITE®

Applications

HOSTILELITE® ESX Series strobe fixtures can be an excellent warning device in hazardous, hostile or wet locations where hearing is impaired due to high ambient noise conditions.

Compliances

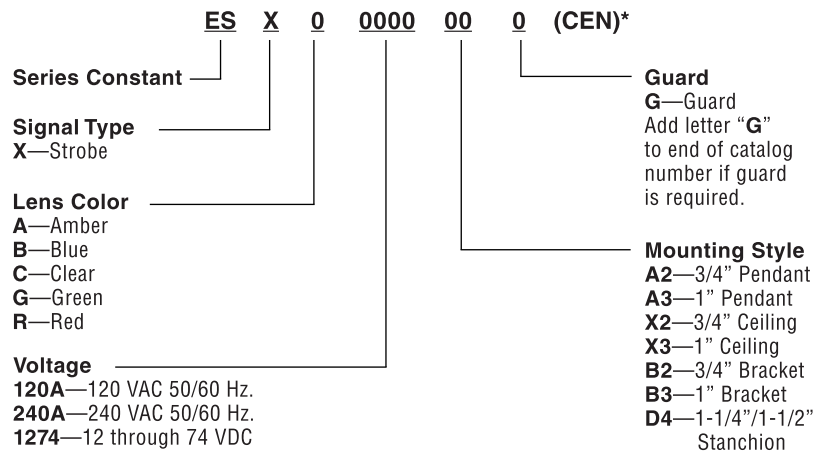
- UL-1203 explosion-proof and dust ignition-proof electrical equipment for use in hazardous (classified) locations
- UL-1638 visual signaling appliances
- UL Marine-type electric lighting fixtures
- NEMA 3, 4, 4X, 7CD, 9EFG

Specifications

- Electronic component temperature range -40°C to +55°C
- NEC temperature code, T6 (<85°C)
- Flash rate—85 flashes per minute
- Xenon type lamp
- Voltage and amperage:
 12-74 VDC:
 Draws 1.25A avg. @ 12 VDC tapering to 0.2A avg. @ 74 VDC, .75A avg. @ 24 VDC
 120 VAC (50/60 HZ):
 Draws 0.30A avg.
 240 VAC (50/60 HZ):
 Draws 0.17A avg.
- Power supply output:
 13 watts standard
 11 watts for 12-74 VDC

- Intensity:
 Clear 200 candela effective
 Amber 170 candela effective
 Blue 90 candela effective
 Red 40 candela effective
 Green 70 candela effective

Catalog Number Logic



*CEN (CENELEC) approved option available. See pages L150 for more information. ESX Series strobes with CENELEC labeling are rated T6 by PTB.

REPLACEMENT POWER SUPPLY	
CATALOG NUMBER	VOLTAGE
ESX120PS	120VAC, 50/60 HZ.
ESX240PS	220/240VAC, 50/60 HZ.
ESX1274PS	12-74 VDC

REPLACEMENT LENS & LAMP ASSEMBLY	
CATALOG NUMBER	DESCRIPTION
ESXAL	Amber
ESXBL	Blue
ESXCL	Clear
ESXGL	Green
ESXRL	Red
EMGS2	Rep globe support assembly



STROBE SIGNAL LIGHT



FEATURES-SPECIFICATIONS



Pendant



Ceiling



Wall



Stanchion

PENDANT ESX STROBE SIGNAL LIGHT ① ②			
LAMP TYPE	HUB SIZE ③	VOLTAGE @60 HERTZ	CATALOG NUMBER GLOBE AND MOUNT ①
STROBE	3/4"	120 VAC, 50/60 HZ.	ESXR120AA2
		240 VAC, 50/60 HZ.	ESXR240AA2
		12-74 VDC	ESXR1274A2

CEILING ESX STROBE SIGNAL LIGHT ① ②			
LAMP TYPE	HUB SIZE ③	VOLTAGE @60 HERTZ	CATALOG NUMBER GLOBE AND MOUNT ①
STROBE	3/4"	120 VAC, 50/60 HZ.	ESXR120AX2
		240 VAC, 50/60 HZ.	ESXR240AX2
		12-74 VDC	ESXR1274X2

WALL ESX STROBE SIGNAL LIGHT ① ②			
LAMP TYPE	HUB SIZE ③	VOLTAGE @60 HERTZ	CATALOG NUMBER GLOBE AND MOUNT ①
STROBE	3/4"	120 VAC, 50/60 HZ.	ESXR120AB2
		240 VAC, 50/60 HZ.	ESXR240AB2
		12-74 VDC	ESXR1274B2

STANCHION ESX STROBE SIGNAL LIGHT ① ②			
LAMP TYPE	HUB SIZE ④	VOLTAGE @60 HERTZ	CATALOG NUMBER GLOBE AND MOUNT ①
STROBE	1-1/4"	120 VAC, 50/60 HZ.	ESXR120AD4
		240 VAC, 50/60 HZ.	ESXR240AD4
		12-74 VDC	ESXR1274D4

① Catalog numbers do not include guards. To order add letter "G" to end of catalog number or order EMG2 separately.

② Catalog numbers include Red lens. To specify different colored lens, change fourth character in catalog number to one of the following: "B"=Blue, "C"=Clear, "A"=Amber, "G"=Green.

③ Standard hub size is 3/4" NPT. To order 1" NPT, change last character of catalog number from "2" to "3".

④ Stanchion mount is standard with 1-1/2" NPT and a 1-1/2" NPT to 1-1/4" NPT reducer installed.

NOTE: See EM series for dimensions, page L149.



LIGHTING

NON-METALLIC CORROSION RESISTANT SIGNALS



Pendant LED



Ceiling LED



Wall Xenon

Class I, Div. 2, Groups A,B,C,D
 Class I, Zone 2, Groups IIC, IIB, IIA
 Class II, Div. 1&2, Group F,G;
 Class III
 CSA Enclosure Type 4X, IP66
 NEMA 4X, Marine Rated (US only)

SP Certified - File LBJ1085



FEATURES-SPECIFICATIONS

ENVIRORITE®

Signal Luminaires

Applications

These new signal luminaires can be excellent warning devices in corrosive, wet NEMA 4X harsh environments, and in hazardous locations.

NVS signals contain no exposed glass and carry Class II, F&G ratings required for many food processing areas.

Features

- NVSL Series LED with very compact profile and 50,000 hours expected life; steady - on or flashing.
- NVSZ Series Xenon with 10,000 hours expected life; flashing only.
- LED utilizes inverted cone design to provide full 360 degree coverage for more light projection.
- LED and Xenon available in five colors - red, green, amber, blue and clear.
- Flash rate for LED is 7 micro flashes approximately every second for increased visual perception.
- Xenon flash rate 60 to 80 per minute
- Can be mounted in any orientation including lens in the UP or SIDE positions.
- Materials: High strength 30% glass-filled thermoset polyester body with Lexan® * lens.
- Resists corrosive effects of most chemicals, hydrocarbons and solvents
- Designed for indoor and outdoor applications

Catalog Numeric Logic

NVS L C F G 01 A A G
 1 2 3 4 5 6 7 8 9

1 NVS - Series Constant Non-Metallic Signal

2 Source

L = LED
 Z = Xenon

3 Fixture Size

C = Compact LED
 M = Medium Xenon

4 Flash State

F = Flashing LED or Xenon
 S = Steady LED

5 Color (Body, Mount, Guard)

G = Gray

6 Voltage

01 - 120VAC 50/60Hz Xenon model
 08 - 240VAC 50/60Hz Xenon model
 25 - 120-240VAC 50/60Hz LED model
 26 - 12-80VDC (24VAC) LED or Xenon

7 Color of Strobe

A = Amber, R = Red, G = Green, B = Blue, C = Clear

8 Mount Type

A = 3/4" pendant
 X = 3/4" Ceiling
 B = 3/4" Wall Bracket (consists of ceiling box and elbow to support body)
 M = M20 Ceiling
 W = M20 Wall Mount

9 Guard

G = Guard
 N = No Guard
 Example: NVSLCFG25AAG
 LED Gray Body Flashing Amber Pendant w/Guard 120-240VAC

HAZARDOUS LOCATION SUITABILITY				
SOURCE	SERIES	CL1 DIV.2	CL2 DIV.1	AMBIENT RANGE
		OPERATING TEMP. CODE	OPERATING TEMP. CODE	
LED	NVSLC	T6	F,G	-40°C to +40°C
Xenon	NVSZM	T2C	F,G	-40°C to +40°C

	INTENSITY IN CANDELLAS	FLASHING	STEADY
	LED	Amber	4.3/7.4*
Red		5.9/10.1*	15.4
Green		4.5/7.8*	11.8
Blue		2.5/4.3*	6.6
Xenon	Clear	4.8/8.2*	12.5
	Amber	40	-
	Red	10	-
	Green	20	-
	Blue	20	-
	Clear	50	-

*CD-S/ICD-Effective

ELECTRICAL RATINGS MAX.		
LED	120VAC	040mA Flash
	240VAC	020mA Flash
	12VDC	400mA
	80VDC	60mA
	24VAC	198mA Flash
Xenon	120VAC	.04 Avg.
	240VAC	.02 Avg.
	12VDC	.40 Avg.
	80VDC	.05 Avg.
	24VAC	.35 Avg.

SP to the following standards:

- UL 1598 Standard for luminaires
- UL 1598A Marine type luminaires
- UL 844 Standard for lighting fixtures for hazardous locations
- UL 1638 Standard for visual signalling applications
- CSA C22.2 no.137-M1981 electric luminaires for use in hazardous locations
- Enclosed and gasketed, NEMA 3, 4X IP66

*Lexan® is a registered trademark of General Electric.



NON-METALLIC CORROSION RESISTANT SIGNALS



Down & side orientation



Up & side orientation

FEATURES-SPECIFICATIONS

NVS SERIES DESCRIPTION / CATALOG ORDERING INFORMATION						
	3/4" PENDANT	AMBER	RED	GREEN	BLUE	CLEAR
LED	Flashing 120-240VAC	NVSLCFG25AAG	NVSLCFG25RAG	NVSLCFG25GAG	NVSLCFG25BAG	NVSLCFG25CAG
	Flashing 12-80VDC; 24VAC	NVSLCFG26AAG	NVSLCFG26RAG	NVSLCFG26GAG	NVSLCFG26BAG	NVSLCFG26CAG
	Steady 120-240VAC	NVSLCSG25AAG	NVSLCSG25RAG	NVSLCSG25GAG	NVSLCSG25BAG	NVSLCSG25CAG
	Steady 12-80VDC; 24VAC	NVSLCSG26AAG	NVSLCSG26RAG	NVSLCSG26GAG	NVSLCSG26BAG	NVSLCSG26CAG
XENON	Flashing 120VAC	NVSMFG01AAG	NVSMFG01RAG	NVSMFG01GAG	NVSMFG01BAG	NVSMFG01CAG
	Flashing 12-80VDC; 24VAC	NVSMFG26AAG	NVSMFG26RAG	NVSMFG26GAG	NVSMFG26BAG	NVSMFG26CAG
	Flashing 240VAC	NVSMFG08AAG	NVSMFG08RAG	NVSMFG08GAG	NVSMFG08BAG	NVSMFG08CAG
	3/4" CEILING	AMBER	RED	GREEN	BLUE	CLEAR
LED	Flashing 120-240VAC	NVSLCFG25AXG	NVSLCFG25RXG	NVSLCFG25GXG	NVSLCFG25BXG	NVSLCFG25CXG
	Flashing 12-80VDC; 24VAC	NVSLCFG26AXG	NVSLCFG26RXG	NVSLCFG26GXG	NVSLCFG26BXG	NVSLCFG26CXG
	Steady 120-240VAC	NVSLCSG25AXG	NVSLCSG25RXG	NVSLCSG25GXG	NVSLCSG25BXG	NVSLCSG25CXG
	Steady 12-80VDC; 24VAC	NVSLCSG26AXG	NVSLCSG26RXG	NVSLCSG26GXG	NVSLCSG26BXG	NVSLCSG26CXG
XENON	Flashing 120VAC	NVSMFG01AXG	NVSMFG01RXG	NVSMFG01GXG	NVSMFG01BXG	NVSMFG01CXG
	Flashing 12-80VDC; 24VAC	NVSMFG26AXG	NVSMFG26RXG	NVSMFG26GXG	NVSMFG26BXG	NVSMFG26CXG
	Flashing 240VAC	NVSMFG08AXG	NVSMFG08RXG	NVSMFG08GXG	NVSMFG08BXG	NVSMFG08CXG
	3/4" WALL	AMBER	RED	GREEN	BLUE	CLEAR
LED	Flashing 120-240VAC	NVSLCFG25ABG	NVSLCFG25RBG	NVSLCFG25GBG	NVSLCFG25BBG	NVSLCFG25CBG
	Flashing 12-80VDC; 24VAC	NVSLCFG26ABG	NVSLCFG26RBG	NVSLCFG26GBG	NVSLCFG26BBG	NVSLCFG26CBG
	Steady 120-240VAC	NVSLCSG25ABG	NVSLCSG25RBG	NVSLCSG25GBG	NVSLCSG25BBG	NVSLCSG25CBG
	Steady 12-80VDC; 24VAC	NVSLCSG26ABG	NVSLCSG26RBG	NVSLCSG26GBG	NVSLCSG26BBG	NVSLCSG26CBG
XENON	Flashing 120VAC	NVSMFG01ABG	NVSMFG01RBG	NVSMFG01GBG	NVSMFG01BBG	NVSMFG01CBG
	Flashing 12-80VDC; 24VAC	NVSMFG26ABG	NVSMFG26RBG	NVSMFG26GBG	NVSMFG26BBG	NVSMFG26CBG
	Flashing 240VAC	NVSMFG08ABG	NVSMFG08RBG	NVSMFG08GBG	NVSMFG08BBG	NVSMFG08CBG



LIGHTING

COMPONENT / REPLACEMENT PARTS	
CATALOG NO.	DESCRIPTION
NVSLC LED SERIES ①	
NVSLCFG25A	LED BODY AMBR FLASH 120-240VAC
NVSLCFG25R	LED BODY RED FLASH 120-240VAC
NVSLCFG25G	LED BODY GRN FLASH 120-240VAC
NVSLCFG25B	LED BODY BLUE FLASH 120-240VAC
NVSLCFG25C	LED BODY CLR FLASH 120-240VAC
NVSLCSG25A	LED BODY AMBR STEADY 120-240VAC
NVSLCSG25R	LED BODY RED STEADY 120-240VAC
NVSLCSG25G	LED BODY GRN STEADY 120-240VAC
NVSLCSG25B	LED BODY BLUE STEADY 120-240VAC
NVSLCSG25C	LED BODY CLR STEADY 120-240VAC
NVSLCFG26A	LED BODY AMBR FLASH 12-80VDC: 24VAC
NVSLCFG26R	LED BODY RED FLASH 12-80VDC: 24VAC
NVSLCFG26G	LED BODY GRN FLASH 12-80VDC: 24VAC
NVSLCFG26B	LED BODY BLUE FLASH 12-80VDC: 24VAC
NVSLCFG26C	LED BODY CLR FLASH 12-80VDC: 24VAC
NVSLCSG26A	LED BODY AMBR STEADY 12-80VDC: 24VAC
NVSLCSG26R	LED BODY RED STEADY 12-80VDC: 24VAC
NVSLCSG26G	LED BODY GRN STEADY 12-80VDC: 24VAC
NVSLCSG26B	LED BODY BLUE STEADY 12-80VDC: 24VAC
NVSLCSG26C	LED BODY CLR STEADY 12-80VDC: 24VAC

NV2GG-S NVSLC Compact LED Guard

① Body and Lens w/o Mounting Box or Guard

NVSZM XENON SERIES ②	
NVSMFG01	NVS XENON BODY with LAMP 120VAC
NVSMFG08	NVS XENON BODY with LAMP 240VAC
NVSMFG26	NVS XENON BODY with LAMP 12-80VDC; 24VAC
NVSZ-LAMP	NVS XENON REPLACEMENT LAMP
NVSMA	NVS AMBER LENS & GASKET
NVSMR	NVS RED LENS & GASKET
NVSMG	NVS GREEN LENS & GASKET
NVSMB	NVS BLUE LENS & GASKET
NVSMC	NVS CLEAR LENS & GASKET
NV2GG	NVSZM MEDIUM XENON GUARD

② Body and Power Supply w/ Lamp

NVS MOUNTING BOXES ③	
NV2XG	NVS Ceiling/Wall Mtg Box
NV2AG	NVS Pendant Box
NV2BG	NVS Wall Elbow (use with NV2XG/ NV2MG Box)
NV2MG	NVS M20 Ceiling/Wall Mtg Box

③ See NV2 series for additional information

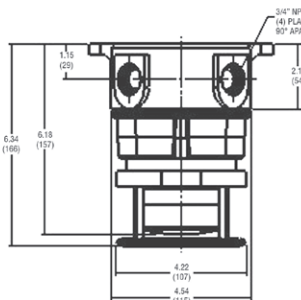
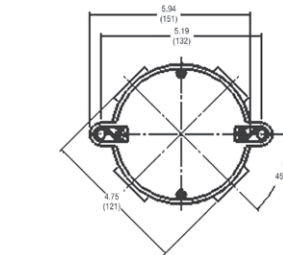


NV2GG-S
Compact Guard

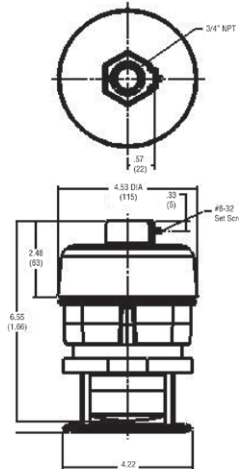


NV2GG
Medium Guard

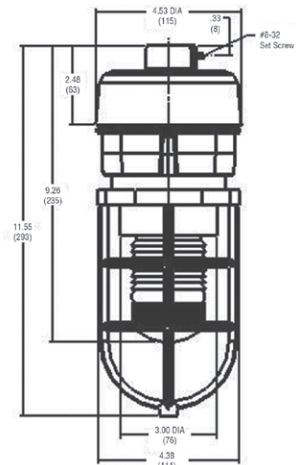
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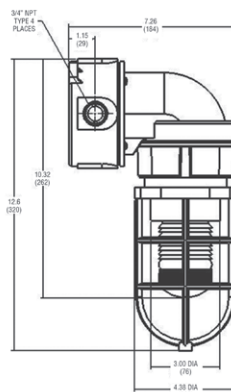
Ceiling/Wall
NVSL LED



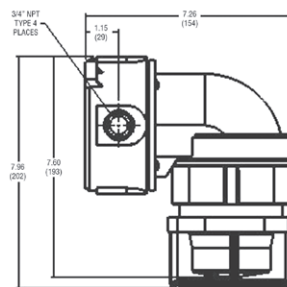
Pendant
NVSL LED



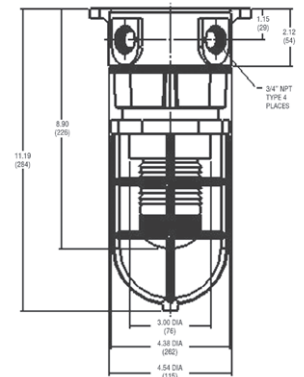
Pendant
NVSZ Xenon



Wall
NVSZ Xenon



Wall
NVSL LED



Ceiling/Wall
NVSZ Xenon



FIXTURE HANGERS



FKA



FH



HOOKLOOP

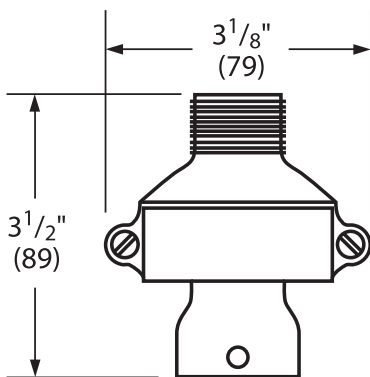
FEATURES-SPECIFICATIONS

FKA

Features

- Ball joint permits fixture to hang plumb. Fixture may swing up to 20° from vertical in any direction
- Cast of aluminum alloy (copper-free aluminum; less than 4/10 of 1%)
- Set screw locks fixture stem in place. Cannot accidentally loosen – intended for use with threaded metal conduit
- Joint cannot twist conductor
- Suitable for fixtures up to 125 pounds

FKA		
CATALOG NUMBER	MALE THREAD	FIXTURE STEM SIZE
FKA-22	3/4"	3/4"



For replacement ball only catalog number 00890545



Listed - File E27731



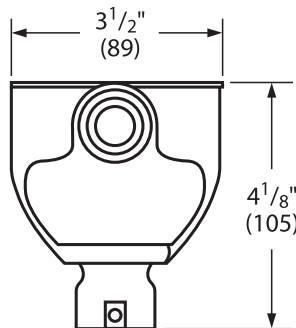
Certified - File LR11851 See files for details or call Killark.

FH

Features

- Combination splice box and flexible fixture hanger
- Ball joint permits fixture to hang plumb. Fixture may swing up to 20° from vertical
- Cast of aluminum alloy (copper-free aluminum; less than 4/10 of 1%)
- Set screw locks fixture stem in place – intended for use with threaded metal conduit
- Joint cannot twist conductors
- Cover may be removed for easy wiring – 11 cu. inches
- Mounts directly to metal conduit
- Suitable for fixtures up to 125 pounds

FH			
TWO HUBS	THREE HUBS	CONDUIT SIZE	FIXTURE STEM SIZE
FEED THRU	T		
FHC-21	FHT-21	3/4"	1/2"
FHC-22	FHT-22	3/4"	3/4"



For replacement ball only catalog number 00890545



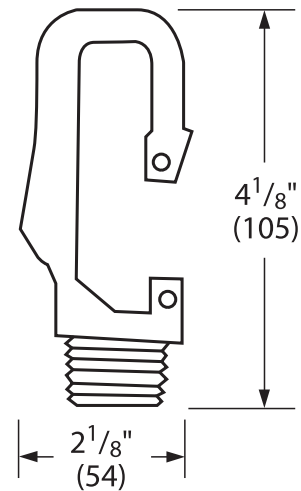
Listed - File E27731

HOOKLOOP

Features

- Pendant fixture hanger consists of a "HOOK" and safety bar which allows conversion to a "LOOP" configuration as necessary
- 3/4" male thread
- Maximum load 125 pounds

HOOKLOOP
CATALOG NUMBER
HOOKLOOP





LIGHTING

FIXTURE HANGERS



Hook

V Hanger Boxes



VGA



VGC



VGH



VGX

Covers



Flexible Hanger Covers



Hub Covers (for Rigid Mounting)

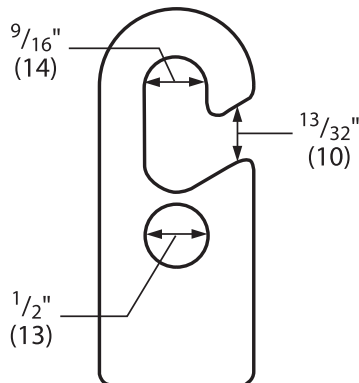
FEATURES-SPECIFICATIONS

FH HOOK

Features

- Economical hanger for pendant fixtures
- Fixtures may absorb minor bumps and vibration through free swinging action
- Hub provided with a set screw to pre-vent accidental loosening of fixture stem
- A 1/2 inch hole in body is for flexible cable. Cord may be assembled with plug for quick removal of fixtures
- Cast of aluminum alloy (copper-free—less than 4/10 of 1%)
- FH supports up to 125 pounds

FH HOOK, LOOP		
CATALOG NUMBER	DESCRIPTION	FIXTURE STEM SIZE
FH-2	Hook	3/4"



UL LISTED - File E27731 or E3397

See files for details or call Killark

V SERIES

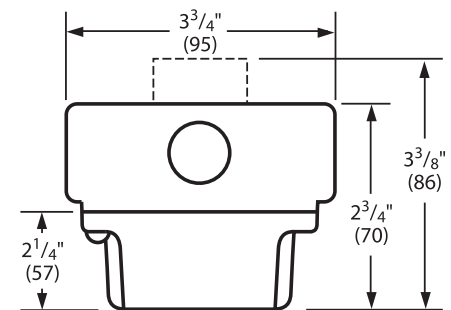
Features

- Flexible fixture hanger for threaded fixture stem. +120° from vertical
- Enclosed and gasketed, suitable for wet locations
- Permits angular displacement of fixture without twisting wires
- Cushioned—absorbs shock and vibration. Internal strap assures ground continuity
- Combines splice box and hanger in one unit. Splice box available in four configurations
- Cast of corrosion resistant aluminum alloy (copper-free—less than 4/10 of 1%)
- Supports up to 125 pounds

UL LISTED - File E27731 or E3397

FLEXIBLE HANGERS, V SERIES ENCLOSED AND GASKETED			
CATALOG NUMBER		HUB SIZE	FIXTURE STEM SIZE
HANGER W/SPLICE BOX	SPLICE BOX ONLY		
VPFHA-12	VGA-1	1/2"	3/4"
VPFHA-22	VGA-2	3/4"	3/4"
VPFHC-12	VGC-1	1/2"	3/4"
VPFHC-22	VGC-2	3/4"	3/4"
VPFHH-12	VGH-1	1/2"	3/4"
VPFHH-22	VGH-2	3/4"	3/4"
VPFHX-12	VGX-1	1/2"	3/4"
VPFHX-22	VGX-2	3/4"	3/4"

FIXTURE HANGERS ONLY		
CATALOG NUMBER	DESCRIPTION	FIXTURE STEM SIZE
VPFH-2	Flexible hanger cover, maximum load 125 Lbs.	3/4"
VG-2	Hub cover for rigid mounting	3/4"



Flexible cover with box, dotted line is VGA pendant



FIXTURE HANGERS



HXB



XFH



EKJ

FEATURES-SPECIFICATIONS

HXB

- Class I, Div. 1 & 2, Groups C,D
- Class I, Zones 1 & 2, Groups IIB, IIA
- Class II, Div. 1 & 2, Groups E,F,G
- Class III

Features

- Fixture hanger for hazardous locations combining splice box and hanger
- Set screws in female hub prevents accidental loosening of fixture stem; set screws in hub cover lock cover to the splice box
- Four hubs in "X" configuration up to 3/4"
- Flange mounting ring cast as integral part of box
- Splice box wiring hole with cover for access to box interior
- Cast of corrosion resistant aluminum alloy (copper-free aluminum; less than 4/10 of 1%)
- Supports to 125 pounds; vol. 16 cu."

UL LISTED - File E10514

SP Certified - File LR11716

HXB SPLICE BOX AND HANGER		
CATALOG NUMBER	CONDUIT HUB SIZE	FIXTURE STEM SIZE
HXB-11	1/2"	1/2"
HXB-12	1/2"	3/4"
HXB-21	3/4"	1/2"
HXB-22	3/4"	3/4"
HXBC	Blank Cover	
HIC-SILVER	Replacement Wiring Plug	

XFH

- Class I, Div. 1 & 2, Groups C,D
- Class I, Zones 1 & 2, Groups IIB, IIA
- Class II, Div. 1 & 2, Groups E,F,G
- Class III

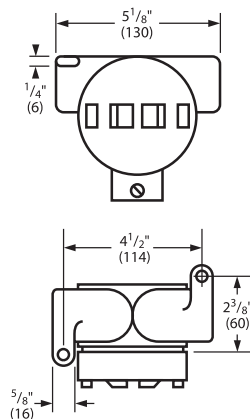
Features

- Fixture hanger for hazardous locations combining splice box and hanger
- Set screws in female hub prevents accidental loosening of fixture
- Straight through conduit hubs for through feed. 20 cu"
- Mounting lugs are standard
- Cast of corrosion resistant aluminum alloy (copper-free aluminum; less than 4/10 of 1%)
- Supports to 125 pounds

UL LISTED - File E10514

SP Certified - File LR11716

XFH SPLICE BOX AND HANGER		
CATALOG NUMBER	CONDUIT HUB SIZE	FIXTURE STEM SIZE
XFH-21	3/4"	1/2"
XFH-22	3/4"	3/4"



EKJ

- Class I, Div. 1 & 2, Groups A,B,C,D
- Class I, Zones 1 & 2, Groups IIC, IIB, IIA
- Class II, Div. 1 & 2, Groups E,F,G
- Class III

Features

- Fixture pendant hanger for hazardous locations
- Permits free swing and plumb hang
- Set screws in each hub prevents accidental loosening of fixture
- Constructed of seamless bronze hose with brass outer braid. Asphaltum impregnated jute inner insulates and protects wire from abrasion. Brass female end fittings are supplied with short nipples
- Electrical ground continuity without bonding jumper
- Suitable for wet locations as well as hazardous locations
- Flexible lengths 4 to 18 inches
- Supports to 125 pounds

UL LISTED - File E10514

SP Certified - File LR11716

EKJ FLEXIBLE PENDANT HANGER *		
CATALOG NUMBER	CONDUIT HUB SIZE	FIXTURE STEM SIZE
EKJ-14	1/2"	1/2"
EKJ-24	3/4"	4"
EKJ-16	1/2"	6"
EKJ-26	3/4"	6"
EKJ-18	1/2"	8"
EKJ-28	3/4"	8"
EKJ-110	1/2"	10"
EKJ-210	3/4"	10"
EKJ-112	1/2"	12"
EKJ-212	3/4"	12"
EKJ-115	1/2"	15"
EKJ-215	3/4"	15"
EKJ-118	1/2"	18"
EKJ-218	3/4"	18"



LIGHTING

FIXTURE HANGERS



JL



JAL



ENY Pendant Seal

FEATURES-SPECIFICATIONS

JL/JAL

Class I, Div. 1 & 2, Groups C,D
 Class I, Zones 1 & 2, Group IIB
 Class II, Div. 1 & 2, Groups E,F,G
 Class III

Features

- Splice box and hub cover for mounting pendant fixtures in hazardous locations
- Conduit openings in two configurations

- Flange type cover. Set screw in hub prevents accidental loosening of fixture stem
- Integral lugs for mounting box to ceiling
- Cast of corrosion resistant aluminum alloy (copper-free aluminum; less than 4/10 of 1%)
- Supports up to 125 pounds

UL LISTED - File E10514



SPB Certified - File LR11716

ENY PENDANT SEALS

Class I, Div. 1 & 2, Groups A,B,C,D
 Class I, Zones 1 & 2, Groups IIC,IIB,IIA
 Class II, Div. 1 & 2, Groups E,F,G
 Class III

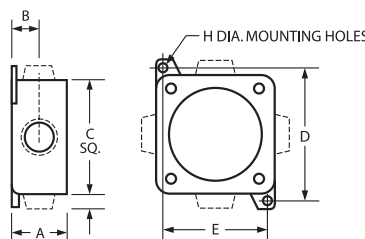
Features

- ENY Pendant Seals are designed for hazardous locations and meet code requirements for a safety set-screw when hanging fixtures. Common applications are for Class I Division I Group B or Class I Zone 2 Ex nR restricted breathing fixtures
- Cast of corrosion resistant aluminum alloy (copper-free aluminum; less than 4/10 of 1%)
- Supports up to 125 pounds

JL/JAL SPLICE BOX AND HUB COVER FIXTURE HANGER				
CATALOG NUMBER		CONDUIT BOX	COVER	TYPE
JL SERIES W/HUB COVER	JAL SERIES W/HUB COVER			
JLC-11	—	1/2"	1/2"	CS Straight Through 
JLC-12	—	1/2"	3/4"	
JLC-21	—	3/4"	1/2"	
JLC-22	—	3/4"	3/4"	
JLX-11	JALX-11	1/2"	1/2"	XF our Hubs 
JLX-12	JALX-12	1/2"	3/4"	
JLX-21	JALX-21	3/4"	1/2"	
JLX-22	JALX-22	3/4"	3/4"	
—	JALX-31	1"	1/2"	
—	JALX-32	1"	3/4"	

CATALOG NUMBER	SIZE
ENY-2SET	3/4"

JL/JAL DIMENSIONS						
SERIES	A	B	C	D	E	F
JL	1-15/16" (49)	11/16" (17)	3-1/4" (95)	4-7/32" (107)	2-3/8" (60)	5/16" (8)
JAL	2-3/8" (60)	15/32" (12)	4-5/8" (117)	5-1/4" (133)	4-1/8" (105)	5/16" (8)





COMPETITIVE ADAPTER

Class I, Div. 1 & 2, Groups A,B,C,D
 Class I, Zones 1 & 2, Groups IIC,IIB,IIA
 Class II, Div. 1 & 2, Groups E,F,G
 Class III



FEATURES-SPECIFICATIONS

CERTILITE®

Applications

VM adapters are designed to ease upgrading of existing competitive fixtures to Killark "VM" CERTILITE® fixtures. Units are primarily designed to aid replacement of old ceiling or wall mount units where removal of the existing mounting box and conduit would be difficult or time consuming. Adapter & Killark fixtures rated NEMA 4.

Adapters allow the upgrade of older Mercury Vapor fixtures to newer HID lamp sources, Compact Fluorescent Lamps, LED Induction or to Emergency Lighting.

Series included are VQ1F, VQ2F, VE3Q, VE4Q, VM1L and VM4L.

Note: Adapters are used with Fixture Ballast Tanks (plus globes & guards), e.g. VM3S150, VMG17, VMAG17.

Complete fixture with mounting splice box is not required. Adapters are painted to match Killark beige fixture finish.

Features

- Allows use of CertiLite® V's patented Swing-Barrel nut for ease of maintenance. Attaches to Crouse-Hinds® mount with hinge and set screw.

Temperature codes:

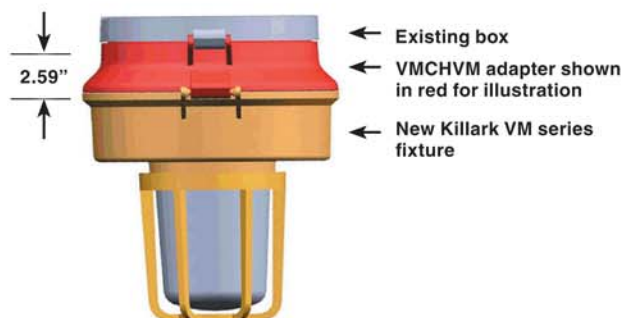
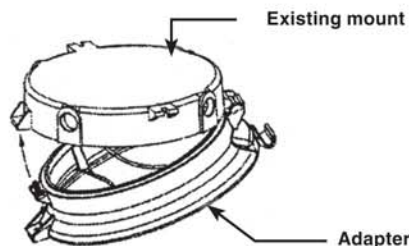
See CertiLite® V or VM series product pages or as listed with other desired product series.

VM COMPETITIVE ADAPTER	
CATALOG NUMBER	DESCRIPTION
VMCHVM	Tank adapter to Crouse-Hinds® VM Series mounts
VMCHVM-DEEP	Tank adapter to CH (70's era wall mount with deep box)
VMM2LP	Tank adapter to Appleton® MERCMASTER II mounts
VMM3KP	Tank adapter to Appleton® MERCMASTER III mounts
VMHDS	Tank adapter to Hazlux®3 mounts

① Crouse-Hinds is a registered trademark of EATON® corporation.

② Appleton and MERCMASTER are registered trademarks of Emerson® Industrial Automation.

③ Hazlux is a registered trademark of Thomas & Betts.



Note - To use the adaptor ring in assemblies using CertiLite® V housings, substitute RC for the MOUNT code.

Example: VM3S150X2GLG
 Becomes VM3S150RCGLG

LIGHTING

EAC/EACH/EZBA SERIES



FIXTURE ADAPTERS



EAC/EACH



EZBA12

Class I, Div. 1 & 2, Group D
 Class I, Zones 1 & 2, Groups IIA
 Class II, Div. 1 & 2, Groups E,F,G
 Class III



FEATURES-SPECIFICATIONS



Applications

EAC Series adapters are designed to ease upgrading of existing Crouse-Hinds® “EV” series or existing Killark “H” series to Killark HOSTILELITE® EM or EZ series. Units are primarily designed to aid replacement of old ceiling or wall mount units where removal of the existing mounting box and conduit would be difficult or time consuming. Adapter & Killark fixtures rated NEMA 4.

Adapters allow the upgrade of older incandescent fixtures to newer Fluorescent or HID lamp sources, or to Emergency Lighting including ESX strobes or EEQ emergency series.

Note: Adapters are used with Fixture Housing, Globe, Globe Support assemblies, e.g. EBF261 & EMG1; EMS151 & EMG2; or EZH100 & EZG1. Complete fixture with mounting box is not required. Adapters are painted to match Killark beige fixture finish.

Features

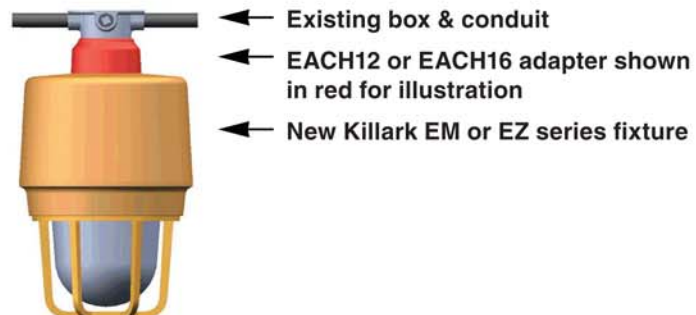
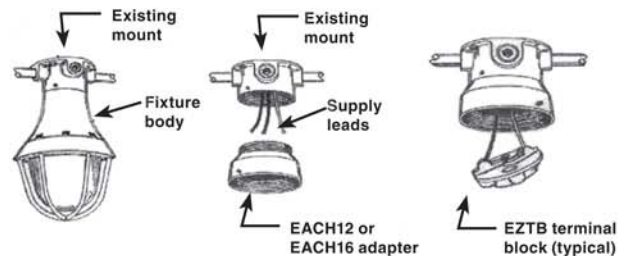
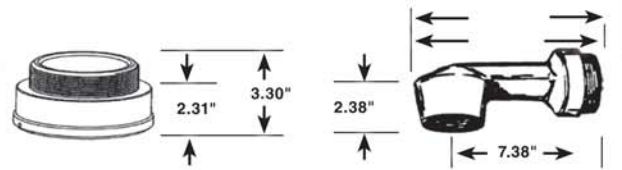
- Setscrews permit secure adapter attachment into old mounting box and to new fixture
- Converted fixtures may be easily removed for service using the Killark EZ mounting system. Wire terminals are included in the adapter (EZTB Terminal Block)

Temperature codes:

See EM/EQ series pages L150 - L151

EZ series pages L160 - L161

EAC / EZBA FIXTURE ADAPTERS		
CATALOG NUMBER	DESCRIPTION	EXAMPLE OF MODEL UTILIZED OR REPLACED
EAC	Killark H series Ceiling or Wall	HXG-2-125 Fixture
EACH12	Crouse old style Ceiling Mount with lamp socket in adapter ring between fixture body and a GUF 12 pitch box	GUF box w/Set Screw
EZBA12	Crouse old style Wall Mount, old style Arm with integral lamp socket (socket in fixture in newer models) attached to GUF 12 pitch mounting box. EZBA12 includes arm	GUF box w/Set Screw
EACH16	Crouse newer style ceiling or wall fixtures w/lamp socket in fixture body; mounted to EV series 16 pitch threaded box; adapter fits in ceiling box or existing arm attached to wall fixture	EVA26/EV22 Box; EVBX240





CATEGORY 2 TYPE Ex 'e' INCREASED SAFETY



CASSETTE RELAMPING

Unique lamp cassette design allows for quick and easy lamp replacement, reducing maintenance costs and potential exposed lamp breakages.



SMALL GASKET AREA

The Trident has the smallest gasket area of any Zone 1 fluorescent luminaire, irrespective of lamp wattage.

This design ensures high levels of ingress protection.



LIGHTING

CATEGORY 2 TYPE Ex 'e' INCREASED SAFETY



UNRIVALLED UV PROTECTION

Reflector acts as a solar shield to reduce the degradation effects of UV rays.



LAMP-IN-LID TECHNOLOGY

Easily convert from standard non emergency (VL125) into an emergency (VL126) version.

Emergency operation is unaffected by a failure of mains lamp due to the dedicated 11W lamp.



HIGH FREQUENCY Ex m BALLAST

End of Life (EOL) Protection - ballast certified to IEC 60079-7.

Over-voltage and harmonic distortion protection.



SPIGOT ENTRY VERSION

The Trident is available as a dedicated spigot entry version with internal cable entry.

(18W and 36W versions)



ZONE 1 TYPE Ex 'e' INCREASED SAFETY

●
End of Life
Protection



Spigot entry version

FEATURES AND BENEFITS

Unique three part construction = easy maintenance • Excellent ingress protection • Cassette relamping • Convert standard to emergency

CERTIFICATION & APPROVALS

IECEX Certificate IECEX SIR 03.0004
ATEX Certificate SIRA03ATEX3206

⊕ 2 x 18W and 2 x 36W Varients
II 2 GD Ex em IIC T4 -45°C to +55°C*

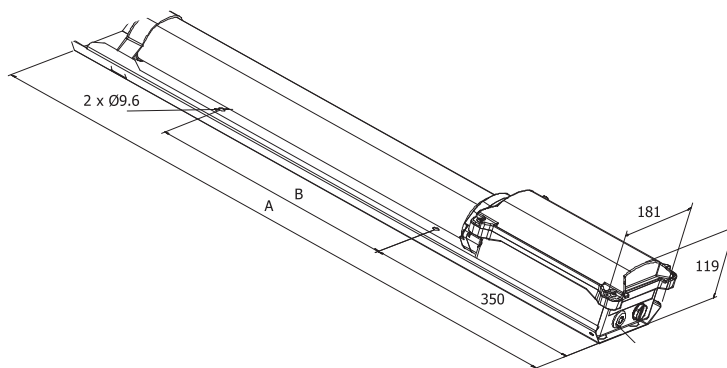
⊕ 2 x 58W Variant
II 2 GD Ex em IIC T4 -45°C to +50°C*

Ingress protection to IP66, IP67
IP68 (on application)

GOST-R Approved
TIS Approved
GB (China) Approved

*For operation below -20°C
please contact technical sales

DIMENSIONS



2 x 20mm Dia. holes
for cable entry, supplied
with 1 Ex e blanking
plug & 1 traveling plug.

Fixing centres suitable for M8 bolts

Fitting wattage	Overall length Dim A	Fixing centres Dim B
2x18W	995	400
2x36W	1605	700
2x58W	1905	700

Dimensions in millimetres



ZONE 1 TYPE Ex 'e' INCREASED SAFETY

TECHNICAL SPECIFICATION

LAMP TYPES

T8, Ø26mm, G13 cap bi-pin fluorescent.
Available in the following configurations: 2 x 18W,
2 x 36W, 2 x 58W.

POWER SUPPLY

110V-254V, 50/60Hz AC/DC (2 x 18W)
220V-254V, 50/60Hz AC/DC (2 x 36W and 2 x 58W)
110V-130V, 50/60Hz AC/DC (2 x 36W)

POWER FACTOR

Better than 0.95.

TERMINALS

4 core up to 4 mm² conductors with looping.
Through wiring is available as an option.
Terminals for live constant, live switched, neutral & earth are provided.
External earth terminal is an option.

CABLE ENTRIES

Two x 20mm clearance holes supplied with 1 x transit plug and 1 x Ex
blinking plug.
Cable entry devices (ie. glands) must maintain the IP rating for the
luminaire.

ORDERING REFERENCE

Std. Cat Ref.	Wattage	Lamp Type
TRIE/218/BI	2x18W	Bi-Pin
TRIE/236/BI	2x36W	Bi-Pin
TRIE/258/BI	2x58W	Bi-Pin

OPTIONS - SUFFIX TO CATALOGUE REF.

/120	Specific voltage (110/130V) - 36W only
/25	25mm Entries
/T	Through wiring
/SC	Screwed connection terminal block (6mm ² conductors)
/M20	M20 Threaded entry pad c/w earth lead to T/ Block
/M25	M25 Threaded entry pad c/w earth lead to T/ Block
/SE	Spigot entry version (18W & 36W)
/ZR	Powder coated zintec reflector
/IEC	Supplied with IECEx certification label

TEMPERATURE CLASSIFICATION

Gas environments: T4.
Dust environments: T100°C.

AMBIENT TEMPERATURE RANGE

-45°C to +55°C (18W & 36W versions)
-45°C to +50°C (58W version)

MATERIALS

Enclosure	Polycarbonate moulding.
Lamp Envelope	Polycarbonate.
Reflector	Epoxy powder coated stainless steel.
Gasket	Silicone.
External Fasteners	Stainless steel.

WEIGHT

Variant	2x18W Lamps	2x36W Lamps	2x58W Lamps
Standard	3.8Kg	5.4Kg	6.2Kg
Through-Wired	4.4Kg	6.0Kg	6.8Kg
Pole-Mount	4.1Kg	5.7Kg	6.5Kg

SUSPENSION

Standard mounting is direct to the external reflector.
Optional ceiling, wall, pole mounting brackets, and eye bolts are
available on request.
Direct spigot mounting option for up to 42mm diameter is available for
the 18W and 36W versions.

ACCESSORIES

Pole mount bracket (38-42mm) SPOL4-100004	Wall mounting outreach bracket (for use with standard 18W version) NPRO4-0008
Pole mount bracket (48-52mm) SPOL4-100005	Wall mounting outreach bracket (for use with standard 36W version) NPRO4-0012
Pole mount bracket (58-62mm) SPOL4-100006	Conversion Kit: Converts VL125 to a VL126 EM Luminaire STRIE-00001
Ceiling mount bracket assembly SEXCE-00001	
M8 eye bolt SEXCE-00008	
Wall bracket SEXCE-00009	
Wall mounting outreach bracket (for use with /SE version) NPRO4-0007	



ZONE 1 TYPE Ex 'e' INCREASED SAFETY



●
End of Life
Protection



Spigot entry version

FEATURES AND BENEFITS

Dedicated emergency lamp with battery backup • Proven ingress protection • Over voltage and harmonic distortion protection

CERTIFICATION & APPROVALS

IECEX Certificate IECEX SIR 03.0004
ATEX Certificate SIRA03ATEX3206

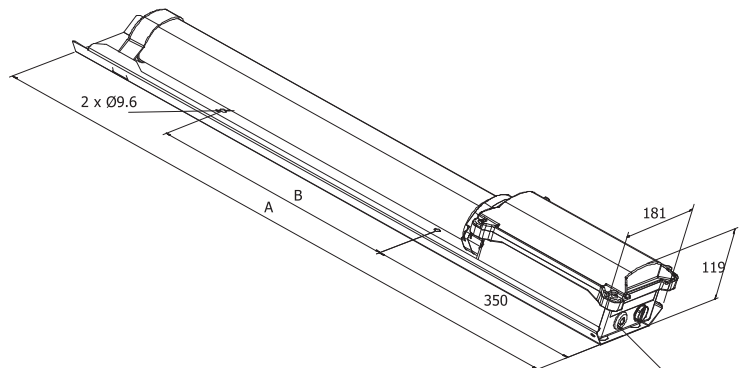
2 x 18W and 2 x 36W Variants
Ex II 2 GD Ex em IIC T4 -15°C to +55°C

2 x 58W Variant
Ex II 2 GD Ex em IIC T4 -15°C to +50°C

Ingress protection to IP66, IP67
IP68 (on application)

GOST-R Approved
TIS Approved
GB (China) Approved

DIMENSIONS



2 x 20mm Dia. holes
for cable entry, supplied
with 1 Ex e blanking
plug & 1 traveling plug.

Fixing centres suitable for M8 bolts

Fitting wattage	Overall length Dim A	Fixing centres Dim B
2x18W	995	400
2x36W	1605	700
2x58W	1905	700

Dimensions in millimetres



ZONE 1 TYPE Ex 'e' INCREASED SAFETY

TECHNICAL SPECIFICATION

LAMP TYPES

T8, Ø26mm, G13 cap bi-pin fluorescent.
Available in the following configurations: 2 x 18W,
2 x 36W, 2 x 58W

POWER SUPPLY

220V-254V, 50/60Hz AC/DC (2 x 18W, 2 x 36W and 2 x 58W)
110V-130V, 50/60Hz AC/DC (2 x 18W and 2 x 36W)

POWER FACTOR

Better than 0.95.

EMERGENCY OPERATION

11W lamp emergency light output is 11%.
Duration is typically 3 hours.

BATTERY

5 cell - 4Ah, 6V internal Ni-Cad.

TERMINALS

4 core up to 4 mm² conductors with looping. Through wiring is available as an option.

Terminals for live constant, live switched, neutral & earth are provided. External earth terminal is an option.

CABLE ENTRIES

Two x 20mm clearance holes supplied with 1 x transit plug and 1 x Ex blanking plug.

Cable entry devices (ie. glands) must maintain the IP rating for the luminaire.

ORDERING REFERENCE

Std. Cat Ref.	Wattage	Lamp Type
TRIE/218/BI/EM	2x18W	Bi-Pin
TRIE/236/BI/EM	2x36W	Bi-Pin
TRIE/258/BI/EM	2x58W	Bi-Pin

An 11W compact fluorescent emergency lamp is factory fitted

OPTIONS - SUFFIX TO CATALOGUE REF.

/120	Specific voltage (110/130V) - 18W/36W only
/25	25mm Entries
/T	Through wiring
/SC	Screwed connection terminal block (6mm ² conductors)
/M20	M20 Threaded entry pad c/w earth lead to T/Block
/M25	M25 Threaded entry pad c/w earth lead to T/Block
/SE	Spigot entry version (18W & 36W)
/BCM	Battery control management system
/ZR	Powder coated zintec reflector
/IEC	Supplied with IECEx certification label

TEMPERATURE CLASSIFICATION

Gas environments: T4.
Dust environments: T100°C.

AMBIENT TEMPERATURE RANGE

-15°C to +55°C (18W & 36W versions)
-15°C to +50°C (58W version)

MATERIALS

Enclosure	Polycarbonate moulding.
Lamp Envelope	Polycarbonate.
Reflector	Epoxy powder coated stainless steel.
Gasket	Silicone
External Fasteners	Stainless steel.

WEIGHT

Variant	2x18W Lamps	2x36W Lamps	2x58W Lamps
Standard	5.4Kg	7.0Kg	7.8Kg
Through-Wired	6.0Kg	7.6Kg	8.4Kg
Pole-Mount	5.7Kg	7.3Kg	8.1Kg

SUSPENSION

Standard mounting is direct to the external reflector.

Optional ceiling, wall, pole mounting brackets, and eye bolts are available on request.

Direct spigot mounting option for up to 42mm diameter is available for the 18W and 36W versions.

ACCESSORIES

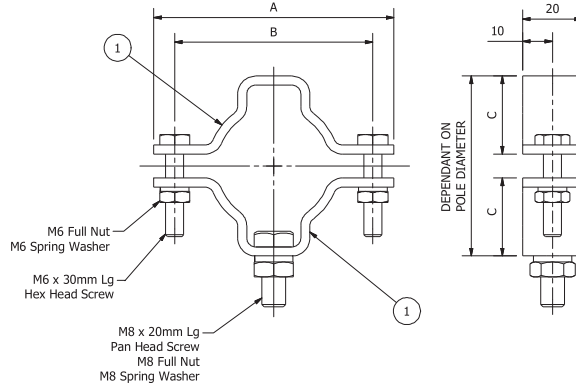
Pole mount bracket (38-42mm) SPOL4-100004	Wall mounting outreach bracket (for use with /SE version) NPRO4-0007
Pole mount bracket (48-52mm) SPOL4-100005	Wall mounting outreach bracket (for use with standard 18W version) NPRO4-0008
Pole mount bracket (58-62mm) SPOL4-100006	Wall mounting outreach bracket (for use with standard 36W version) NPRO4-0012
Ceiling mount bracket assembly SEXCE-00001	
M8 eye bolt SEXCE-00008	
Wall bracket SEXCE-00009	



MOUNTING OPTIONS

POLE MOUNT BRACKET

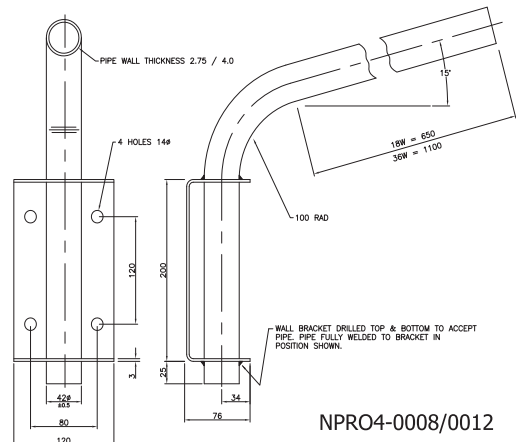
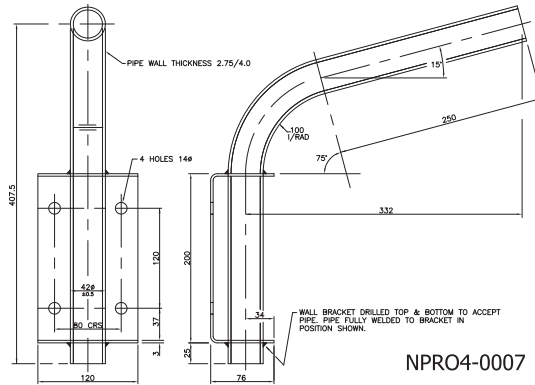
SPOL4-100004 (38-42mm dia)
 SPOL4-100005 (48-52mm dia)
 SPOL4-100006 (58-62mm dia)



PART DETAILS						
Part I.D.	Part Code	Part Description	A	B	C	
1	SPOL4-100004	POLE MTG 38-42 DIA ASSY	80mm	66mm	26mm	
1	SPOL4-100005	POLE MTG 48-52 DIA ASSY	90mm	76mm	32mm	
1	SPOL4-100006	POLE MTG 58-62 DIA ASSY	94mm	80mm	38mm	

WALL MOUNTING OUTREACH BRACKET (42mm diameter)

NPRO4-0007 (for use with /SE version)
 NPRO4-0008 (for std. 18W version) in conjunction with SPOL4-100004
 NPRO4-0012 (for std. 36W version) in conjunction with SPOL4-100004



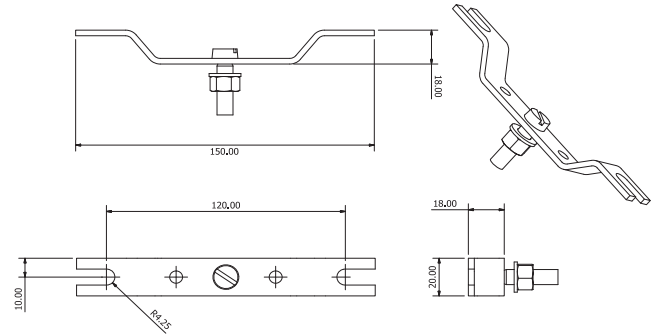


LIGHTING

MOUNTING OPTIONS

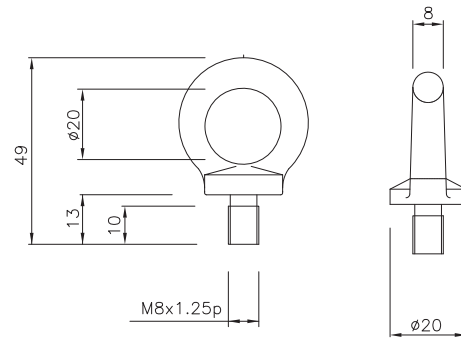
CEILING MOUNT BRACKET

SEXCE-00001



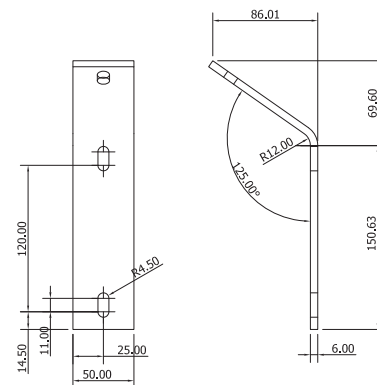
M8 EYE BOLT

SEXCE-00008



WALL MOUNT BRACKET

SEXCE-00009





ZONE 1 TYPE EX 'E' INCREASED SAFETY

3 Hour
Operation



11W Emergency version



Hanging exit sign



Adhesive exit sign

FEATURES AND BENEFITS

Lightweight yet robust construction • Mount in any orientation • Ideal for over-door lighting • Supplied complete with lamps

CERTIFICATION & APPROVALS

IECEX Certificate IECEX SIR 05.0004
ATEX Certificate SIRA03ATEX3556 T100°C

VL114 Standard Luminaire

Ex II 2 GD Ex em II

Ambient Temperature Range
2x18W T4 -45°C to +30°C*
T3 -45°C to +40°C*
T3 -45°C to +40°C*

VL114 Emergency 1 x 11W Luminaire

Ex II 2 GD Ex em II

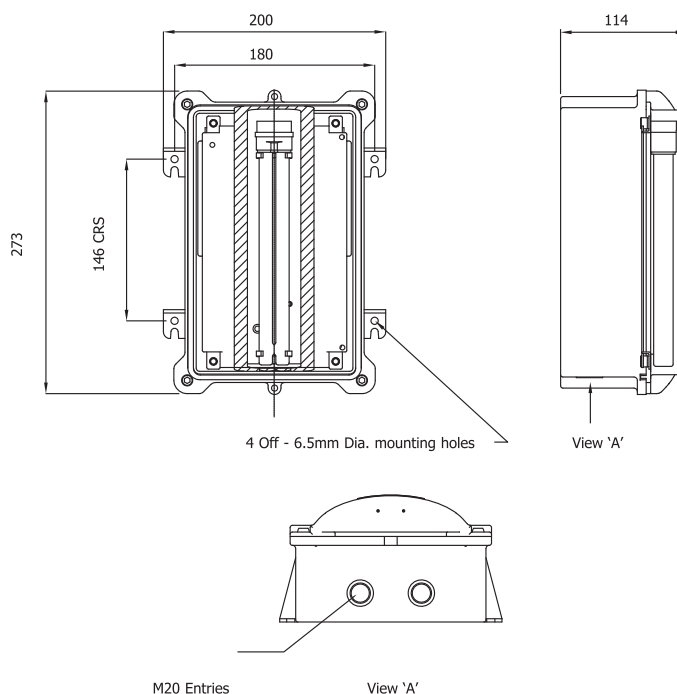
Ambient Temperature Range
Non-Maintained T4 -15°C to +60°C
T5 -15°C to +40°C
T6 -15°C to +25°C
Maintained T3 -15°C to +40°C

Ingress protection to IP66, IP67
IP68 (on application)

GOST-R Approved
GB (China) Approved

*For operations below -20°C please contact technical sales

DIMENSIONS



Dimensions in millimeters



ZONE 1 TYPE EX 'E' INCREASED SAFETY

TECHNICAL SPECIFICATION

LAMP TYPES

11W and 18W compact fluorescent lamps are factory fitted.

POWER SUPPLY

VL114S	220V-254V, 50/60Hz only (1x11W)
VL114S	110V-254V, 50/60Hz (2x18W)
VL114E	220V-254V, 50/60Hz only (1x11W)

POWER FACTOR

Better than 0.95.

EMERGENCY OPERATION

11W non-maintained emergency light output is 11%. Duration is typically 3 hours.

BATTERY

5 cell - 4Ah, 6V internal Ni-Cad.

TERMINALS

3 core up to 4 mm² conductors with looping.
Terminals for live constant, live switched, neutral & earth are provided.

ORDERING REFERENCE

Std. Cat Ref.	Wattage	Lamp Type
PATE/111/CF	1x11W	Compact Fluorescent
PATE/218/CF	2x18W	Compact Fluorescent
PATE/111/CF/EM*	1x11W	Compact Fluorescent

*Non maintained as standard

All Pathfinder models are supplied complete with lamps.

OPTIONS - SUFFIX TO CATALOGUE REF.

/120	Specific voltage 110/130V (for VL114E non maintained only)
/25	25mm Entries
/MEM	Maintained emergency (220-254V only)
/M20	M20 Threaded entry pad c/w earth lead to T/Block
/M25	M25 Threaded entry pad c/w earth lead to T/Block
/IEC	Supplied with IECEx certification label

CABLE ENTRIES

Two x 20mm clearance holes supplied with 1 x transit plug and 1 x Ex blanking plug.

Cable entry devices (ie. glands) must maintain the IP rating for the luminaire.

TEMPERATURE

Gas environments are dependant on gas and ambient temperature
Non-Maintained : T4, T5 & T6. Maintained : T3
Dust environments : 100°C

AMBIENT TEMPERATURE

VL114E	-15°C to +60°C
VL114S	-45°C to +60°C

MATERIALS

Enclosure	Polycarbonate moulding.
Gasket	Silicone.
External Fasteners	Stainless steel.

WEIGHT

VL114E 2.5kg	VL114S 1.8kg
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SUSPENSION

Standard mounting is direct to the main housing.

ACCESSORIES

Lamp assembly (11watt) SPATE-00004	Exit sign, rigid plastic, chain hanging (right arrow) SPATE-00008
Lamp assembly (18watt) SPATE-00001	Exit sign, rigid plastic, chain hanging (left arrow) SPATE-00009
Exit sign, rigid plastic, chain hanging (no direction) SPATE-00005	Exit sign, rigid plastic, chain hanging (double sided arrow left & arrow right) SPATE-00011
Exit sign, rigid plastic, chain hanging (up arrow) SPATE-00006	Exit sign, adhesive (up, down, left and right) SPATE-00012
Exit sign, rigid plastic, chain hanging (down arrow) SPATE-00007	



ZONE 1 TYPE Ex 'd' FLAMEPROOF



VL 38 with external reflector

FEATURES AND BENEFITS

Extreme ambient temperature range • Maintenance free QL option • Extensive range of lamp types

CERTIFICATION & APPROVALS

ATEX Certificate SIRA01ATEX1049

Ex II 2 GD Ex de II C T4*

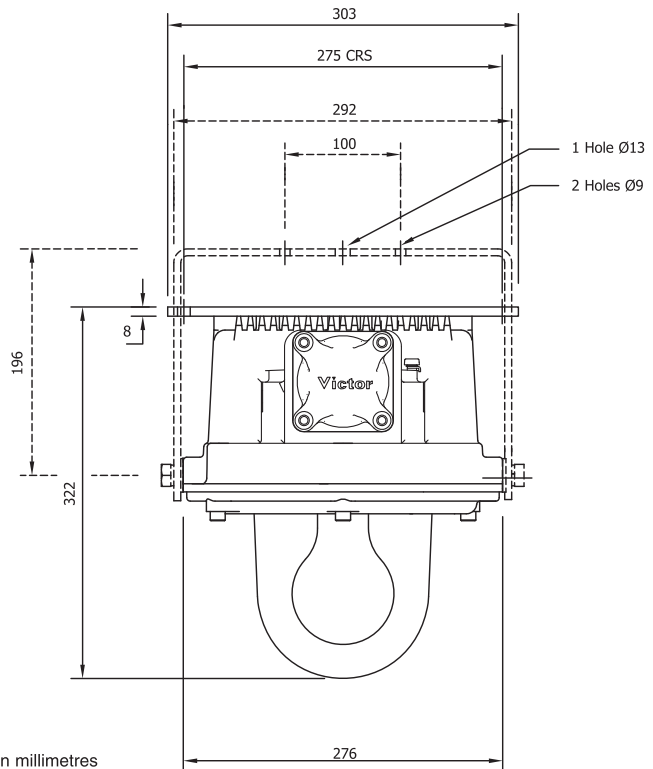
Ambient temperature range:
-20°C to +68°C* (standard)
-50°C to +68°C* (low temperature)

Ingress protection to IP66 & IP67

GOST-R Approved

* Refer to matrix for lamp
'T' rating on pendant mounted versions.

DIMENSIONS



Dimensions in millimetres



ZONE 1 TYPE Ex 'd' FLAMEPROOF

ORDERING REFERENCE

Std. Cat Ref.	Wattage	Lamp Type	Lampholder	T Class	T °C(Dust)	Ambient °C
TI8D/050/HS	50W	HPS	E27	T4	110	(-50°C**) -20°C to +60°C
TI8D/070/MS	70W	HPS & Metal Halide	E27	T4	110	(-50°C**) -20°C to +60°C
TI8D/100/GL	100W	GLS	E27	T4	108	(-50°C**) -20°C to +68°C
TI8D/200/GL	200W	GLS	E27	T4	115	(-50°C**) -20°C to +55°C
TI8D/113/CF	1x10/13W	Compact Fluorescent	G24q	T4	85	-20°C to +60°C
TI8D/118/CF	1x18W	Compact Fluorescent	G24q	T4	85	-20°C to +60°C
TI8D/126/CF	1x26W	Compact Fluorescent	G24q	T4	85	-20°C to +60°C
TI8D/213/CF	2x10/13W	Compact Fluorescent	G24q	T4	85	-20°C to +60°C
TI8D/218/CF	2x18W	Compact Fluorescent	G24q	T4	85	-20°C to +60°C
TI8D/226/CF	2x26W	Compact Fluorescent	G24q	T4	85	-20°C to +60°C
TI8D/055/QL	55W	QL	QL	T4	93	-50°C to +63°C
TI8D/085/QL	85W	QL	QL	T4	97	-50°C to +57°C

** Requires /LT suffix.

TECHNICAL SPECIFICATION

LAMP TYPES

SON - 50W & 70W
 MBF - 50W, 80W & 125W
 GLS - 200W Max (E27)
 Compact Fluorescent - Single & Twin 10/13W, 18W & 26W
 Philips QL - 55W & 85W

POWER SUPPLY

SON & MBF 220V, 230V, 240V & 254V, 50Hz or 60Hz
 GLS 250V Max
 Compact Fluorescent 220V - 250V 50/60Hz
 and 200V - 250V DC
 QL Lamps 200V - 240V 50/60Hz AC/DC (standard)
 110V - 130V 50/60Hz AC/DC (optional)

POWER FACTOR

Better than 0.85 for High Intensity Discharge Luminaire
 Better than 0.95 for QL & Compact Fluorescent Luminaire

TERMINALS

3 core up to 6 mm² conductors with looping. Terminals for live, neutral & earth are provided. Internally earthed, external earth terminal as standard.

CABLE ENTRIES

Two M20 x 1.5 entries as Standard with an option for two M25 x 1.5 entries. Other cable entries available on request. Supplied with 1 x transit plug and 1 x Ex blanking plug. Cable entry devices (ie. glands) must maintain the IP rating for the luminaire.

MATERIALS

Main body Marine grade aluminium alloy with full epoxy powder coating.
Lampglass Borosilicate glass.

WEIGHT

HID & QL Luminaire 10.0 kg
 GLS & Compact Fluorescent 7.5 kg

SUSPENSION

Mounting supplied with luminaire is for pendant operation suitable for two Ø 10mm fasteners on 275mm centres. Optional stirrup mounting available for wall/directional applications.

OPTIONS – SUFFIX TO CATALOGUE REF.

/60 60Hz
 /120 120V - QL lamps only
 /M25 M25 Entries
 /S Stirrup version for universal mounting***
 /SLC Sealed lamp chamber - Maintenance free (QL version)
 /LT Low temperature version (-50°C)

*** T rating and ambient may vary for universal (stirrup) mounting. Please contact technical sales.

ACCESSORIES

Stirrup mount bracket STI8D-00001	External Reflector STI8D-00003
Wire Guard STI8D-00002	Pole clamp STI8D-00005 (For use with 40-60mm dia. pole)



ZONE 1 TYPE Ex 'd' FLAMEPROOF



VL 39 with external reflector

FEATURES AND BENEFITS

Wide ambient temperature range • Maintenance free QL option • Extensive range of lamp types

CERTIFICATION & APPROVALS

ATEX Certificate SIRA01ATEX1274

Ex II 2 GD Ex de II C T4*

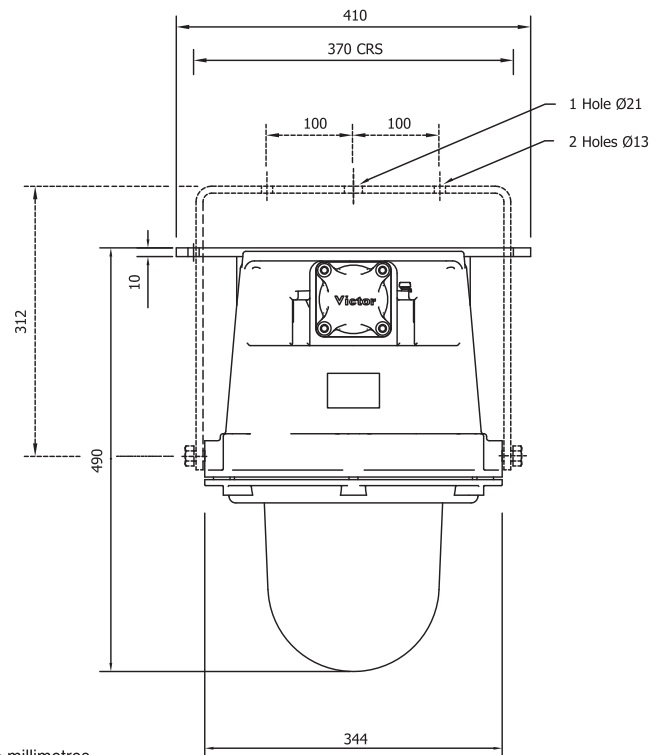
Ambient temperature range:
-20°C to +55°C* (standard)

Ingress protection to IP66 & IP67

GOST-R Approved
TIS Approved

* Refer to matrix for lamp
'T' rating on pendant mounted versions.

DIMENSIONS



Dimensions in millimetres



ZONE 1 TYPE Ex 'd' FLAMEPROOF

ORDERING REFERENCE

Std. Cat Ref.	Wattage	Lamp Type	Lampholder	T Class	T °C(Dust)	Ambient °C
TI9D/150/MS	150W	HPS & Metal Halide	E40	T3	145	-20°C to +50°C**
				T4	125	-20°C to +35°C**
TI9D/250/MS	250W	HPS & Metal Halide	E40	T3	145	-20°C to +50°C**
				T4	125	-20°C to +35°C**
TI9D/400/MS	400W	HPS & Metal Halide	E40	T3	170	-20°C to +40°C**
				T4	130	-20°C to +40°C**
TI9D/500/GL	500W	GLS	E40	T3	170	-20°C to +35°C**
				T4	130	-20°C to +30°C**
TI9D/165/QL	165W	QL	QL	T4	105	-20°C to +55°C**

** For low temperature versions (LT) contact sales.

TECHNICAL SPECIFICATION

LAMP TYPES

SON - 150W, 250W & 400W
 MBI - 150W, 250W & 400W
 MBF - 150W, 250W & 400W
 GLS - 500W Max
 Philips QL - 165W (not suitable for reflector lamps).

POWER SUPPLY

SON, MBI & MBF 220V, 230V, 240V & 250V, 50Hz or 60Hz
 GLS 250V Max
 QL Lamps 200V - 240V 50/60Hz AC/DC (standard)
 110V - 130V 50/60Hz AC/DC (optional)

POWER FACTOR

Better than 0.95 for QL, GLS
 Better than 0.85 for High Intensity Discharge Luminaire.

TERMINALS

3 core up to 6 mm² conductors with looping.
 Terminals for live, neutral & earth are provided.
 Internally earthed, external earth terminal as standard.

CABLE ENTRIES

Two M20 x 1.5 entries as Standard with an option for two M25 x 1.5 entries. Other cable entries available on request.
 Supplied with 1 x transit plug and 1 x Ex blanking plug.
 Cable entry devices (ie. glands) must maintain the IP rating for the luminaire.

MATERIALS

Main body Marine grade aluminium alloy with full epoxy powder coating.
Lampglass Borosilicate glass.

WEIGHT

HID 23.0 kg
 QL Luminaire 20.0 kg
 GLS 19.0 kg

SUSPENSION

Mounting supplied with luminaire is for pendant operation suitable for two M12 fasteners on 370mm centres.
 Optional stirrup mounting available for wall/directional applications.

OPTIONS - SUFFIX TO CATALOGUE REF.

/60 60Hz
 /M25 M25 Entries
 /S Stirrup version for universal mounting***
 /SLC Sealed lamp chamber - Maintenance free (QL version)
 /120 120V - QL lamps only
 /LT Low temperature -50°C to 50°C

*** T rating and ambient may vary for universal (stirrup) mounting. Please contact technical sales.

ACCESSORIES

Stirrup mount bracket
 STI9D-00001

External reflector
 STI9D-00003

Wire guard
 STI9D-00002

Pole clamp
 STI9D-00005
 (For use with 70-80mm dia. pole)



ZONE 1 TYPE Ex 'd' FLAMEPROOF



/SE Spigot mount version

FEATURES AND BENEFITS

Extreme ambient temperature range • Simple mounting arrangement • Unique design eliminates exposed flame path reducing maintenance

CERTIFICATION & APPROVALS

IECEX Certificate IECEX SIR 04.0033
ATEX Certificate SIR04ATEX1220

Ex II 2 GD Ex de II C T4*

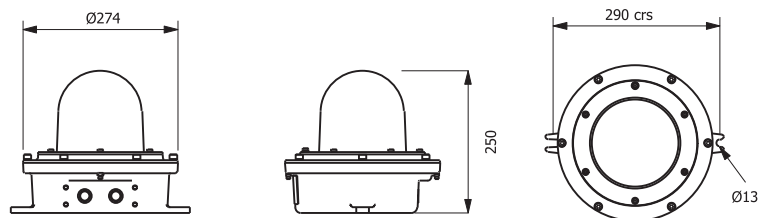
Ambient temperature range:
-50°C to +70°C*

Ingress protection to IP66 & IP67

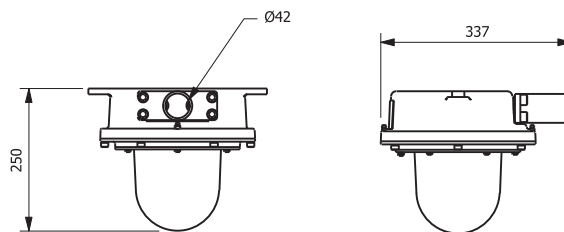
GOST-R Approved

* Refer to matrix for lamp
'T' rating on pendant mounted versions.

DIMENSIONS



Standard Configuration



Pole mounted Configuration

Dimensions in millimetres



LIGHTING

ZONE 1 TYPE Ex 'd' FLAMEPROOF

ORDERING REFERENCE

Std. Cat Ref.	Wattage	Lamp Type	Lampholder	T Class	T °C(Dust)	Ambient °C
TI7D/050/HS	50W	HPS	E27	T4	120	-50°C to +70°C
TI7D/070/HS	70W	HPS	E27	T4	120	-50°C to +70°C
TI7D/070/MH	70W	Metal Halide	E27	T4	120	-50°C to +70°C
TI7D/150/HS	150W	HPS	E27	T3	122	-50°C to +47°C
			E27	T4	100	-50°C to +25°C
TI7D/200/GL	200W	GLS	E27	T4	130	-50°C to +65°C

TECHNICAL SPECIFICATION

LAMP TYPES

SON - 50W & 70W
 SON/T - 150W (White SON - E27 Cap only)
 MBI - 70W & 100W
 MBF - 50W, 80W & 125W
 GLS - 200W Max (E27)

POWER SUPPLY

SON, MBI & MBF 220V, 230V, 240V & 250V, 50Hz or 60Hz
 GLS 250V max

POWER FACTOR

Better than 0.85 for High Intensity Discharge Luminaire

TERMINALS

3 core up to 6 mm² conductors with looping.
 Terminals for live, neutral & earth are provided.
 Internally earthed, external earth terminal as standard.

CABLE ENTRIES

Two M20 x 1.5 entries as standard. Pole-mount only has 1 x M20 entry.
 Other cable entries available on request.
 Supplied with 1 x transit plug and 1 x Ex blanking plug.
 Cable entry devices (ie. glands) must maintain the IP rating for the luminaire.

MATERIALS

Main body Marine grade aluminium alloy with full epoxy powder coating.
Lampglass Borosilicate glass.

WEIGHT

HID 9.0kg
 GLS 7.5kg

SUSPENSION

Mounting supplied with luminaire is for pendant operation suitable for two Ø10mm fasteners on 290mm centres.
 Spigot mount is for direct mounting to poles up to Ø42mm via a single cable entry.

OPTIONS - SUFFIX TO CATALOGUE REF.

/220	220V
/230	230V
/254	254V
/60	60Hz
/SE	Spigot mounted
/IEC	Supplied with IECEx certification label

ACCESSORIES

There are no accessories for this product.



ZONE 2 TYPE EX 'N' RESTRICTED BREATHING



FEATURES AND BENEFITS

Compact light weight design • Integral control gear • Hinged lid assembly for easy re-lamping • Range of lamp options

CERTIFICATION & APPROVALS

ATEX Certificate SIRA 00ATEX4117

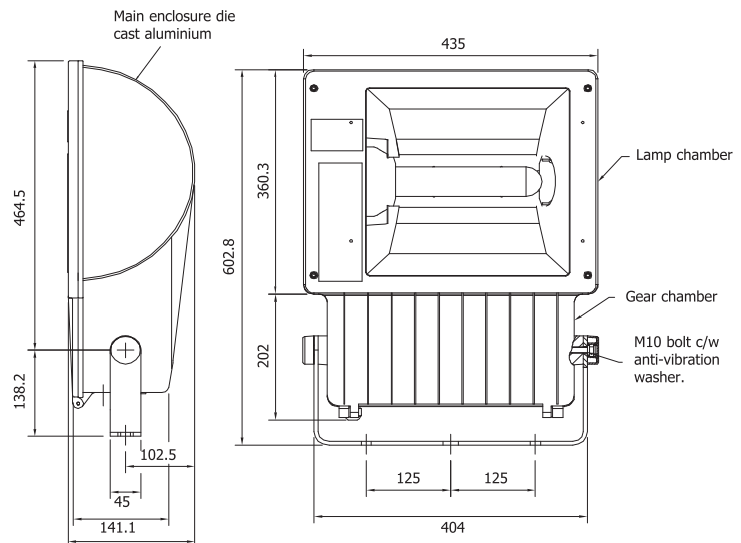
Ex II 3 GD Ex nR II T3 T200°C

Ambient temperature range:
-50°C to +50°C

Ingress protection to IP66 and IP67

TIS Approved

DIMENSIONS





ZONE 2 TYPE EX 'N' RESTRICTED BREATHING

ORDERING REFERENCE

Std. Cat Ref.	Wattage	Lamp Type	Lampholder	T Class	T °C(Dust)	Ambient °C
V10N/150/MS	150W	HPS/Metal Halide	E40	T3	200	-50°C to +50°C
V10N/250/MS	250W	HPS/Metal Halide	E40	T3	200	-50°C to +50°C
V10N/400/MS	400W	HPS/Metal Halide	E40	T3	200	-50°C to +50°C
V10N/500/TH	500W	Tungsten Halogen	E40	T3	200	-50°C to +50°C

TECHNICAL SPECIFICATION

LAMP TYPES

SON - 150W Tubular
 SON and MBI - 250W Tubular
 SON and MBI - 400W Tubular
 Tungsten Halogen - 500W Max

POWER SUPPLY

220V, 230V, 240V and 250V 50/60Hz
 250V Max for halogen & GLS

POWER FACTOR

Greater than 0.85

TERMINALS

3 core up to 4 mm² conductors with looping. Terminals for live constant, neutral & earth are provided. Internally earthed.

CABLE ENTRIES

2 x M20 cable entries supplied with 1 x transit plug and 1 x Ex blanking plug.
 Cable entry devices (i.e. glands) must maintain both the restricted breathing properties and the IP rating of the luminaire.

TEMPERATURE

Gas environments: T3
 Dust environments: T200°C

MATERIALS

Main body LM6 aluminium alloy.
Lampglass Toughened glass.

WEIGHT

400W SON Lamps - 16Kg

SUSPENSION

Galvanised steel stirrup bracket with protractor for elevation angle setting.

OPTIONS - SUFFIX TO CATALOGUE REF.

/60 60Hz
/M Medium beam reflector

ACCESSORIES

Pole mount bracket

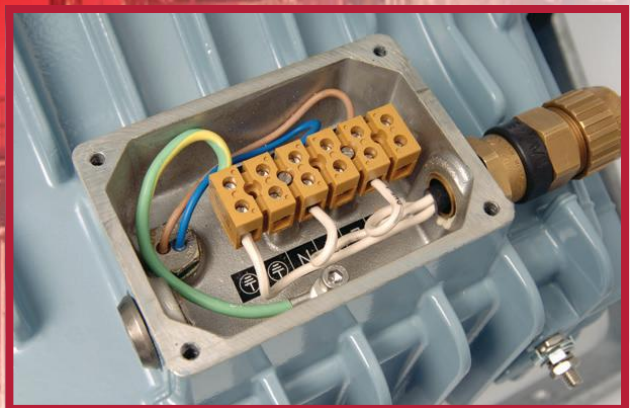
SV10N-00005

Spigot mount bracket

SV10N-00004



ZONE 1 TYPE Ex 'd' FLAMEPROOF



Ex 'e' TERMINAL CHAMBER

Provides access to terminal block for easy installation, simplifying maintenance routines.

LIGHTING

VL64 EQUAL PLUS

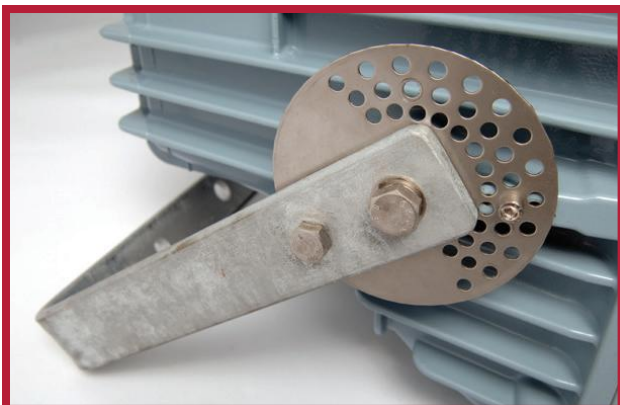


ZONE 1 TYPE Ex 'd' FLAMEPROOF



Hinged cover provides safe and easy access to lamp chamber.

The VL64 features captive cover bolts to ensure they are not lost during re-lamping and maintenance.



AIMING QUADRANT

Stainless steel aiming quadrant for accurate and consistent floodlight positioning.

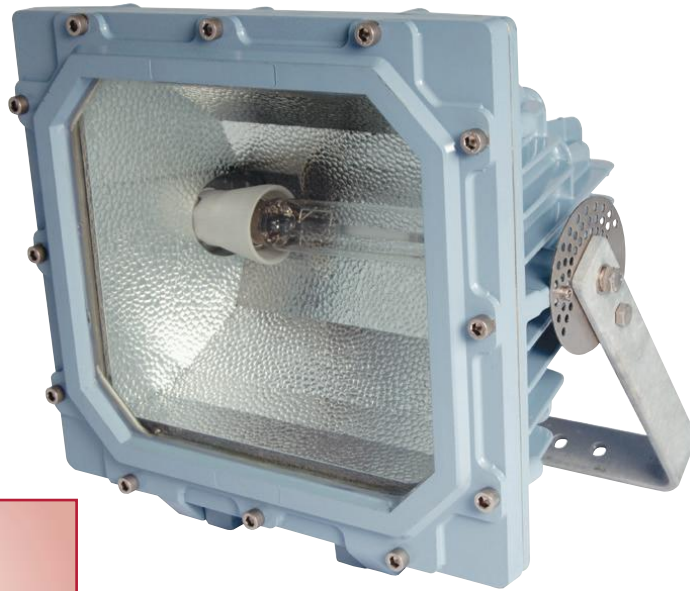


EXCELLENT PHOTOMETRIC OUTPUT

Large surface area of cover glass ensures a high light output ratio (LOR) and optimum photometric performance.



ZONE 1 TYPE Ex 'd' FLAMEPROOF



VL64 with wire guard



VL64 with anti-glare shield

FEATURES AND BENEFITS

Excellent photometric output • Integral control gear • Use with twin-arc tube lamps for >55,000 hours operation

CERTIFICATION & APPROVALS

IECEX Certificate IECEX BAS 07.0052
ATEX Certificate Baseefa058ATEX0228

Ex II 2 GD Ex de IIB T*

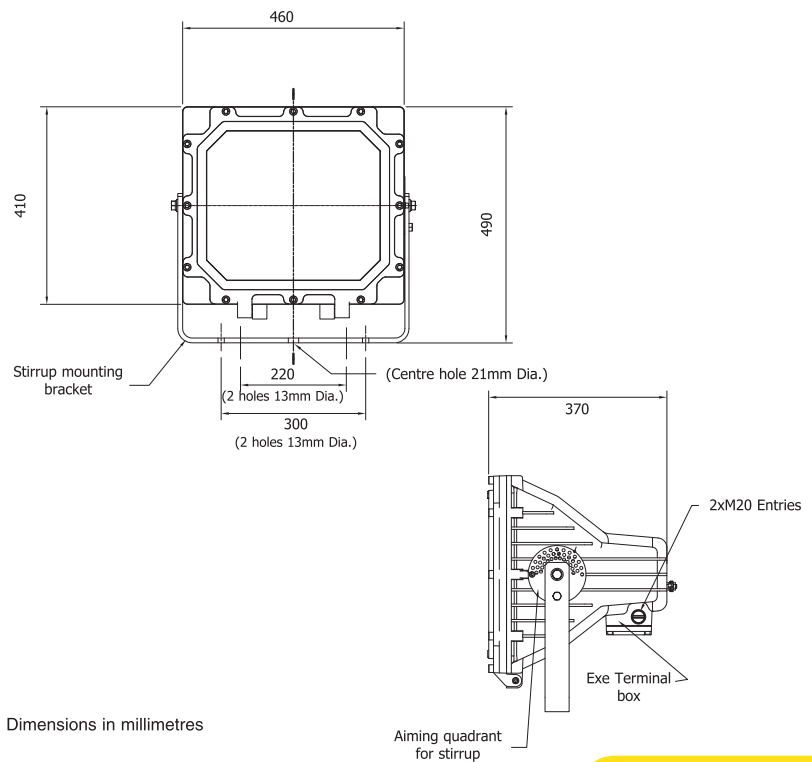
Ambient temperature range:
-20°C ≤ Tamb ≤ +* °C

Ingress protection to IP66 and IP67

GOST-R Approved
TIS Approved

* Refer to matrix for lamp,
'T' rating.

DIMENSIONS





ZONE 1 TYPE Ex 'd' FLAMEPROOF

ORDERING REFERENCE

Std. Cat Ref.	Wattage	Lamp Type	Lampholder	T Class	T °C(Dust)	Ambient °C
64ED/150/MS	150W	HPS & Metal Halide	E40	T4	128	-20°C to +70°C
64ED/250/MS	250W	HPS & Metal Halide	E40	T3	145	-20°C to +70°C
				T4	175	-20°C to +55°C
64ED/400/MS	400W	HPS & Metal Halide	E40	T3	160	-20°C to +55°C
64ED/500/TH	500W	Tungsten Halogen	E40	T3	175	-20°C to +55°C

TECHNICAL SPECIFICATION

LAMP TYPES

SON/T - 150W, 200W, 400W
 MBI-T - 150W, 200W, 400W
 MBFU - 250W and 400W
 Tungsten Halogen 500W

POWER SUPPLY

220V, 230V, 240V or 254V 50Hz Available via a multi-tapped ballast.
 All luminaires factory set to 240V 50Hz. 60Hz versions also available.

POWER FACTOR

Better than 0.85

TERMINALS

3 core up to 6 mm² conductors with looping.
 Terminals for live, neutral & earth are provided. Internally earthed,
 external earth terminal as standard.

CABLE ENTRIES

Two entry terminal box with M20 x 1.5 tapping, other entries available
 on request.
 Supplied with 1 x transit plug and 1 x Ex blanking plug.
 Cable entry devices (ie. glands) must maintain the IP rating for the
 luminaire.

MATERIALS

Main Body LM6 aluminium with epoxy paint finish as standard.
Lampglass Toughened soda lime glass plate.
External fasteners Stainless steel.

WEIGHT

Discharge lamp versions - 31.0Kg.
 Tungsten halogen lamp versions - 26.0Kg

SUSPENSION

Stirrup bracket pre-drilled with 2 holes 13mm diameter.
 Complete with locking and aiming quadrant.

BEAM PATTERNS

Narrow or wide beam patterns available.

OPTIONS - SUFFIX TO CATALOGUE REF.

/60 60Hz
 /M25 M25 Entries
 /N Narrow beam reflector
 /IEC Supplied complete with IECEx certification label

ACCESSORIES

Pole mount bracket
 S6428-0001
 Anti-glare shield (cannot be used with wire guard)
 S6428-0002
 Wire guard (cannot be used with anti-glare shield)
 S6428-0003
 Combined Anti-glare shield and wire guard
 S6428-0004

RECEPTACLES



PLUGS AND RECEPTACLES INDEX

VersaMATE

NEMA 4X

Introduction/Features Applications 2-4

VP/VR/VPR Series

30 Amp Plugs/Receptacles/Connectors 5

VP/VR/VPR Series

60 Amp Plugs/Receptacles/Connectors 6

VP/VR/VPR Series

100 Amp Plugs/Receptacles/Connectors 7

VPA/VRA/VCA Series

150 Amp Plugs/Receptacles/Connectors 8

VP/VR/VPR Series

200 Amp Plugs/Receptacles/Connectors 9

VersaMATE

HAZARDOUS LOCATIONS – INTERLOCKED

VSQ (VWSQ Series NEMA 4)

Interlocked Switched Receptacles 10

VSQ-FS Series

Factory Sealed Interlocked Switched Receptacles 11

VBQ Series

Interlocked Breaker Protected Receptacles 12-13

ACCEPTOR

HAZARDOUS LOCATIONS – BLADE STYLE

UGP/UGR Series

Plugs and Receptacles 14-17

UGRC Series

Connector 18



UGRP Series

Panel Mount Receptacle 19



UGRS Series

Panel Mount Receptacle 20



UGRGF Series

GFI Protector Receptacle 20



UGFI Series

Ground Fault Protector 21

HAZARDOUS LOCATIONS – DELAYED ACTION



KR Series

Introduction 22



KR Series

20, 30 and 60 amp 23-25

VersaMATE

HAZARDOUS LOCATIONS – INTERLOCKED I.E.C. CONFIGURED

VSI Series

Plugs and Switched Receptacles 26-28

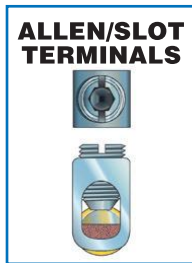




INTRODUCTION • NEMA 4X METALLIC



VR/VP



ALLEN/SLOT TERMINALS



VSQ



VBQ

600 VAC/250VDC; 50-400 hertz
 NEMA 3, 4, 4X
 Class I, Div. 1 & 2, Groups B, C, D;
 NEMA 7 B, C, D²
 Class I, Zones 1 & 2, IIB+H2, IIA²
 Class II, Div. 1 & 2, Groups F & G;
 NEMA 9 F, G²
 Class III²



FEATURES-SPECIFICATIONS

NEMA 4X VersaMATE®

THE FIRST NEMA 4X RATED LINE OF METALLIC PLUGS & RECEPTACLES.

VersaMate® metallic pin & sleeve plugs & receptacles are designed for heavy duty industrial use. These devices supply power to both fixed and portable electrical equipment including pumps, generators, welders, vacuums, blowers and similar apparatus.

Suitable for indoor or outdoor use. Applications include the wet, cold, hosedown, hazardous or corrosive areas in such industrial applications as:

- Pulp & Paper Mills
- Electrical Power Plants
- Petrochemical Plants
- Wastewater Treatment
- Marine, Docks, Ports
- Construction Sites
- Breweries
- Refineries
- Chemical Plants
- Grain Facilities
- Textile Manufacturing
- Food Processing Facilities

¹ VersaMate® components are UL classified and interchangeable with other UL 1686-C1 configured devices (when installed in accordance with instructions furnished with device). Assemblies containing components from other manufacturers would have the NEMA type rating of the lowest rated device. 150A models UL interchangeable w/Appleton® Powertite® only.

² See product pages for specific ratings. Arkтите® is a registered trademark of Crouse-Hinds®. Powertite® is a registered trademark of Appleton®.

Standard Materials:

Copper-free aluminum construction with electrostatically applied epoxy/polyester finish. Contacts are brass with a patented beryllium copper spring tensiorer. External screws are 316 stainless steel.

Features:

The VersaMate product line includes 30, 60, 150¹, 100 and 200 Amp plugs, receptacles and connectors with a full range of back boxes. Popular options include reverse service and polarization. The VersaMate line is **FULLY INTERCHANGEABLE¹** with UL1686 configured and listed devices such as Crouse-Hinds® Arkтите® or Appleton® Powertite®. Standard location receptacle bolt hole patterns match competitive back boxes so users can upgrade to VersaMate without changing back boxes in instances where changing the conduit system is difficult.

Plugs:

Octagonal style (patented) for a firm and sure grip when connecting or disconnecting is featured on both plug and cable connector bodies. Insulators have high mechanical and dielectric strength and are “Low Arc Tracking.” “Increased Safety” type box terminals with gripper ribs securely clamp around conductors. Funneled conductor entry chambers lead all properly stripped conductors into terminals **simultaneously**. NEMA 4X rating when inserted into VersaMate receptacle and locking ring is tightened. Includes suitability for Type P marine cable.



Receptacles:

Exclusive Patented “Breach-Lock” cap serves as either flip lid or screw cover. Receptacle is NEMA 3R with lid snapped shut or NEMA 4X with lid turned shut or when VersaMate plug is inserted and locking ring tightened. Patented notch in cap arm holds cap open for easy plug insertion or maintenance. Patented pin design uses slotted spring clip which avoids excessive wear while providing continuous electrical pin to sleeve contact. VersaMate® receptacles use the same “Increased Safety” terminals and funnel design as VersaMate® plugs.



Cable Clamping Assembly:

Plugs and cable connectors are supplied with an exclusive neoprene “Onion Skin” peel-away type grommet. The VersaMate® cable clamp system captures cable with **four grip points** using **only two** tightening screws. Clamp guide assembly provides a firm fit over a wide range of cable diameters. Non-removable set screws prevent clamp guide assembly from backing out. Clamps have smooth contoured shoulder design to prevent snags or damage when moving equipment.



Back Boxes:

VersaMate back boxes come in a variety of mounting styles. Exclusive “blind” receptacle mounting holes prevent moisture from entering box via thread cavities. Boxes come with a green grounding screw.



RECEPTACLES

VERSAMATE® SERIES

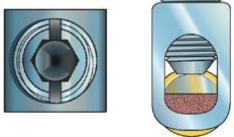







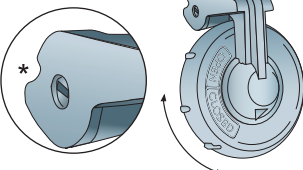






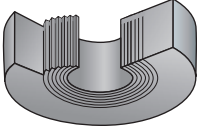











FEATURES / COMPARISONS



- First NEMA 4X – Still the BEST!
- Exclusive interior gasketing
- Exclusive Terminal Designs
 - » No conductor machining
 - » Allen or Phillips types

- Exclusive Onion-Skin Gasket
 - » Perfect Cable Fit
- Exclusive 4-Point Cable Grip
 - » Uses only 2 Recessed Screws
- Exclusive Breech-Lock Cap
 - » Flip or Screw-On
 - » Notch to hold open

KILLARK BRAND TERMINALS	RECEPTACLE/CONNECTOR PIN CONFIGURATION						
	STYLE 1			STYLE 2			
 <p>New Allen/slot terminal screws do not contact or machine conductor. Allows higher torque values typical in the oil industry.</p>	AMPS	POLES AND WIRES	RECEPTACLE/CONNECTOR CONFIGURATION*	AMPS	POLES AND WIRES	RECEPTACLE/CONNECTOR CONFIGURATION*	
 <p>VersaMate original Phillips/slot "Increased Safety" type terminals reduce connection fatigue. Screws do not contact or machine conductor and are under spring tension to reduce loosening and pullout due to vibration.</p>	30	2W2P		30	2W3P		
		3W3P			3W4P		
		4W4P			60	2W3P	
<p>CAP</p>  <p>"Breech-Lock" design serves as both flip lid or screw cover style. Special notch in lid arm holds cover open to ease plug insertion or maintenance. *Slip pencil or screwdriver into notch.</p>	60	2W2P		100		3W4P	
		3W3P			2W3P		
		4W4P			3W4P		
<p>GASKET</p>  <p>Exclusive "Onion Skin" style gasket assures a tight seal around cable. Skin layers are removed from a single gasket to adjust for various cable diameters.</p>	100	2W2P		150A	3W4P		
		3W3P			200	2W3P	
		4W4P				3W4P	
	150A	4W4P					
	200	3W3P					
		4W4P					

REVERSE SERVICE: S39

Add suffix **S39** for factory Reverse Service of receptacles, plugs or connectors. Receptacles or connectors are assembled with plug interiors while plugs are assembled with receptacle interiors. For applications where the plug is energized (i.e. from a generator) to feed a non-energized receptacle. Prevents easy contact with energized exposed pins. This conversion can be performed in the field with a complementary plug and receptacle (30A to 150A devices shown on pages PR5-PR8). 200A Amp devices shown on page PR9 are a factory-only option. Reverse service is not for hazardous locations.



POLARIZED OPTION: S37

Add suffix **S37** for special polarity.

Can prevent connection between mismatched voltages or frequencies in areas where devices of the same amperage, poles and grounding style are used. Receptacle or connector interiors are rotated 22-1/2° to the right; plug is rotated opposite to match. This is a factory only option.



Standard



S37 Option



EXCLUSIVE FEATURES & GROUNDING METHODS



P Patented Exclusive “Breach-Lock” cap serves as either flip lid or screw cover

- NEMA 3R Rating: When receptacle cap is snapped shut
- NEMA 4X Rating: When receptacle cap is turned shut or with VersaMate® plug inserted and ring tightened

P Patented Special notch is designed to hold cap open for easy field service or plug insertion with **two** free hands

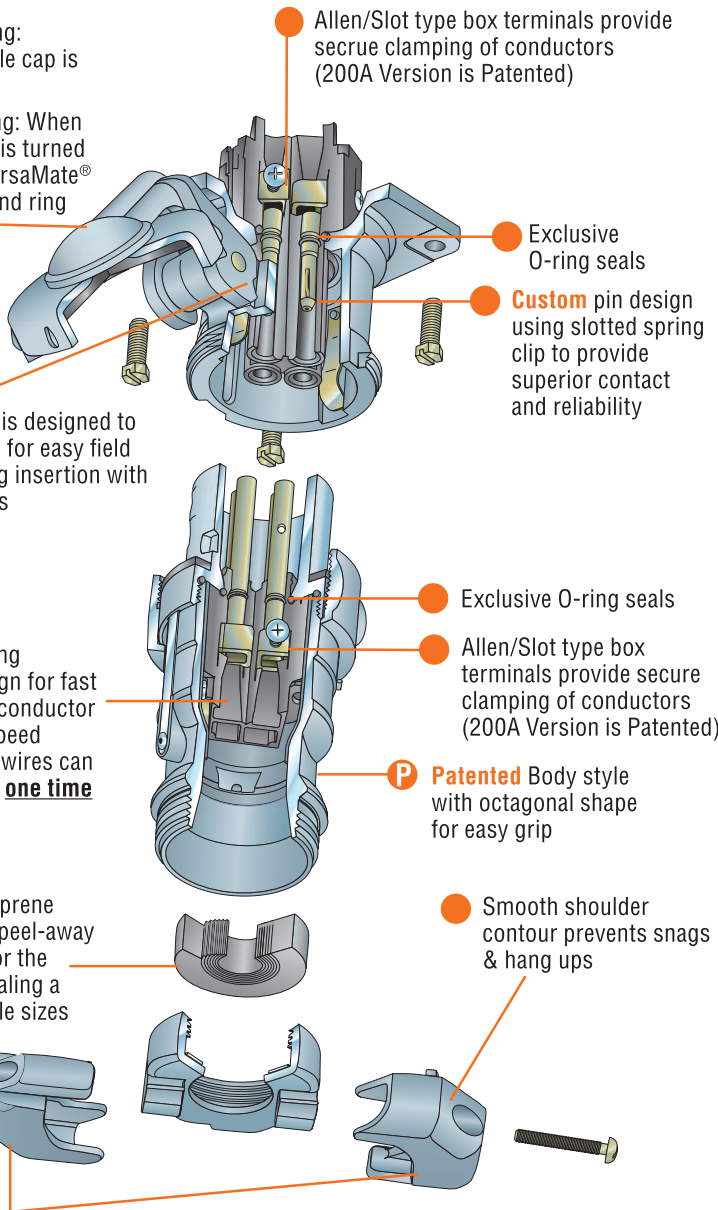
• Funneled wiring chamber design for fast and accurate conductor insertion to speed assembly. All wires can be inserted at **one time**

• Exclusive neoprene “Onion Skin” peel-away type gasket for the ultimate in sealing a variety of cable sizes

• The VersaMate® Cable clamp system captures cable with four grip points using only two tightening screws. Provides secure grip without damaging the cable insulation

• **Unique VersaMate® Feature**
The VersaMate Line is designed for the industrial customer based on engineering and user surveys

P Denotes Patented Feature

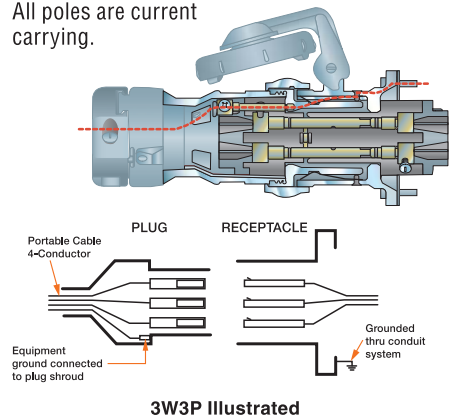


Grounding:

To minimize the danger of electrical shock when utilizing portable equipment, the National Electrical Code requires exposed metal parts be grounded if operated at more than 150 volts to ground. The VersaMate® plug & receptacle system is available in two grounding styles. Please note Style I and II devices cannot be intermated.

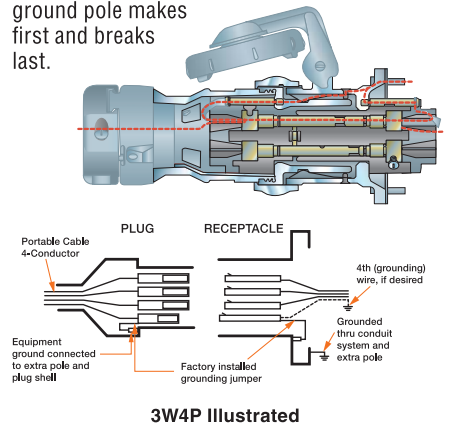
Style I

In a Style I plug, the cable's ground conductor is bonded to the plug housing by means of solderless connector. The receptacle is grounded by being part of a grounded conduit system. Upon insertion, detent springs in the receptacle housing contact and ground the plug housing before current carrying poles. All poles are current carrying.



Style II

In a Style II plug, the cable's ground conductor is bonded to the extra grounding pole and to the plug housing via a bonding jumper. The receptacle has a matching grounding pole connected to the system ground conductor which is further tied to the grounded conduit system via a bonding jumper. Upon insertion, detent springs in the receptacle housing contact and ground the plug housing; then the extra long ground pole connects before the current carrying poles engage. The Style II ground pole makes first and breaks last.

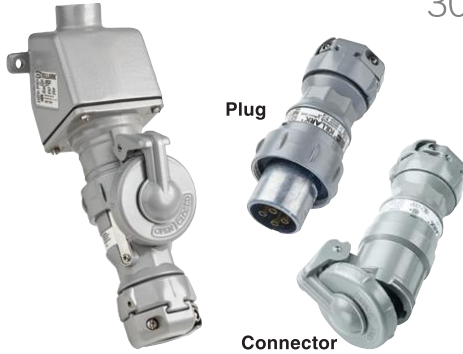


RECEPTACLES

VERSAMATE® SERIES



30A SELECTION INFORMATION



Plug

Connector



• 30 Amp 600VAC/250VDC; 50-400 Hertz
NEMA 3, 4, 4X①

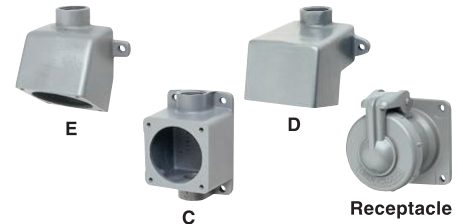
Wire Range

Regular Stranding: #10 - #6 original style or "AT" type
(Includes Type P marine)
Extra flex: #10 - #8 original style or "AT" type

UL File No. E10757 SP Certified File No. LR111846

FEATURES-SPECIFICATIONS

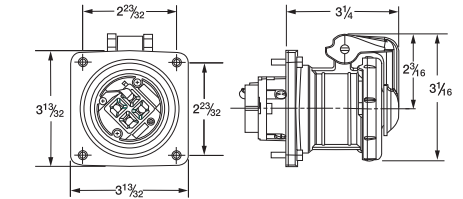
30 AMP PLUGS & CONNECTORS						
GROUND STYLE	CIRCUIT	GROMMET RANGE	CATALOG NUMBER			
			PLUG		CONNECTOR	
			ORIG.	AT	ORIG.	AT
Style I	2W2P	.55 - 1.20 IN	VP3275	VP3022	VPR3255	VPR3022
	3W3P	.55 - 1.20 IN	VP3375	VP3033	VPR3355	VPR3033
	4W4P	.55 - 1.20 IN	VP3475	VP3044	VPR3455	VPR3044
Style II	2W3P	.55 - 1.20 IN	VP3385	VP3023	VPR3365	VPR3023
	3W4P	.55 - 1.20 IN	VP3485	VP3034	VPR3465	VPR3034



Receptacle

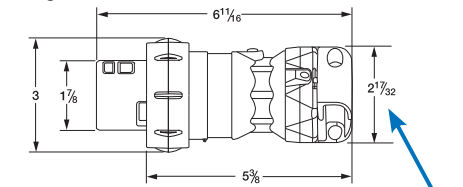
MODIFICATIONS*	
CATALOG NUMBER	DESCRIPTION
S39	Reverse service for receptacles, plugs & connectors
S37	Polarization for receptacles, plugs & connectors

* See page PR3 for more information on these options.



30 AMP RECEPTACLES & BACK BOXES									
GROUND STYLE	CIRCUIT	CATALOG NUMBER							
		E⊙ TYPE DEAD END		C⊙ TYPE FEED THRU		D⊙ TYPE ANGLED FEED THRU		RECEPTACLE ONLY	
		ORIG.	AT	ORIG.	AT	ORIG.	AT	ORIG.	AT
Style I	2W2P	VR321E2	VR3022E2	VR321C2	VR3022C2	VR321D2	VR3022D2	VR321	VR3022
	3W3P	VR331E2	VR3033E2	VR331C2	VR3033C2	VR331D2	VR3033D2	VR331	VR3033
	4W4P	VR341E2	VR3044E2	VR341C2	VR3044C2	VR341D2	VR3044D2	VR341	VR3044
Style II	2W3P	VR332E2	VR3023E2	VR332C2	VR3023C2	VR332D2	VR3023D2	VR332	VR3023
	3W4P	VR342E2	VR3034E2	VR342C2	VR3034C2	VR342D2	VR3034D2	VR342	VR3034
Splice box only⊙		VRE23	VRE23	VRC23	VRC23	VRD23	VRD23	-	-

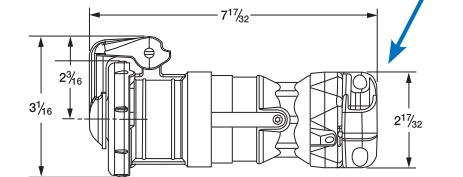
Plug



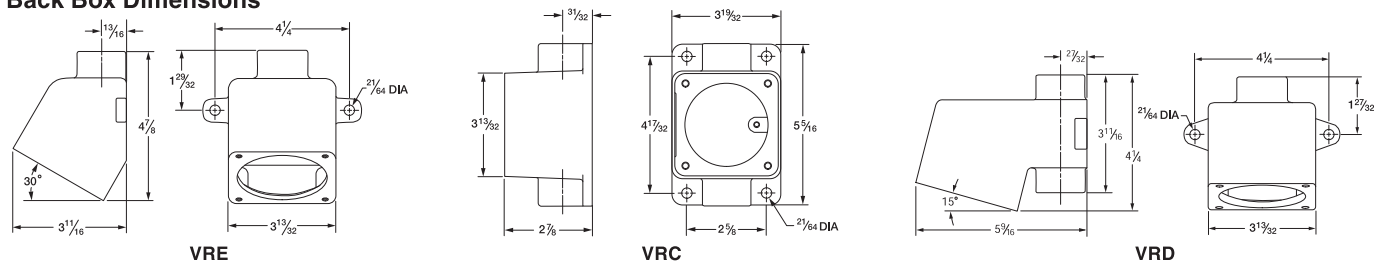
VersaMate® clamps provide a firm fit for one plug (or connector) over a wide range of cable diameters (competitors often need two - requiring additional sizing decisions).

- ① Components are intermateable & UL classified with other UL1686 configured devices (when installed in accordance with instructions furnished with device). Assemblies containing components from other manufacturers would have the NEMA type rating of the lowest rated device.
- Note, 2, 3 & 4 pole device dimensions are the same.
- ⊙ 30 Amp Back Boxes are available in 1/2", 3/4" and 1" conduit sizes. Size listed for 3/4". For other available sizes, change the BOLD "2" in either the assembly or box only number to: **1=1/2"**, **2=3/4"**, **3=1"**. Assembly catalog numbers are listed for ease of ordering or specification and devices are shipped as components.

Connector

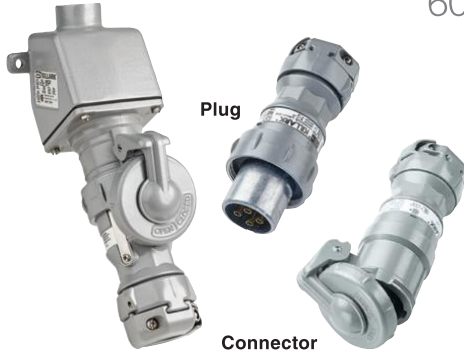


Back Box Dimensions





60A SELECTION INFORMATION



Plug

Connector



Original or AT
Terminals. See PR3 for
more information

• 60 Amp 600VAC/250VDC; 50-400 Hertz
NEMA 3, 4, 4X^①

Wire Range

Regular Stranding: #6 - #2 original style or "AT" type
(Includes Type P marine)
Extra flex: #6 - #4 original style or "AT" type

UL File No. E10757 SP Certified File No. LR111846

FEATURES-SPECIFICATIONS

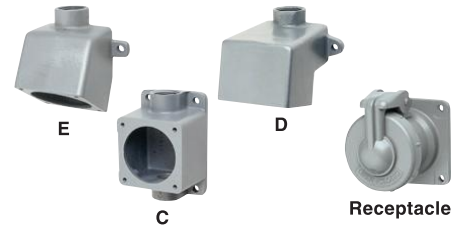
60 AMP PLUGS & CONNECTORS						
GROUND STYLE	CIRCUIT	GROMMET RANGE	CATALOG NUMBER			
			PLUG		CONNECTOR	
			ORIG.	AT	ORIG.	AT
Style I	2W2P	.65 - 1.50 IN	VP6275	VP6022	VPR6255	VPR6022
	3W3P	.65 - 1.50 IN	VP6375	VP6033	VPR6355	VPR6033
	4W4P	.65 - 1.50 IN	VP6475	VP6044	VPR6455	VPR6044
Style II	2W3P	.65 - 1.50 IN	VP6385	VP6023	VPR6365	VPR6023
	3W4P	.65 - 1.50 IN	VP6485	VP6034	VPR6465	VPR6034

MODIFICATIONS*	
CATALOG NUMBER	DESCRIPTION
S39	Reverse service for receptacles, plugs & connectors
S37	Polarization for receptacles, plugs & connectors

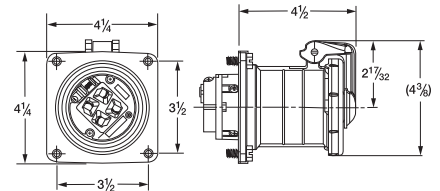
* See page PR3 for more information on these options.

60 AMP RECEPTACLES & BACK BOXES									
GROUND STYLE	CIRCUIT	CATALOG NUMBER							
		E [ⓐ] TYPE DEAD END		C [ⓑ] TYPE FEED THRU		D [ⓒ] TYPE ANGLED FEED THRU		RECEPTACLE ONLY	
		ORIG.	AT	ORIG.	AT	ORIG.	AT	ORIG.	AT
Style I	2W2P	VR621E4	VR6022E4	VR621C4	VR6022C4	VR621D4	VR6022D4	VR621	VR6022
	3W3P	VR631E4	VR6033E4	VR631C4	VR6033C4	VR631D4	VR6033D4	VR631	VR6033
	4W4P	VR641E4	VR6044E4	VR641C4	VR6044C4	VR641D4	VR6044D4	VR641	VR6044
Style II	2W3P	VR632E4	VR6023E4	VR632C4	VR6023C4	VR632D4	VR6023D4	VR632	VR6023
	3W4P	VR642E4	VR6034E4	VR642C4	VR6034C4	VR642D4	VR6034D4	VR642	VR6034
Splice box only [ⓓ]		VRE46	VRE46	VRC46	VRC46	VRD46	VRD46	-	-

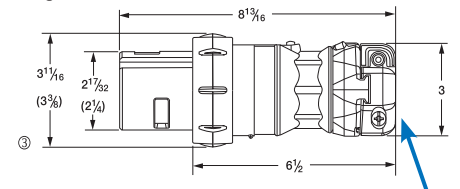
- ① Components are interchangeable & UL classified with other UL1686 configured devices (when installed in accordance with instructions furnished with device). Assemblies containing components from other manufacturers would have the NEMA type rating of the lowest rated device.
- ② 60 Amp Back Boxes are available in 1", 1-1/4" and 1-1/2" conduit sizes. Size listed above is 1-1/4". For other available sizes, change the BOLD "4" in either the assembly or box only number as follows: **3**=1", **4**=1-1/4", **5**=1-1/2". Assembly catalog numbers are listed for ease of ordering or specification and devices are shipped as components.
- ③ 60 Amp receptacles also fit 100 Amp mounting boxes - Dimensions in () are 3 pole devices; balance are 4 pole.



Receptacle

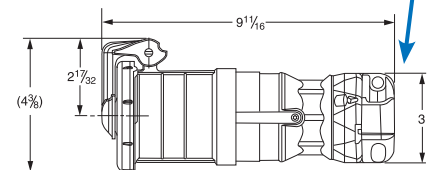


Plug

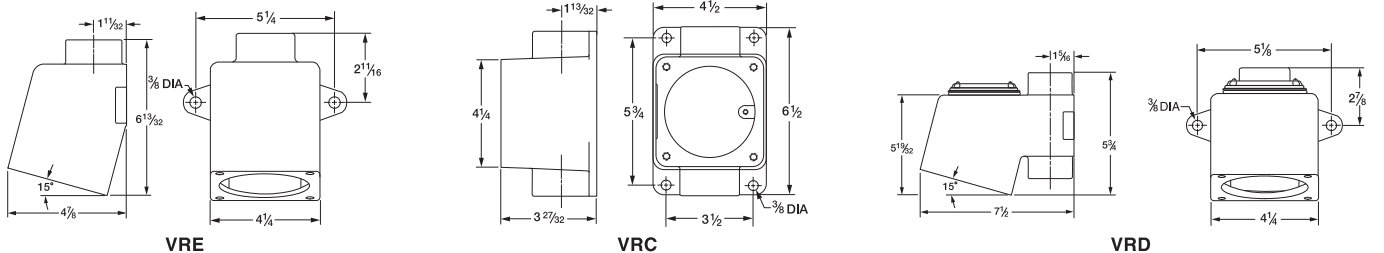


VersaMate® clamps provide a firm fit for one plug (or connector) over a wide range of cable diameters (competitors often need two - requiring additional sizing decisions).

Connector



Back Box Dimensions

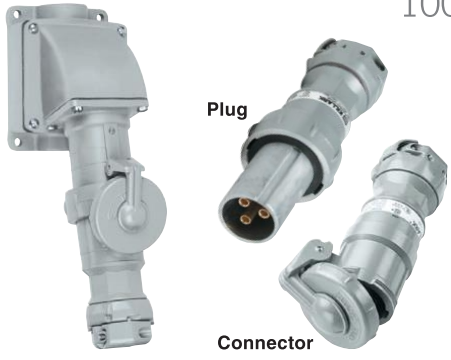


RECEPTACLES

VERSAMATE® SERIES



100A SELECTION INFORMATION



Plug

Connector



Original or AT
Terminals. See PR3 for
more information

• 100 Amp 600VAC/250VDC; 50-400 Hertz
NEMA 3, 4, 4X^①

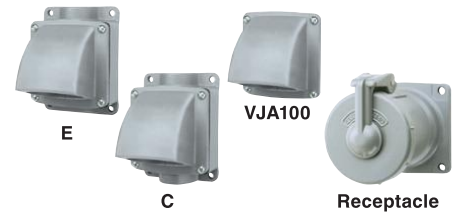
Wire Range

Regular Stranding: #4 - #2 original style or "AT" type
(Includes Type P marine)
Extra flex: #4 - #2 original style or "AT" type

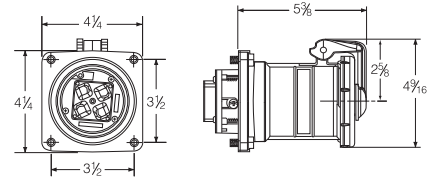
UL File No. E10757 NSF Certified File No. LR111846

FEATURES-SPECIFICATIONS

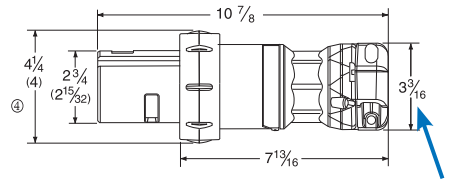
100 AMP PLUGS & CONNECTORS						
GROUND STYLE	CIRCUIT	GROMMET RANGE	CATALOG NUMBER			
			PLUG		CONNECTOR	
			ORIG.	AT	ORIG.	AT
Style I	2W2P	.88 - 1.68 IN	VP10277	VP1022	VPR10257	VPR1022
	3W3P	.88 - 1.68 IN	VP10377	VP1033	VPR10357	VPR1033
	4W4P	.88 - 1.68 IN	VP10477	VP1044	VPR10457	VPR1044
Style II	2W3P	.88 - 1.68 IN	VP10387	VP1023	VPR10367	VPR1023
	3W4P	.88 - 1.68 IN	VP10487	VP1034	VPR10467	VPR1034



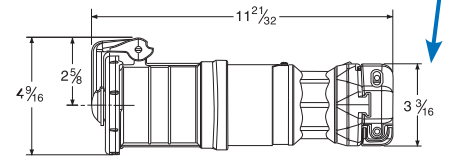
Receptacle



Plug



Connector



VersaMate® clamps provide a firm fit for one plug (or connector) over a wide range of cable diameters (competitors often need two - requiring additional sizing decisions).

MODIFICATIONS*	
CATALOG NUMBER	DESCRIPTION
S39	Reverse service for receptacles, plugs & connectors
S37	Polarization for receptacles, plugs & connectors

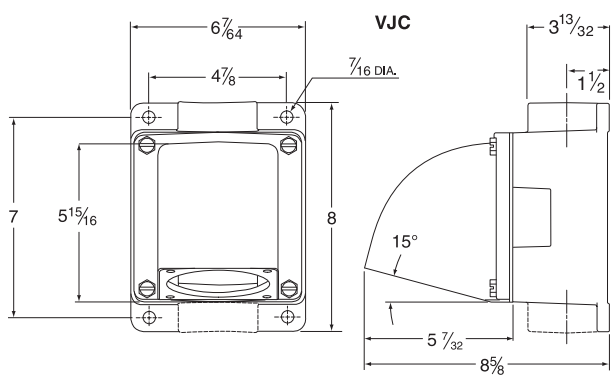
* See page PR3 for more information on these options.

100 AMP RECEPTACLES & BACK BOXES							
GROUND STYLE	CIRCUIT	CATALOG NUMBER					
		EⓈ TYPE DEAD END		CⓈ TYPE FEED THRU		RECEPTACLE ONLY	
		ORIG.	AT	ORIG.	AT	ORIG.	AT
Style I	2W2P	VR1021E5	VR1022E5	VR1021C5	VR1022C5	VR1021	VR1022
	3W3P	VR1031E5	VR1033E5	VR1031C5	VR1033C5	VR1031	VR1033
	4W4P	VR1041E5	VR1044E5	VR1041C5	VR1044C5	VR1041	VR1044
Style II	2W3P	VR1032E5	VR1023E5	VR1032C5	VR1023C5	VR1032	VR1023
	3W4P	VR1042E5	VR1034E5	VR1042C5	VR1034C5	VR1042	VR1034
Splice box only ^④		VJ57	VJ57	VJC57	VJC57	VJA100*	VJA100*

* Angle adapter only

- ① Components are intermateable & UL classified with other UL1686 configured devices (when installed in accordance with instructions furnished with device). Assemblies containing components from other manufacturers would have the NEMA type rating of the lowest rated device.
- ② 100 Amp Back Boxes are available in 1", 1-1/4", 1-1/2" & 2" conduit sizes. Size listed above is 1-1/2". For other available sizes, change the BOLD "5" in either the assembly or box only number as follows: **3**=1", **4**=1-1/4", **5**=1-1/2", **6**=2". Assembly catalog numbers are listed for ease of ordering or specification and devices are shipped as components.
- ③ 100 Amp Boxes & Adapters also fit 60 Amp receptacles. Adapter only can be used to attach receptacle at an angle to a standard sheet metal box.
- ④ Dimensions in () are 3 pole devices; balance are 4 pole.

Back Box Dimensions



Feed through style shown



150A SELECTION INFORMATION



**ALLEN
TERMINALS**



Plug



Connector

• 150 Amp 600VAC/250VDC; 50-400 hertz
NEMA 3, 4, 4XⓈ

Wire Range
Building #2-2/0
(Includes Type P marine)
Extra Flex #2-2/0

cULus File No. E10757
SP



E



C



Receptacle

FEATURES-SPECIFICATIONS

150 AMP PLUGS & CONNECTORS				
GROUND STYLE	CIRCUIT	GROMMET RANGE	CATALOG NUMBER	
			PLUG	CONNECTOR
Style I	4W4P	.88 - 1.91 IN	VPA15044	VCA15044
Style II	3W4P	.88 - 1.91 IN	VPA15034	VCA15034

MODIFICATIONS*	
CATALOG NUMBER	DESCRIPTION
S39	Reverse service for receptacles, plugs & connectors
S37	Polarization for receptacles, plugs & connectors

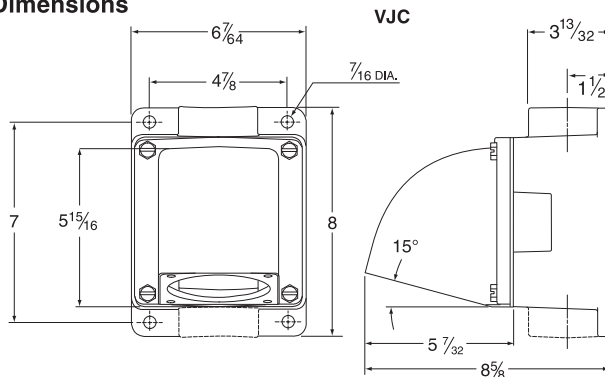
* See page PR3 for more information on these options.

150 AMP RECEPTACLES & BACK BOXES				
GROUND STYLE	CIRCUIT	CATALOG NUMBER		
		EⓈ TYPE DEAD END	CⓈ TYPE FEED THRU	RECEPTACLE ONLY
Style I	4W4P	VRA15044E6	VRA15044C6	VRA15044
Style II	3W4P	VRA15034E6	VRA15034C6	VRA15034
Splice box only w/ adapterⓈⓈ		VJ67	VJC67	VJA100*

* Angle adapter only

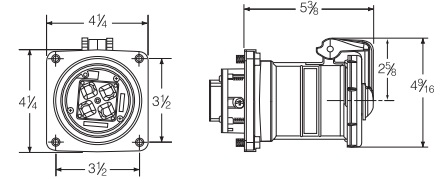
- Ⓢ Components are interchangeable & UL classified with Appleton® Powertite® (when installed in accordance with instructions furnished with device). Assemblies containing components from other manufacturers would have the NEMA type rating of the lowest rated device.
- Ⓢ 150 Amp Back Boxes are available in 1-1/4", 1-1/2" & 2" conduit sizes. Size listed above is 2". For other available sizes, change the BOLD "6" in either the assembly or box only number as follows: **4**=1-1/4", **5**=1-1/2", **6**=2". Assembly catalog numbers are listed for ease of ordering or specification and devices are shipped as components.
- Ⓢ 100/150 Amp Boxes & Adapters also fit 60 Amp receptacles. Adapter-only can be used to attach receptacle at an angle to a standard sheet metal box.

Back Box Dimensions

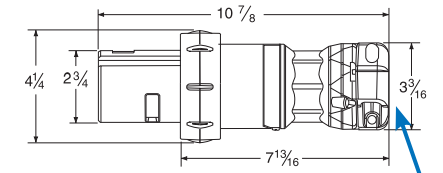


Feed through style shown

Receptacle

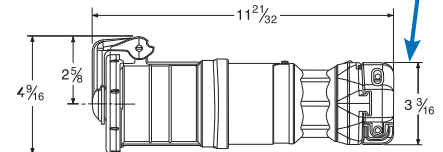


Plug



VersaMate® clamps provide a firm fit for one plug (or connector) over a wide range of cable diameters (competitors often need two - requiring additional sizing decisions).

Connector



RECEPTACLES

VERSAMATE® SERIES



200A SELECTION INFORMATION



**ALLEN
TERMINALS**



Plug



Connector



E



C



Receptacle

• 200 Amp 600VAC/250VDC; 50-400 Hertz
NEMA 3, 4, 4X^①

Wire Range

Regular Stranding: #1 - 250
(Includes Type P marine
Extra flex: #1 - 250 (.653 max conductor diameter)

UL File No. E10757 IEC Certified File No. LR111846

FEATURES-SPECIFICATIONS

200 AMP PLUGS & CONNECTORS				
GROUND STYLE	CIRCUIT	GROMMET RANGE	CATALOG NUMBER	
			PLUG	CONNECTOR
Style I	3W3P	1.0 - 2.5 IN	VP203512	VPR203112
	4W4P	1.0 - 2.5 IN	VP204513	VPR204113
Style II	2W3P	1.0 - 2.5 IN	VP203612	VPR203212
	3W4P	1.0 - 2.5 IN	VP204612	VPR204212

MODIFICATIONS*	
CATALOG NUMBER	DESCRIPTION
S39 ^⑤	Reverse service for receptacles, plugs & connectors
S37	Polarization for receptacles, plugs & connectors

* See page PR3 for more information on these options.

200 AMP RECEPTACLES & BACK BOXES				
GROUND STYLE	CIRCUIT	CATALOG NUMBER		
		E ^② TYPE DEAD END	C ^② TYPE FEED THRU	RECEPTACLE ONLY
Style I	3W3P	VR20312E6	VR20312C7	VR20312
	4W4P	VR20412E6	VR20412C7	VR20412
Style II	2W3P	VR20322E6	VR20322C7	VR20322
	3W4P	VR20422E6	VR20422C7	VR20422
Splice box only w/ adapter ^③		VJ78	VJC78	Angle adapter only VJA200

① Components are interchangeable & UL classified with Appleton® Powertite® or Crouse-Hinds® Arktite® devices (when installed in accordance with instructions furnished with device. Assemblies containing components from other manufacturers would have the NEMA type rating of the lowest rated device.

② 200 Amp dead-end Back Boxes are available in sizes 1-1/2", 2" & 2-1/2" conduit sizes. Dead-end box shown is 2". For other available dead-end box sizes, change the BOLD "6" in either the dead-end assembly or box only number as follows: **5**=1-1/2", **6**=2", **7**=2-1/2". Feed through boxes are available in 2-1/2"; use "R" series adapters as required for smaller sizes (sold separately). Assembly catalog numbers are listed for ease of ordering or specification and devices are shipped as components.

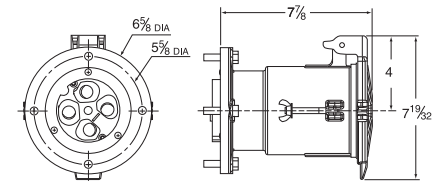
③ Adapter-only can be used to attach receptacle at an angle to a standard sheet metal box.

④ Dimensions in () are 3 pole devices; balance are 4 pole.

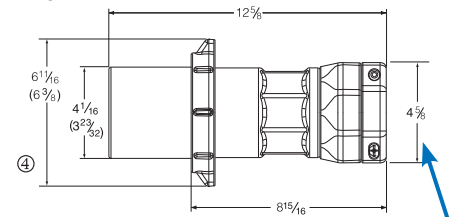
⑤ 200A 3W4P Reverse Service configured "W" Series and VersaMate® are not interchangeable. However, the VersaMate VR20422-S39 receptacle ships with instructions to permanently convert for use with existing PW-6402X SU39 plugs. Factory only configured plugs to fit old RW64C-SU39 receptacles may be ordered as VP-PW64026 SU39.

NOTE: 200A VersaMate receptacle lids secure with wingnuts for N4X environments when not in use. VersaMate plugs secure with wingnuts and/or lock-ring collar. This exclusive dual method allows retention of competitive plugs that use either wingnuts or a lock-ring collar.

Receptacle

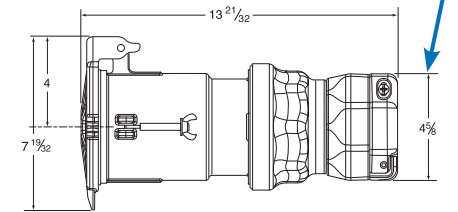


Plug

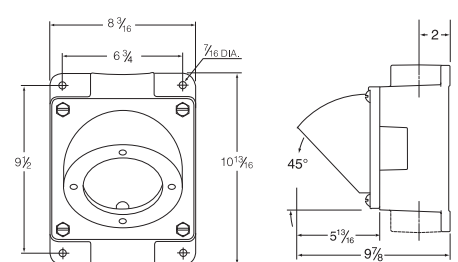


VersaMate® clamps provide a firm fit for one plug (or connector) over a wide range of cable diameters (competitors often need two - requiring additional sizing decisions).

Connector



Back Box Dimensions



VJC



VSQ SWITCHED RECEPTACLES



Plug

- VSQ Hazardous Location Ratings
Class I, Div. 1 & 2, Groups B, C, D
Class I, Zones I & 2, Groups IIB+H₂, IIA
Class II, Div. 1 & 2, Groups F & G
Class III
NEMA 3, 4, 4X, 7 (B, C, D), 9 (F, G)
- VWSQ for Wet & Corrosive Locations
NEMA 3, 4, 4X

Wire Range

30 Amp Regular Stranding Max #10
60 Amp Regular Stranding Max #4

VSQ File No. LR14667

VWSQ File No. E216488

FEATURES-SPECIFICATIONS

Features

- N4X with receptacle lid turned shut or with plug locking ring tightened
- Copper-free aluminum construction with electrostatically applied polyester/epoxy finish. Handle mechanism is chemical resistant Valox® (TM General Electric).
- Compact size and footprint
- Plug Interlock Mechanism for Dead-front construction. Switch cannot be turned "ON" without fully inserted plug. Plug cannot be removed with switch in "ON" position
- Plug held in place when switch is "Off" for convenience. Pull operated release mechanism. Plug and wiring do not have to be twisted or held to operate switch
- Factory Wired Receptacle; easy to wire line side of switch
- Easily visible "On-Off" indicator handle
- "Off" position is padlockable for maintenance safety
- Auxiliary Contact (late-make early-break) contact rated 10 Amp, 1/3 HP at 125/250 VAC. Can be used for operating pilot lights or starter coils (standard model only)

- Feed-through construction
- Horsepower Rated
- Internal switch horsepower rated as "motor disconnect"

HORSEPOWER RATINGS (VAC)①		120	240	480	600
30A	1Ø	2	5	10	15
	3Ø	3	7.5	15	20
60A	1Ø	-	10	15	20
	3Ø	-	10	25	30

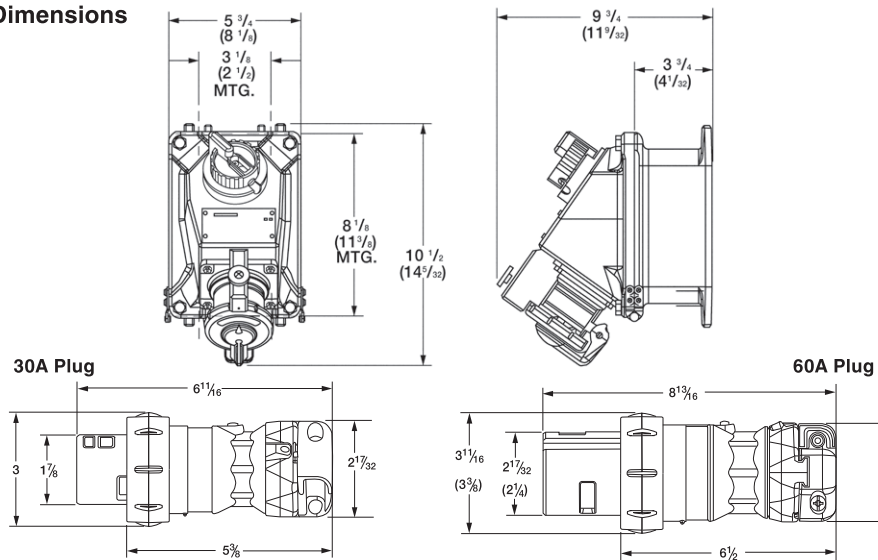
VSQ & VWSQ RECEPTACLES					
AMPS	CIRCUIT	CATALOG NUMBER			
		VSQ HAZARDOUS	VWSQ N4X ONLY	PLUG ORIG.	PLUG AT
30	2W3P	VSQ3023	VWSQ3023	VP3385	VP3023
	3W4P	VSQ3034	VWSQ3034	VP3485	VP3034
60	2W3P	VSQ6023	VWSQ6023	VP6385	VP6023
	3W4P	VSQ6034	VWSQ6034	VP6485	VP6034

NOTES: VSQ/VWSQ 30 Amp models come standard with 1" drilled and tapped conduit openings top and bottom plus two 1" x 3/4" reducers and one 3/4" close-up plug for maximum flexibility. 60 amp models come with 1-1/2" openings top and bottom and one 1-1/2" close-up plug.

VSQ & VWSQ Receptacle covers are NOT interchangeable.

① Refers to internal switch only.

Dimensions



Dimensions shown are in inches for 30 AMP; 60 Amp dimensions in ().

NOTES: Devices have adjustable ductile lugs (vertical or side) for attachment to uneven surfaces. Ordinary twist type wire connectors are used for final connections on 30A. 60A devices have terminal blocks.

MODIFICATIONS*	
CATALOG NUMBER	DESCRIPTION
S37	Polarization for receptacles, plugs

* See page PR3 for more information on this option

VersaMate VSQ & VWSQ Receptacles use VersaMate Style II plugs and are compatible with appropriately configured Crouse-Hinds® Arkrite® or Appleton® Powertite® plugs (when installed in accordance with instructions furnished with device)

Arkrite® is a registered trademark of Crouse-Hinds®. Powertite® is a registered trademark of Appleton®.

RECEPTACLES

VERSAMATE® SERIES



VSQ - FS FACTORY SEALED



Class I, Div. 1 & 2, Groups B, C, D
 Class I, Zones I & 2, Groups IIB+H₂, IIA
 Class II, Div. 1 & 2, Groups F & G
 Class III
 NEMA 3, 4, 4X, 7 (B, C, D), 9 (F, G)

Certified File No. LR14667

Wire Range

30 Amp Regular Stranding Max #10
 60 Amp Regular Stranding Max #4

FEATURES-SPECIFICATIONS

Features – same as VSQⓈ plus:

- Factory Sealed Construction eliminates need for conduit sealing at the device
- Saves Installation Time & Labor – facilitates rework
- Switch has factory wired line and load terminals. Load terminals feed sealed receptacle as in a standard VSQ. Line wiring is passed from the sealed compartment into the **wiring chamber**
- Receptacles may be loosened from back box and turned 180 degrees to adjust for top or bottom feed.
- Ordinary twist type wire connectors are used for final connections on 30A. 60A devices have terminal blocks

VSQ - FS RECEPTACLES				
AMPS	CIRCUIT	CATALOG NUMBER		
		VSQ-FS HAZARDOUS	PLUG ORIG.	PLUG AT
30	2W3P	VSQ3023FS	VP3385	VP3023
30	3W4P	VSQ3034FS	VP3485	VP3034
60	2W3P	VSQ6023FS	VP6385	VP6023
60	3W4P	VSQ6034FS	VP6485	VP6034

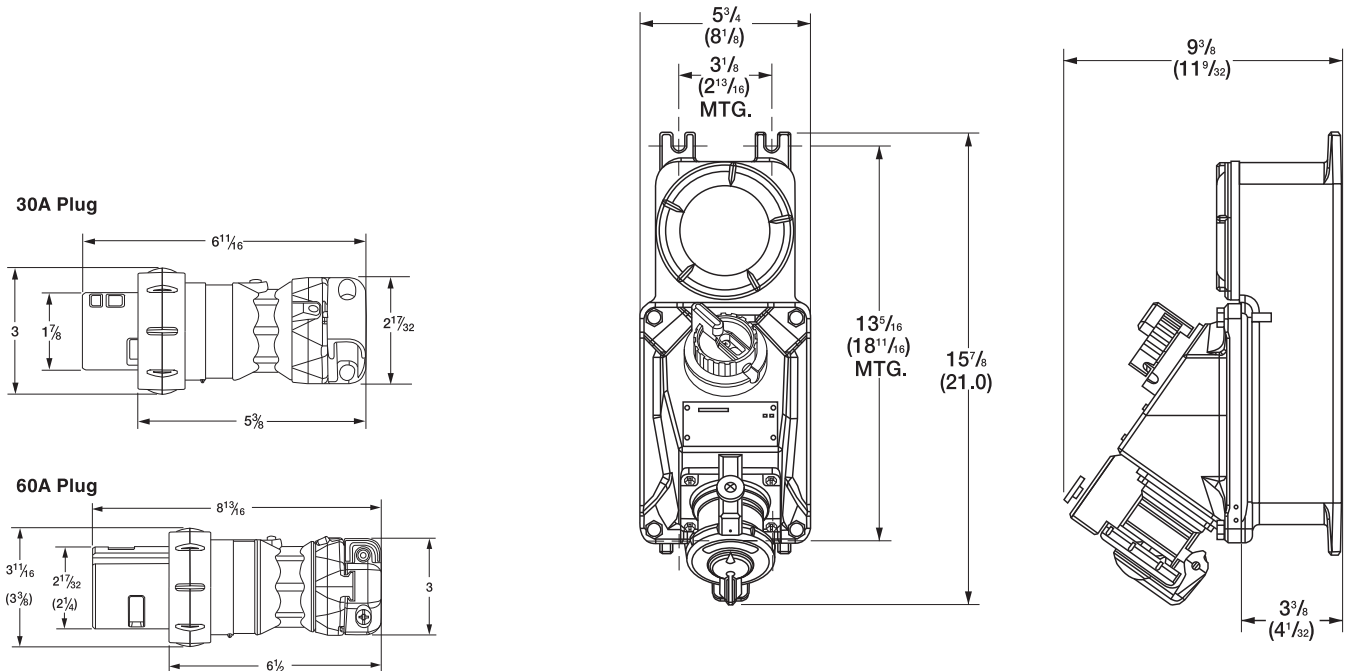
MODIFICATIONS*	
CATALOG NUMBER	DESCRIPTION
S37	Polarization for receptacles & plugs

NOTES: VSQ-FS 30 Amp models come standard with one 1" drilled and tapped conduit openings into the wiring chamber plus one 1" x 3/4" reducer. 60 amp models come with one 1" opening.

Ⓢ VSQ-FS models do not have auxiliary contacts.

* See page PR3 for more information on this option.

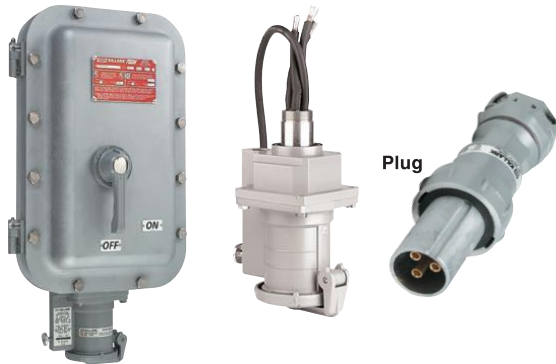
Dimensions



Dimensions shown are in inches for 30 AMP. 60 AMP Dimensions in ().



VBQ BREAKER PROTECTED



Receptacle assembly is field replaceable for maintenance.

Ordering information listed in the instruction sheets provided with the product.

Class I, Div. 1 & 2, Groups B, C, D
Class I, Zones I & 2, Groups IIB+H₂, IIA
Class II, Div. 1 & 2, Groups F & G
Class III
NEMA 3, 4, 4X, 7 (B, C, D), 9 (F, G)

File No. E184637

FEATURES-SPECIFICATIONS

Features

Receptacle:

- N4X with receptacle lid turned shut or with plug locking ring tightened
- Plug held in place when switch is “Off” for convenience. Pull button operated release mechanism. Plug does not have to be twisted to operate switch
- Dead-front construction when receptacle is off. Switch cannot be turned “ON” without fully inserted plug. Plug cannot be removed with switch in “ON” position
- Wire Connections do not bend when opening and closing door – minimizes loosening during installation or maintenance procedures
- For ground fault option, contact factory

VersaMate VBQ Receptacles use VersaMate Style II plugs found on 30, 60 and 100 amp pages and are compatible with appropriately configured Crouse-Hinds® Arkrite® or Appleton® Powertite® plugs (when installed in accordance with instructions furnished with device). Arkrite® is a registered trademark of Crouse-Hinds®. Powertite® is a registered trademark of Appleton®.

Replacement Parts:

- Enclosure gasket VBQ-535
- External circuit breaker handle kit CBHK-100H

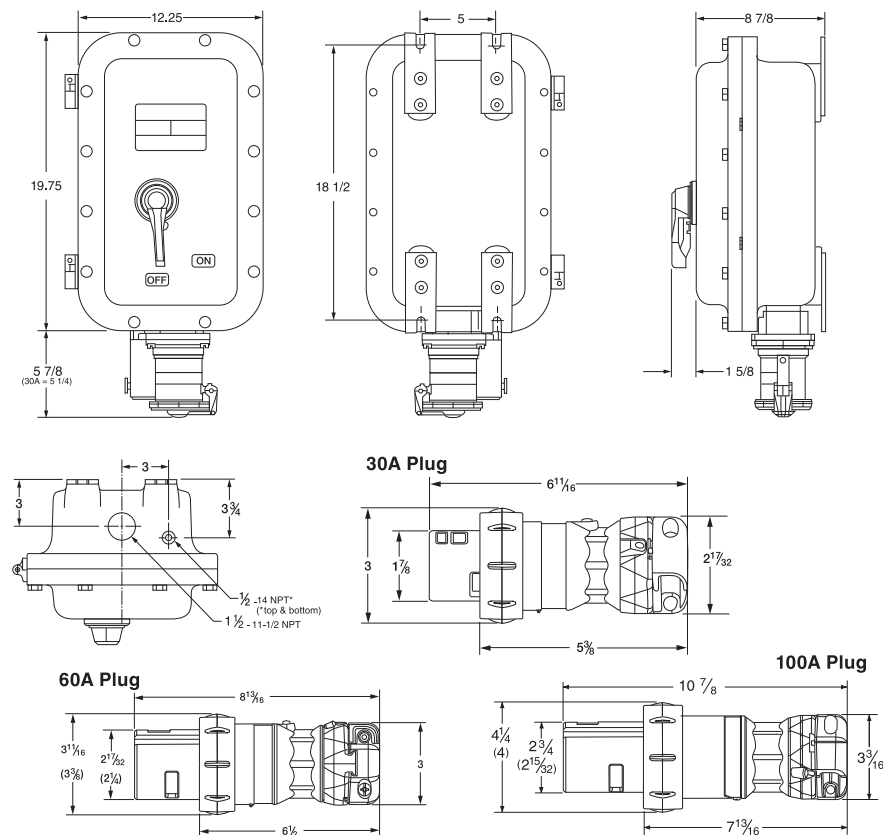
See instruction sheet included with device for other available replacement parts.

Enclosure:

- Spacious wiring room. Meets the latest NEC wire bending requirements for circuit breaker enclosures
- Ductile Mounting Lugs to adjust to uneven surfaces
- Copper-free construction with 316 grade Stainless Steel External Hardware
- Quick Release Cover Bolts with Triple Leads – only 3-1/2 turns to disengage

- Recessed Flange Notches – Allows easier cover opening with prying instrument without flange damage
- Electrostatically applied polyester/epoxy finish
- Visible “ON” external Breaker Handle has provisions for locking “ON” or “OFF” with up to three Padlocks
- Internal Lock-Off provision for maintenance when no hazardous materials are present

Dimensions



RECEPTACLES

VERSAMATE® SERIES



VBQ BREAKER PROTECTED



Internal Lock-Off provision for maintenance when no hazardous materials are present

Class I, Div. 1 & 2, Groups B, C, D
 Class I, Zones 1 & 2, Groups IIB+H₂, IIA
 Class II, Div. 1 & 2, Groups F & G
 Class III
 NEMA 3, 4, 4X, 7 (B, C, D), 9 (F, G)

UL cUL File No. E184637

FEATURES-SPECIFICATIONS

VBQ RECEPTACLES								
RECEPTACLE	CIRCUIT	BREAKER	CATALOG NUMBER				PLUG	
			SQUARE D FAL/HDL SERIES	SQUARE D FHL/HGL SERIES	CUTLER-HAMMER EHD SERIES	CUTLER-HAMMER FD SERIES	ORIG.	AT
30	2W3P	20	VBQ3023SN20	VBQ3023SH20	VBQ3023CN20	VBQ3023CH20	VP3385	VP3023
		30	VBQ3023SN30	VBQ3023SH30	VBQ3023CN30	VBQ3023CH30		
		40	VBQ3023SN40	VBQ3023SH40	VBQ3023CN40	VBQ3023CH40		
		50	VBQ3023SN50	VBQ3023SH50	VBQ3023CN50	VBQ3023CH50		
	3W4P	20	VBQ3034SN20	VBQ3034SH20	VBQ3034CN20	VBQ3034CH20	VP3485	VP3034
		30	VBQ3034SN30	VBQ3034SH30	VBQ3034CN30	VBQ3034CH30		
		40	VBQ3034SN40	VBQ3034SH40	VBQ3034CN40	VBQ3034CH40		
		50	VBQ3034SN50	VBQ3034SH50	VBQ3034CN50	VBQ3034CH50		
60	2W3P	50	VBQ6023SN50	VBQ6023SH50	VBQ6023CN50	VBQ6023CH50	VP6385	VP6023
		60	VBQ6023SN60	VBQ6023SH60	VBQ6023CN60	VBQ6023CH60		
		70	VBQ6023SN70	VBQ6023SH70	VBQ6023CN70	VBQ6023CH70		
		90	VBQ6023SN90	VBQ6023SH90	VBQ6023CN90	VBQ6023CH90		
		100	VBQ6023SN100	VBQ6023SH100	VBQ6023CN100	VBQ6023CH100		
	3W4P	50	VBQ6034SN50	VBQ6034SH50	VBQ6034CN50	VBQ6034CH50	VP6485	VP6034
		60	VBQ6034SN60	VBQ6034SH60	VBQ6034CN60	VBQ6034CH60		
		70	VBQ6034SN70	VBQ6034SH70	VBQ6034CN70	VBQ6034CH70		
		90	VBQ6034SN90	VBQ6034SH90	VBQ6034CN90	VBQ6034CH90		
		100	VBQ6034SN100	VBQ6034SH100	VBQ6034CN100	VBQ6034CH100		
100	2W3P	50	VBQ1023SN50	VBQ1023SH50	VBQ1023CN50	VBQ1023CH50	VP10387	VP1023
		70	VBQ1023SN70	VBQ1023SH70	VBQ1023CN70	VBQ1023CH70		
		90	VBQ1023SN90	VBQ1023SH90	VBQ1023CN90	VBQ1023CH90		
		100	VBQ1023SN100	VBQ1023SH100	VBQ1023CN100	VBQ1023CH100		
	3W4P	50	VBQ1034SN50	VBQ1034SH50	VBQ1034CN50	VBQ1034CH50	VP10487	VP1034
		70	VBQ1034SN70	VBQ1034SH70	VBQ1034CN70	VBQ1034CH70		
		90	VBQ1034SN90	VBQ1034SH90	VBQ1034CN90	VBQ1034CH90		
		100	VBQ1034SN100	VBQ1034SH100	VBQ1034CN100	VBQ1034CH100		

CIRCUIT BREAKER INTERRUPTING RATINGS	208/240 VAC	480 VAC	600 VAC	250 VDC†
Square D FAL	25,000	18,000	—	10,000
Square D HDL	25,000	18,000	14,000	20,000
Square D FHL	65,000	25,000	18,000	10,000
Square D HGL	65,000	35,000	18,000	20,000
Cutler-Hammer EHD	18,000	14,000	—	10,000
Cutler-Hammer FD	65,000	25,000	18,000	10,000

Consult Breaker Manufacturer literature for Horsepower Ratings.
 † DC ratings apply to substantially non-inductive circuits.

CIRCUIT BREAKER	WIRE RANGE
Square D	To 30 Amp #14-4 cu.; 35-100 Amp #14-1/0 cu.
Cutler-Hammer	To 20 Amp #14-10 cu.; 30-100 Amp #14-1/0 cu.

MODIFICATIONS①	
CATALOG NUMBER	DESCRIPTION
S37	Polarization for receptacles & plugs
SU10	Drain
SU11	Breather
SU3	Drain and Breather (CSA Groups C & D)

① See page PR3 and price sheet for more information on these options.

Contact factory for VBQ with ground fault option



EXCLUSIVE QUICK WIRING PLUG



UGPQW Plug



Built-in wire strip gauge

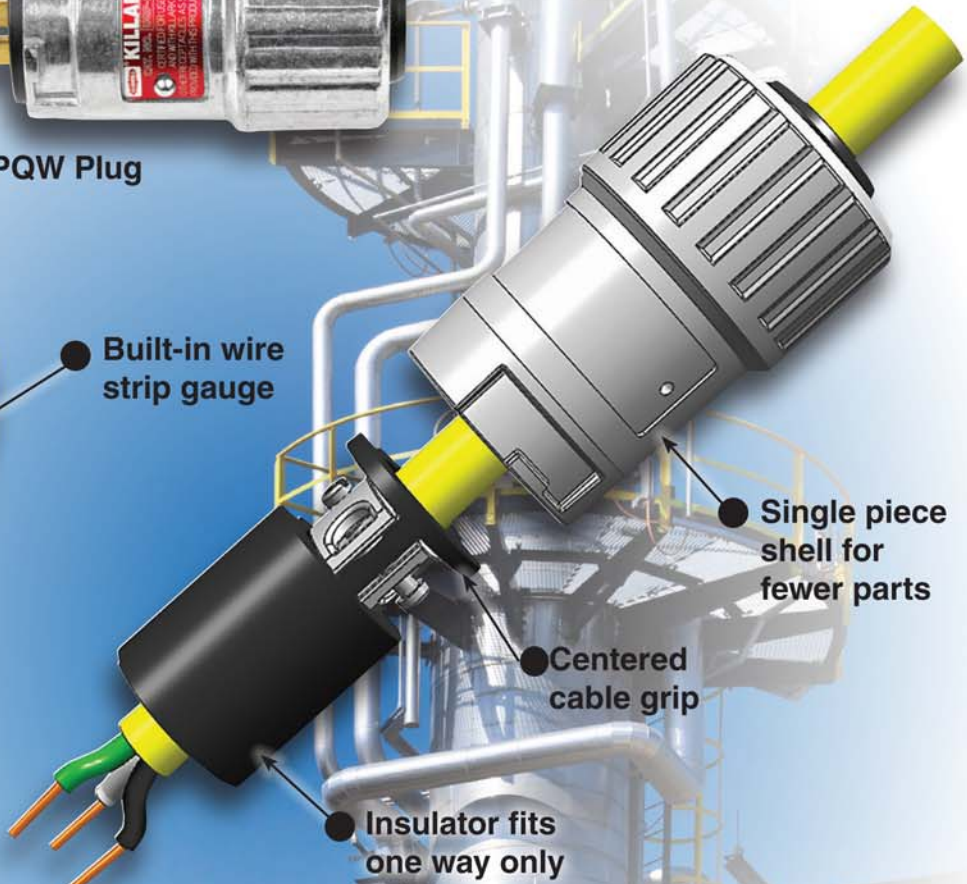
Wire guides enables easy conductor installation



Side tightening terminals use full sized #2 screwdriver (either flat or Phillips)



Old style insulator requires miniature screwdriver



Single piece shell for fewer parts

Centered cable grip

Insulator fits one way only



RECEPTACLES



ACCEPTOR® SERIES

UGR / UGP BLADED RECEPTACLES



UGR Receptacle



UGPQW Plug



Class I, Div. 1 & 2, Groups B[Ⓢ], C, D
Class I, Zones 1 & 2, Groups IIB+H₂, IIA
Class II, Div. 1 & 2, Groups F, G
Class III
NEMA 3, 7 (B, C, D), 9 (F, G)

UL LISTED File No. E91049 and/or E53660

CSA Certified File No. LR14667

Wire Size

Suitable for 14-10 guage SOOW or similar cable

FEATURES-SPECIFICATIONS

ACCEPTOR®

The ACCEPTOR® UGP/UGR Plug and Receptacle system, with its unique, patented design, is interchangeable^① with other NEMA bladed type explosion-proof and dust ignition proof devices. The series has been tested and classified for use with Crouse-Hinds® Ark-Gard®2 and Appleton® U-Line® plugs and receptacles in hazardous locations. **Now available in GFCI versions. See pages PR20-PR21**

How The Acceptor System Works

ACCEPTOR receptacles contain an integral switch which must be closed to energize the circuit. The design permits only an approved plug to be energized. To actuate the switch, the plug must be inserted and rotated clockwise approximately 45°. The plug will lock into this position preventing accidental disengagement. To remove, simply push in then turn the plug counterclockwise and pull straight out.

Plugs and receptacles may be used where interchangeable bladed devices are needed in locations made hazardous by the presence of flammable gases or vapors, combustible dusts or easily ignitable fibers and flyings.

Plug can serve to provide power for portable equipment used in both hazardous and non-hazardous areas.

Applications

- Petroleum Refineries, Chemical Plants
- Wet/Damp/Corrosive Areas
- Grain Elevators/Feed Mills

^① Exact models classified for interchangeability are listed in the information sheet provided with the products. Ark-Gard® is a registered trademark of Crouse-Hinds®, U-Line® is a registered trademark of Appleton Electric Company®.

^② Plugs Rated Group B when used with properly rated & installed receptacles. See next page.

Features

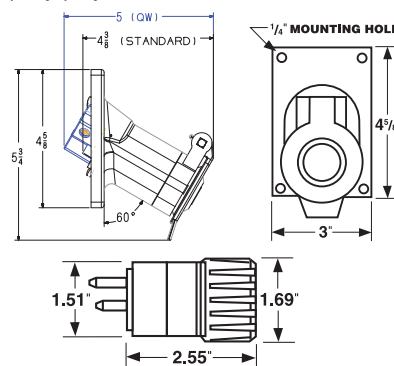
- All external hardware is 316 stainless steel to provide low maintenance and long life
- Factory sealed chamber in UGR receptacle contains switch's arcing components
- No additional external seals are required, except in Group B applications

Quick Wiring Plug

- Single piece shell for fewer parts
- Transparent wiring entrance holes for easy conductor insertion
- Screws tighten from side with "full sized" screwdriver (slot/Phillips)
- Insulator fits "one way"
- Centered cable grip



- Receptacles are U.L. Listed as raintight. Proper sealing against moisture is assured
- Spring loaded receptacle cover closes when plug is removed to provide protection when not in use
- Copper-free aluminum (less than 4/10 of 1%) alloy resists corrosion
- Electrostatically applied and baked powder epoxy/polyester finish



PLUG

ACCEPTOR® plugs conform to NEMA configurations and can be used with standard receptacles in non-hazardous areas to maximize equipment utilization. The system's "turn to engage" feature locks in

plug and can be used to prevent accidental disengagement of critical equipment.

Plugs for use with type S, SO, ST or STO heavy duty cord.

VOLTAGE	NEMA CONFIGURATION	CATALOG NUMBER	NEMA CONFIGURATION	CATALOG NUMBER
		15 AMP PLUG W/QUICK WIRING*		20 AMP PLUG W/QUICK WIRING*
125VAC	 5-15P	UGP-15231QW	 5-20P	UGP-20231QW
250VAC	 6-15P	UGP-15232QW	 6-20P	UGP-20232QW

*For Old Style plug remove QW from Catalog Number



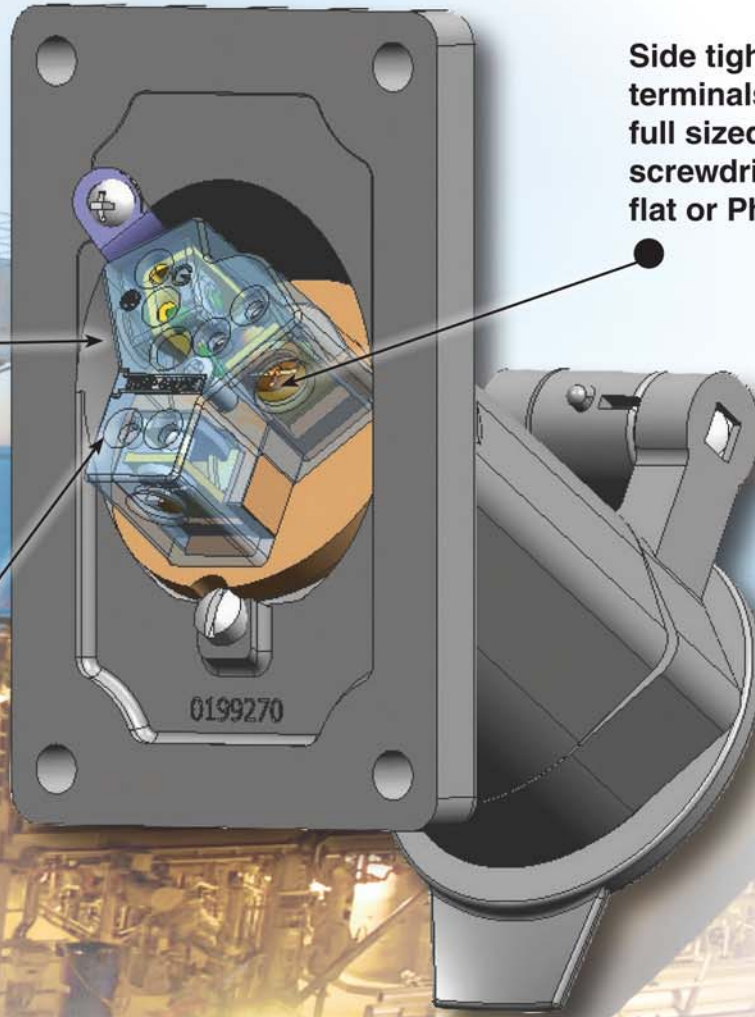
EXCLUSIVE QUICK WIRING RECEPTACLE

One or two conductors per phase

2nd conductor set feeds next receptacle in circuit

Wire Guides enable easy conductor insertion

Side tightening terminals use full sized #2 screwdriver (either flat or Phillips)



Old Style Terminals

- Recessed – Difficult to attach conductors
- Conductor must be curled – Full engagement uncertain
- Flat Screwdriver only
- Designed for one conductor – required jumper or “double wiring”

RECEPTACLES

ACCEPTOR® SERIES



UGRO QUICK WIRING SELECTION INFORMATION



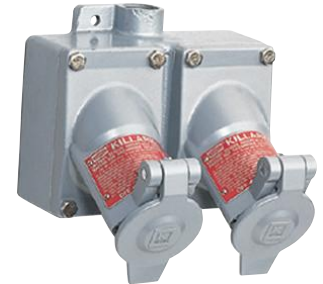
SWB-1, 2, 3



SWB-4, 5, 6







Single Gang



Double Gang

FEATURES-SPECIFICATIONS

RECEPTACLES AND ASSEMBLIES ^④						
NEMA RATING & CONFIGURATION	ENCLOSURE STYLE	HUB SIZE	SINGLE GANG ^{③④} GROUPS C, D, F, & G*	DOUBLE GANG ^{③④} GROUPS C, D, F, & G*	SINGLE GANG ^{①②} GROUPS B, C, D, F & G*	
20 Amp 125 Volt 2 POLE 3 WIRE  5-20R	RECEPTACLE ONLY	—	UGR0-20231QW	UGR0-20231QW	—	
	DEAD END	1/2"	UGR1-20231QW	UGR7-20231QW	UGRB1-20231QW	
		3/4"	UGR2-20231QW	UGR8-20231QW	UGRB2-20231QW	
		1"	UGR3-20231QW	UGR9-20231QW	UGRB3-20231QW	
	FEED-THRU	1/2"	UGR4-20231QW	UGR10-20231QW	UGRB4-20231QW	
		3/4"	UGR5-20231QW	UGR11-20231QW	UGRB5-20231QW	
		1"	UGR6-20231QW	UGR12-20231QW	UGRB6-20231QW	
	15 Amp 125 Volt 2 POLE 3 WIRE  5-15R	RECEPTACLE ONLY	—	UGR0C-15231QW	UGR0C-15231QW	—
		DEAD END	1/2"	UGR1C-15231QW	UGR7C-15231QW	UGRB1C-15231QW
3/4"			UGR2C-15231QW	UGR8C-15231QW	UGRB2C-15231QW	
1"			UGR3C-15231QW	UGR9C-15231QW	UGRB3C-15231QW	
FEED-THRU		1/2"	UGR4C-15231QW	UGR10C-15231QW	UGRB4C-15231QW	
		3/4"	UGR5C-15231QW	UGR11C-15231QW	UGRB5C-15231QW	
		1"	UGR6C-15231QW	UGR12C-15231QW	UGRB6C-15231QW	
20 Amp 250 Volt 2 POLE 3 WIRE  6-20R		RECEPTACLE ONLY	—	UGR0-20232QW	UGR0-20232QW	—
		DEAD END	1/2"	UGR1-20232QW	UGR7-20232QW	UGRB1-20232QW
	3/4"		UGR2-20232QW	UGR8-20232QW	UGRB2-20232QW	
	1"		UGR3-20232QW	UGR9-20232QW	UGRB3-20232QW	
	FEED-THRU	1/2"	UGR4-20232QW	UGR10-20232QW	UGRB4-20232QW	
		3/4"	UGR5-20232QW	UGR11-20232QW	UGRB5-20232QW	
		1"	UGR6-20232QW	UGR12-20232QW	UGRB6-20232QW	
	15 Amp 250 Volt 2 POLE 3 WIRE  6-15R	RECEPTACLE ONLY	—	UGR0C-15232QW	UGR0C-15232QW	—
		DEAD END	1/2"	UGR1C-15232QW	UGR7C-15232QW	UGRB1C-15232QW
3/4"			UGR2C-15232QW	UGR8C-15232QW	UGRB2C-15232QW	
1"			UGR3C-15232QW	UGR9C-15232QW	UGRB3C-15232QW	
FEED-THRU		1/2"	UGR4C-15232QW	UGR10C-15232QW	UGRB4C-15232QW	
		3/4"	UGR5C-15232QW	UGR11C-15232QW	UGRB5C-15232QW	
		1"	UGR6C-15232QW	UGR12C-15232QW	UGRB6C-15232QW	

① Items in this column are suitable for Class I, Group B in addition to Class I, Groups C, D. Also suitable for Class I, Zone 1, Groups IIB+H₂, IIA.

② Seals must be installed within 6 inches of conduit opening.

③ Items in this column may also be used in Class I, Zone 1, Groups IIB, IIA. Assembly numbers not rated for Group B are shipped as receptacle & back box components.

④ Refer to Killark full-line catalog Section C for additional SWB Series Back Box configurations.

⑤ U.S. and Canadian Codes allow "T" combination slot receptacles to be used with 15A or 20A plugs. Check breaker and wire feed size for proper application ratings.

NOTE: For replacement receptacle cover and hinge, order KIT-173. For dimension see PR15.

* For Old Style plug remove QW from Catalog Number



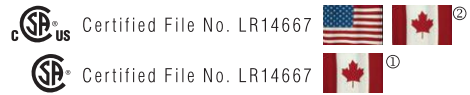
UGRC CONNECTORS



Connector with Breech-Lock Cap

“3rd Hand” Plug Operation

Class I, Div. 1 & 2, Groups B, C, D^①
 Class I, Zones 1 & 2, Groups IIB+H₂, IIA^①
 Class II, Div. 1 & 2, Groups F, G^②
 Class III
 NEMA 3, 4X*



Wire Size

Suitable for 14-10 gauge SOOW or similar cable

FEATURES-SPECIFICATIONS

ACCEPTOR®

CONNECTORS

The ACCEPTOR® UGRC Connector complements UGP/UGR Plugs and Receptacles, as well as Ground Fault Protected UGFI and UGRGF Models.

Used with Acceptor plugs, connectors can extend the reach for hazardous location rated portable equipment such as hand lamps. Connectors eliminate the need for user-created corded box mounted receptacles. UGRC Connectors are interchangeable and classified for use with other NEMA bladed type explosion-proof and dust ignition proof plugs, including Crouse-Hinds® Ark-Gard®2 and Appleton® ULine®.

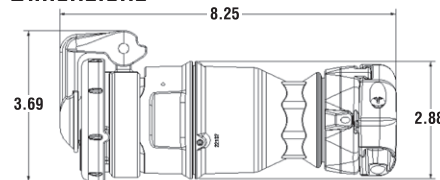
Features

- Available with the exclusive Breech-Lock Cap (see PR5 for more info) – patented notch provides “3rd hand” plug operation (holds lid open while one hand operates plug, and other holds connector).
- Factory Sealed Construction
- Copper-free aluminum (less than 4/10 of 1%) alloy resists corrosion
- Electrostatically applied and baked powder epoxy/polyester finish
- Dead Front Construction with integral switch – requires Hazardous Rated NEMA Bladed plug for operation

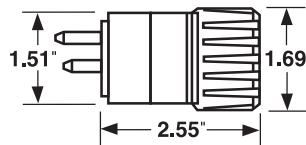
Industrial Applications

- Petroleum Refineries
- Chemical/Petrochemical Plants
- Oil Rigs & Platforms
- Wet/Corrosive Environments
- Grain Elevators

Dimensions



UGRC Connector
 Breech cap model shown, Flip cap model dimensions are similar



UGP Plug



Connector shown with Acceptor UGRP receptacle mounted in explosion proof Quantum® enclosure



Flip Cap

NEMA CONFIGURATION	125V CONNECTOR CAP STYLE	CATALOG NUMBER****	WEATHER RATING
20 Amp 125 Volt 2 POLE 3 WIRE 5-20R with T-slots	Breech-Lock with Notch Flip Type	UGRC-20231BQW UGRC-20231FQW	N4X* N3**
	Killark 125V Plugs 20 Amp 15 Amp	UGP-20231QW UGP-15231QW	
250V CONNECTOR CAP STYLE			
20 Amp 250 Volt 2 POLE 3 WIRE 6-20R with T-slots	Breech-Lock with Notch Flip Type	UGRC-20232BQW UGRC-20232FQW	N4X* N3**
	Killark 250V Plugs 20 Amp 15 Amp	UGP-20232QW UGP-15232QW	

* Breech cap models N4X with lid closed and turned, N3 When Plug inserted Hinge Up (see page PR3)

** Flip Lid models N3 with hinge in UP position with or without plug

*** See PR15 for Plug NEMA Diagram and Dimensions

**** For Old Style plug remove QW from Catalog Number

Replacement Cap and Hinge Kits: Breech KIT-173B, Flip KIT-173

① CSA certified Class I Div.1 for Canada and/or other jurisdictions accepting CSA.

② cCSA_{us} Class II, Groups F & G for US and Canada.

③ U.S. and Canadian Codes allow “T” combination slot receptacles to be used with 15A or 20A plugs. Check breaker and wire feed size for proper application ratings.

Ark-Gard® is a registered trademark of Crouse-Hinds®
 U-Line® is a registered trademark of Appleton Electric Company®

RECEPTACLES

ACCEPTOR® SERIES



UGRP PANEL RECEPTACLES



Breach Cap Model



Flip Cap



Typical Installation

Class I, Div. 1 & 2, Groups B, C, D^①
 Class I, Zones 1 & 2, Groups IIB+H₂, IIA
 Class II, Div. 1 & 2, Groups F, G
 Class III
 NEMA 3, 4X*

CSA[Ⓢ] US Certified File No. LR14667[Ⓢ]

Wire Size

Suitable for 14-10 guage SOOW or similar cable

FEATURES-SPECIFICATIONS

ACCEPTOR®

PANEL RECEPTACLES

The ACCEPTOR® UGRP Panel Receptacle complements UGP/UGR Plugs and Receptacles, as well as Ground Fault Protected UGFI and UGRGF Models.

Used with Acceptor plugs, panel receptacles provide local power for hazardous location rated portable equipment such as hand lamps. Units are suitable for Class I Div. 1 or Class I Div.2 depending on the enclosure type used^①.

UGRP Panel Receptacles are interchangeable and classified for use with other NEMA bladed type explosion-proof and dust ignition proof plugs, including Crouse-Hinds® Ark-Gard®2 and Appleton® ULine®.

Features

- Available with the exclusive **Breach-Lock Cap** (see PR5 for more info) – patented notch provides “3rd hand” plug operation (holds lid open while one hand operates plug, and other holds connector).
- Factory Sealed Construction
- Copper-free aluminum (less than 4/10 of 1%) alloy resists corrosion
- Electrostatically applied and baked powder epoxy/polyester finish
- Dead Front Construction with integral switch – requires Hazardous Rated NEMA Bladed plug for operation

Ark-Gard® is a registered trademark of Crouse-Hinds®
 U-Line® is a registered trademark of Appleton Electric Company®

Industrial Applications

- Petroleum Refineries
- Chemical/Petrochemical Plants
- Oil Rigs & Platforms
- Wet/Corrosive Environments
- Grain Elevators

• UGRP Receptacles are available “Factory Installed” in the following series:

Enclosures

- » Series EXB, B7E

Distribution Equipment

- » Series D2L, B7L Lighting Panelboards

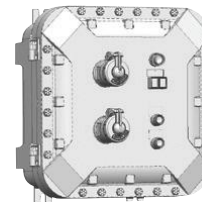
- Contact factory for ordering information



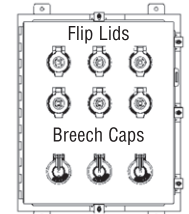
Breach Lid



Flip Cap

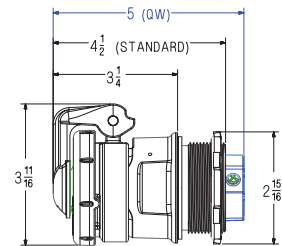


Typical CLI Div. 1 application



Typical CLI Div. 2 application 2-3/8" K.O.

Dimensions



Breach Cap model shown. Flip Cap model dimensions are similar

NEMA CONFIGURATION	125V PANEL RECEPTACLE CAP STYLE	CATALOG NUMBER****	WEATHER RATING
20 Amp 125 Volt 2 POLE 3 WIRE 5-20R with T-slots ^③	Breach-Lock with Notch Flip Type	UGRP-20231BQW UGRP-20231FQW	N4X* N3**
	Killark 125V Plugs 20 Amp 15 Amp	UGP-20231QW UGP-15231QW	
20 Amp 250 Volt 2 POLE 3 WIRE 6-20R with T-slots ^③	Breach-Lock with Notch Flip Type	UGRP-20232BQW UGRP-20232FQW	N4X* N3**
	Killark 250V Plugs*** 20 Amp 15 Amp	UGP-20232QW UGP-15232QW	

* Breach cap models N4X with lid closed and turned, N3 When Plug inserted Hinge Up

** Flip Lid models N3 with hinge in UP position with or without plug

*** See PR15 for Plug NEMA Diagram and Dimensions

**** For Old Style plug remove QW from Catalog Number

Replacement Cap and Hinge Kits: Breach KIT-173B, Flip KIT-173

① Class I Div.1 B,C,D in enclosures certified to 325 explosive PSI (2"-11/16" NPSM threads). Class I Div. 2 in standard location enclosures using only non-arcing components.

② CSA[Ⓢ] US Certified for United States, Canada, and other jurisdictions accepting the mark.

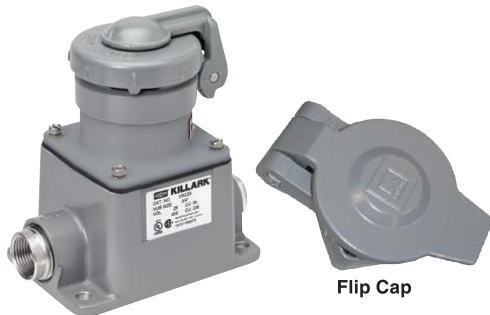
③ U.S. and Canadian Codes allow “T” combination slot receptacles to be used with 15A or 20A plugs. Check breaker and wire feed size for proper application ratings.



ACCEPTOR® SERIES



UGRS / UGRGF RECEPTACLES



Breach Cap Model

Flip Cap



UGRGF

Class I, Div. 2, Groups B, C, D
 Class I, Zone 2, Groups IIB+H₂, IIA
 Class II, Div. 1 & 2, Groups F, G
 Class III
 NEMA 3, 4X

SP US Certified File No. LR14667®

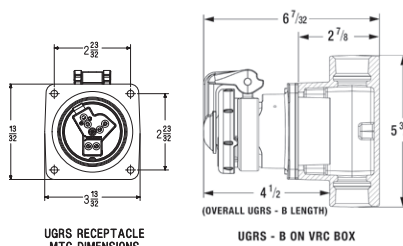
Class I, Div. 1 & 2, Groups C, D
 Class I, Zones 1 & 2, Groups IIB, IIA
 Class II, Div. 1 & 2, Groups F, G
 Class III
 NEMA 3, 7 (C, D) 9 (F, G)

SP US Certified LR11714
 See files for details or call Killark.

FEATURES-SPECIFICATIONS
ACCEPTOR®
 SQUARE RECEPTACLE

UGRS Receptacles utilize VERSAMATE® 30A mounting boxes and are designed to provide **“ROTATABLE” design enables cover hinge location to be in most convenient position for application.** May also be utilized with sheet metal enclosures which contain no arcing devices.

Dimensions



Breach Cap model shown.
 Flip Cap model dimensions are similar

GFI PROTECTED RECEPTACLE

Utilizes FXS GFI and ACCEPTOR® receptacle to interrupt a circuit, when a ground fault is detected on equipment which may be handled by personnel in hazardous locations.

Features

- Factory Sealed
- Test and Reset push buttons are provided on cover assembly, with optional pilot light available④ Unit should be tested monthly
- Includes new GFCI to meet latest UL943 GFCI standards revisions
- Exterior gasket provides NEMA 3 weatherproof protection
- Ground boss for grounding in the splice box
- Color coded wiring and stainless steel cover bolts
- Receptacle used is UGR0-20231QW. See page PR15

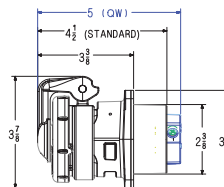
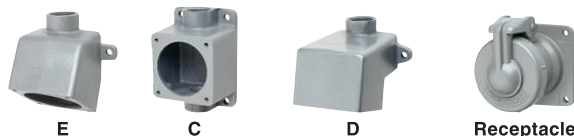
NEMA CONFIGURATION	125V SQUARE RECEPTACLE CAP STYLE	CATALOG NUMBER****
20 Amp 125 Volt 2 POLE 3 WIRE 5-20R with T-slots	Breach-Lock with Notch* Flip Lid Type**	UGRS-20231BQW UGRS-20231FWW
	Killark 125V Plugs*** 20 Amp 15 Amp	UGP-20231QW UGP-15231QW
20 Amp 250 Volt 2 POLE 3 WIRE 6-20R with T-slots	Breach-Lock with Notch* Flip Lid Type**	UGRS-20232BQW UGRS-20232FWW
	Killark 250V Plugs*** 20 Amp 15 Amp	UGP-20232QW UGP-15232QW

* Breach cap models N4X with lid closed and turned, N3 When Plug inserted Hinge Up

** Flip Lid models N3 with hinge in UP position with or without plug

*** See PR15 for Plug NEMA Diagram and Dimensions

**** For Old Style plug remove QW from Catalog Number



NEMA RATING & CONFIGURATION	ENCLOSURE STYLE	HUB SIZE	CATALOG NUMBER
20A, 125V, 2P, 3W	Dead End	1/2"	UGRGF107
	Dead End	3/4"	UGRGF108
	Dead End	1"	UGRGF109
	Feed Thru	1/2"	UGRGF110
	Feed Thru	3/4"	UGRGF111
	Feed Thru	1"	UGRGF112

Electrical Rating

GFI units are rated at 20A, 120 VAC, 60Hz. Class A.

4-6 milliamp trip setting

Trip Time-UL Curve

④ For Red LED pilot light indicator of live circuit, add "PL" to catalog number. Example - UGRGF107-PL.

UGRS RECEPTACLE & BACKBOXES①

	E TYPE DEAD END ②	C TYPE FEED THRU ②	D TYPE ANGLED FEED THRU ②	RECEPTACLE ONLY
20A 125V	UGRS-20231BE2QW	UGRS-20231BC2QW	UGRS-20231BD2QW	UGRS-20231BQW
20A 250V	UGRS-20232BE3QW	UGRS-20232BC3QW	UGRS-20232BD3QW	UGRS-20232BQW

① Receptacles listed are with Breach cap; for Flip Cover change B to F.

② Boxes listed are for 3/4"; for 1/2" change last digit to 1, for 1" change last digit to 3.

③ cCSA US Certified for United States, Canada, and other jurisdictions accepting the mark.

④ U.S. and Canadian Codes allow "T" combination slot receptacles to be used with 15A or 20A plugs. Check breaker and wire feed size for proper application ratings.

RECEPTACLES

ACCEPTOR® SERIES



UGFI GROUND FAULT PROTECTOR

ACCEPTOR®



Adapter Unit

UL LISTED File No. E91049

CS US Certified File No. LR14667

FEATURES-SPECIFICATIONS

Adapter Unit

- No need to permanently alter existing installations; **Portable Unit** can be temporarily hung using included strap near an existing receptacle wherever protection is required
- Factory Sealed Unit
- Acceptor® plug and cord set included with **Adapter Unit**. Cord is 36"

Hard-Wired Unit

- provides GFCI and circuit protection in new installations, or as an upgrade or replacement for non-GFCI receptacles
- Factory Sealed, except Group B

Adapter and Hard-Wired Unit

- GFCI device also provides circuit protection, for connected apparatus, against current overload and short circuits
- Acceptor® receptacles and plugs are interchangeable with both Crouse-Hinds® Ark-Gard®2 and Appleton® U-Line® products
- Amber pilot light provides indication that the receptacle is energized.
- Units can be Padlocked OFF for maintained safety
- Fully gasketed GFCI compartment prevents moisture from damaging electronic components
- Same high quality materials as the standard ACCEPTOR®

- Hard-Wired assemblies in Group B areas require sealing within 6" of enclosure.
- 125VAC & 250 VAC devices are CCSAUS certified; 125VAC devices are also UL Listed.
- 2P 250V units are for 2 "hot line" applications and include 2P 5mA GFI breakers. 2P Units are for 120/240V or 120/208Y Grounded Power Supply Systems ONLY. **Do NOT use with Delta supply systems.**

Ark-Gard® is a registered trademark of Crouse-Hinds®
U-Line® is a registered trademark of Appleton Electric Company®.

- Adapter Unit**
Class I, Div. 2, Groups B, C, D
Class I, Zone 2, Groups IIB+H₂, IIA
Class II, Div. 1 & 2, Groups F, G
Class III, Div. 1 & 2
- Hard-Wired Unit**
Class I, Div. 1 & 2, Groups B, C, D
Class I, Zones 1 & 2, Groups IIB+ H₂, IIA
Class II, Div. 1 & 2, Groups F, G
Class III, Div. 1 & 2

NEMA 3 ENCLOSURE TYPE
(Adapter or Hard-Wired units)

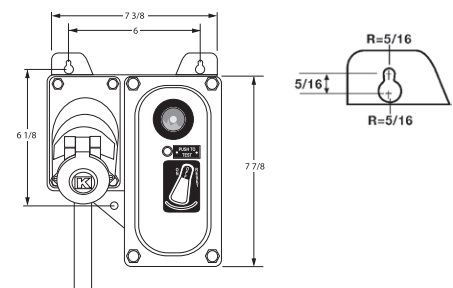
GFCI RECEPTACLE ADAPTER (W/CORD SET)

20A 125V ②	UGFI20AD	 5-20R
15A 125V ②	UGFI15AD	 5-15R
20A 250V ②③	UGFI202AD	 6-20R
15A 250V ②③	UGFI152AD	 6-15R

HARD WIRED (PERMANENTLY MOUNTED) GFCI RECEPTACLE

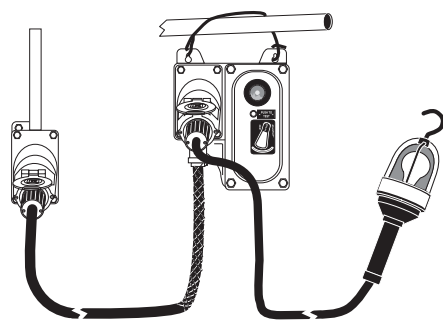
20A 125V ②	 5-20R	1/2" HUB 3/4" HUB 1" HUB	UGFI20C1 UGFI20C2 UGFI20C3
15A 125V ②	 5-15R	1/2" HUB 3/4" HUB 1" HUB	UGFI15C1 UGFI15C2 UGFI15C3
20A 250V ②③	 6-20R	1/2" HUB 3/4" HUB 1" HUB	UGFI202C1 UGFI202C2 UGFI202C3
15A 250V ②③	 6-15R	1/2" HUB 3/4" HUB 1" HUB	UGFI152C1 UGFI152C2 UGFI152C3

Hard-Wired Unit



The GFCI protected ACCEPTOR® is the solution to OSHA's requirements for GFCI protection when using portable equipment in hazardous and wet locations. For use with 125V, or 125/250V ② 15 or 20 amp receptacles without GFCI protection, the **Adapter Unit** provides GFCI and circuit protection to connected apparatus by simply being plugged into an existing receptacle.

The **Hard-Wired Unit** provides the same protection and is used directly as a GFCI protected device. Units are feed-through with one close-up plug.



Typical Application with XHL Series Hand Lamp



HAZARDOUS LOCATION – DELAYED ACTION

UL LISTED E23572

SF Certified LR14667D

Class I, Div. 1 & 2, Groups C, D
Class I, Zones 1 & 2, IIB, IIA
NEMA 7 (C, D)

FEATURES-SPECIFICATIONS

Applications

KR Series plugs and receptacles are suitable:

- In hazardous locations due to the presence of flammable vapors or gases
- Where a heavy duty plug and receptacle is necessary
- Where a connection is required for portable or movable equipment such as tools, motors, hand lights, etc.
- KP series plugs use solder terminations for sure connection
- KR series receptacles use wire leads for termination

Features

- Factory sealed receptacles
- Copper free aluminum
- Straight or angle type receptacles
- Delayed action contacts (See Time Delay Inset)
- Plugs with a wide range of grommet openings
- Extra long grounding pole makes contact first and breaks contact last
- Heavy duty construction to withstand rough and constant usage

Selection

Refer to page headings for suitability of specific items. When selecting a Killark device consider the following:

- Installation area (Hazardous or Weather-Resistant)
- Amperage
- Voltage
- Electrical Rating (see below)
- Grounding
- Modifications (see right)
- Mounting arrangement
- Box and hub type
- Cord diameter

CSA approval on 20 Amp only.
UL for 20-60 AMP

Details of Safety Time Delay Feature

The key slot provided in the receptacle engages the key of the plug permitting entrance of the plug in the receptacle in only one position. See steps 1-4.

The contacts are enclosed in long accurate insulating cavities. It is in these cavities that the arcs are extinguished. All contacts are made through round tellurium copper tubing which is extra heavy to withstand arcing as required on the various ampere ratings.

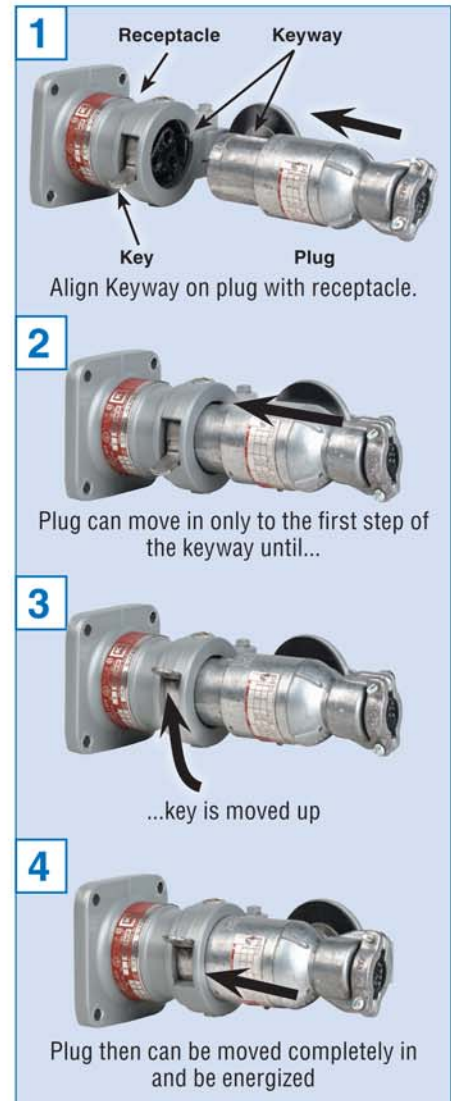
Both plugs and receptacles are equipped with an extra long grounding pole which establishes grounding before the power contacts are engaged. These grounding poles are also the last to break contact. This assures bonding of the portable device to the electrical conduit system.

Selection

Modifications are available by adding the following suffix (SU37 or SU38) to the catalog number and can be used to prevent mismatched voltage connections. (Note: It must be added to both the plug and the receptacle so they will mate.)

MODIFICATIONS	
CATALOG NUMBER	DESCRIPTION
SU37	Interior contact assemblies are to be rotated 22-1/2° to the right.
SU38	Interior contact assemblies are to be rotated 22-1/2° to the left.

Safety Time Delay Feature



ELECTRICAL RATINGS					
TYPE	AMPERAGE	VOLTAGE VAC	CIRCUIT	H.P.	HERTZ
Ø20 AMP	20	115/230	2W3P	1	60
30 AMP	7	460	2W3P	1/2	60
	7	460	3W4P	1	60
	30	115/230	2W3P	1-1/2	60
	30	115/230	3W4P	3	60
60 AMP	30	460	2W3P	3	60
	30	460	3W4P	5	60
	60	115/230	2W3P	5	60
	60	115/230	3W4P	5	60

RECEPTACLES

KR SERIES



20 AMP 115/230 V.A.C • 1Ø 2 WIRE, 3 POLE



KRS Series



KRA



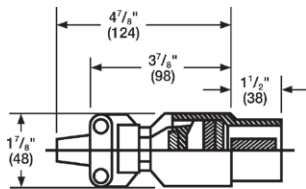
Plug

Class I, Div. 1 & 2, Groups C, D^①
Class I, Zones 1 & 2, IIB, IIA
NEMA 7 (C, D)

LISTED File No. E23572

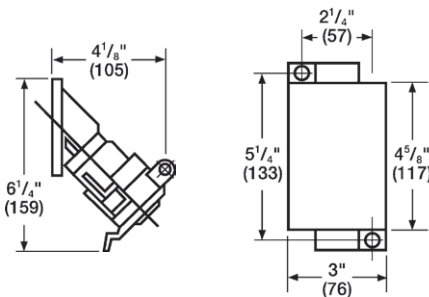
Certified File No. LR14667

FEATURES-SPECIFICATIONS



KP 20 AMP PLUG	
CATALOG NO.	DESCRIPTION
KP-20ABC	Plug furnished with 3 grommets range .250 - .625

See page PR22 for available polarization options.



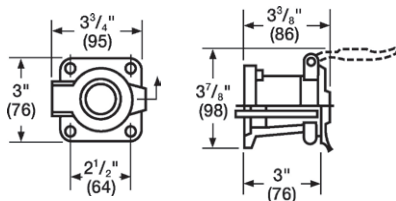
KRS-Series

KRS 20A 1Ø 2W RECEPTACLE WITH SWB BOX ^②								
HUB SIZE	CATALOG NUMBER							
	SINGLE RECEPTACLE & DEAD END BOX	BOX ONLY	SINGLE RECEPTACLE & FEED-THRU BOX	BOX ONLY	DOUBLE RECEPTACLE & DEAD END BOX	BOX ONLY	DOUBLE RECEPTACLE & FEED-THRU BOX	BOX ONLY
1/2"	KRS-215-120	SWB-1	KRS-218-120	SWB-4	2KRS-215-120	SWB-7	2KRS-218-120	SWB-10
3/4"	KRS-215-220	SWB-2	KRS-218-220	SWB-5	2KRS-215-220	SWB-8	2KRS-218-220	SWB-11
1"	KRS-215-320	SWB-3	KRS-218-320	SWB-6	2KRS-215-320	SWB-9	2KRS-218-320	SWB-12

RECEPTACLE ONLY – CATALOG NUMBER KRS-20

^① KRS Series receptacles - Class I, Group D.

^② SWB Series mounting splice boxes only for receptacles shown above listed in Section C of full-line catalog. See page PR22 for available polarization options.



KRJ-Series



AJC



JLC



JLX

KRJ RECEPTACLE WITH AJ OR JL BOX			
HUB SIZE	CATALOG NUMBER		
	AJC	JLC	JLX
1/2"	—	KRJC-120	KRJX-120
3/4"	KRAJC-220	KRJC-220	KRJX-220
1"	KRAJC-320	—	—

BACK BOX ONLY			
1/2"	—	JLC-1	JLX-1
3/4"	AJC-2	JLC-2	JLX-2
1"	AJC-3	—	—

RECEPTACLE ONLY – CATALOG NUMBER KRJ-20

JL Series boxes shown in Section F of full-line catalog. Refer to page headings for suitability of specific items. See page PR22 for available polarization options.

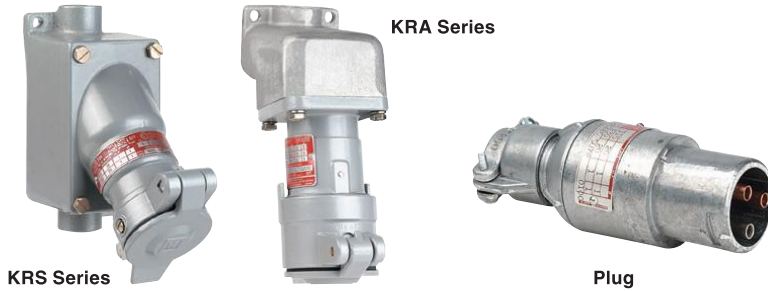


KR SERIES

KILLARK

30 AMP 115/230 V.A.C. • 7 AMP 460 V.A.C

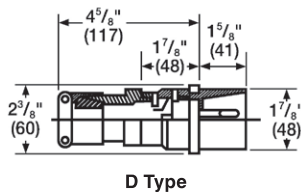
KRS/KRJ Series Plug



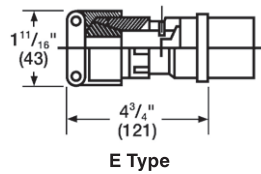
Class I, Div. 1 & 2, Groups C,D^①
 Class I, Zones 1 & 2, IIB, IIA
 NEMA 7 (C,D)

UL LISTED - File E23572
 See files for details or call Killark.

FEATURES-SPECIFICATIONS



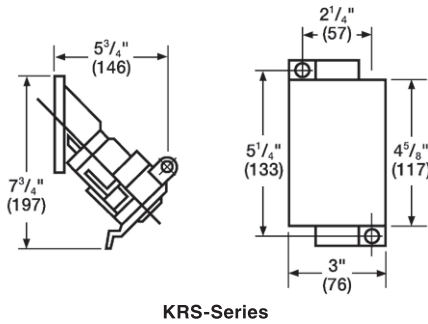
D Type



E Type

KP 30 AMP PLUG			
CATALOG NUMBER		PLUG TYPE	GROMMET RANGE
1Ø, 2-WIRE, 3-POLE	3Ø, 3-WIRE 4-POLE		
KP-303D23	KP-304D23	D	.375-.625
KP-303D45	KP-304D45	D	.625-.875
KP-303E45	KP-304E45	E	.875-1.125
KP-303E67	KP-304E67	E	1.125-1.375

See page PR22 for available polarization options.

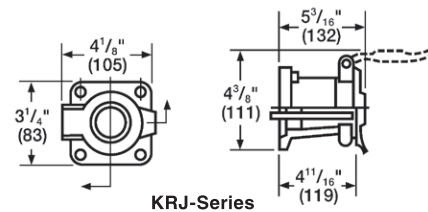


KRS-Series

HUB SIZE	KRS RECEPTACLE WITH SWB BOX ^②							
	CATALOG NUMBER - SINGLE GANG ONLY							
	1Ø, 2-WIRE, 3-POLE DEAD END BOX	BOX ONLY	1Ø, 2-WIRE, 3-POLE FEED THRU BOX	BOX ONLY	3Ø, 3-WIRE, 4-POLE DEAD END BOX	BOX ONLY	3Ø, 3-WIRE, 4-POLE FEED THRU BOX	BOX ONLY
1/2"	KRS-215-1303	SWB-1	KRS-218-1303	SWB-4	KRS-215-1304	SWB-1	KRS-218-1304	SWB-4
3/4"	KRS-215-2303	SWB-2	KRS-218-2303	SWB-5	KRS-215-2304	SWB-2	KRS-218-2304	SWB-5
1"	KRS-215-3303	SWB-3	KRS-218-3303	SWB-6	KRS-215-3304	SWB-3	KRS-218-3304	SWB-6
RECEPTACLE ONLY	KRS-303				KRS-304			

^① KRS Series receptacles - Class I, Group D.

^② SWB Series mounting splice boxes for receptacles shown above listed in Section C of full-line catalog. Two gang models not available. See page PR22 for available polarization options.



KRJ-Series



CIRCUIT	HUB SIZE	CATALOG NUMBER		
		AJC	JLC	JLX
1Ø	1/2"	—	KRJC-1303	KRJX-1303
2-Wire	3/4"	KRAJC-2303	KRJC-2303	KRJX-2303
3-Pole	1"	KRAJC-3303	—	—
RECEPTACLE ONLY – CATALOG NUMBER KRJ-303				
3Ø	1/2"	—	KRJC-1304	KRJX-1304
3-Wire	3/4"	KRAJC-2304	KRJC-2304	KRJX-2304
4-Pole	1"	KRAJC-3304	—	—
RECEPTACLE ONLY – CATALOG NUMBER KRJ-304				
Back Box Only	1/2"	—	JLC-1	JLX-1
	3/4"	AJC-2	JLC-2	JLX-2
	1"	AJC-3	—	—

ELECTRICAL RATING	
CIRCUIT	RATING (60 HERTZ)
1 Ø	7 Amps, 460 V.A.C., 1½ H.P.
2-Wire	— OR —
3-Pole	30 Amps, 115/230 V.A.C., 1-1½ H.P.
3 Ø	7 Amps, 460 V.A.C., 1 H.P.
3-Wire	— OR —
4-Pole	30 Amps, 115/230 V.A.C., 3 H.P.

JL Series boxes shown in Section F of full-line catalog. Refer to page headings for suitability of specific items. See page PR22 for available polarization options.



RECEPTACLES

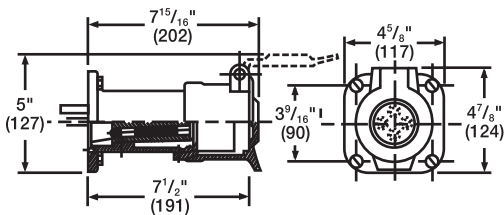
60 AMP 115/230 V.A.C. • 30 AMP/460 V.A.C.



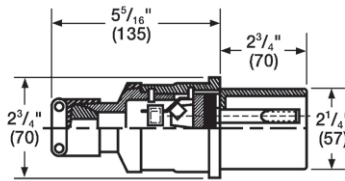
Class I, Div. 1 & 2, Groups C, D
Class I, Zones 1 & 2, IIB, IIA
NEMA 7 (C, D)

UL LISTED File No. E23572

FEATURES-SPECIFICATIONS



KRJ-60 Type Receptacles

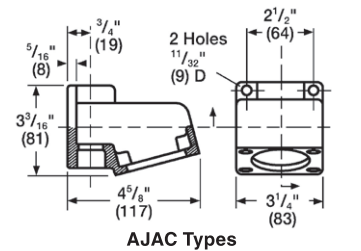


KP Type Plugs

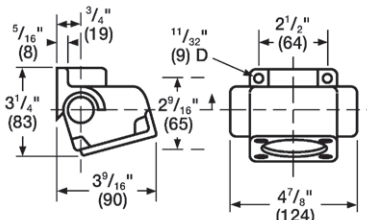
KR 60 AMP PLUGS		
CATALOG NUMBER		GROMMET RANGE
1Ø, 2-WIRE, 3-POLE	3Ø, 3-WIRE 4-POLE	
KP-603D345	KP-604D345	.500-.875
KP-603E45	KP-604E45	.875-1.125
KP-603E67	KP-604E67	1.125-1.375
—	KP-604F34	1.250-1.500
—	KP-604F56	1.500-1.750

See page PR22 for available polarization options.

Dimensions-Back Boxes



AJAC Types

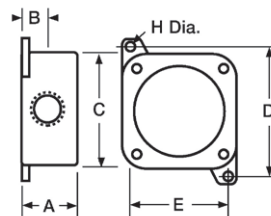


AJAT Type

KR RECEPTACLE ASSEMBLIES						
HUB SIZE	BOX STYLE	HUB STYLE	CATALOG NUMBER			
			1Ø, 2-WIRE 3-POLE	3Ø, 3-WIRE 4-POLE	SPLICE BOX ONLY	
1"	JAL Series Boxes	"X"-3 Close-up Plugs Supplied	KRJX-3603	KRJX-3604	JALX-3	
1-1/4"			KRJX-4603	KRJX-4604	JALX-4	
1-1/4"	AJA Series Boxes	Feed Thru Top and Bottom	KRAJAC-4603	KRAJAC-4604	AJAC-4	
1-1/2"			KRAJAC-5603	KRAJAC-5604	AJAC-5	
2"			KRAJAC-6603	KRAJAC-6604	AJAC-6	
1-1/4"			T Sides and Top	KRAJAT-4603	KRAJAT-4604	AJAT-4
1-1/2"				KRAJAT-5603	KRAJAT-5604	AJAT-5
RECEPTACLE ONLY			KRJ-603	KRJ-604	—	

NOTE: For dead end box, use AJAC Series and CUP Series close-up plug.
See page PR22 for available polarization options.

ELECTRICAL RATING	
CIRCUIT	RATING (60 HERTZ)
1 Ø	30 Amps, 460 V.A.C., 3 H.P.
2-Wire	— OR —
3-Pole	60 Amps, 115/230 V.A.C., 3 H.P.
3 Ø	30 Amps, 460 V.A.C., 5 H.P.
3-Wire	— OR —
4-Pole	60 Amps, 115/230 V.A.C., 5 H.P.



JAL Type

JAL TYPE MOUNTING BOXES						
HUB	A	B	C	D	E	H
1"	2-3/8"	1-5/32"	4-5/8"	5-1/4"	4-1/8"	5/16"
1-1/4"	3-1/8"	1-17/32"	4-5/8"	5-1/4"	4-1/8"	5/16"



VSI NON-METALLIC PLUGS AND SWITCHED RECEPTACLES



Class I, Div. 2, Groups A, B, C, D
 Class I, Zones 1 & 2, Groups IIC, IIB, IIA
 AEx de IIC T6
 Class II, Div. 1 & 2, Groups E, F, G
 Class III
 NEMA 3, 4, 4X, IP66

FM APPROVED File 3014299
 Certified - File LR240743
 See files for details or call Killark

FEATURES-SPECIFICATIONS



Applications

- For use in hazardous and corrosive environments such as refineries, chemical plants, water treatment and bio gas plants, and wherever a combustible gas-air mixture or combustible dust may occur

Features

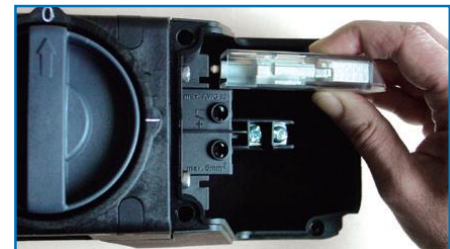
- Color coding and pin configuration makes it physically impossible to mate plugs and receptacles of different voltages and current ratings
- Interlocked switch mechanism prevents accidental removal of plug from receptacle under load
- Horsepower rated disconnect switch
- Dust caps* included with 20A and 30A plugs as standard

- No seal required within Class I, Division 2 applications.
- Provision for up to two optional auxiliary contact blocks, useful for signaling circuits or starter coils.③
- Dimensional information – page PR28.

PARTS AND ACCESSORIES③	PART NUMBER
Auxiliary Contact Block NC, A600④	VSIAUXNC
Auxiliary Contact Block NO, A600④	VSIAUXNO

④ 10A rating for one auxiliary block; 5A if two are used.
 Position noted (NC or NO) is when main switch is off.

VSI SERIES PLUGS & SWITCHED RECEPTACLES					
DESCRIPTION		CATALOG NUMBER			
	AC VOLTAGE AND COLOR CODE	20 AMP①		30 AMP②	
		RECEPTACLE	PLUG	RECEPTACLE	PLUG
2 Pole 3 Wire	125 Yellow	VSI20R304	VSI20P304	—	—
	250 Blue	VSI20R306	VSI20P306	—	—
	480 Red	VSI20R307	VSI20P307	—	—
3 Pole 4 Wire	3 Ø 250 Blue	VSI20R409	VSI20P409	VSI30R409	VSI30P409
	3 Ø 480 Red	VSI20R407	VSI20P407	VSI30R407	VSI30P407
	3 Ø 600 Black	VSI20R405	VSI20P405	VSI30R405	VSI30P405
4 Pole 5 Wire	3 ØY 120/208 Blue	VSI20R509	VSI20P509	VSI30R509	VSI30P509
	3 ØY 277/480 Red	VSI20R507	VSI20P507	VSI30R507	VSI30P507
	3 ØY 347/600 Black	VSI20R505	VSI20P505	VSI30R505	VSI30P505



Snap into side(s) of terminal block

① VSI 20A devices are compatible with prior 16A models. However, the rating of the lower amperage will apply.
 ② VSI 30A devices are compatible with prior 32A models. Ratings of the lower amperage will apply.
 * Dust caps shall be installed on plugs with receptacle cover closed when the plug is not engaged in the receptacle.

TECHNICAL DATA				
RECEPTACLE		20 AMP		30 AMP
ENCLOSURE MATERIAL		Polyamide		
AMBIENT TEMPERATURE, T _a		-30°C (-22°F) to +55°C (131°F)		
TERMINAL CAPACITY		2 wires, rated 75°C (Ta<45°C) or 90°C (Ta>45°C)		
		16-10 AWG		14-8 AWG
SWITCH RATING	(Horsepower)	1-phase	3-phase	3-phase
	120 VAC	1.5 HP	—	—
	240 VAC	3 HP	5 HP	10 HP
	480 VAC	5 HP	10 HP	20 HP
	600 VAC	—	15 HP	25 HP
LINE SUPPLY FUSE		CLASS J - size per NEC/GEC requirement, upstream ahead of unit		
BOTTOM ENTRY		3/4" NPT		1" NPT

TECHNICAL DATA		
PLUG	20 AMP	30 AMP
ENCLOSURE MATERIAL	POLYAMIDE	
TERMINAL CAPACITY	1 wire, rated 75°C (Ta<45°C) or 90°C (Ta>45°C)	
	16-10 AWG	14-8 AWG
CORD OUTER DIA.	0.3" - 0.8"	0.6" - 1.1"

RECEPTACLES

VERSAMATE® SERIES



VSI NON-METALLIC PLUGS AND SWITCHED RECEPTACLES



- Class I, Div. 2, Groups A, B, C, D
- Class I, Zones 1 & 2, Groups IIC, IIB, IIA
AEx de IIC T6
- Class II, Div. 1 & 2, Groups E, F, G
- Class III
- NEMA 3, 4, 4X, IP66

File 3014299
 Certified - File LR240743
 See files for details or call Killark

FEATURES-SPECIFICATIONS



Applications

- For use in hazardous and corrosive environments such as refineries, chemical plants, water treatment and bio gas plants, and wherever a combustible gas-air mixture or combustible dust may occur

- When VSI Series is installed in Class II Div. 1 & 2 locations, dust caps for plugs are required. See ordering information below

Features

- Color coding and pin configuration makes it physically impossible to mate plugs and receptacles of different voltages and current ratings
- No seals required within Class I, Div. 2 applications

- Interlocked switch mechanism prevents accidental removal of plug from receptacle under load
- Horsepower rated disconnect switch includes 1 auxiliary contact (late make, early break) for signaling circuits.
- 63A, 125A models

Dimensional Information

- See page PR28

VSI SERIES PLUGS & SWITCHED RECEPTACLES					
DESCRIPTION		CATALOG NUMBER			
	AC VOLTAGE AND COLOR CODE	63 AMP		125 AMP	
		RECEPTACLE	PLUG	RECEPTACLE	PLUG
3 Pole 4 Wire	3 Ø 250 Blue	VSI63R409	VSI63P409	VSI125R409	VSI125P409
	3 Ø 480 Red	VSI63R407	VSI63P407	VSI125R407	VSI125P407
	3 Ø 600 Black	VSI63R405	VSI63P405	VSI125R405	VSI125P405
4 Pole 5 Wire	3 ØY 120/208 Blue	VSI63R509	VSI63P509	VSI125R509	VSI125P509
	3 ØY 277/480 Red	VSI63R507	VSI63P507	VSI125R507	VSI125P507
	3 ØY 347/600 Black	VSI63R505	VSI63P505	VSI125R505	VSI125P505

VSI non-metallic devices *NOT* intermateable with Versamate® NEC metallic series.

PLUG DUST CAP	
FOR PLUG TYPE	CATALOG NUMBER
VSI63P4__	VSI63801140
VSI63P5__	VSI63801140
VSI125P4__	VSI125801140
VSI125P5__	VSI125801140

Dust cap shall be installed on the plug when the plug is not engaged in the receptacle.

TECHNICAL DATA			
RECEPTACLE		63 AMP	125 AMP
ENCLOSURE MATERIAL		FIBER REINFORCED POLYESTER	
AMBIENT TEMPERATURE, T _a		-20°C (-4°F) to +40°C (104°F)	
TERMINAL CAPACITY		2 wires, 90°C rated	
		6-1/0 AWG	1/0-3/0 AWG
SWITCH RATING	(Horsepower)	3-phase	3-phase
	120 VAC	10 HP	20 HP
	240 VAC	20 HP	40 HP
	480 VAC	40 HP	100 HP
	600 VAC	60 HP	125 HP
LINE SUPPLY FUSE		CLASS J - size per NEC/CEC requirement, upstream ahead of unit	
BOTTOM ENTRY		1-1/2" NPT	2" NPT

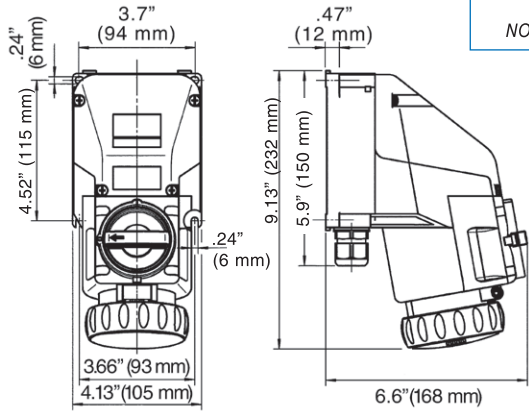
TECHNICAL DATA		
PLUG	63 AMP	125 AMP
ENCLOSURE MATERIAL	POLYAMIDE	
TERMINAL CAPACITY	1 wire, 90°C rated	
	10-4 AWG	6-1/0 AWG
CORD OUTER DIA.	0.94" - 1.4"	1.2" - 2"



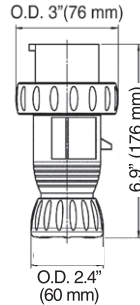
VSI NON-METALLIC PLUGS AND SWITCHED RECEPTACLES

Dimensions

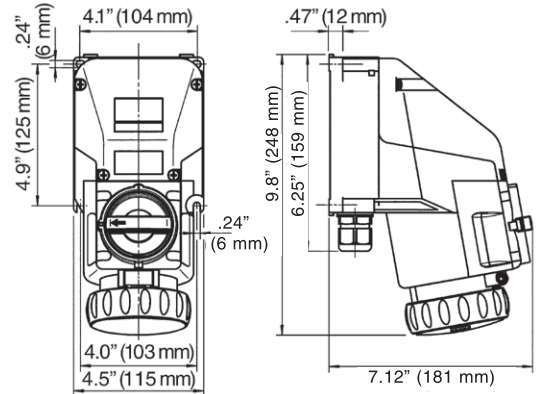
NOTE: Drawings are not to scale



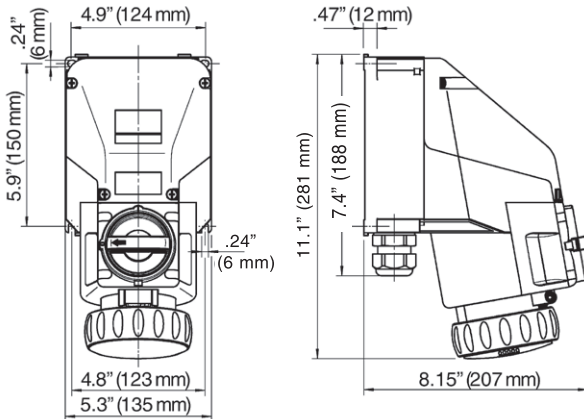
RECEPTACLE 20A
2 POLE - 3 WIRE



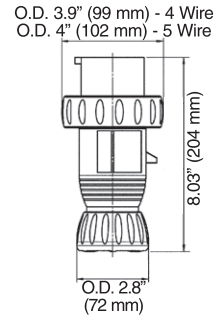
PLUG 20A



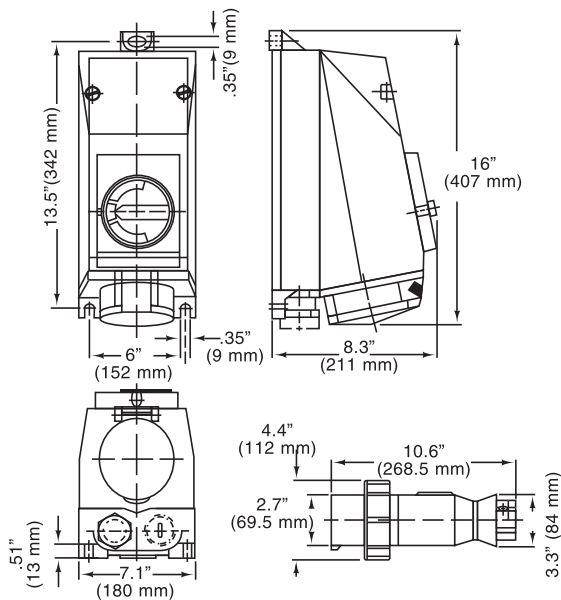
RECEPTACLE 20A
3 POLE - 4 WIRE AND 4 - POLE 5 WIRE



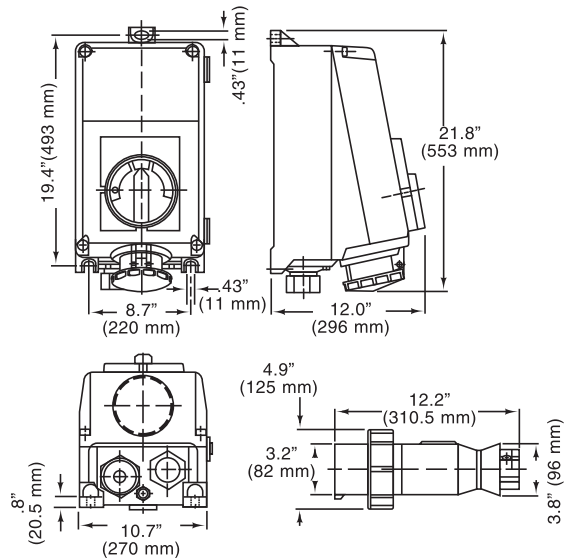
RECEPTACLE 30A
3 POLE - 4 WIRE AND 4 POLE - 5 WIRE



PLUG 30A



RECEPTACLE & PLUG 63A
3 POLE - 4 WIRE AND 4 POLE - 5 WIRE



RECEPTACLE & PLUG 125A
3 POLE - 4 WIRE AND 4 POLE - 5 WIRE



STARTERS

STARTERS INDEX



B7 Series
Prism Magnetic Motor Starters 3-4

B7 Series
Prism Combination Starters 5

B7AD Prism Combination Starter
Prism Combination Starters 6

B7 Series
Dimensions, Accessories,
Catalog Logic 7-8

B7 Series
Overload Heaters,
Non-Reversing Data 9



B7MS Series
Compact Manual IEC Starters 15-16



Y7 Series
Motor Starters-Magnetic Line Starters 10

Y7 Series
Combination Motor Starter 11

Y7 Series
Motor Starters-Modifications 12



B7MSN Series
Compact Manual NEMA Starters 17-18



XSD/XSX/FXSD/FXSX Series
Manual Motor Starting Switches 13

XSD/XSX/FXSD/FXSX Series
Heaters, Dimensions 14



XMSW Series
Manual Line Starters 19

EXB7 IEC Magnetic Starter Series 20



STARTERS FOR HARSH & HAZARDOUS ENVIRONMENTS





STARTERS

MAGNETIC MOTOR STARTERS



Line Starter



Combination Starter

FEATURES-SPECIFICATIONS



Applications

The PRISM® B7 Series of across-the-line starter and combination motor control centers utilize SSNR single-speed, non-reversing NEMA type starters.

Prism enclosures universal design accommodates, as standard, the magnetic starters made by the following manufacturers:

- Allen-Bradley – 509 Series
- Cutler-Hammer – A10 Series
- Cutler-Hammer – AN16 Series
- Furnas – Class 14 Series
- GE – CR306 Series
- Square D – 8536 Series
- Telemecanique – A20 Series
- Westinghouse – A200 Series

In addition, the SSNR combination starters will house a Cutler-Hammer (Eaton) motor circuit protector or circuit breakers manufactured by:

- Square D – FA, FH, FC Frames
- Cutler-Hammer – HMCP, EHD, FDB, FD, HFD, FDC Frames
- General Electric – TEB-TEC-TED-THED-Frame

There is sufficient space in the combination starter enclosure for a control transformer, if required.

Standard Materials

Enclosure – Copper-free aluminum

O-ring Gasket – BUNA-N nitrile

Cover Bolts – 316 grade stainless steel

CB/MCP Handle – Copper-free aluminum

Reset Operator – Thermoplastic polyester button molded onto stainless steel shaft. Aluminum shroud.

Mounting Pan – Sheet aluminum

Hinge – Aluminum with stainless steel pin

Reset Shroud – Black anodized

Features

- Nema 4, 4X rated – providing protection from hose directed water and corrosion
- Universal mounting pan, pre-drilled to facilitate easy field installation of starters. Provision for grounding supplied as standard.
- More wiring room – meets latest NEC wire bend requirements
- Quick release, captivated cover bolts of 316 grade stainless steel
- Flange sealing gasket located to the inside of cover bolt – preventing water seepage into enclosure through bolt holes
- Hinged cover provided as standard for an extra measure of safety and convenience
- Breaker (MCP) handle can be padlocked in “ON” or “OFF” position

Class I, Div. 1 & 2, Groups B, C, D
Class I, Zones 1 & 2, Groups IIB, IIA
Class II, Div. 1 & 2, Groups E, F, G
Class III, Div. 1 & 2
ENCL. Type 3, 4 & 4X



- File E83969



Certified - File LR11714

See files for details or call Killark.

- Provisions provided for drain and breather plus conduit openings for power and control
- Reset button provided as standard
- Two control operator openings provided plugged as standard. Additional openings can be factory or field drilled.
- Copper-free (less than 4/10 of 1% copper) enclosure
- Ductile mounting lugs

Catalog Logic

See page S8 for enclosures with controls.

NEW! The SQD 8536 Series now offered with solid state adjustable Class 30 overload relays. Overload heaters are no longer required.



B7 SERIES



MAGNETIC MOTOR STARTERS



Line Starter



Combination Starter

Class I, Div. 1 & 2, Groups B, C, D
 Class I, Zones 1 & 2, Groups IIB, IIA
 Class II, Div. 1 & 2, Groups E, F, G
 Class III, Div. 1 & 2
 ENCL. Type 3, 4 & 4X



- File E83969



Certified - File LR11714
 See files for details or call Killark.

FEATURES-SPECIFICATIONS

Magnetic Line Starters – 3 Pole, 3 Phase, Single Speed Non Reversing 600 VAC Max, 60Hz

Square D or Cutler-Hammer motor starters available as standard. For Cutler-Hammer only, heaters not included. See page S9 to order.

B7 MAGNETIC LINE STARTERS						
NEMA STARTER SIZE	MOTOR VOLTS	COIL VOLTS ^①	MAX. HP	CATALOG NUMBER		ENCLOSURE ONLY NO INTERIORS
				CUTLER-HAMMER SERIES AN16	SQUARE D SERIES 8536 ^④	
0	SEP. CONTROL	120	—	B7010HB	B7010SB	B7011
0	230	240	3	B7010HG	B7010SG	
0	460	480	5	B7010HK	B7010SK	
0	575	600	5	B7010HM	B7010SM	
1	SEP. CONTROL	120	—	B7011HB	B7011SB	B7011
1	230	240	7-1/2	B7011HG	B7011SG	
1	460	480	10	B7011HK	B7011SK	
1	575	600	10	B7011HM	B7011SM	
2	SEP. CONTROL	120	—	B7012HB	B7012SB	B7012
2	230	240	15	B7012HG	B7012SG	
2	460	480	25	B7012HK	B7012SK	
2	575	600	25	B7012HM	B7012SM	
3	SEP. CONTROL	120	—	B7013HB	B7013SB	B7013
3	230	240	30	B7013HG	B7013SG	
3	460	480	50	B7013HK	B7013SK	
3	575	600	50	B7013HM	B7013SM	
4	SEP. CONTROL	120	—	B7014HB	B7014SB	B7014
4	230	240	50	B7014HG	B7014SG	
4	460	480	100	B7014HK	B7014SK	
4	575	600	100	B7014HM	B7014SM	

^① See catalog logic page S8 for other standard coil voltages.

^② Control transformers for use on Combination Starters Only. Will not fit into B701 Series of Non-Combination Starters.

^③ See catalog page S8 for modifications and accessories to enclosure.

^④ 8536 have solid state adjustable overload relays. Heaters are no longer required.



STARTERS

MAGNETIC MOTOR STARTERS

Combination Starters 3-Pole, 3-Phase, Single Speed Non Reversing 600 VAC Max, 60Hz

Square D combination motor starter / circuit breaker or Cutler-Hammer (Eaton) motor starter / motor circuit protector available. Enclosures sized to accommodate a control circuit transformer. Cutler-Hammer (Eaton) AN16 Series starters not supplied with overload heaters, see page S9 to order. Square D Series 8536 starters are supplied with adjustable solid state overloads, heaters no longer required.

B7 COMBINATION MAGNETIC LINE STARTERS							
NEMA STARTER SIZE	MOTOR VOLTS	COIL VOLTS ^①	MAX. HP	DISCONNECT TRIP AMPS	CATALOG NUMBER		ENCLOSURE ONLY NO INTERIORS
					CUTLER-HAMMER SERIES AN16	SQUARE D SERIES 8536	
0	SEP. CONTROL	120	—	3	B7020HBCA	B7020SBDA	B7021
0	SEP. CONTROL	120	—	7	B7020HBCB	B7020SBDB	
0	SEP. CONTROL	120	—	15	B7020HBCC	B7020SBDC	
0	230	240	1	7	B7020HGCB	B7020SGDB	
0	230	240	3	15	B7020HGCC	B7020SGDC	
0	460	480	1	3	B7020HKCA	B7020SKDA	
0	460	480	2	7	B7020HKCB	B7020SKDB	
0	460	480	5	15	B7020HKCC	B7020SKDC	
0	575	600	1	3	B7020HMCA	B7020SMDA	
0	575	600	2	7	B7020HMCB	B7020SMDB	
0	575	600	5	15	B7020HMCC	B7020SMDC	
1	SEP. CONTROL	120	—	15	B7021HBCC	B7021SBDC	B7021
1	SEP. CONTROL	120	—	30	B7021HBCF	B7021SBDF	
1	230	240	7-1/2	30	B7021HGCF	B7021SGDF	
1	460	480	10	30	B7021HKCF	B7021SKDF	
1	575	600	10	30	B7021HMCF	B7021SMDF	
2	SEP. CONTROL	120	—	50	B7022HBCK	B7022SBDK	B7022
2	SEP. CONTROL	120	—	70	B7022HBCM	B7022SBDM	
2	230	240	15	50	B7022HGCK	B7022SGDK	
2	230	240	15	70	B7022HGCM	B7022SGDM	
2	460	480	25	50	B7022HKCK	B7022SKDK	
2	575	600	25	50	B7022HMCK	B7022SMDK	
3	SEP. CONTROL	120	—	100	B7023HBCQ	B7023SBDQ	B7023
3	230	240	30	100	B7023HGCK	B7023SGDQ	
3	460	480	50	100	B7023HKCQ	B7023SKDQ	
3	575	600	50	100	B7023HMCQ	B7023SMDQ	
4	SEP. CONTROL	120	—	150	B7024HBCT	B7024SBGT	B7024
4	230	240	50	150	B7024HGCT	B7024SGGT	
4	460	480	100	150	B7024HKCT	B7024SKGT	
4	575	600	100	150	B7024HMCT	B7024SMGT	
5	SEP. CONTROL	120	—	250	B7025CBCMCPJ250	B7025SBSMAGK250	See chart below
5	SEP. CONTROL	120	—	400	B7025CBCMCPK400	B7025SBSMAGL400	
5	230	240	75	250	B7025CGCMCPJ250	B7025SGSMAGK250	
5	230	240	100	400	B7025CGCMCPK400	B7025SGSMAGL400	
5	460	480	150	250	B7025CKCMCPJ250	B7025SKSMAGK250	
5	460	480	200	400	B7025CKCMCPK400	B7025SKSMAGL400	
5	575	600	150	250	B7025CMCMCPJ250	B7025SMSMAGK250	
5	575	600	200	400	B7025CMCMCPK400	B7025SMSMAGL400	

SIZE 5 COMBINATION MOTOR STARTER ENCLOSURE ONLY					
STARTER MANUFACTURER	STARTER TYPE	CIRCUIT BREAKER FRAME			ENCLOSURE CAT. NUMBER
		C-H	GE	SQ-D	
Allen Bradley	Series 509	J	F-225	K	B7025A2
Allen Bradley	Series 509	K	J-600	L	B7025A4
Cutler Hammer	Freedom-AN16	J	F-225	K	B7025C2
Cutler Hammer	Freedom-AN16	K	J-600	L	B7025C4
General Electric	Series 306	J	F-225	K	B7025G2
General Electric	Series 306	K	J-600	L	B7025G4
Square D	Series 8536	J	F-225	K	B7025S2
Square D	Series 8536	K	J-600	L	B7025S4
Eaton	Freedom-AN19 ^②	J	F-225	K	B7025W2
Eaton	Freedom-AN19 ^②	K	J-600	L	B7025W4

- ① See catalog logic page S8 for other standard coil voltages.
- ② Combination Starter enclosures provide sufficient space for factory of field mounting a control transformer.
- ③ See catalog page S8 for modifications and accessories to enclosure.
- ④ Eaton AN-19 Series are supplied with electronic overloads which do not require overload heaters.



B7 SERIES



Supplied with Eaton Freedom AN19 Starters with C440 Electronic Overload Relays Applications

The PRISM® B7 Series of Combination Starters are used for Motor Control and Circuit protection of motors in Hazardous And Hostile locations. These Hazardous locations are typically due to the presence of flammable gases or vapors, combustible dust, or easily ignitable fibers and flyings, and areas which are subject to corrosion, weather and dampness.

AN19 Starter Features

- Electronic Overload Starter
- Brownout Protection
- Communications and user interface capabilities
- Overload Heaters not required
- Phase loss and a selectable (On/Off) phase unbalance protection
- Selectable automatic/manual reset
- Selectable Trip Class (10A, 10, 20, 30)
- Class II ground-fault protection – option add “GF” at end of catalog number

Enclosure Features

- Nema 4, 4X rated – providing protection from hose directed water and corrosion

COMBINATION STARTERS

- Universal mounting pan, pre-drilled to facilitate easy field installation of starters. Provision for grounding supplied as standard.
- More wiring room – meets latest NEC wire bend requirements
- Quick release, captivated cover bolts of 316 grade stainless steel
- Flange sealing gasket located to the inside of cover bolt – preventing water seepage into enclosure through bolt holes
- Hinged cover provided as standard for an extra measure of safety and convenience
- Breaker (MCP) handle can be padlocked in “ON” or “OFF” position
- Provisions provided for drain and breather plus conduit openings for power and control
- Field replaceable reset button provided as standard with gold contact blocks
- Two control operator openings provided plugged as standard. Additional openings can be factory or field drilled
- Copper-free (less than 4/10 of 1% copper) enclosure
- Ductile mounting lugs

Modifications & Accessories

- Select from B7 Modification Chart on page S8
- Minimum Control Transformer
 - » Size 0 50VA
 - » Size 1-2 100VA
 - » Size 3 150VA
 - » Size 4-5 200VA

Class I, Div. 1 & 2, Groups B, C, D
Class I, Zones 1 & 2, Groups IIB, IIA
Class II, Div. 1 & 2, Groups E, F, G
Class III, Div. 1 & 2
ENCL. Type 3, 4 & 4X



- File E83969



Certified - File LR11714
 See files for details or call Killark.

- AN19 Starters Auxiliary Contacts available, B7HAC page S8

Standard Materials

Enclosure – Copper-free aluminum

O-ring Gasket – BUNA-N nitrile

Cover Bolts – 316 grade stainless steel

CB/MCP Handle – Copper-free aluminum

Reset Operator – Thermoplastic polyester button molded onto stainless steel shaft. Aluminum shroud.

Mounting Pan – Sheet aluminum

Hinge – Aluminum with stainless steel pin

Reset Shroud – Black anodized

Notes:

1. Heaters are not required with the AN19 Starter. The Overload Module has trip current settings via DIP Switch between the amperage range shown.
2. All AN19 Starters are wired for separate control and supplied with 110V/50Hz - 120V/60Hz as standard.
3. Enclosures provide sufficient space for factory or field mounting a control transformer.

B7AD COMBINATION STARTER								
NEMA STARTER SIZE	MOTOR VOLTS	MAXIMUM HP	COIL VOLTS/HZ	DISCONNECT AMP TRIP	WITH MOTOR PROTECTOR AND STARTER	CATALOG NUMBER		
						*ADD OLR CODEⓄ		ENCLOSURE ONLY
						OLR CODE	FLA RANGE	
0	230	3	110/50 120/60	3	B7AD020H6CA* B7AD020H6CB* B7AD020H6CC*	-1P6	0.33-1.62A	B7AD021
	460	5				-005	1.0-5.0A	
	575	5				-020	4.0-20A	
1	230	7-1/2	110/50 120/60	30	B7AD021H6CF*	-005	1.0-5.0A	B7AD021
	460	10				-020	4.0-20A	
	575	10				-045	0.9-45A	
2	230	15	110/50 120/60	50	B7AD022H6CK*	-20	4.0-20A	B7AD022
	460	25				-045	0.9-45A	
	575	25						
3	230	30	110/50 120/60	100	B7AD023H6CQ*	-100	20-100A	B7AD023
	460	50						
	575	50						
4	230	50	110/50 120/60	150	B7AD024H6CT*	-140	28-140A	B7AD024
	460	100						
	575	100						
5	230	100	110/50 120/60	400	B7AD025H6K400*	-300	60-300A	B7AD025K
	460	200						
	575	200						



STARTERS

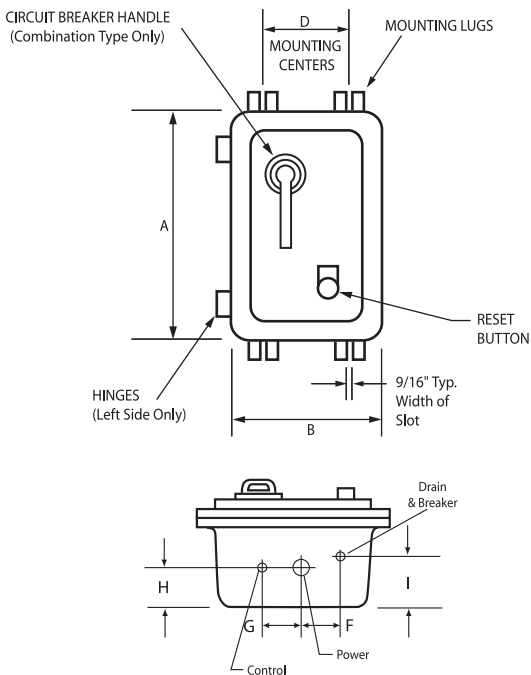
MOTOR STARTERS DIMENSIONS

B7 DIMENSIONS															
CATALOG NUMBER	NEMA SIZE	TYPE	DIMENSIONS									EST. ENCLOSURE WEIGH LBS.	CONDUIT OPENINGS TOP/BOTTOM (NPT)⓪		
			A	B	C	D	E	F	G	H	I		POWER	CONTROL	DRAIN BREATHER
B7011	0,1	Starter Only	18" (457)	11" (280)	9-1/8" (232)	3-5/8" (92)	16-3/8" (416)	2-1/8" (54)	2-3/8" (60)	2-11/16" (68)	3-7/16" (87)	46	1-1/2"	3/4"	1/2"
B7012	2	Starter Only	20" (508)	12-1/2" (317)	9-1/8" (232)	5" (127)	18-3/8" (467)	2-1/2" (63)	2-1/2" (63)	2-11/16" (68)	3-3/16" (81)	56	1-1/2"	3/4"	1/2"
B7013	3	Starter Only	26-1/4" (667)	12-1/2" (317)	10-3/4" (276)	5" (127)	24-5/8" (625)	2-1/2" (63)	2-3/4" (70)	4-1/16" (103)	5-1/2" (140)	80	2"	1"	1/2"
B7014	4	Starter Only	34-1/4" (870)	16-1/2" (419)	11-1/2" (292)	9" (229)	32-5/8" (830)	3-3/4" (95)	4" (102)	4-7/16" (113)	6" (152)	155	3"	1"	1/2"
B7021	0,1	Combination Starter	23" (584)	14-1/2" (368)	9-1/8" (232)	7" (178)	21-3/8" (543)	2-1/8" (54)	2-1/2" (64)	2-11/16" (68)	3-7/16" (87)	78	1-1/2"	3/4"	1/2"
B7022	2	Combination Starter	25-1/2" (648)	14-1/2" (368)	9-1/8" (232)	7" (178)	23-7/8" (606)	2-1/8" (54)	2-1/2" (64)	2-11/16" (68)	3-7/16" (87)	88	1-1/2"	3/4"	1/2"
B7023	3	Combination Starter	27-1/4" (692)	17-7/8" (454)	11" (280)	10-3/8" (263)	25-5/8" (651)	3-1/2" (89)	3-1/2" (89)	4-3/16" (106)	5-1/2" (140)	143	2"	1"	1/2"
B7024	4	Combination Starter	34-1/4" (870)	21-1/2" (546)	11-7/8" (302)	14" (356)	32-5/8" (829)	4-3/4" (121)	5" (127)	4-9/16" (116)	6-3/16" (157)	235	3"	1"	1/2"

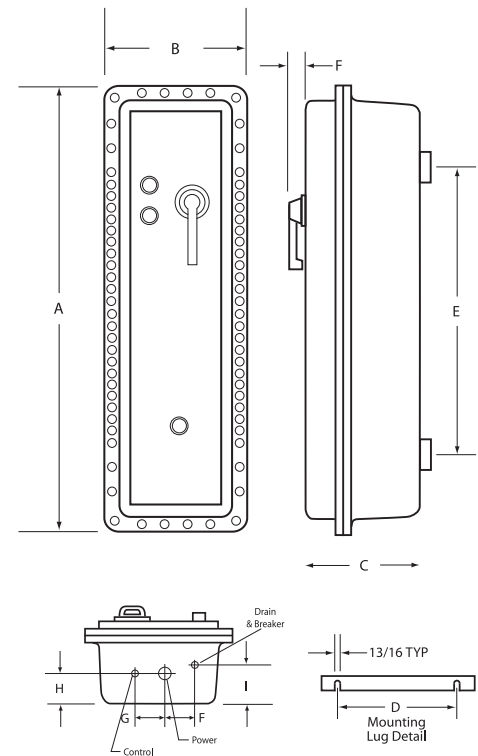
⓪ 1/2" conduit openings may be used for drain and/or breather installation. Smaller conduit openings may be used by utilizing reducing bushings. Custom conduit sizes and locations are available upon request.

DIMENSIONS FOR SIZE 5 COMBINATION STARTER														
DIMENSIONS										CONDUIT TOP & BTM. (NPT)			ENCL. WT. (LBS.)	
A	B	C	D	E	F	G	H	I	J	K	L	M		
62-1/4" (1581)	20-1/4" (514)	15" (381)	18-1/2" (470)	43-1/2" (1105)	2-5/8" (67)	3-1/8" (79)	5-3/8" (137)	7-3/8" (187)	3-1/2" (89)	4" (102)	1/2" (13)	1" (25)	540	

Dimensions B7 Size 0 Thru 4



Dimensions B7 Size 5





B7 SERIES



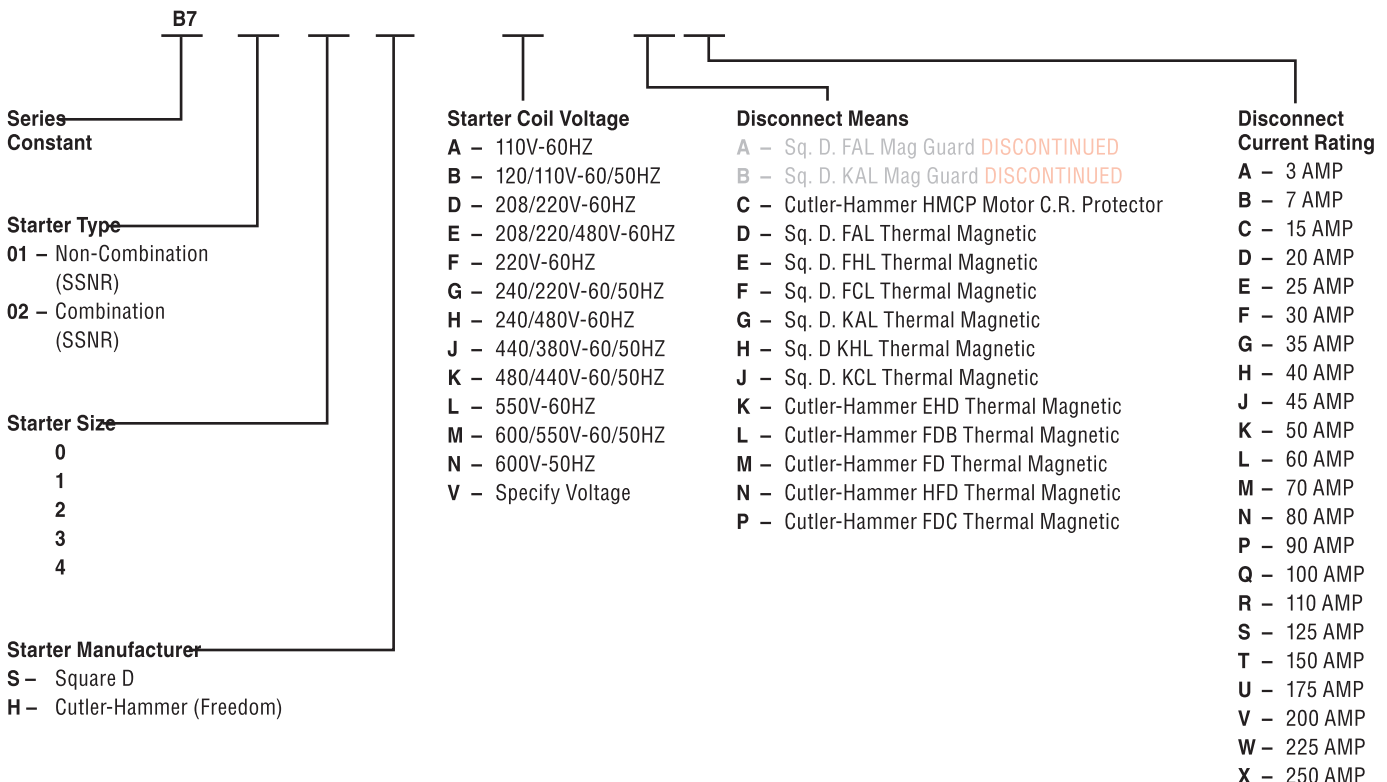
MOTOR STARTERS ACCESSORIES / CATALOG LOGIC

B7 MODIFICATIONS AND ACCESSORIES		
CATALOG NUMBER		DESCRIPTION
SIZE 0 THRU 4	SIZE 5	
B7DBP	B7EDBP	Double pushbutton (Start/Stop)
B7RPL	B7ERPL	Red pilot light 120 Volt
B7GPL	B7EGPL	Green pilot light 120 Volt
B7APL	B7EAPL	Amber pilot light 120 Volt
B7LPBR	B7ELPBR	Illuminated red pushbutton 120 Volt
B7LPBG	B7ELPBG	Illuminated green pushbutton 120 Volt
B7LPBA	B7ELPBA	Illuminated amber pushbutton 120 Volt
B7PLR220	B7PLR220	Pilot light resistor 220 Volt to 110 Volt
B7PLR440	B7PLR440	Pilot light resistor 440 Volt to 110 Volt
B7PLR550	B7PLR550	Pilot light resistor 550 Volt to 110 Volt
B72SS	B7ESS	2 position selector switch (On-Off)
B7SSH0A	B7ESSH0A	3 position selector switch (Hand-Off-Auto)
B7HAC	B75CAC	Cutler Hammer auxiliary contact (1NO/1NC)
B7SAC	B75SAC	Square D auxiliary contact (1NO/1NC)
B7TB	B7TB	Terminal block (6 Terminals)
—	B7IPR	Interposing relay 120 Volt coil
B7CT50	—	Control transformer 50VA (0,1,2)*
B7CT75	—	Control transformer 75VA (0,1,2)*

B7 MODIFICATIONS AND ACCESSORIES		
CATALOG NUMBER		DESCRIPTION
SIZE 0 THRU 4	SIZE 5	
B7CT100	—	Control transformer 100VA (0,1,2)*
B7CT150	—	Control transformer 150VA (0,1,2)*
B7CT200	—	Control transformer 200VA (3,4)*
B7CT250	—	Control transformer 250VA (3,4)*
—	B7CT300	Control transformer 300VA (5)*
—	B7CT500	Control transformer 500VA (5)*
KB1-4X	KB1-4X	Breather & Drain Type 4X
KB1S6-4X	KB1S6-4X	Drain & Breather Type 4X SS
KIT-251	KIT-251	Grounding kit
B7SF	B7SF	Special finish – Baked epoxy outside
B7DLO	B7DLO	Delete lock “ON” feature for breaker handle
B7SH251	B7SH251	Space heater 25 Watt 120 Volt
B7SH252	B7SH252	Space heater 25 Watt 240 Volt
B7SH254	B7SH254	Space heater 25 Watt 480 Volt
B7SH501	B7SH501	Space heater 50 Watt 120 Volt
B7SH502	B7SH502	Space heater 50 Watt 240 Volt
B7SH504	B7SH504	Space heater 50 Watt 480 Volt

* Control transformers are primary 240/480 - Secondary 120 Volt. Control transformers for use on Combination Starters Only. Will not fit into B701 Series of Non-Combination Starters. All control transformers include fused primary and secondary circuits.

Catalog Logic – B7 Enclosures with Controls



This Catalog Logic Chart is for reference only and is to be used for selection of special voltage and amperage requirements. Consult Factory since not all assemblies are available with complete list of options displayed.

STARTERS

OVERLOAD HEATERS/NON-REVERSING



3-POLE, 60HZ, 600VAC SINGLE-SPEED

Overload heaters are not supplied as part of the starter assemblies and are to be ordered as separate items by catalog number and priced accordingly.

Heaters should be selected on the basis of the actual full-load current and service factor as shown on the motor nameplate or in the manufacturer's published literature.

When motor and overload relay are in the same ambient and the service factor of the motor is 1.15 to 1.25, select heaters from the heater selection chart. If the service factor of the motor is 1.0, or there is no service factor shown, or a maximum of 115% protection is desired, select one size smaller heater than indicated.

When motor and overload relay are in different ambients, select heaters from the chart using adjusted motor currents as follows: decrease rated motor current 1% for each °C motor ambient exceeds controller ambient; increase rated motor current 1% for each °C controller ambient exceeds motor ambient.

CUTLER-HAMMER HEATER (EACH HEATER PACK CONSISTS OF 3 HEATERS)				
CATALOG NUMBER	MOTOR FULL-LOAD AMPERE RATING DIAL POSITION			
	A	B	C	D
FOR SIZES 0-1				
KH2001B-3	.254	.306	.359	.411
KH2002B-3	.375	.452	.530	.607
KH2003B-3	.560	.676	.791	.907
KH2004B-3	.814	.983	1.15	1.32
KH2005B-3	1.20	1.45	1.71	1.96
KH2006B-3	1.79	2.16	2.53	2.90
KH2007B-3	2.15	2.60	3.04	3.49
KH2008B-3	3.23	3.90	4.56	5.23
KH2009B-3	4.55	5.50	6.45	7.40
KH2010B-3	6.75	8.17	9.58	11.0
KH2011B-3	9.14	10.8	12.4	14.0
KH2012B-3	14.0	16.9	19.9	22.8
KH2013B-3	18.7	22.7	26.7	30.7
KH2014B-3	23.5	28.5	33.5	38.5
FOR SIZE 2				
KH2015B-3	29.0	34.0	39.1	44.1
KH2016B-3	39.6	45.5	51.5	57.4
KH2017B-3	53.9	60.9	67.9	74.9
FOR SIZES 3-4				
KH2018-3	18.0	20.2	22.3	24.5
KH2019-3	24.6	27.6	30.5	33.4
KH2020-3	33.5	37.5	41.5	45.6
KH2021-3	45.7	51.2	56.7	62.1
KH2022-3	62.2	69.7	77.1	84.6
KH2023-3	84.7	95.0	105.0	115.0
KH2024-3	106.0	118.0	131.0	144.0
FOR SIZE 5				
KH2004B-3	49	59	69	79
KH2005B-3	72	87	103	118
KH2006B-3	107	130	152	174
KH2007B-3	129	156	182	209
KH2008B-3	194	234	274	—



Y7 SERIES



MOTOR STARTERS – MAGNETIC LINE STARTERS



Y7011ZH

Class I, Div. 1 & 2, Groups C, D
 Class 1, Zones 1 & 2, Groups IIB, IIA
 Class II, Div. 1 & 2, Groups E, F, G
 Class III

Certified - File LR11714

Contact Killark for FM file numbers.
 See files for details or call Killark.

FEATURES-SPECIFICATIONS

New! The Square D 8536 Series is now supplied with the solid state overload relay, with adjustable Class 30 Trip settings. Overload heaters no longer required.

Applications

- Hazardous areas due to the presence of flammable gases or vapors, combustible dusts or easily ignitable fibers or flyings
- Installations at petroleum refineries, chemical and petrochemical plants, storage areas and other processing facilities where hazardous substances are handled or stored
- Full-voltage, across-the-line starting and stopping of polyphase AC squirrel cage induction motors or as the primary starter for wound rotor motors
- Provides running and undervoltage protection of motor
- Remote starting and stopping of motor

Features

- Rectangular bolted cover design provides for attractive, compact, uniform installations
- Ground flange joint between box and cover provides required flame path
- Two drilled and tapped power conduit openings, one top and one bottom are standard on all assemblies.
- One 3/4"-14 NPT drilled, tapped and plugged conduit opening is provided in bottom for remote control
- Two 3/4"-14 NPSM drilled, tapped, and plugged openings in cover are provided for addition of local control operator

- External reset button and stainless steel cover bolts are standard
- Hinges are either stainless steel or aluminum and are mounted on the left side of all assemblies
- Enclosure is cast copper-free aluminum alloy
- Available for Cutler-Hammer AN16 Freedom or Square D 8536 starters

Overload Heaters

Heaters not included. See page S9 for Cutler-Hammer heater selection

Dimensions

See page S12 for dimensional data

Modifications

See page S12

Y7 MAGNETIC LINE STARTER (ENCLOSURES WITHOUT SPACE FOR CONTROL TRANSFORMER)					
NEMA STARTER SIZE	MOTOR VOLTS	COIL VOLTS	MAXIMUM HP	CATALOG NUMBER	
				CUTLER-HAMMER SERIES AN16	SQUARE D SERIES 8536
0	Sep Control	120	—	Y7010BH	Y7010BS
0	230	240	3	Y7010DH	Y7010DS
0	440-460	480	5	Y7010KH	Y7010KS
1	Sep Control	120	—	Y7011BH	Y7011BS
1	230	240	7-1/2	Y7011DH	Y7011DS
1	440-460	480	10	Y7011KH	Y7011KS
2	Sep Control	120	—	Y7012BH	Y7012BS
2	230	240	15	Y7012DH	Y7012DS
2	440-460	480	25	Y7012KH	Y7012KS
0	Enclosure only No interior			Y7010ZH	Y7010ZS
1	Enclosure only No interior			Y7011ZH	Y7011ZS
2	Enclosure only No interior			Y7012ZH	Y7012ZS

Y7 MAGNETIC LINE STARTER (ENCLOSURES WITH SPACE FOR CONTROL TRANSFORMER)					
NEMA STARTER SIZE	MOTOR VOLTS	COIL VOLTS	MAXIMUM HP	CATALOG NUMBER	
				CUTLER-HAMMER SERIES AN16	SQUARE D SERIES 8536
0	230//460	120	3//5	Y7000BH	Y7000BS
1	230//460	120	7 1/2//10	Y7001BH	Y7001BS
2	230//460	120	15//25	Y7002BH	Y7002BS
0	Enclosure only No interior			Y7000ZH	Y7000ZS
1	Enclosure only No interior			Y7001ZH	Y7001ZS
2	Enclosure only No interior			Y7002ZH	Y7002ZS

STARTERS

Y7 SERIES



COMBINATION MOTOR STARTERS



Y7021ZHAZ

Class I, Div. 1 & 2, Groups C, D
 Class 1, Zones 1 & 2, Groups IIB, IIA
 Class II, Div. 1 & 2, Groups E, F, G
 Class III

Certified - File LR11714

Contact Killark for FM file numbers.
 See files for details or call Killark.

FEATURES-SPECIFICATIONS

New! The Square D 8536 Series is now supplied with the solid state overload relay, with adjustable Class 30 Trip settings. Overload heaters no longer required.

Applications

- Hazardous areas due to the presence of flammable gases or vapors, combustible dusts or easily ignitable fibers or flyings
- Full-voltage, across-the-line starting and stopping of polyphase AC squirrel cage induction motors or as the primary starter for wound rotor motors
- Provides running and undervoltage protection of motor
- Motor branch circuit disconnect and short circuit protection

Features

- Rectangular bolted cover design provides for attractive, compact, uniform installations
- Two 3/4"-14 NPSM drilled, tapped, and plugged openings are provided for addition of local operators
- Two drilled, tapped and plugged openings, one top and one bottom are supplied for installation of drain and breather
- Hinges are either stainless steel or aluminum and are mounted on the left side of all assemblies

- Circuit breaker handle mechanism interlocks with circuit breaker to prevent opening of enclosure when circuit is in the "ON" position
- External handle is vault type with standard provisions for locking in the "OFF" position with up to three padlocks
- Circuit breaker is trip free of handle mechanism

Modifications

Modifications are available. See page S12.

Dimensions

For dimensional data, see page S12.

Overload Heaters

Heaters are not included. See page S9 for Cutler-Hammer heater selection.

Y7 COMBINATION MAGNETIC LINE STARTER						
NEMA STARTER SIZE	MOTOR VOLTS	COIL VOLTS	MAXIMUM HP	DISCONNECT TRIP AMPS	CATALOG NUMBER	
					CUTLER-HAMMER SERIES AN16	SQUARE D SERIES 8536
0	Sep Control	120	—	3	Y7020BHVV	Y7020BSVV
0	Sep Control	120	—	7	Y7020BHVX	Y7020BSVX
0	Sep Control	120	—	15	Y7020BHVA	Y7020BSVA
0	230	240	1	7	Y7020DHVX	Y7020DSVX
0	230	240	3	15	Y7020DHVA	Y7020DSVA
0	460	480	1	3	Y7020KHVV	Y7020KSVV
0	460	480	5	7	Y7020KHVX	Y7020KSVX
1	Sep Control	120	—	15	Y7021BHVA	Y7021BSVA
1	Sep Control	120	—	30	Y7021BHVC	Y7021BSVC
1	230	240	7-1/2	30	Y7021DHVC	Y7021DSVC
1	460	480	10	30	Y7021KHVC	Y7021KSVC
2	Sep Control	120	—	50	Y7022BHVE	Y7022BSVE
2	Sep Control	120	—	70	Y7022BHVX	Y7022BSVX
2	230	240	15	50	Y7022DHVE	Y7022DSVE
2	230	240	15	70	Y7022DHVX	Y7022DSVX
2	460	480	25	50	Y7022KHVE	Y7022KSVE
0	Enclosure only. No Interior				Y7020ZHVZ	Y7020ZSVZ
1	Enclosure only. No Interior				Y7021ZHVZ	Y7021ZSVZ
2	Enclosure only. No Interior				Y7022ZHVZ	Y7022ZSVZ



MOTOR STARTERS / MODIFICATIONS

Combination Starter Modifications

Modifications are available by ordering the following by catalog number as separate items and noting on the order that they are to be assembled into the enclosure.

FEATURES-SPECIFICATIONS

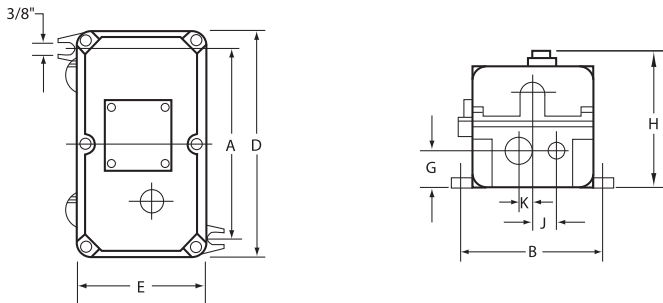
Y7 MAGNETIC LINE STARTERS DIMENSIONS										
NEMA SIZE	A	B	D	E	G	H	J	K	CONDUIT SIZE	
									POWER	CONTROL
0-1 [ⓐ]	7-3/4"(197)	7-1/4"(184)	10"(254)	6"(152)	2"(51)	7-5/8"(194)	1-1/8"(28)	3/4"(19)	1-1/2"	3/4"
2 [ⓐ]	9"(228)	7-3/4"(197)	11-1/4"(286)	6-1/2"(165)	2"(51)	7-5/8"(194)	1-1/8"(28)	7/8"(22)	1-1/2"	3/4"
0-1 [ⓑ]	8-3/4"(222)	11-1/8"(282)	12-1/2"(317)	10-1/2"(267)	2"(51)	8-1/4"(209)	2-3/8"(60)	2-3/8"(60)	1-1/2"	3/4"
2 [ⓑ]	8-3/4"(222)	11-1/8"(282)	12-1/2"(317)	10-1/2"(267)	2"(51)	8-1/4"(209)	2-3/8"(60)	2-3/8"(60)	1-1/2"	3/4"

[ⓐ] Without space for control transformer.

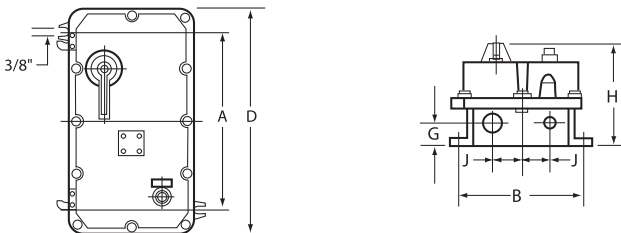
[ⓑ] With space for control transformer.

Y7 COMBINATION STARTERS DIMENSIONS										
NEMA SIZE	A	B	D	E	G	H	J	CONDUIT SIZE		
								POWER	CONTROL	
0-1	16-1/4"(413)	11-1/8"(282)	20"(508)	10-1/2"(267)	2"(51)	9"(228)	2-3/8"(60)	1-1/2"	3/4"	
2	16-1/4"(413)	11-1/8"(282)	20"(508)	10-1/2"(267)	2"(51)	9"(228)	2-3/8"(60)	1-1/2"	3/4"	

Dimensions



Magnetic Line Starters
Sizes 0, 1, 2



Combination Starters
Sizes 0, 1, 2

Y7 MODIFICATIONS AND ACCESSORIES	
CATALOG NUMBER	DESCRIPTION
G022-GR12D	Double pushbutton (Start/Stop)
GOB3-R23C N34	Red pilot light 120 Volt
GOB3-G23C N34	Green pilot light 120 Volt
GOB3-A23C N34	Amber pilot light 120 Volt
B7PLR220	Pilot light resistor 220 Volt to 120 Volt
B7PLR440	Pilot light resistor 440 Volt to 120 Volt
B7PLR550	Pilot light resistor 550 Volt to 120 Volt
G025-2A3F	2 position selector switch (On/Off)
G025-3C3G	3 position selector switch (Hand/Off/Auto)
B7HAC	Cutler-Hammer auxiliary contact (1NO/1NC)
B7SAC	Square D auxiliary contact (1NO/1NC)
B7CT50	Control transformer 50VA*
B7CT75	Control transformer 75VA*
B7CT100	Control transformer 100VA*
KDB-1	Breather
KDB-1	Drain
KIT-251	Grounding kit

* Control transformers are primary 240/480 – Secondary 120 Volt. All control transformers include fused primary and secondary circuits.

STARTERS

XSD/XSX/FXSD/FXSX SERIES



MANUAL MOTOR STARTING SWITCHES



XSD, XSX, Series
Non Factory Sealed



FXSD, FXSX Series
Factory Sealed

Class I, Div. 1 & 2, Groups C, D
Class 1, Zones 1 & 2, Groups IIB, IIA
Class II, Div. 1 & 2, Groups E, F, G
Class III
Type 3 (Factory sealed type)

LISTED - File E53360 and/or E12379

Certified - File LR11714

APPROVED FM - File 25219

See files for details or call Killark.

FEATURES-SPECIFICATIONS

Applications

- Provides manual starting and stopping of small AC or DC motors
- Motor running protection when overload heaters are used
- XSX/FXSX Series (without overload protection) are ideally suited for across-the-line applications where a positive disconnect means is required

Features

- FXSX-FXSD Series require no external seals (factory sealed) and are NEMA 3 (raintight) rated
- Enclosures are cast copper-free aluminum alloy
- Operating shaft is stainless steel
- Multiple gang assemblies available in combination with pilot lights, pushbuttons and switches on request
- Ground flange joint between bolted cover and box provide required flame path
- Provisions for padlocking switch in either "ON" or "OFF" position is standard

Dimensions

For dimensional data, see page S14.

XSD/FXSD SERIES WITH OVERLOAD PROTECTION^①

Non-Factory Sealed:

Square D, Class 2510, Type F
1-Pole, 1HP, 115-230 VAC
2-Pole, 1HP, 115-230 VAC
3/4 HP, 115-230 VDC

Factory Sealed:

Square D, Class 2510, Type F
1-Pole, 1HP, 115-230 VAC
2-Pole, 1HP, 115-230 VAC
3/4 HP, 115-230 VDC

XSD SINGLE GANG			
CATALOG NUMBER		HUB STYLE	HUB SIZE
1-POLE SINGLE PHASE	2-POLE SINGLE PHASE		
XSD-11	XSD-12	Dead end	1/2"
XSD-21	XSD-22		3/4"
XSD-41	XSD-42	Feed thru	1/2"
XSD-51	XSD-52		3/4"
XSD-01	XSD-02	Cover and Switch assembly	

FXSD SINGLE GANG			
CATALOG NUMBER		HUB STYLE	HUB SIZE
1-POLE SINGLE PHASE	2-POLE SINGLE PHASE		
FXSD11	FXSD12	Dead end	1/2"
FXSD21	FXSD22		3/4"
FXSD41	FXSD42	Feed thru	1/2"
FXSD51	FXSD52		3/4"
FXSD01	FXSD02	Cover and Switch assembly	

^① Order heaters separately on page S13.

XSX/FXSX SERIES WITHOUT OVERLOAD PROTECTION

Non-Factory Sealed:

Square D, Class 2510, Type K
2-Pole, 2 HP, 115 VAC
2 HP, 200-230 VAC
3 HP, 460-575 VAC
3-Pole, 2 HP, 115 VAC
7-1/2 HP, 200-230 VAC
10 HP, 460-575 VAC

Factory Sealed:

Square D, Class 2510, Type K
2-Pole, 2 HP, 115 VAC
2 HP, 200-230 VAC
3 HP, 460-575 VAC
3-Pole, 2 HP, 115 VAC
3 HP, 200-230 VAC
5 HP, 460-575 VAC

XSX SINGLE GANG ^②			
CATALOG NUMBER		HUB STYLE	HUB SIZE
2-POLE 600V 1-PHASE	3-POLE 600V 3-PHASE		
XSX-12	XSX-13	Dead end	1/2"
XSX-22	XSX-23		3/4"
XSX-42	XSX-43	Feed thru	1/2"
XSX-52	XSX-53		3/4"
XSX-2	XSX-3	Cover and Switch assembly	

FXSX SINGLE GANG			
CATALOG NUMBER		HUB STYLE	HUB SIZE
2-POLE 600V 1-PHASE	3-POLE 600V 3-PHASE		
FXSX12	FXSX13	Dead end	1/2"
FXSX22	FXSX23		3/4"
FXSX42	FXSX43	Feed thru	1/2"
FXSX52	FXSX53		3/4"
FXSX02	FXSX03	Cover and Switch assembly	

^② FM and CSA only



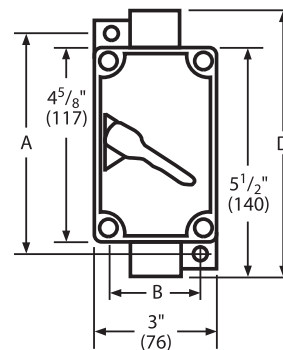
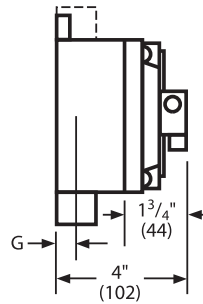
XSD / XSX / FXSD / FXSX HEATERS

HEATER TABLE ①		
CATALOG NUMBER	FULL-LOAD MOTOR CURRENT	SQUARE D HEATER CATALOG NUMBER
YOSD-A.49	0.41-0.44	A.49
YOSD-A.54	0.45-0.49 A.54	A.54
YOSD-A.59	0.50-0.53	A.59
YOSD-A.65	0.54-0.58	A.65
YOSD-A.71	0.59-0.65	A.71
YOSD-A.78	0.66-0.71	A.78
YOSD-A.86	0.72-0.78	A.86
YOSD-A.95	0.79-0.85	A.95
YOSD-A1.02	0.86-0.96	A1.02
YOSD-A1.16	0.97-1.04	A1.16
YOSD-A1.25	1.05-1.16	A1.25
YOSD-A1.39	1.17-1.29	A1.39
YOSD-A1.54	1.30-1.37	A1.54
YOSD-A1.63	1.38-1.47	A1.63
YOSD-A1.75	1.48-1.56	A1.75
YOSD-A1.86	1.57-1.65	A1.86
YOSD-A1.99	1.66-1.79	A1.99
YOSD-A2.15	1.80-1.95	A2.15
YOSD-A2.31	1.96-2.15	A2.31
YOSD-A2.57	2.16-2.38	A2.57
YOSD-A2.81	2.39-2.75	A2.81
YOSD-A3.61	2.76-2.84	A3.61
YOSD-A3.95	2.85-3.06	A3.95
YOSD-A4.32	3.07-3.45	A4.32
YOSD-A4.79	3.46-3.70	A4.79
YOSD-A5.30	3.71-4.07	A5.30
YOSD-A5.78	4.08-4.32	A5.78
YOSD-A6.20	4.33-4.90	A6.20
YOSD-A6.99	4.91-5.35	A6.99
YOSD-A7.65	5.36-5.85	A7.65
YOSD-A8.38	5.86-6.41	A8.38
YOSD-A9.25	6.42-6.79	A9.25
YOSD-A9.85	6.80-7.57	A9.85
YOSD-A11.0	7.58-8.15	A11.0
YOSD-A11.9	8.16-8.98	A11.9
YOSD-A13.2	8.99-9.67	A13.2
YOSD-A14.1	9.68-9.95	A14.1
YOSD-A14.8	9.96-10.8	A14.8
YOSD-A16.2	10.9-12.1	A16.2
YOSD-A17.9	12.2-13.1	A17.9
YOSD-A19.8	13.2-13.9	A19.8
YOSD-A21.3	14.0-15.0	A21.3
YOSD-A25.2	15.1-16.0	A25.2

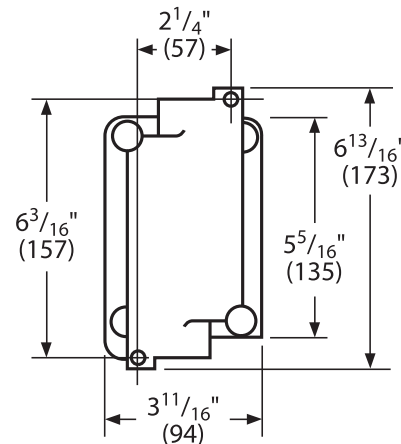
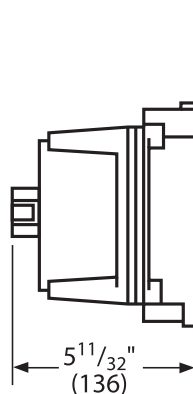
① Overload heaters are not supplied as part of the starter assemblies and need to be ordered as separate items by catalog number and priced accordingly.

FEATURES-SPECIFICATIONS

XSD/XSX NON-FACORY SEALED DIMENSIONS					
BOX STYLE	HUB SIZE	A	B	D	G
Single gang dead-end	1/2"	5-1/4"(133)	2-1/4"(57)	—	11/16"(17)
	3/4"	5-1/4"(133)	2-1/4"(57)	—	11/16"(17)
	1"	5-3/8"(136)	2-3/8"(60)	—	7/8"(22)
Single gang feed-thru	1/2"	5-1/4"(133)	2-1/4"(57)	6"(152)	11/16"(17)
	3/4"	5-1/4"(133)	2-1/4"(57)	6"(152)	11/16"(17)
	1"	5-3/8"(136)	2-3/8"(60)	6"(152)	7/8"(22)



Factory Sealed (FXSD/FXSX)





STARTERS

COMPACT MANUAL IEC STARTERS



B7MS1P
Push Button Style



B7MS2R
Rotary Style

Class I, Div. 1 & 2, Groups B, C, D
Class I, Zones 1 & 2, Groups IIB+H₂, IIA
Class II, Div. 1 & 2, Groups E, F, Ga
Class III, Div. 1 & 2
ENCL. Type 3, 4 & 4X

Certified - File LR11714

FEATURES-SPECIFICATIONS

Applications

The PRISM® B7MS Series of non-reversing, manual line voltage starters and enclosures are suitable for use in applications requiring manual across-the-line starting and stopping of small single and polyphase AC motors, and where overload protection is needed. Manual starters are generally used on small machine tools, fans and blowers, pumps, compressors, and conveyors as well as many other types of electrical equipment.

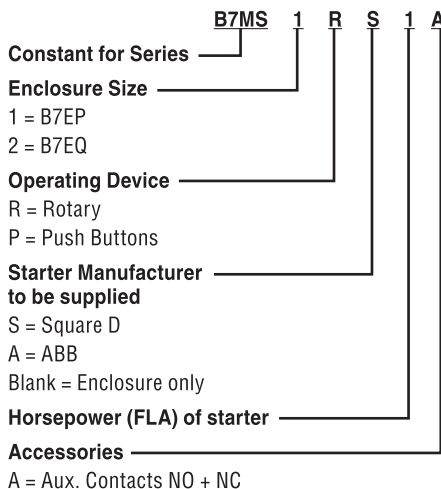
PRISM® enclosures universal design accommodates, as standard, IEC starter manufacturers including Square D, Cutler-Hammer, ABB, Siemens, Moeller, Sprecher + Schuh, Allen-Bradley, Advance Controls, and WEG.

Square D © Schneider Electric
 Siemens © Siemens AG
 Moeller © Moeller Electric Corp.

See catalog pg. DE8A for copyrights of other brands referenced.

When ordered with starters, ABB or Square D supplied.

Catalog Logic



Features

- Compact size enclosures provide application flexibility with cost savings over industry standard sizes
- NEMA 4, 4X rated – providing protection from hose directed water and corrosion
- Pre-drilled to facilitate easy field installation of starters
- 2 operating styles, rotary or push button, including lock-out provision.
- Provisions for drain and breather
- Bolt on ductile mounting lugs
- Two NPT conduit openings provided as standard, with custom openings on request

Electrical Rating

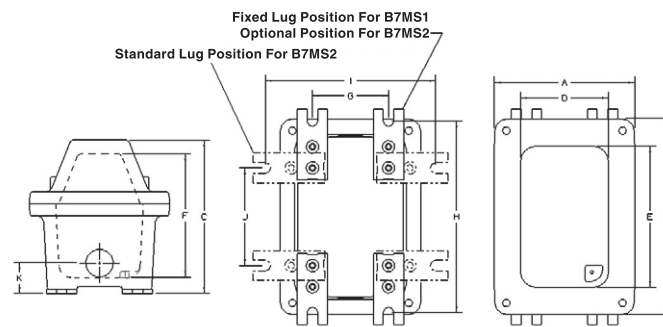
- Starters rated 600V, 3 phase up to 50HP

Standard Materials /Finish

- Enclosures: Copper-free aluminum (less than 4/10 of 1% copper content)
- Cover Bolts: 316 Stainless Steel
- O-ring Gasket: Silicone
- Finish: Grey Powder Polyester painted exterior, electrostatically applied

MODIFICATIONS	
SUFFIX NUMBER	DESCRIPTION
KIT-251	100 amp ground lug
A	Auxiliary contacts 1 NO + 1 NC
SU-2	Hinge-9 Installed
SU3B-4X	Drain & Breather installed TYPE 4X
SU3B-4XSS	Drain & Breather installed TYPE 4X SS
B7SPNPT	Change Std. conduit size and location
SU9	Special paint finish
SU14	Fungus proofing of enclosures

DIMENSIONS



ENCLOSURE	OUTSIDE BOX DIMENSIONS			NOMINAL INSIDE BOX			MOUNTING DIMENSIONS					CONDUIT SIZE
	A	B	C	D	E	F	G	H	I	J	K	
B7MS1	5-3/4	8-1/16	6-5/16	3-5/8	5-13/16	5-1/16	3-1/8	8-1/8	—	—	1-1/4	1
B7MS2	8-1/8	13-1/16	7-13/16	4-1/4	9-13/16	6-5/16	2-1/2	11-3/8	6-3/8	7-1/2	1-13/16	1-1/2



B7MS SERIES



COMPACT MANUAL IEC STARTERS

B7MS – ROTARY STYLE WITH ABB MS132 & MS450 SERIES

	CATALOG NUMBER	ADJUSTMENT RANGE FLA	SINGLE PHASE HP		THREE PHASE HP			
			120V	230V	200V-208V	230V	480V	600V
ENCLOSURE WITHOUT STARTER B7MS1R	B7MS1RA-1	0.63 - 1.0					0.5	0.5
	B7MS1RA-2	1.0 - 1.6		0.1			0.75	0.75
	B7MS1RA-3	1.6 - 2.5		0.167		0.5	1	1.5
	B7MS1RA-4	2.5 - 4.0	0.125	0.33		1	2	3
	B7MS1RA-5	4.0 - 6.3	0.25	0.5		1.5	3	5
	B7MS1RA-6	6.3 - 9.0	0.33	1		2.5	5	7.5
	B7MS1RA-7	9.0 - 12.5	0.5	2		3	7.5	10
	B7MS1RA-8	12.5 - 16.0	1	2.5		5	10	10
	B7MS1RA-9	16.0 - 20.0	1.5	3		5	10	15
	B7MS1RA-10	20.0 - 25.0	2	3		7.5	15	20
ENCLOSURE WITHOUT STARTER B7MS2RA FOR USE WITH ABB ONLY	B7MS2RA-12	11 - 16	1	3	5	5	10	15
	B7MS2RA-13	14 - 20	1.5	3	5	7.5	15	20
	B7MS2RA-14	18 - 25	2	5	7.5	10	20	25
	B7MS2RA-15	22 - 32	3	5	10	10	25	30
	B7MS2RA-16	28 - 40	3	7.5	15	15	30	40
	B7MS2RA-17	36 - 45	5	7.5	15	15	30	40
	B7MS2RA-18	40 - 50	5	10	15	20	40	50

B7MS – PUSH BUTTON STYLE SQUARE D GV2 SERIES

ENCLOSURE WITHOUT STARTER B7MS1P*	B7MS1PS-1	0.63 - 1.0					0.5	0.5
	B7MS1PS-2	1.0 - 1.6		0.1			0.75	1
	B7MS1PS-3	1.6 - 2.5		0.167	0.5	0.5	1	1.5
	B7MS1PS-4	2.5 - 4.0	0.125	0.33	0.75	1	2	3
	B7MS1PS-5	4.0 - 6.3	0.25	0.5	1.5	1.5	3	5
	B7MS1PS-6	6.0 - 10.0	0.5	1.5	2	3	5	7.5
	B7MS1PS-7	9.0 - 14.0	0.75	2	3	3	10	10
	B7MS1PS-8	13.0 - 18.0	1	3	5	5	10	15
	B7MS1PS-9	17.0 - 23.0	1.5	3	5	7.5	15	20
	B7MS1PS-10	20.0 - 25.0	2	3	5	7.5	15	20
	B7MS1PS-11	24.0 - 32.0	2	5	10	10	20	30

ENCLOSURE WITHOUT STARTER
B7MS2P

GV3 SERIES
PUSH BUTTON
STARTER

Discontinued by the manufacturer

B7MS – ROTARY STYLE WITH SQUARE D GV2 & GV3 SERIES

ENCLOSURE WITHOUT STARTER B7MS1R	B7MS1RS-1	0.63 - 1.0					0.5	0.5
	B7MS1RS-2	1.0 - 1.6		0.1			0.75	1
	B7MS1RS-3	1.6 - 2.5		0.167	0.5	0.5	1	1.5
	B7MS1RS-4	2.5 - 4.0	0.125	0.33	0.75	1	2	3
	B7MS1RS-5	4.0 - 6.3	0.25	0.5	1.5	1.5	3	5
	B7MS1RS-6	6.0 - 10.0	0.5	1.5	2	3	5	7.5
	B7MS1RS-7	9.0 - 14.0	0.75	2	3	3	10	10
	B7MS1RS-8	13.0 - 18.0	1	3	5	5	10	15
	B7MS1RS-9	17.0 - 23.0	1.5	3	5	7.5	15	20
	B7MS1RS-10	20.0 - 25.0	2	3	5	7.5	15	20
	B7MS2RS-11	24.0 - 32.0	2	5	10	10	20	30
ENCLOSURE WITHOUT STARTER B7MS2R	B7MS2RS-12	9.0 - 13.0	1	2	3	3	7.5	10
	B7MS2RS-13	12.0 - 18.0	1	3	5	5	10	15
	B7MS2RS-14	17.0 - 25.0	2	3	7.5	7.5	15	20
	B7MS2RS-15	23.0 - 32.0	2	5	10	10	20	30
	B7MS2RS-16	30.0 - 40.0	3	5	10	10	30	30
	B7MS2RS-17	37.0 - 50.0	3	7.5	15	15	40	40
	B7MS2RS-18	48.0 - 65.0	5	10	20	20	50	50

B7MS1R – For use with ABB MS116, MS325, MS132 Automation Direct BM3 Cutler-Hammer XTPR Moeller PKZMO Seimens 3RV Sprecher + Schuh KTA7 SQ D Telemecanique GV2P WEG MPW25

B7MS2R – For use with Automation Direct BM3 SQ D Telemecanique GV3P

B7MS2RA – For use with ABB MS450

B7MS1P – For use with Cutler-Hammer XTPB Moeller PKZMO1 SQ D Telemecanique GV2ME WEG MPW25

B7MS2P – For use with Advance Control MMS25

* **B7MS1PRW** – (enclosure without starter) For use with Allen-Bradley 140 Sorecher + Schuh KT4



STARTERS

COMPACT MANUAL NEMA STARTERS



B7MSN2P



Internal View

Class I, Div. 1 & 2, Groups B, C, D
Class I, Zones 1 & 2, Groups IIB+H₂, IIA
Class II, Div. 1 & 2, Groups E, F, Ga
Class III, Div. 1 & 2
ENCL. Type 3, 4 & 4X

Certified - File LR11714

FEATURES-SPECIFICATIONS

Applications

The PRISM® B7MSN Series of nonreversing, manual line voltage starters and enclosures are suitable for use in applications requiring manual across-the-line starting and stopping of small single and polyphase AC motors, and where overload protection is needed. Manual starters are generally used on small machine tools, fans and blowers, pumps, compressors, and conveyors as well as many other types of electrical equipment.

PRISM® enclosures universal design accommodates, as standard, starter manufacturers including

- Allen-Bradley 609 Series
- Cutler-Hammer B100M Series
- GE CR106 Series
- Square D 2510M Series

Allen Bradley © Rockwell Automation
 Cutler-Hammer © Eaton Corporation
 GE © General Electric Company
 Square D © Schneider Electric

Features

- Compact size enclosures provide application flexibility with cost savings over industry standard sizes
- NEMA 4, 4X rated – providing protection from hose directed water and corrosion
- Pre-drilled to facilitate easy field installation of starters
- Large double green/red start-stop push buttons
- Can be pad locked in “OFF” position
- Provisions for drain and breather
- Bolt on ductile mounting lugs
- Two 1-1/2” NPT conduit openings provided as standard, with custom openings on request

Electrical Rating

NEMA starter sizes 0, 1, 1-1/2 FVNR;
 2 pole single phase = 230 VAC
 3 pole three phase = 600 VAC
 2 pole VDC = 230 VDC

Overload Heaters

Heaters are not included, see next page.

Standard Materials /Finish

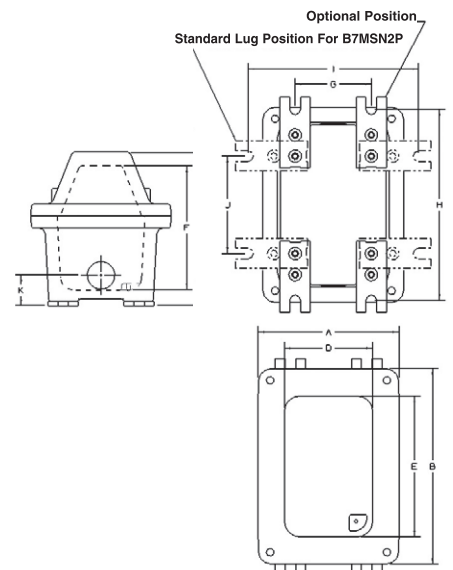
- Enclosures: Copper-free aluminum (less than 4/10 of 1% copper content)
- Cover Bolts: 316 Stainless Steel
- O-ring Gasket: Silicone
- Finish: Grey Powder Polyester painted exterior, electrostatically applied

MODIFICATIONS	
SUFFIX NUMBER	DESCRIPTION
KIT-251	100 amp ground lug
AO	Aux. contact NO only
AC	Aux. contact NC only
SU-2	Hinge-9 Installed
SU3B-4X	Drain & Breather installed TYPE 4X
SU3B-4XSS	Drain & Breather installed TYPE 4X SS
B7SPNPT	Change Std. conduit size and location
SU9	Special paint finish
SU14	Fungus proofing of enclosures

* NOTE: The installation of a Drain & Breather will void the NEMA 4-4X rating of enclosure.

CATALOG NUMBER			SIZE/ PHASE	SINGLE PHASE HP		THREE PHASE				DC HP	
ENCLOSURE	W/CUTLER-HAMMER	W/ SQUARE D		120VAC	230VAC	208VAC	230VAC	480VAC**	600VAC	115DC	230VDC
B7MSN2P	B7MSN2PC0B	B7MSN2PS0B	M-0 2P	1	2					1 CH	1.5 CH
	B7MSN2PC1B	B7MSN2PS1B	M-1 2P	2	3					1.5 CH	2 CH
		B7MSN2PSDB	M-1P 2P	3	5						
	B7MSN2PC0C	B7MSN2PS0C	M-0 3P			3	3	5	5		
	B7MSN2PC1C	B7MSN2PS1C	M-1 3P			7.5	7.5	10	10		
		B7MSN2PS0V	M-0 2P VDC							1	1.5
	B7MSN2PS1V	M-1 2P VDC							1.5	2	

ENCLOSURE	OUTSIDE BOX DIMENSIONS			NOMINAL INSIDE BOX			MOUNTING DIMENSIONS				
	A	B	C	D	E	F	G	H	I	J	K
B7MSN2P	8-1/8	13-1/16	7-13/16	4-1/4	9-3/16	6-5/16	2-1/2	11-3/8	6-3/8	7-1/2	1-13/16





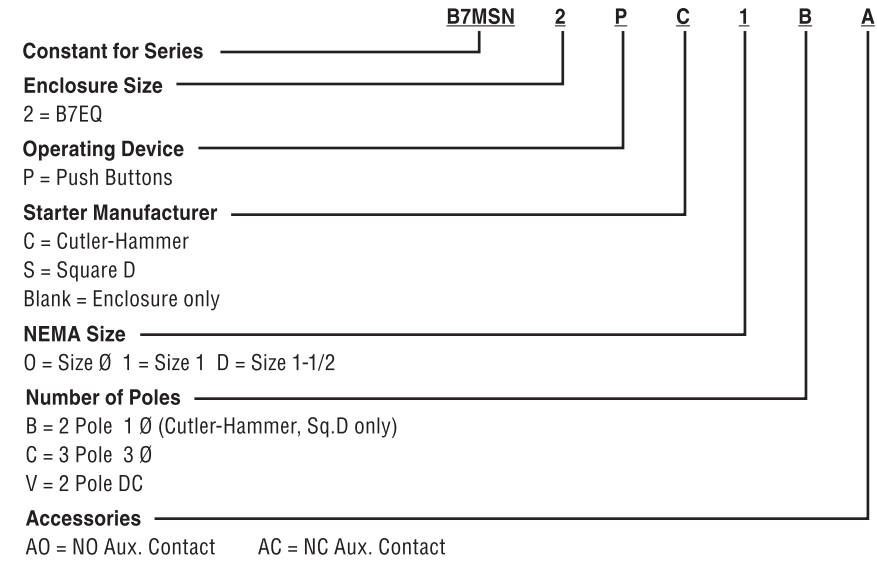
B7MSN SERIES

HEATERS, CATALOG LOGIC, DIMENSIONS

B7MSN HEATER SELECTION ①		
SQUARE D 2510M ONLY		
MOTOR FULL LOAD AMPS @ 40° C		
SIZE 0		
CATALOG NUMBER	SINGLE PHASE	THREE PHASE
KB044	0.33 - 0.36	0.29 - 0.32
KB051	0.37 - 0.40	0.33 - 0.36
KB057	0.41 - 0.45	0.37 - 0.39
KB063	0.46 - 0.52	0.40 - 0.47
KB071	0.53 - 0.59	0.48 - 0.56
KB081	0.60 - 0.66	0.57 - 0.63
KB092	0.67 - 0.73	0.64 - 0.69
KB103	0.74 - 0.81	0.70 - 0.77
KB116	0.82 - 0.91	0.78 - 0.86
KB130	0.92 - 1.02	0.87 - 0.96
KB145	1.03 - 1.14	0.97 - 1.11
KB167	1.15 - 1.29	1.12 - 1.23
KB188	1.20 - 1.42	1.24 - 1.37
KB210	1.43 - 1.64	1.38 - 1.55
KB240	1.65 - 1.80	1.56 - 1.75
KB265	1.81 - 2.10	1.76 - 1.92
KB300	2.11 - 2.30	1.93 - 2.16
KB330	2.31 - 2.61	2.17 - 2.50
KB370	2.62 - 2.99	2.51 - 2.81
KB415	3.00 - 3.37	2.82 - 3.16
KB485	3.38 - 3.94	3.17 - 3.40
KB550	3.95 - 4.24	3.41 - 3.76
KB625	4.25 - 4.54	3.77 - 4.00
KB690	4.55 - 5.29	4.01 - 4.68
KB770	5.30 - 5.73	4.69 - 5.18
KB820	5.74 - 6.35	5.19 - 5.51
KB910	6.36 - 7.08	5.52 - 6.19
KB102	7.09 - 7.83	6.20 - 7.12
KB115	7.84 - 8.47	7.13 - 8.15
KB128	8.48 - 9.83	8.16 - 8.60
KB014	9.84 - 10.5	8.61 - 9.21
KB155	10.6 - 11.4	9.22 - 10.1
KB175	11.5 - 12.8	10.2 - 11.2
KB195	12.9 - 13.9	11.3 - 12.0
KB022	14.0 - 16.1	-----
KB025	16.2 - 18.0	-----
SIZE 1 & 1P	SIZE 1 & 1P	SIZE 1 & 1P
KB195	-----	11.3 - 12.1
KB022	-----	12.2 - 13.6
KB025	16.2 - 17.6	13.7 - 15.3
KB280	17.7 - 20.6	15.4 - 17.3
KB032	20.7 - 23.1	17.4 - 19.1
KB036	23.2 - 26.0	19.2 - 21.7
KB040	-----	21.8 - 24.2
KB045	-----	24.3 - 26.0
SIZE 1P	SIZE 1P	SIZE 1P
KB036	23.2 - 27.1	-----
KB040	27.2 - 29.2	-----
KB045	29.3 - 33.0	-----
KB050	33.1 - 36.0	-----

① Select heater element based on motor nameplate listed full load amps. Trip rating of element is 125% of motor minimum F.L.A. listed for the element

Catalog Logic



B7MSN HEATER SELECTIONS							
CUTLER-HAMMER							
CATALOG NUMBER	MOTOR FULL-LOAD AMPS @ 40° C		CUTLER-HAMMER CODEMARK	CATALOG NUMBER	MOTOR FULL-LOAD AMPS @ 40° C		CUTLER-HAMMER CODEMARK
	SINGLE PHASE	THREE PHASE			SINGLE PHASE	THREE PHASE	
YOWEA200-FH03	.28-.29	.25-.26	FH03	YOWEA200-FH30	4.04-4.40	3.54-3.86	FH30
YOWEA200-FH04	.30-.33	.27-.29	FH04	YOWEA200-FH31	4.41-4.81	3.87-4.22	FH31
YOWEA200-FH05	.34-.36	.30-.32	FH05	YOWEA200-FH32	4.82-5.26	4.23-4.61	FH32
YOWEA200-FH06	.37-.40	.33-.35	FH07	YOWEA200-FH33	5.27-5.74	4.62-5.03	FH33
YOWEA200-FH07	.41-.45	.36-.39	FH07	YOWEA200-FH34	5.75-6.25	5.04-5.49	FH34
YOWEA200-FH08	.46-.50	.40-.44	FH08	YOWEA200-FH35	6.27-6.83	5.50-5.99	FH35
YOWEA200-FH09	.51-.56	.45-.49	FH09	YOWEA200-FH36	6.84-7.45	6.00-6.53	FH36
YOWEA200-FH10	.57-.63	.50-.55	FH10	YOWEA200-FH37	7.46-8.11	6.54-7.11	FH37
YOWEA200-FH11	.64-.70	.56-.61	FH11	YOWEA200-FH38	8.12-8.81	7.12-7.73	FH38
YOWEA200-FH12	.71-.78	.62-.68	FH12	YOWEA200-FH39	8.82-9.58	7.74-8.40	FH39
YOWEA200-FH13	.79-.86	.69-.75	FH13	YOWEA200-FH40	9.59-10.40	8.41-9.12	FH40
YOWEA200-FH14	.87-.95	.76-.83	FH14	YOWEA200-FH41	10.41-11.3	9.13-9.89	FH41
YOWEA200-FH15	.96-1.04	.84-.91	FH15	YOWEA200-FH42	11.4-12.2	9.9-10.7	FH42
YOWEA200-FH16	1.05-1.14	.92-1.00	FH16	YOWEA200-FH43	12.3-13.5	10.8-11.8	FH43
YOWEA200-FH17	1.15-1.25	1.01-1.10	FH17	YOWEA200-FH44	13.6-14.9	11.9-13.0	FH44
YOWEA200-FH18	1.26-1.39	1.11-1.22	FH18	YOWEA200-FH45	15.0-16.0	13.1-14.0	FH45
YOWEA200-FH19	1.40-1.54	1.23-1.35	FH19	YOWEA200-FH46	16.1-17.1	14.1-15.0	FH46
YOWEA200-FH20	1.55-1.71	1.36-1.50	FH20	YOWEA200-FH47	17.2-18.3	15.1-16.1	FH47
YOWEA200-FH21	1.72-1.89	1.51-1.66	FH21	YOWEA200-FH48	18.4-19.7	16.2-17.3	FH48
YOWEA200-FH22	1.90-2.10	1.67-1.84	FH22	YOWEA200-FH49	19.8-21.2	17.4-18.6	FH49
YOWEA200-FH23	2.11-2.32	1.85-2.03	FH23	YOWEA200-FH50	21.3-22.8	18.7-20.0	FH50
YOWEA200-FH24	2.33-2.54	2.04-2.23	FH24	YOWEA200-FH51	22.9-24.5	20.1-21.5	FH51
YOWEA200-FH25	2.55-2.79	2.24-2.45	FH25	YOWEA200-FH52	24.6-26.4	21.6-23.2	FH52
YOWEA200-FH26	2.80-3.07	2.46-2.69	FH26	YOWEA200-FH53	26.5-28.5	23.2-25.0	FH53
YOWEA200-FH27	3.08-3.36	2.70-2.95	FH27	YOWEA200-FH54	28.6-30.8	25.1-26.8	FH54
YOWEA200-FH28	3.37-3.68	2.96-3.23	FH28	YOWEA200-FH55	30.9-33.3	—	FH55
YOWEA200-FH29	3.69-4.03	3.24-3.53	FH29	YOWEA200-FH56	33.4-36.0	—	FH56
				YOWEA200-FH57	36.1-38.9	—	FH57



STARTERS

MANUAL LINE STARTERS

CUTLER HAMMER/EATON B100 STARTERS FULL VOLTAGE, NON-REVERSING SINGLE AND POLYPHASE

Applications

XMSW Series, non-reversing, manual line voltage starters and enclosures are suitable for use in applications requiring manual across-the-line starting and stopping of small single and polyphase AC motors, and where overload protection is needed. Manual starters are generally used on small machine tools, fans and blowers, pumps, compressors, and conveyors as well as many other types of electrical machinery.

FEATURES-SPECIFICATIONS

Features

- Rectangular bolted cover design provides for attractive, compact, uniform installations
- Enclosure and external handle are diecast copper-free (less than 0.4%) aluminum alloy
- Cast "ON," "OFF," "TRIPPED" markings on cover align with external handle and provide clear indication of enclosed starter condition
- External handle is a vault type with standard provisions for locking in the "OFF" position with up to three pad-locks. Provision for locking in "ON" position is available as factory modification (add suffix SU-40 to catalog number).
- Two cast 1" NPT conduit hubs with integral pipe stop, one top and one bottom, are standard on all assemblies

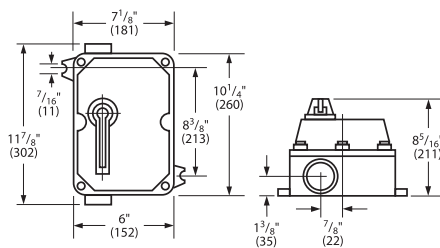
Electrical Rating

Starter sizes 0, 1, 11/2

Two pole, single phase; three pole, polyphase

Maximum 10 HP, 600 Volts AC

Dimensions



③ Select heater element based on motor nameplate listed. Full-load amps. Trip rating of element is 125% of motor minimum F.L.A. listed for the element.



Class I, Div. 1 & 2, Groups C, D
 Class I, Zones 1 & 2, Groups IIB, IIA
 Class II, Div. 1 & 2, Groups E, F, G
 Class III
 NEMA 3R, 7 (C, D) 9 (E, F, G)

UL LISTED - File E12379

See files for details or call Killark.

XMSW MANUAL LINE STARTERS ^{① ②}						
NEMA SIZE	NUMBER OF POLE SIZE	MAXIMUM HORSEPOWER			CATALOG NUMBER	
		120 VAC	208-240 VAC	480-600 VAC	WITH STARTER	ENCLOSURE ONLY
0	2-POLE; 1Ø, A C	1	2	—	XMSW-0BT	XMSW-00T
0	3-POLE; 3Ø, A C	2	3	5	XMSW-0CT	
1	2-POLE; 1Ø, A C	2	3	—	XMSW-1BT	
1	3-POLE; 3Ø, A C	3	7-1/2	10	XMSW-1CT	
1-1/2	2-POLE; 1Ø, A C	3	5	—	XMSW-DBT	

① Heaters not included. If heaters are required order as separate item by catalog number, three phase starters require three heaters. Single phase starters require two heaters.

② Three pole starters may be used on two-phase four-wire circuits by running one wire direct to motor.

HEATER TABLE FOR XMSW SERIES MANUAL LINE STARTERS ^③							
CATALOG NUMBER	MOTOR FULL-LOAD AMPS @ 40°C		CUTLER-HAMMER	CATALOG NUMBER	MOTOR FULL-LOAD AMPS @ 40°C		CUTLER-HAMMER
	SINGLE PHASE	THREE PHASE			SINGLE PHASE	THREE PHASE	
YOWEA200-FH03	.28-.29	.25-.26	FH03	YOWEA200-FH30	4.04-4.40	3.54-3.86	FH30
YOWEA200-FH04	.30-.33	.27-.29	FH04	YOWEA200-FH31	4.41-4.81	3.87-4.22	FH31
YOWEA200-FH05	.34-.36	.30-.32	FH05	YOWEA200-FH32	4.82-5.26	4.23-4.61	FH32
YOWEA200-FH06	.37-.40	.33-.35	FH07	YOWEA200-FH33	5.27-5.74	4.62-5.03	FH33
YOWEA200-FH07	.41-.45	.36-.39	FH07	YOWEA200-FH34	5.75-6.25	5.04-5.49	FH34
YOWEA200-FH08	.46-.50	.40-.44	FH08	YOWEA200-FH35	6.27-6.83	5.50-5.99	FH35
YOWEA200-FH09	.51-.56	.45-.49	FH09	YOWEA200-FH36	6.84-7.45	6.00-6.53	FH36
YOWEA200-FH10	.57-.63	.50-.55	FH10	YOWEA200-FH37	7.46-8.11	6.54-7.11	FH37
YOWEA200-FH11	.64-.70	.56-.61	FH11	YOWEA200-FH38	8.12-8.81	7.12-7.73	FH38
YOWEA200-FH12	.71-.78	.62-.68	FH12	YOWEA200-FH39	8.82-9.58	7.74-8.40	FH39
YOWEA200-FH13	.79-.86	.69-.75	FH13	YOWEA200-FH40	9.59-10.40	8.41-9.12	FH40
YOWEA200-FH14	.87-.95	.76-.83	FH14	YOWEA200-FH41	10.41-11.3	9.13-9.89	FH41
YOWEA200-FH15	.96-1.04	.84-.91	FH15	YOWEA200-FH42	11.4-12.2	9.9-10.7	FH42
YOWEA200-FH16	1.05-1.14	.92-1.00	FH16	YOWEA200-FH43	12.3-13.5	10.8-11.8	FH43
YOWEA200-FH17	1.15-1.25	1.01-1.10	FH17	YOWEA200-FH44	13.6-14.9	11.9-13.0	FH44
YOWEA200-FH18	1.26-1.39	1.11-1.22	FH18	YOWEA200-FH45	15.0-16.0	13.1-14.0	FH45
YOWEA200-FH19	1.40-1.54	1.23-1.35	FH19	YOWEA200-FH46	16.1-17.1	14.1-15.0	FH46
YOWEA200-FH20	1.55-1.71	1.36-1.50	FH20	YOWEA200-FH47	17.2-18.3	15.1-16.1	FH47
YOWEA200-FH21	1.72-1.89	1.51-1.66	FH21	YOWEA200-FH48	18.4-19.7	16.2-17.3	FH48
YOWEA200-FH22	1.90-2.10	1.67-1.84	FH22	YOWEA200-FH49	19.8-21.2	17.4-18.6	FH49
YOWEA200-FH23	2.11-2.32	1.85-2.03	FH23	YOWEA200-FH50	21.3-22.8	18.7-20.0	FH50
YOWEA200-FH24	2.33-2.54	2.04-2.23	FH24	YOWEA200-FH51	22.9-24.5	20.1-21.5	FH51
YOWEA200-FH25	2.55-2.79	2.24-2.45	FH25	YOWEA200-FH52	24.6-26.4	21.6-23.2	FH52
YOWEA200-FH26	2.80-3.07	2.46-2.69	FH26	YOWEA200-FH53	26.5-28.5	23.2-25.0	FH53
YOWEA200-FH27	3.08-3.36	2.70-2.95	FH27	YOWEA200-FH54	28.6-30.8	25.1-26.8	FH54
YOWEA200-FH28	3.37-3.68	2.96-3.23	FH28	YOWEA200-FH55	30.9-33.3	—	FH55
YOWEA200-FH29	3.69-4.03	3.24-3.53	FH29	YOWEA200-FH56	33.4-36.0	—	FH56
				YOWEA200-FH57	36.1-38.9	—	FH57



EXB70 SERIES

IEC MAGNETIC MOTOR STARTERS

FEATURES-SPECIFICATIONS

Applications

The EXB70 Series of across-the-line starter and combination motor control centers utilize SSNR (single speed non-reversing) IEC starters. The EXB70 starters is for use in locations made hazardous due to the presence of flammable gases or vapors, combustible dust, or easily ignitable fibers and flyings, and areas which are subject to corrosion, weather and dampness.

- Petroleum Refineries
- Oil Rigs & Platforms
- Chemical/Petrochemical Plants
- Pharmaceutical Facilities
- Automotive Repair Facilities
- Aircraft Facilities
- Wet/Corrosive Environments
- Grain Elevators

The EXB70 Series is offered with the ABB brand AF contactor / TF overload relay, XT circuit breakers and motor circuit protectors.

Materials

- Box & cover: Cooper free aluminum (less than 4/10 of 1%)
- Finish: Aluminum lacquer paint – Grey
- O-Ring Gasket Material: Nitrile (BUNA-N) compound
- Stainless steel, A2, cover screw.
- CB/MCP Handle – Copper free aluminum
- Reset Operator – Thermoplastic polyester button molded onto stainless steel shaft. Aluminum shroud, black anodized.

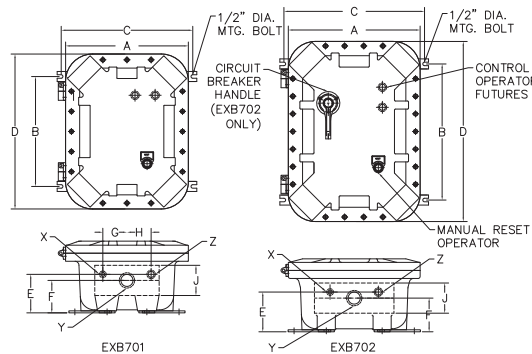
Features

- Copper free cast aluminum construction. High in strength, lighter in weight, corrosion resistant
- Stainless steel metric cover bolts
- Cover o-ring supplied as standard for TYPE 4X and IP66 applications.
- Starters supplied with hinged covers as standard
- Bi-directional bolt on mounting lugs made from a ductile aluminum alloy which will adjust to irregular surfaces without causing damage to the casting.
- Starter only supplied as standard with a manual reset button and two future control operator openings with plugs.
- Combination starter supplied as standard with a manual reset button, through the door circuit breaker handle and two future control operator openings with plugs.
- Each starter comes with three NPT conduit openings in both the top and in the bottom allowing for power, control and drain/breathers.
- The EXB70 can be ordered with custom sizes & quantity of holes both in NPT and metric.
- Additional control operators can be supplied along with addition future operator openings.

CLASSIFIED UL - File E83969

SP Certified - File LR11716
PTB 07ATEX1024
IECEX PTB 07.0023

Class I, Div. 1 & 2, Groups B, C, D
Class I, Zone 1 & 2, Groups IIC, IIB, IIA
Class II, Div. 1 & 2, Groups E, F, G
Class III
Enclosure Type 3, 4 & 4X
II 2 G D
Ex d IIB+H₂ T6
Ex tD A21 IP66
Ta < +60°C



EXB70 MODIFICATION AND ACCESSORIES

OPTIONS	DESCRIPTIONS	OPTIONS	DESCRIPTIONS
EXB7RPL-120	Pilot light 120V - Red	EXB7TB	6 point terminal block
EXB7GPL-120	Pilot light 120V - Green	EXB7SF	Epoxy powder paint
EXB7APL-120	Pilot light 120V - Amber	EXB7CT50	Control transformer 50 VA 240/480VAC to 120VAC
EXB7RPL-24	Pilot light 24V - Red	EXB7CT75	Control transformer 75VA 240/480VAC to 120VAC
EXB7GPL-24	Pilot light 24V - Green	EXB7CT100	Control transformer 100VA 240/480VAC to 120VAC
EXB7APL-24	Pilot light 24V - Amber	EXB7CT150	Control transformer 150VA 240/480VAC to 120VAC
EXB7LPBR	Illuminated pushbutton 120V - Red	EXB7CT200	Control transformer 200VA 240/480VAC to 120VAC
EXB7LPBG	Illuminated pushbutton 120V - Green	EXB7CT250	Control transformer 250VA 240/480VAC to 120VAC
EXB7LPBA	Illuminated pushbutton 120V - Amber	EXB7CT300	Control transformer 300VA 240/480VAC to 120VAC
EXB7LPBR-24	Illuminated pushbutton 24V - Red	EXB7CT50-24	Control transformer 50 VA 240/480VAC to 24VAC
EXB7LPBG-24	Illuminated pushbutton 24V - Green	EXB7CT75-24	Control transformer 75VA 240/480VAC to 24VAC
EXB7LPBA-24	Illuminated pushbutton 24V - Amber	EXB7CT100-24	Control transformer 100VA 240/480VAC to 24VAC
EXB7PLR220	Pilot light resistor 220/120V	EXB7CT150-24	Control transformer 150VA 240/480VAC to 24VAC
EXB7PLR440	Pilot light resistor 440/120V	EXB7CT200-24	Control transformer 200VA 240/480VAC to 24VAC
EXB7PLR550	Pilot light resistor 550/120V	EXB7CT250-24	Control transformer 250VA 240/480VAC to 24VAC
EXB7PLXF220	Pilot transformer 220/120V	EXB7CT300-24	Control transformer 300VA 240/480VAC to 24VAC
EXB7PLXF440	Pilot transformer 440/120V	EXB72SH251	Space heater 25 watts 120 volts
EXB7DBP	Double pushbutton Start - Stop	EXB72SH252	Space heater 25 watts 240 volts
EXB72SS	2 position selector switch On-Off	EXB72SH254	Space heater 25 watts 480 volts
EXB7SSH0A	3 position selector switch Hand-Off-Auto	EXB72SH501	Space heater 50 watts 120 volts
KB1BCEN	Breather installed	EXB72SH502	Space heater 50 watts 240 volts
KB1DCEN	Drain installed	EXB72SH504	Space heater 50 watts 480 volts
AUX	Auxiliary contact 1NO & 1NC		

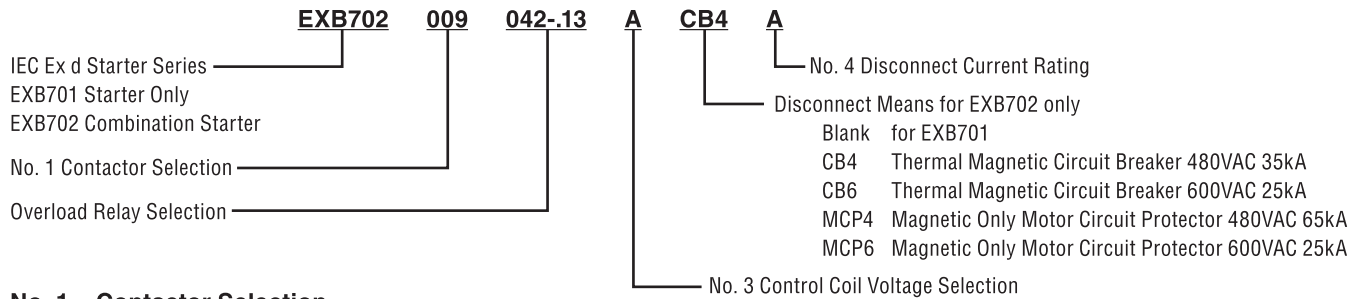
EXB70 DIMENSIONS

CATALOG NUMBER	TYPE	DIMENSIONS IN. (MM)										CONDUIT OPENINGS TOP & BOTTOM			WT. LBS (KG)
		A	B	C	D	E	F	G	H	J	X	Y	Z		
EXB701009 to EXB701030	Starter Only	12.38 (314)	8 (203)	9.88 (251)	14.32 (364)	5.04 (128)	3.64 (92)	2.38 (60)	2.38 (60)	9.82 (249)	1/2 NPT	1-1/2 NPT	3/4 NPT	41 (18)	
EXB701040 to EXB701096	Starter Only	15.25 (387)	8.94 (227)	12.94 (329)	19.25 (489)	4.92 (125)	4.04 (103)	3 (76)	3 (76)	10.4 (264)	1/2 NPT	2 NPT	3/4 NPT	88 (39)	
EXB071140	Starter Only	16.38 (416)	18.88 (479)	14.94 (379)	28.38 (721)	7.1 (180)	5.19 (132)	3.94 (100)	3.94 (100)	12.82 (325)	1/2 NPT	3 NPT	3/4 NPT	173 (78)	
EXB702009 to EXB702030	Combination	15.25 (387)	8.94 (227)	12.94 (329)	19.25 (489)	4.92 (125)	4.04 (103)	3 (76)	3 (76)	10.9 (277)	1/2 NPT	1-1/2 NPT	3/4 NPT	88 (40)	
EXB702065	Combination	16.38 (416)	12.88 (327)	14.94 (379)	22.38 (568)	5 (127)	4.13 (105)	3.94 (100)	3.94 (100)	11.06 (280)	1/2 NPT	2 NPT	3/4 NPT	120 (54)	
EXB702096 to EXB702140	Combination	21.25 (540)	19.38 (492)	19.38 (492)	29.25 (743)	7.34 (186)	5.47 (139)	6 (152)	6 (152)	14 (355)	1/2 NPT	3 NPT	3/4 NPT	273 (123)	



STARTERS

EXB701 STARTER ONLY & EXB702 COMBINATION STARTER SELECTION



No. 1 – Contactor Selection

	009		012		016		026		030		040		052		065		096		116		140	
UL / CSA RATINGS	HP	AMPS	HP	AMPS	HP	AMPS	HP	AMPS	HP	AMPS	HP	AMPS	HP	AMPS	HP	AMPS	HP	AMPS	HP	AMPS	HP	AMPS
120 VAC - 1Phase	0.75	13.8	1	16	1.5	20	2	24	2	24	3	34										
240 VAC - 1Phase	1.5	10	2	12	3	17	3	17	5	28	7.5	40										
200 - 208 VAC - 3Phase	2	7.8	3	11	5	17.5	7.5	25.3	10	32.2	10	32.2	15	48.3	20	62.1	30	92	30	92	40	120
220 - 240 VAC - 3Phase	2	6.8	3	9.6	5	15.2	7.5	22	10	28	15	42	20	54	25	68	30	80	40	104	50	130
440 - 480 VAC - 3Phase	5	7.6	7.5	11	10	14	15	21	20	27	30	40	40	52	50	65	60	77	75	96	100	124
550 - 600 VAC - 3Phase	7.5	9	10	11	10	17	20	22	25	27	40	41	50	52	60	62	75	77	100	99	125	125
IEC RATINGS	KW	AMPS	KW	AMPS	KW	AMPS	KW	AMPS	KW	AMPS	KW	AMPS	KW	AMPS	KW	AMPS	KW	AMPS	KW	AMPS	KW	AMPS
220 - 240 VAC - 3Phase	2.2	9	3	12	4	18	6.5	26	9	33	11	40	15	53	18.5	65	25	96	30	116	37	140
380 - 400 VAC - 3Phase	4	9	5.5	12	7.5	18	11	26	15	32	18.5	40	22	53	30	65	45	96	55	116	75	140
415 VAC - 3Phase	4	9	5.5	12	9	18	11	26	15	32	22	40	30	53	37	65	55	96	55	116	75	140
440 VAC - 3Phase	4	9	5.5	12	9	18	15	26	18.5	32	22	40	30	53	37	65	55	96	75	116	90	140
500 VAC - 3Phase	5.5	9.5	7.5	12.5	9	15	15	23	18.5	28	22	35	30	45	37	55	55	80	75	110	90	130
690 VAC - 3Phase	5.5	7	7.5	9	9	10.5	15	17	18.5	21	22	25	30	35	37	39	55	57	55	65	75	80
See Overload Relay Selection Chart	042-										065-					096-			140-			

No. 2 – Overload Relay Selection

042-				065-			
SELECTION	AMP SETTING RANGE			SELECTION	AMP SETTING RANGE		
042- .13	0.10	to	0.13	065- 28	22.0	to	28.0
042- .17	0.13	to	0.17	065- 33	25.0	to	33.0
042- .23	0.17	to	0.23	065- 40	30.0	to	40.0
042- .31	0.23	to	0.31	065- 47	36.0	to	47.0
042- .41	0.31	to	0.41	065- 53	44.0	to	53.0
042- .55	0.41	to	0.55	065- 60	50.0	to	60.0
042- .74	0.55	to	0.74	065- 67	57.0	to	67.0
042- 1.0	0.74	to	1.00	096-			
042- 1.3	1.00	to	1.30	SELECTION AMP SETTING RANGE			
042- 1.7	1.30	to	1.70	096- 51	40.0	to	51.0
042- 2.3	1.70	to	2.30	096- 60	48.0	to	60.0
042- 3.1	2.30	to	3.10	096- 68	57.0	to	68.0
042- 4.2	3.10	to	4.20	096- 78	65.0	to	78.0
042- 5.7	4.20	to	5.70	096- 87	75.0	to	87.0
042- 7.6	5.70	to	7.60	096- 96	84.0	to	96.0
042- 10	7.60	to	10.0	140-			
042- 13.0	10.0	to	13.0	SELECTION AMP SETTING RANGE			
042- 16.0	13.0	to	16.0	140- 90.0	66.0	to	90.0
042- 20.0	16.0	to	20.0	140- 110.0	80.0	to	110.0
042- 24.0	20.0	to	24.0	140- 135.0	100.0	to	135.0
042- 29.0	24.0	to	29.0	140- 142.0	110.0	to	142.0
042- 35.0	29.0	to	35.0				

No. 3 – Coil Voltage Code

SELECTION	VAC	VDC
A	24 .. 60	24 .. 60Ⓢ
B	48 .. 130	48 .. 130
C	100 .. 250	100 .. 250
D	250 .. 500	250 .. 500

Ⓢ When contactors 009 through 030 are being used with a 24 to 60 VDC control supply voltage add suffix "-DC" to the end of the catalog logic.

No. 4 – BREAKER CODE – EXB702 ONLY

CIRCUIT BREAKER		MOTOR CIRCUIT PROTECTOR	
SELECTION	AMP	SELECTION	AMP
A	15	003	3
B	20	007	7
C	25	015	15
D	30	030	30
E	40	050	50
F	50	070	70
G	60	100	100
H	70	125	125
I	80	150	150
J	90	175	175
K	100	200	200
L	125	225	225
M	150	250	250
N	175		
O	200		
T	250		

