

Raychem RPG

ENGINEERING GROWTH . PIONEERING EXCELLENCE

INDUSTRIAL Cable GLANDS & Accessories



(A TE-Connectivity - RPG Enterprises JV)

Our Company

Raychem RPG (P) Ltd., incorporated in 1989, is a 50:50 joint Venture between TE Connectivity, U.S.A. (formerly Tyco Electronics) and RPG Enterprises, India.

TE Connectivity is a US\$13 Billion global provider for solutions in Network, Transportation, Consumers and Industrial for over 50 years.

RPG Enterprises, an establishment of over 30 years, is one of India's fastest growing business groups with turnover of US\$ 3 Billion. The group has more than fifteen companies managing diverse business interests in the areas of Automotive Tyres, Infrastructure, IT and Specialty including Pharmaceuticals, Power Ancillaries & Plantations.



Content

Introduction To Industrial Cable Glands	4-5
Why Raychem RPG?	6
Approvals For Industrial Cable Glands	7
Nomenclature For Industrial Cable Glands	8
Technical Data Sheet For A1/A2 Industrial Cable Gland	9
Technical Data Sheet For BW Part Heavy Duty Industrial Cable Gland	10
Technical Data Sheet For CW Industrial Cable Gland	11
Technical Data Sheet For E1W Industrial Cable Gland	12
Cable Gland Selection Software	13
Ingress Protection Matrix	14
Accessories	15



INTRODUCTION TO INDUSTRIAL CABLE GLANDS

Defining Cable Glands

A device designed to permit the entry of a cable, flexible cable or insulated conductor into an enclosure, and which provides sealing and retention. It also provides significant functions such as earthing, bonding, insulation, cable guarding, strain relief or a combination of these. They are mechanical fittings that form part of the electrical installation material.

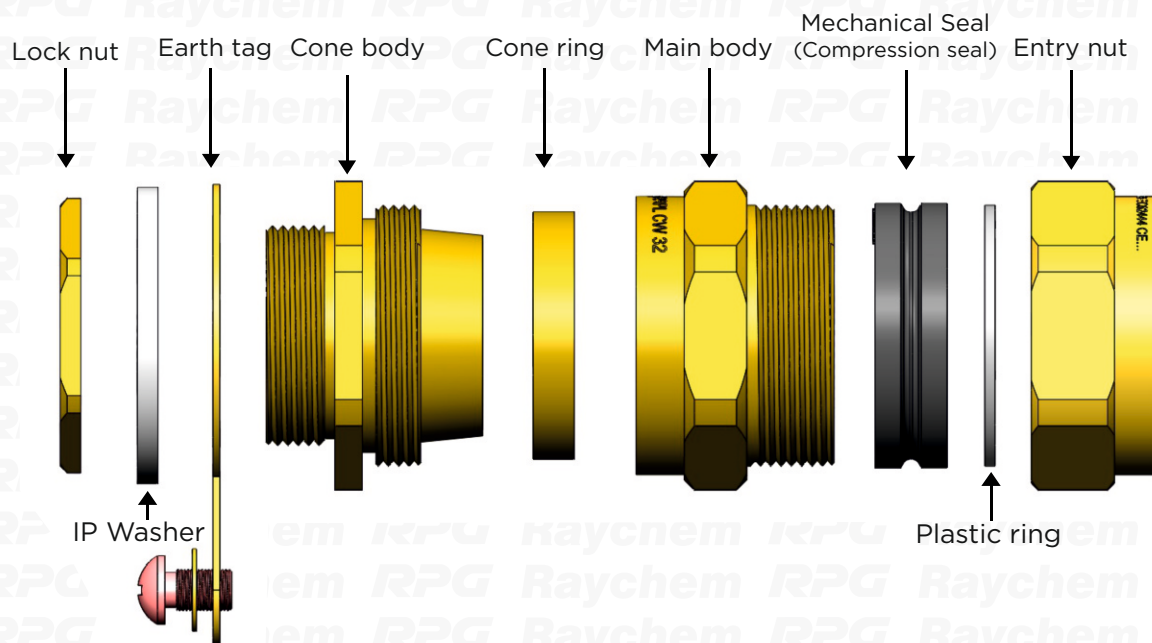
Product Design & Construction

Raychem RPG Cable glands are designed for use with all types of electrical power, control, instrumentation, data telecommunications cables & fire rated Cables. They are used as a sealing and termination device to ensure that the characteristics of the enclosure which the cable enters can be maintained adequately.

Sealing Mechanism

Sealing the cable from dust and moisture ensuring maximum protection to the enclosure is the most significant feature of cable glands. At Raychem RPG, we use the optimum rubber material in the following ways to offer efficient sealing.

Compression sealing is an elastomeric sealing ring that has a V-groove that creates a downward seal on the cable inner bedding, when the same compressive force is equally applied to both sides of the seal. Displacement sealing has a shape in the form of a taper which is gradually pushed ahead into the taper on the gland.



- Body armour houses power cable and supports in clamping cable to junction boxes or external body.
- Mechanical seals (compression & displacement type seals) are used to provide ingress protection to cable gland assembly
- Cone Ring is used to clamp cable armour and support cable in gland body armour lock
- Compression Ring is used to house mechanical seal & provide outer sealing to cable.
- Lock Nut is used to lock cable gland assembly in junction boxes or external body
- Earth Tag is used to maintain earth conductivity from cable to junction boxes or external body
- Shrouds are used to increase ingress protection and protect cable gland assembly from physical damage

INTRODUCTION TO INDUSTRIAL CABLE GLANDS

Types Of Industrial Cable Glands

- A1/A2 cable gland
- BW cable gland
- CW cable gland
- E1W cable gland

Cable gland primary code/secondary code for Unarmoured and Armoured cables

Code	Definition
A1/A2	For unarmoured cable with an elastomeric or plastic outer sheath, with sealing function between the cable gland. (For A2 - seal protection degree IP66)
BW	No seal / Single wire armour
CW	Single outer seal / Single wire armour
E1W	Double (inner and outer seal) / Single wire armour

Compliance Standards

Raychem RPG manufactured mechanical type Cable glands meet the requirements of BS 6121-1:2005; & IEC/EN 62444 (Harmonized std. for European low voltage directive 2014/35/EU. Raychem RPG Cable Glands are in conformance with IP66 as per IEC 60529:1989/ A2:2013-Degrees of Protection provided by enclosures (IP Code). The prime purpose is to define levels of sealing effectiveness of electrical enclosures against intrusion from Dust & water.

Accessories

Raychem RPG cable glands supplies will be with complete kit comprising of the following:

1. Gland
2. Earth Tags
3. PVC / LSF / LSZH Shrouds
4. Sealing Washers - Neoprene or Silicon w.r.t. applications (Power Cables / FR Cables)
5. IP Washer

WHY RAYCHEM RPG?

Quality



At Raychem RPG, quality is a long history of success and recognition. Today the company is one of the Indian businesses to have adjusted and certified its progress according to strict regulatory standards:

- Quality (ISO 9001:2015)
- Environment (ISO 14001:2015)
- Safety (OHSAS 18001:2007)

Production Control



In order to guarantee our products high quality standards, the production process must be monitored with constant and careful precision. The control phases accompany all the stages of production and often use advanced technology for measurement and detection. We use the cutting edge CNC machine for all our manufacturing operations related to maintain the world class standard of Raychem RPG.

Care for Environment



Raychem RPG believes that industrial development can truly respect, and therefore be compatible with the environment. For Raychem RPG, protecting the environment and the people and things around you is an important responsibility that requires constant and immediate consideration. It is a conscious decision which involves believing in the future.

Competitive Enterprise



One of Raychem RPG's aims is knowing how to offer its users best possible solution in consideration of the quality-price ratio. The fact that thousands of clients all over the world are faithful to Raychem RPG products demonstrates the technical and economic validity of the solution offered.

Global Capability



The company's sales network is one of its strengths. It enables Raychem RPG to be present on all the main global markets consequently being as closely as possible to the end customer. The company has its presence in all over Globe. This direct access to each market allows the Raychem RPG staff to remain inside the market with the advantage of being closer to the client.

APPROVALS FOR INDUSTRIAL CABLE GLANDS



Raychem RPG A1A2, BW, CW and industrial cable glands are CE Approved as per Applicable Low Voltage directive 2014/35/EU and Applicable Standard IEC/EN 62444.

The CE marking indicates a product's compliance with EU legislation and so enables the free movement of products within the European market. By affixing the CE marking to a product, a manufacturer declares, on his sole responsibility, that the product meets all the legal requirements for the CE marking, which means that the product can be sold throughout the European Economic Area.



Raychem RPG A1A2, E1W, CW Industrial Cable Glands is RMRS (**Russian Maritime Register of Shipping's**) Approved and are suitable for highly corrosive environment and are indicated for the offshore and onshore areas.

RMRS is independent certification body since 1999 RMRS has been recognized by the European Union and acting in accordance with Regulation (EC)391/2009 and EN17020.



Raychem RPG A1/A2, BW, CW and E1W **Cable gland have successfully completed RETIE Approval**

Approval from Ministry of Mines and Ministry of Energy as per Colombia Rules, RETIE determines the technical conditions to guarantee safety in the processes of product Installed and use throughout the entire national territory.



Raychem RPG A1A2, BW, CW and E1W **Industrial Cable Glands successfully completed EAC project.**

The EAC certificate signifies that imported products comply with Custom Union - Technical Regulations, quality and safety requirements.



Raychem RPG A1A2, BW, CW and E1W Industrial Cable Glands successfully completed the **Kingdom of Saudi Arabia** Type Approval License programme as per KSA Rules. This Type Approval license ensures that products are fully tested in recognized laboratory and a certificate issued before they shipped to Saudi Arabia.



Raychem RPG manufactured cable glands & related accessories are RoHS compliant in accordance with RoHS directive 2011/65/EU & its subsequent ammendment directives & is tested for the presence of Lead (Pb), Cadmium (Cd), Mercury (Hg), Hexavalent chromium (Hex-Cr), Polybrominated biphenyl (PBB), and Polybrominated diphenyl ethers (PBDE) and observed no dangerous substances.



Registration, Evaluation, Authorization and Restriction of Chemicals (REACH) is a European Union regulation dating from 18 December 2006. REACH addresses the production and use of chemical substances, and their potential impacts on both human health and the environment.

The regulation also established the European Chemicals Agency, which manages the technical, scientific and administrative aspects of REACH.

TR-CU Exemption certificate

NOMENCLATURE FOR INDUSTRIAL CABLE GLANDS

Gland Code

For:

- | | |
|---------------|--------------|
| 1. A1/A2 - A2 | 3. CW - CW |
| 2. BW - BW | 4. E1W - E1W |

XX

MXXX

XX

X

Size

For:

1. Metric: MXXX
2. NPT: NXXX

Material

For:

1. Brass - (BR)
2. Nickel Plated Brass (NI)

Sealing

For:

1. Silicone (S)
2. Neoprene (N)

Example of Product Code for:

1. A1/A2 - RRPL A2M16LBRS*
2. BW - RRPL BWM16LBRS
3. CW - RRPL CWM16LBRS
4. E1W - RRPL E1WM16LBRS

* Only Metric Version Available

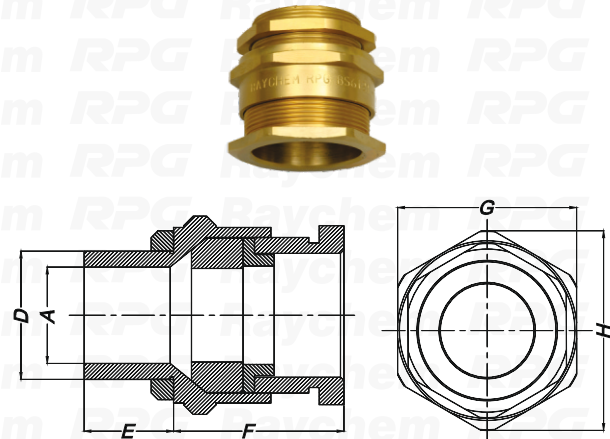
TECHNICAL DATA SHEET FOR A1/A2 INDUSTRIAL CABLE GLAND

Raw Material Specification A1/A2 Industrial Cable Gland:

Raychem RPG Manufacturers A1/A2 Industrial Cable Gland as per the requirement of IEC/EN 62444

Technical Data:

Type	A1/A2	
Design Specification	IEC/EN 62444	
Gland Sizes	M16 to M100	
Ingress Protection	IP66	
Gland Material	Brass, Nickel Plated Brass	
Sealing Type	Displacement Type (Single Sealing)	
Operating Temperature	If Neoprene	-40°C to +100°C
	If Silicone	-50°C to +135°C
Plastic Ring Material	Nylon 66	
Sealing Method	Displacement Sealing	
Sealing Area	Cable Outer Sheath	
Finish	Natural Brass or Nickel Plated Brass	
Cable Types	Unarmoured	
Application	Indoor and Outdoor	
Accessories	Lock Nut, Shrouds, IP Washer Earth Tag	
Additional Accessories	Adapter, Reducer	



Product Description:

Cable Gland Type	Standard Entry Threads (D)	Order Number for Brass Cable Glands	Order Number for Nickel Plated Brass Cable Glands	Overall Cable Diameter (A)		Gland Dimensions				
						ISO Entry=Thread		Protrusion length (F)	Hexagon Size	
						Min. Dia. (mm)	Max. Dia (mm) Entry Nut ID		ISO Entry Thread Diameter (D)	ISO Entry Thread Length (E)
RRPL A1/A2 20/16L	M20	DAA1100527	DAA1101626	3.50	8.00	20.00	10.00	20.00	22.00	24.50
RRPL A1/A2 16 L	M16	DAA1100162	DAA1100423	3.50	8.00	16.00	10.00	20.00	22.00	24.50
RRPL A1/A2 20 S	M20	DAA1100163	DAA1100424	8.50	12.00	20.00	15.00	22.00	24.00	26.00
RRPL A1/A2 20 L	M20	DAA1100164	DAA1100425	8.00	13.00	20.00	15.00	22.00	26.00	29.00
RRPL A1/A2 25 S	M25	DAA1100165	DAA1100426	9.00	17.50	25.00	15.00	25.00	30.00	33.00
RRPL A1/A2 25 L	M25	DAA1100166	DAA1100427	14.00	21.00	25.00	15.00	26.00	33.50	37.00
RRPL A1/A2 32 L	M32	DAA1100168	DAA1100429	18.50	26.20	32.00	15.00	30.00	41.00	45.50
RRPL A1/A2 40 L	M40	DAA1100170	DAA1100431	25.00	33.00	40.00	15.00	31.00	50.00	55.50
RRPL A1/A2 50 S	M50	DAA1100171	DAA1100432	31.00	38.00	50.00	15.00	33.00	55.00	60.50
RRPL A1/A2 50 L	M50	DAA1100172	DAA1100433	35.00	44.10	50.00	15.00	33.00	59.50	67.00
RRPL A1/A2 63 S	M63	DAA1100173	DAA1100434	39.00	49.30	63.00	15.00	35.00	70.00	77.00
RRPL A1/A2 63 L	M63	DAA1100174	DAA1100435	46.00	53.50	63.00	15.00	35.00	74.00	80.00
RRPL A1/A2 75 S	M75	DAA1100175	DAA1100436	53.00	61.50	75.00	15.00	35.00	82.00	90.50
RRPL A1/A2 75 L	M75	DAA1100176	DAA1100437	60.00	67.40	75.00	15.00	40.00	84.00	94.00
RRPL A1/A2 90 L	M90	DAA1100178	DAA1100501	66.50	78.00	90.00	20.00	50.00	101.00	114.00
RRPL A1/A2 100 L	M100	DAA1100179	DAA1100502	76.00	88.00	100.00	25.00	50.00	119.00	131.00

Raw Material Specification:

Grade of Brass	: CuZn39Pb3 / IS 319
Copper	: 56.0 - 59.0 %
Lead	: 2 - 3.5 %
Iron	: 0.35% Max
Total Impurities	: 0.4 %/ 0.7 %
Zinc	: Remainder %

** For customize product refer the nomenclature page no 2.

Brass Kit	- Brass Cable Gland, Brass Lock Nut, IP Washer, Earth Tag, Shrouds (PVC).
Nickel Plated Brass Kit	- Nickel Plated Brass, Cable Gland, Nickel Plated Lock Nut, IP washer, Earth Tag, Shrouds (PVC).

Product Application:

Raychem RPG A1/A2 type brass indoor cable gland is used with all types of unarmoured cable, providing mechanical cable retention and an environmental seal on the cable outer sheath.

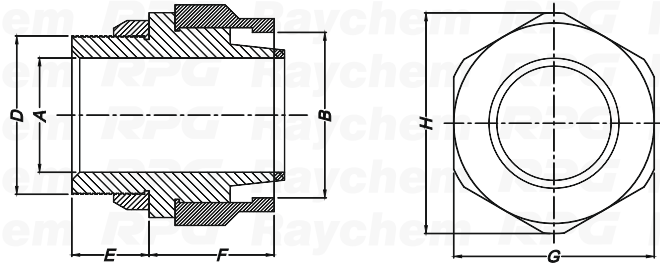
TECHNICAL DATA SHEET FOR BW PART HEAVY DUTY INDUSTRIAL CABLE GLAND

Raw Material Specification BW Part Heavy Duty Industrial Cable Gland:

Raychem RPG Manufacturers BW Part Heavy Duty Industrial Cable Gland as per BS6121 Part 1:2005

Technical Data:

Type	BW
Design Specification	BS6121:Part 1: 2005 IEC/EN 62444
Gland Sizes	M16 to M90 also available in NPT
Ingress Protection	IP2X
Gland Material	Brass, Nickel plated brass
Sealing Type	No Sealing
Armour Clamping	Two Part Armour Lock
Finish	Natural Brass or Nickel Plated Brass
Cable Types	Steel Wire Armour (SWA) Aluminium Wire Armour (AWA)
Application	Dry Indoor
Accessories	Lock Nut, Shrouds, Earth Tag
Additional Accessories	Adapter, Reducer



Product Description:

Cable Gland Type	Standard Entry Thread (D)	Order Number for Brass Cable Glands	Order Number for Nickel Plated Brass Cable Glands	Optional Entry Thread	Overall Cable Diameter (B)	Gland dimensions						Armour Range	
						ISO Entry=Thread		Protrusion Length (F)	Hexagon Size				
						Thread type (Metric)	Thread Type (NPT) /Suffix		Min. Dia. (mm)	Max. Dia (mm) Entry Nut ID	ISO Entry Thread Diameter (D)	ISO Entry Thread Length (E)	Across Flat (G mm)
RRPL BW 16 S	M16	DAA1100001	DAA1100386	-	8.00	12.00	16.00	10.00	23.00	20.00	23.00	0.80	1.25
RRPL BW 16 L	M16	DAA1100002	DAA1100387	-	8.60	13.50	16.00	10.00	23.00	20.00	23.00	0.80	1.25
RRPL BW 20 S	M20	DAA1100003	DAA1100388	NPT1/2" (N12S)	12.60	16.80	20.00	10.00	23.00	22.00	24.00	0.80	1.25
RRPL BW 20 L	M20	DAA1100004	DAA1100389	NPT1/2"(N12L)	14.50	20.00	20.00	10.00	30.00	25.00	28.00	0.80	1.25
RRPL BW 25 S	M25	DAA1100005	DAA1100390	NPT3/4"(N34S)	19.50	24.50	25.00	10.00	30.00	31.00	34.00	1.25	1.60
RRPL BW 25 L	M25	DAA1100006	DAA1100391	NPT3/4"(N34L)	20.50	26.00	25.00	10.00	32.00	32.00	36.00	1.25	1.60
RRPL BW 32 L	M32	DAA1100008	DAA1100393	NPT1"(N1L)	22.00	32.50	32.00	10.00	36.00	40.00	44.00	1.60	2.00
RRPL BW 40 S	M40	DAA1100009	DAA1100394	NPT1-1/4"(N114S)	30.00	38.00	40.00	10.00	36.00	46.00	51.00	1.60	2.00
RRPL BW 40 L	M40	DAA1100010	DAA1100395	NPT1-1/4"(N114L)	33.00	40.50	40.00	15.00	39.00	49.00	55.00	1.60	2.00
RRPL BW 50 S	M50	DAA1100011	DAA1100396	NPT1-1/2"(N112S)	40.50	49.00	50.00	15.00	40.00	57.00	64.00	2.00	2.50
RRPL BW 50 L	M50	DAA1100012	DAA1100397	NPT2"(N2S)	44.10	54.00	50.00	15.00	45.00	62.00	69.00	2.00	2.50
RRPL BW 63 S	M63	DAA1100013	DAA1100398	NPT2"(N2L)	51.00	58.00	63.00	15.00	45.00	69.00	78.00	2.00	2.50
RRPL BW 63 L	M63	DAA1100014	DAA1100399	NPT2-1/2"(N212S)	56.20	65.50	75.00	15.00	50.00	75.00	84.00	2.00	2.50
RRPL BW 75 S	M75	DAA1100015	DAA1100400	NPT2-1/2"(N212L)	62.00	72.00	75.00	15.00	50.00	82.00	93.00	2.00	2.50
RRPL BW 75 L	M75	DAA1100016	DAA1100401	NPT3"(N3L)	68.00	77.50	75.00	15.00	50.00	88.00	99.00	2.50	3.00
RRPL BW 90 S	M90	DAA1100017	DAA1100402	NPT3-1/2"(N312S)	78.00	87.00	90.00	20.00	55.00	100.00	112.00	3.15	4.00
RRPL BW 90 L	M90	DAA1100018	DAA1100403	NPT3-1/2"(N312L)	78.50	88.00	90.00	20.00	55.00	112.00	120.00	3.15	4.00

Raw Material Specification:

Grade of Brass	: CuZn39Pb3 / IS 319
Copper	: 56.0 - 59.0 %
Lead	: 2 - 3.5 %
Iron	: 0.35% Max
Total Impurities	: 0.4 %/ 0.7 %
Zinc	: Remainder %

Brass Kit

** For customize product refer the nomenclature page no 2

- Brass Cable Gland, Brass Lock Nut, Brass Earth Tag, Shrouds (PVC).

Nickel Plated Brass Kit

- Nickel Plated Brass Cable Gland, Nickel Plated Lock Nut, Nickel Plated Earth Tag, Shrouds (PVC).

Product Application:

Raychem RPG BW type brass indoor cable gland is used with all types of Steel Wire Armour (SWA) and Aluminium Wire Armour (AWA) cable providing mechanical cable retention and electrical continuity via armour wire termination. The heavy duty BW design offers the benefit of a longer body to protect the armour wires from impact.

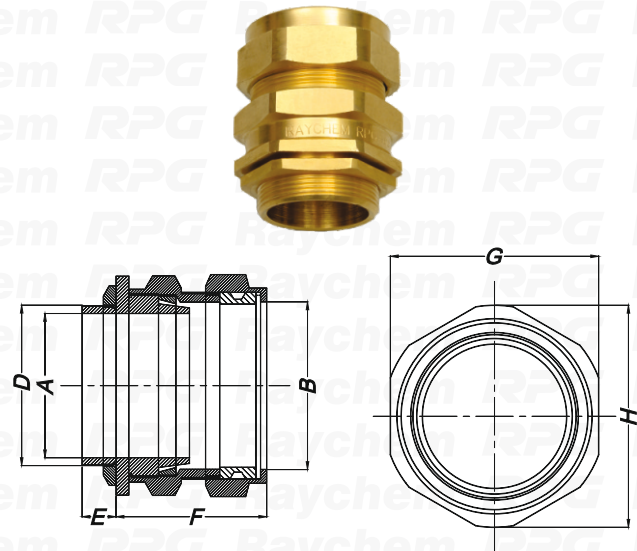
TECHNICAL DATA SHEET FOR CW INDUSTRIAL CABLE GLAND

Raw Material Specification CW Industrial Cable Gland:

Raychem RPG Manufacturers CW Industrial Cable Gland as per BS6121 Part 1:2005

Technical Data:

Type	CW	
Design Specification	BS6121:Part 1: 2005 IEC/EN 62444	
Gland Sizes	M16 to M90 also available in NPT	
Ingress Protection	IP66	
Gland Material	Brass, Nickel plated brass	
Operating Temperature	If Neoprene	-40°C to + 100°C
	If Silicone	-50°C to + 135°C
Armour Clamping	Three Part Armour Lock	
Plastic Ring Material	Nylon 66	
Sealing Method	Compression Sealing	
Sealing Area	Cable Outer Sheath	
Finish	Natural Brass or Nickel Plated Brass	
Cable Types	Steel Wire Armour (SWA) Aluminium Wire Armour (AWA)	
Application	Indoor & Outdoor	
Accessories	Lock Nut, Shrouds, IP Washer Earth Tag	
Additional Accessories	Adapter, Reducer	



Product Description:

Cable Gland Type	Standard Entry Thread (D)	Order Number for Brass Cable Glands	Order Number for Nickel Plated Brass Cable Glands	Optional Entry Thread	Cable Under Armour/ Bedding Diameter (A)	Overall Cable Diameter (B)		Gland Dimension					Armour Range	
								ISO Entry=Thread		Protrusion Length (F)	Hexagon Size			
								ISO Entry Thread Diameter (D)	ISO Entry Thread Length (E)		Across Flat (G mm)	Across Corner (H mm)		
RRPL CW 16 S	M16	DAA1100027	DAA1100404	-	9.00	4.00	7.50	16.00	10.00	40.00	20.50	22.70	0.80	1.25
RRPL CW 16 L	M16	DAA1100028	DAA1100405	-	9.00	7.00	11.00	16.00	10.00	40.00	20.50	22.70	0.80	1.25
RRPL CW 20 S	M20	DAA1100029	DAA1100406	NPT1/2"(N12S)	13.00	10.50	14.50	20.00	10.00	47.00	22.20	24.20	0.80	1.25
RRPL CW 20 L	M20	DAA1100030	DAA1100407	NPT1/2"(N12L)	14.50	14.00	18.50	20.00	10.00	47.00	26.20	29.00	0.80	1.25
RRPL CW 25 S	M25	DAA1100031	DAA1100408	NPT3/4"(N34S)	18.60	18.40	23.20	25.00	10.00	50.00	31.00	34.50	1.25	1.60
RRPL CW 25 L	M25	DAA1100032	DAA1100409	NPT3/4"(N34L)	20.70	20.00	25.50	25.00	10.00	50.00	36.00	39.20	1.25	1.60
RRPL CW 32 L	M32	DAA1100034	DAA1100411	NPT1"(N1L)	27.40	25.50	33.00	32.00	10.00	55.00	41.00	46.00	1.60	2.00
RRPL CW 40 S	M40	DAA1100035	DAA1100412	NPT1-1/4"(N114S)	32.70	31.00	36.50	40.00	15.00	60.00	49.50	55.50	1.60	2.00
RRPL CW 40 L	M40	DAA1100036	DAA1100413	NPT1-1/4"(N114L)	33.05	34.50	40.00	40.00	15.00	60.00	49.50	54.50	1.60	2.00
RRPL CW 50 S	M50	DAA1100037	DAA1100414	NPT1-1/2"(N112S)	44.50	39.00	46.70	50.00	15.00	65.00	57.00	63.50	2.00	2.50
RRPL CW 50 L	M50	DAA1100038	DAA1100415	NPT2"(N2S)	44.50	43.50	51.00	50.00	15.00	65.00	62.00	69.60	2.00	2.50
RRPL CW 63 S	M63	DAA1100039	DAA1100416	NPT2"(N2L)	50.10	47.50	55.60	63.00	15.00	70.00	73.00	81.00	2.00	2.50
RRPL CW 63 L	M63	DAA1100040	DAA1100417	NPT2-1/2"(N212S)	56.00	54.00	62.20	63.00	15.00	70.00	78.00	86.00	2.00	2.50
RRPL CW 75 S	M75	DAA1100041	DAA1100418	NPT2-1/2"(N212L)	63.00	61.50	68.00	75.00	15.00	75.00	84.50	95.50	2.00	2.50
RRPL CW 75 L	M75	DAA1100042	DAA1100419	NPT3"(N3L)	68.00	67.00	75.50	75.00	15.00	75.00	91.00	102.20	2.50	3.00
RRPL CW 90 S	M90	DAA1100043	DAA1100420	NPT3-1/2"(N312S)	77.30	75.50	85.00	90.00	20.00	90.00	100.00	110.00	3.15	4.00
RRPL CW 90 L	M90	DAA1100044	DAA1100421	NPT3-1/2"(N312L)	78.70	80.00	88.70	90.00	20.00	90.00	103.00	114.00	3.15	4.00

** For customize product refer the nomenclature page no 2

Raw Material Specification:

Grade of Brass	: CuZn39Pb3 / IS 319
Copper	: 56.0 - 59.0 %
Lead	: 2 - 3.5 %
Iron	: 0.35% Max
Total Impurities	: 0.4 %/ 0.7 %
Zinc	: Remainder %

Brass Kit

- Brass Cable Gland, Brass Lock Nut, Brass Earth Tag, IP Washer, Shrouds (PVC).

Nickel Plated Brass Kit

- Nickel Plated Brass, Cable Gland, Nickel Plated Lock Nut, Nickel Plated Earth Tag, IP washer, Shrouds (PVC).

Product Application:

Raychem RPG CW type brass indoor cable gland is used with all types of Steel Wire Armour (SWA) and Aluminium Wire Armour (AWA) cable providing mechanical cable retention and electrical continuity via armour wire termination.

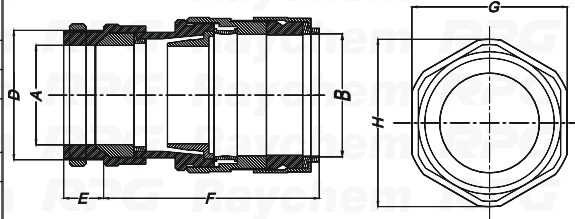
TECHNICAL DATA SHEET FOR E1W INDUSTRIAL CABLE GLAND

Raw Material Specification E1W Industrial Cable Gland:

Raychem RPG Manufacturers E1W Industrial Cable Gland as per BS6121 Part 1:2005

Technical Data:

Type	E1W	
Design Specification	BS6121:Part 1: 2005 IEC/EN 62444	
Gland Sizes	M16 to M90 also available in NPT	
Ingress Protection	IP66	
Gland Material	Brass, Nickel Plated Brass	
Operating Temperature	If Neoprene	-40°C to + 100°C
	If Silicone	-50°C to + 135°C
Armour Clamping	Three Part Armour Lock	
Plastic Ring Material	Nylon 66	
Sealing Method	"Double Compression Sealing (Compression Sealing on Outer Cable Sheath, Compression Sealing on Inner Cable Sheath)"	
Sealing Area	Cable Outer Sheath / Cable Inner Sheath	
Finish	Natural Brass or Nickel Plated Brass	
Cable Types	Steel Wire Armour (SWA) Aluminium Wire Armour (AWA)	
Application	Indoor & Outdoor	
Accessories	Lock Nut, Earth Tag, Shrouds, IP Washer, Shrouds	
Additional Accessories	Adapter, Reducer	



Product Description:

Cable Gland Type	Standard Entry Thread (D)	Order Number for Brass Cable Glands	Order Number for Nickel Plated Brass Cable Glands	Optional Entry Thread	Cable Under Armour/ Bedding Diameter (A)		Overall Cable Diameter (A)		Gland Dimension					Armour Range		
					Thread Type (NPT) / Suffix	Min. Dia. (mm)	Max. Dia. (mm) Cone ID	Min. Dia. (mm)	Max. Dia. (mm) Entry Nut ID	ISO Entry=Thread		Protrusion Length (F)	Hexagon Size		Min	Max
										ISO Entry Thread Diameter (D)	ISO Entry Thread Length (E)		Across Flat (G mm)	Across Corner (H mm)		
RRPL E1W 16 L	M16	DAA1100182	DAA1100454	-	3.00	10.00	6.50	11.50	16.00	15.00	40.00	22.00	24.00	0.80	1.25	
RRPL E1W 20 S	M20	DAA1100183	DAA1100455	NPT1/2"(N12S)	6.00	12.00	10.50	15.00	20.00	15.00	45.00	22.00	24.00	0.80	1.25	
RRPL E1W 20 L	M20	DAA1100184	DAA1100456	NPT1/2"(N12L)	10.20	14.50	14.80	19.00	20.00	15.00	45.00	27.00	30.00	0.80	1.25	
RRPL E1W 25 S	M25	DAA1100185	DAA1100457	NPT3/4"(N34S)	12.50	20.70	18.00	21.50	25.00	15.00	50.00	31.00	35.00	1.25	1.60	
RRPL E1W 25 L	M25	DAA1100186	DAA1100458	NPT3/4"(N34L)	14.00	20.70	19.50	25.50	25.00	15.00	50.00	35.00	39.00	1.25	1.60	
RRPL E1W 32 L	M32	DAA1100188	DAA1100460	NPT1"(N1L)	16.80	27.00	23.00	31.30	32.00	15.00	55.00	44.00	48.00	1.60	2.00	
RRPL E1W 40 S	M40	DAA1100189	DAA1100461	NPT1-1/4"(N114S)	24.80	32.00	31.00	38.00	40.00	15.00	60.00	51.50	57.50	1.60	2.00	
RRPL E1W 40 L	M40	DAA1100190	DAA1100462	NPT1-1/4"(N114L)	28.00	34.00	33.50	40.00	40.00	15.00	60.00	51.50	57.50	1.60	2.00	
RRPL E1W 50 S	M50	DAA1100191	DAA1100463	NPT1-1/2"(N112S)	32.00	44.80	39.00	45.00	50.00	15.00	65.00	64.50	72.00	2.00	2.50	
RRPL E1W 50 L	M50	DAA1100192	DAA1100464	NPT 2"(N2S)	37.00	44.80	44.00	49.30	50.00	15.00	65.00	64.50	72.00	2.00	2.50	
RRPL E1W 63 S	M63	DAA1100193	DAA1100465	NPT2"(N2L)	41.50	53.50	48.50	58.00	63.00	18.00	70.00	70.00	77.00	2.00	2.50	
RRPL E1W 63 L	M63	DAA1100195	DAA1100466	NPT2 1/2"(N212S)	50.00	58.00	57.00	65.00	63.00	18.00	70.00	78.00	87.50	2.00	2.50	
RRPL E1W 75 S	M75	DAA1100194	DAA1100467	NPT2 1/2"(N212L)	55.00	62.00	62.00	67.00	75.00	20.00	76.00	84.00	92.50	2.00	2.50	
RRPL E1W 75 L	M75	DAA1100196	DAA1100468	NPT3"(N3L)	59.00	68.50	66.40	78.50	75.00	20.00	79.00	95.00	108.00	2.50	3.00	
RRPL E1W 90 L	M90	DAA1100198	DAA1100519	NPT3 1/2"(N312L)	66.50	73.50	72.00	88.00	90.00	20.00	96.00	105.00	122.00	3.15	4.00	

** For customize product refer the nomenclature page no 2

Raw Material Specification:

Grade of Brass : CuZn39Pb3 / IS 319
 Copper : 56.0 - 59.0 %
 Lead : 2 - 3.5 %
 Iron : 0.35% Max
 Total Impurities : 0.4 %/ 0.7 %
 Zinc : Remainder %

Brass Kit

- Brass Cable Gland, Brass Lock Nut, Brass Earth Tag, IP Washer, Shrouds (PVC).

Nickel Plated Brass Kit

- Nickel Plated Brass, Cable Gland, Nickel Plated Lock Nut, Nickel Plated Earth Tag, IP Washer, Shrouds (PVC).

Product Application:

Raychem RPG E1W type brass indoor cable gland is used with all types of Sheath and Steel Wire Armour (SWA) cable providing an environmental seal on the cable inner sheath and cable outer sheath. The cable gland provides mechanical cable retention and electrical continuity via the armour termination and also earth bonding of the inner lead covering or lead sheath. Separate tightening actions for the inner displacement seal and the armour termination allow maximum control over the pressure applied to the cable inner covering.

CABLE GLAND SELECTION SOFTWARE

Raychem RPG has introduced cable gland selection software and designers now can find the right gland for their requirement. Operators may either specify environmental requirements and cable characteristics or use cable manufacturer's codes and product descriptions to access the data sheet for the relevant product.

Reference Standard:

- Internationally followed standard
- BS 6121-1: 2005,
- IEC/EN 62444
- Low voltage directives 2014/35/EU

Search Criteria For more details refer "Guidelines" Tab. Find

Gland Parameters | Cable Part Code | Cable Parameters

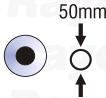
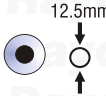
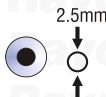
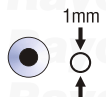


Gland Type: Single Sealing | Shrouds: LSF | Material: Brass | Overall Cable Dia (in mm): 25 Find Dia.

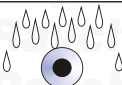

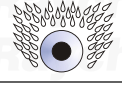
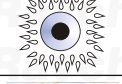

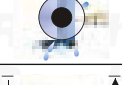
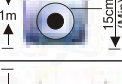

Gland Data Generate Output

Type	Armoured								
Ingress Protection	IP66								
Gland Material	Brass								
Seal Type	Single Sealing								
Application	Indoor and Outdoor								
Shroud	LSF								
Flammability Rating for gland washers	V0: Self extinguish in 10 Sec on vertical specimen								
Continuous Operating Temperature	If Neoprene: -40°C to +100°C If Silicon: -50°C to +160°C								

Cable Gland Type	Under Armour Dia. A Max. MM		Cone ID	Overall Dia. B Max. MM	Entry nut ID	Gland Dimensions			
	Min. Cable Bedding Diameter	Max. Cable Bedding Diameter				ISO Entry Thread		Approx. Length from Shoulder	Hexagon Size
			D mm	E mm	F mm	G mm	H mm		
RRPLCW 25 L	- NA -	20.40	19	25.5	25.00	10	50	36	39.2

INGRESS PROTECTION MATRIX

First Digit	Protection against Solid Foreign Objects and Access to Hazardous Parts		
	Illustration	Method	Explanation
0	—	Non-Protected	Non-Protected
1		Protected against solid foreign objects of 50mm diameter and greater.	Protected against access to hazardous parts with the back of a hand.
2		Protected against solid foreign objects of 12.5 mm diameter and greater.	Protected against access to hazardous parts with a finger.
3		Protected against solid foreign objects of 2.5 mm diameter and greater.	Protected against access to hazardous part with tool.
4		Protected against solid foreign objects of 1.0 mm diameter and greater.	Protected against access to hazardous parts with wire.
5		Dust-protected	Protected against access to hazardous parts with wire.
6		Dust-tight	Protected against access to hazardous parts with wire.

Second Digit	Illustration	Protection against Liquids	
		Method	
0	-	Non-Protected	
1		Protected against drop of water falling vertically	
2		Protected against drop of water falling at up to 15° vertically	
3		Protected against spraying water up to 60° vertically	
4		Protected against splashing water from all direction	
5		Protected against jet of water from all direction	
6		Protected against powerful jet of water from all direction	
7		Protected against the effects of temporary immersion	
8		Protected against the effect of continues immersion	

Please refer to appropriate catalogue pages for specific ingress Protection rating according to their design and construction.

ACCESSORIES

Adapter & Reducers



Material: Brass, Nickel plated brass

Features:

- Designed to provide flexibility when there is conflict between the type of size of cable gland thread and cable entry hole in the equipment.
- Available in standard sizes from M16 to M100.
- Thread conversions available in METRIC, NPT, BSP, PG, IMPERIAL NPSM.

Material: Brass, Nickel plated brass

Features:

- Means of connection or an earth bond around the cable gland.
- Available in various shapes and in standard sizes.
- Ensures earth continuity between the electrical equipment & the gland.
- Can be coated or plated as per Customer Specification.

Earthing Tag



Metric	Product Code
M16	RRPL ET - 16
M20	RRPL ET - 20
M25	RRPL ET - 25
M32	RRPL ET - 32
M40	RRPL ET - 40

Metric	Product Code
M50	RRPL ET - 50
M63	RRPL ET - 63
M75	RRPL ET - 75
M90	RRPL ET - 90

Material: Brass, Nickel plated brass

Features:

- Used in fastening glands to the gland plate.
- Available in Metric, Imperial, NPT, BSPT, BSP & PG.

Lock Nut



Sizes: M16 to M90

Metric	Product Code
M16	RRPL LN - 16
M20	RRPL LN - 20
M25	RRPL LN - 25
M32	RRPL LN - 32
M40	RRPL LN - 40

Metric	Product Code
M50	RRPL LN - 50
M63	RRPL LN - 63
M75	RRPL LN - 75
M90	RRPL LN - 90

Shrouds : PVC, LSF & LSZH



Material : High Grade Poly Vinyl Chloride and Low Smoke and Low Flammable compound and Low Smoke Zero Halogen.

Features:

- Provide additional enhances IP rating of the Gland Terminals.
- Effective solution to weather and corrosion protection of a Cable Gland.
- Available in same gland size compatible to each size of the Cable Gland.
- The arrow end of the sleeve can be readily cut with a knife, enabling it to be slipped over a wide range of cable diameters and assists ease of installations.

Raychem RPG

ENGINEERING GROWTH . PIONEERING EXCELLENCE

India's Best Companies
To Work For 2017

A STUDY BY

THE ECONOMIC TIMES

GREAT
PLACE
TO
WORK



Raychem RPG (P) Ltd.

Corporate Office

RPG House, 463, Dr. A. B. Road, Worli, Mumbai - 400030
Tel. : +91 22 24937485 / 24937486
Fax : +91 22 24938879

International Business Division (IBD) - EBU

1,62, M.G. Rd., Near Bharat Petroleum Pump,
Off. Western Express Highway, P. Satavali, Bassein, Taluka Vasai, Dist. Palghar
Tel. : +91 250 3057500
Fax : +91 250 2480046

GCC – Regional Office

Office No.906 SIT Tower, Dubai Silicon Oasis,
Dubai United Arab Emirates
P O Box No 294632
Tel: +971 4 345 4878 /898
Fax: +971 4 345 4801

Email : cableglands@raychemrpg.com

www.raychemrpg.com



(A TE-Connectivity - RPG Enterprises JV)

Copyright 2018

All Rights Reserved to Raychem RPG (P) Limited
V.012019