

**TECHNICAL DATA**  
 CABLE GLAND TYPE  
 INGRESS PROTECTION  
 PROCESS CONTROL SYSTEM

: PX2K, PX2KW & PX2KX  
 : IP66, IP67, IP68, Type 4X; Oil Resistant II  
 : BS EN ISO 9001  
 : ISO/IEC 80079-34:2011

**HAZARDOUS AREA CLASSIFICATION**

ATEX CERTIFICATION No : SIRA 06ATEX1097X & SIRA 07ATEX4326X  
 ATEX CERTIFICATION CODE : Ⓔ II 2 GD Ex d IIC / Ex e II / Ex nR II / Ex tD A21 IP66  
 IEC Ex CERTIFICATION No : IEC Ex SIR.06.0044X  
 IEC Ex CERTIFICATION CODE : Ex d IIC / Ex e IIC / Ex nR II / Ex tD A21 IP66  
 cCSAus CERTIFICATION No. : 2288626  
 cCSAus CERTIFICATION CODE : Class I Div 1, 2, Groups A, B, C, D; Class II, Div 1, 2, Groups F and G; Class III, Div 1, 2; Class I Zone 1 AEx d IIC / AEx e II  
 UL CERTIFICATION FILE : E161256, E201187  
 UL CERTIFICATION CODE : Class I, Div 2, Groups A,B,C,D; Class II, Div 2, Groups F,G  
 (Code details depends upon application - please see certificate)

**INSTALLATION INSTRUCTIONS**

Installation should only be performed by a competent person using the correct tools. Spanners should be used for tightening. Read all instructions before beginning installation.

**SPECIAL CONDITIONS FOR SAFE USE**

- The cable gland ranges shall only be used where the temperature, at the point of entry, is in the following ranges:  
 -60°C to +100°C when compound filled.
- The cable glands used for terminating braid cable are only suitable for fixed installations. Cables must be effectively clamped to prevent twisting and pulling.
- The entry component threads may need additional sealing to maintain the ingress protection ratings as applicable to the associated equipment to which it is attached.
- According to the CEC wiring code, connectors with metric threads are only suitable for Areas Classified in ZONES unless fitted with an approved Metric to NPT thread conversion adaptor.
- Wiring method for type of cables that can be used in Class I, Div. 1, 2, and Class I, Zone 1, 2, Classified Areas according to 60079-14 installation wiring method restrictions.
- Shipboard Cables are for use on Marine Platform or shipboards only and are subject to local authorities having jurisdiction on the installation.
- CAUTION - To reduce risk of flame propagation, fittings with ISO metric threads require:-  
 a) 5 full threads engaged for gas groups C and D  
 b) 10 full threads engaged for gas groups A and B
- When the connector is supplied with metric entry threads, a CMP Entry Thread Washer should be fitted between the connector and the enclosure to prevent the ingress of moisture or dust into the enclosure. Thread tape must not be applied to the threads.
- Before installing the connector, ensure that the connector thread forms and the enclosure thread form are compatible.

**ACCESSORIES**

The following accessories are available from CMP Products, as optional extras, to assist with fixing, sealing and earthing :-  
 Locknut | Earth Tag | Serrated Washer | Entry Thread (I.P.) Sealing Washer | Shroud

Cable Gland Size	Available Entry Threads			Minimum Thread Length	Number Of Cores	Diameter Over Conductors	Maximum Diameter Over Lead Sheath	Overall Cable Diameter		Armour Range				Across Flats	Across Corners	Ordering Reference (Brass Metric) **
	Standard		Option					Min	Max	Grooved Cone		Stepped Cone				
	Metric	NPT	NPT							Min	Max	Min	Max			
20S/16	M20	1/2"	3/4"	15.0	34	12.6	14.9	6.1	11.5	0.0	1.0	0.9	1.0	30.5	32.9	20S16PX2K1RA
20S	M20	1/2"	3/4"	15.0	34	12.6	14.9	9.5	15.9	0.0	1.0	0.9	1.25	30.5	32.9	20SPX2K1RA
20	M20	1/2"	3/4"	15.0	34	12.6	19.9	12.5	20.9	0.0	1.0	0.9	1.25	30.5	32.9	20PX2K1RA
25S	M25	3/4"	1"	15.0	80	17.5	21.0	14.0	22.0	0.0	1.0	1.25	1.6	37.5	40.5	25SPX2K1RA
25	M25	3/4"	1"	15.0	80	17.5	25.2	18.2	26.2	0.0	1.0	1.25	1.6	27.5	40.5	25PX2K1RA
32	M32	1"	1-1/4"	15.0	115	23.6	32.9	23.7	37.9	0.0	1.0	1.6	2.0	55.0	49.7	32PX2K1RA
40	M40	1-1/4"	1-1/2"	15.0	185	30.0	39.4	27.9	40.4	0.0	1.0	1.6	2.0	55.0	59.4	40PX2K1RA
50S	M50	1-1/2"	2"	15.0	274	36.6	45.7	35.2	46.7	0.0	1.0	2.0	2.5	60.0	64.8	50SPX2K1RA
50	M50	2"	2-1/2"	15.0	343	41.0	52.1	40.4	53.1	0.0	1.0	2.0	2.5	70.0	75.6	50PX2K1RA
63S	M63	2"	2-1/2"	15.0	466	47.9	58.4	45.5	59.4	0.0	1.0	2.0	2.5	75.0	81.0	63SPX2K1RA
63	M63	2-1/2"	3"	15.0	585	53.7	64.9	54.6	65.9	0.0	1.0	2.0	2.5	80.0	86.4	63PX2K1RA
75S	M75	2-1/2"	3"	15.0	727	59.9	72.8	58.0	72.1	0.0	1.0	2.0	2.5	89.0	96.1	75SPX2K1RA
75	M75	3"	3-1/2"	15.0	837	64.3	77.5	66.7	78.5	0.0	1.0	2.5	3.0	99.0	106.9	75PX2K1RA
90	M90	3-1/2"	3-1/2"	15.0	1146	75.3	89.4	78.2	90.4	0.0	1.6	3.0	3.5	114.0	123.1	90PX2K1RA
100	M100	4"	-	15.0	1480	85.6	100.5	86.1	101.5	0.0	1.6	3.15	4.0	133.0	143.6	100PX2K1RA

All dimensions in millimetres unless otherwise stated

\*\* Codes shown are for PX2K glands, for PX2KW or PX2KX add "W" or "X" respectively, e.g. 20PX2KW1RA, 20PX2KX1RA

I, the undersigned, hereby declare that the equipment referred to herein conforms to the requirements of the ATEX Directive 94/9/EC and the following standards:-

EN60079-0:2006, EN60079-1:2007, EN60079-7:2007, EN60079-15:2005, BS 6121:1989, EN50262:1998 (Amd 2001), EN61241-0:2004, EN61241-1:2004

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# INSTALLATION INSTRUCTIONS FOR CMP CABLE GLAND TYPES PX2K, PX2KW, & PX2KX

FOR TERMINATION OF CABLES WITH WIRE BRAID, TAPE ARMOUR (STA/DSTA), STRIP ARMOUR & SINGLE WIRE ARMOUR (SWA) (WITH LEAD INNER SHEATH ON PB VARIANTS). FOR USE IN HAZARDOUS LOCATIONS.

INCORPORATING EC DECLARATION OF CONFORMITY TO DIRECTIVE 94/9/EC

## CABLE GLAND TYPES PX2K, PX2KW, PX2KX & PB VARIANTS



**UL** LISTED MARINE SHIPBOARD  
 CABLE SEALING FITTING  
 FOR USE IN HAZARDOUS  
 LOCATIONS  
 46ZM

**UL** LISTED TYPE TC CABLE  
 SEALING FITTING FOR USE  
 IN HAZARDOUS LOCATIONS  
 5PO7



Cable Gland Selection Table

CMP Document No. F1400 Issue 5 0113

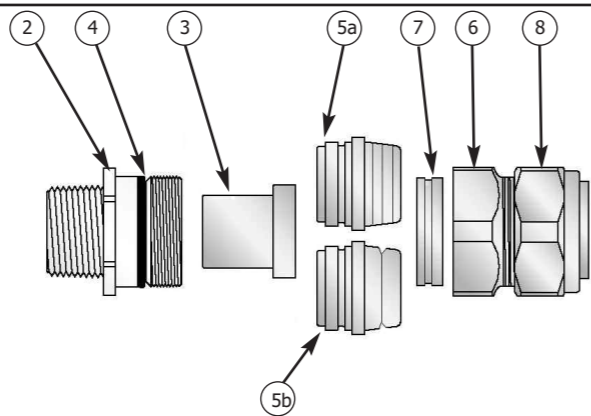


Logo's shown for illustration purposes only. Please check certification for details

INSTALLATION INSTRUCTIONS FOR CMP CABLE GLAND TYPES PX2K, PX2KW, & PX2KX

CABLE GLAND COMPONENTS

- 1. Compound (EP2122)
- 2. Entry Component
- 3. Compound Tube
- 4. "O" Ring
- 5a. Grooved Armour Cone (XYZ)
- 5b. Stepped Armour Cone (W)
- 6. Body
- 7. AnyWay Clamping Ring
- 8. Outer Seal Nut Assembly

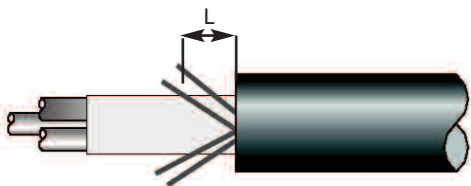


PLEASE READ ALL INSTRUCTIONS CAREFULLY BEFORE BEGINNING THE INSTALLATION

1. The PX2K type cable gland is supplied as a Universal Kit with two armour cones, the grooved armour cone (5a) is suitable for Strip Armour, Tape Armour and Braided Cables, and the stepped cone (5b) is suitable for Wire Armour (SWA) cables. The PX2KX gland only has one cone (5a) and the PX2KW only has one cone (5b). (PB Variants have an earthing device for the lead sheath).

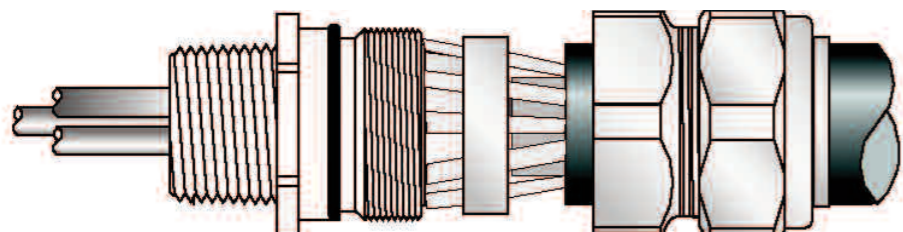
2. Separate the gland components by removing the body and outer seal nut assembly. Pass the body and outer seal nut assembly (6),(8), and the AnyWay clamping ring (7) over the cable, outer seal nut first.

3. Prepare the cable by stripping back the outer sheath and braid / armour to suit the equipment. Expose the braid or armour further so that it can be formed around the armour cone by cutting back the outer sheath by a length "L". This length varies slightly depending upon cable diameter, but typical values are shown below. The inner sheath should be long enough to just pass through the armour cone when installed. On lead sheathed cables, the lead sheath should be long enough to just pass through the armour cone when installed.



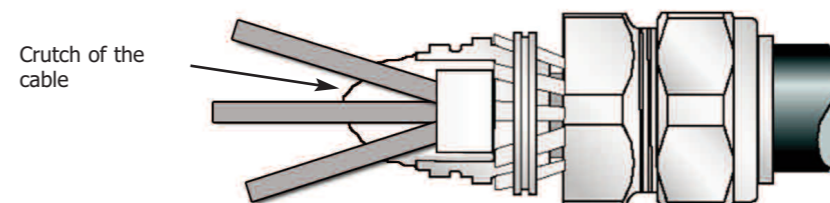
CABLE GLAND SIZE	20S/16, 20S, 20	25S, 25, 32, 40	50S, 50, 63S, 63	75S, 75, 90
CABLE STRIP LENGTH "L"	12 mm (0.472 inches)	15 mm (0.591 inches)	18 mm (0.709 inches)	20 mm (0.787 inches)

4. For direct make-off, fit the entry item to the equipment. Insert the armour cone (5a or 5b) into the entry item (2) and pass the cable through them until the braid or armour contacts the cone and make sure that it is evenly spaced around it. Tighten the body (6) to lock the braid or armour and then slacken and remove the body again, withdrawing the cable with it. (On PB variants the earthing device automatically makes contact with the lead sheath).

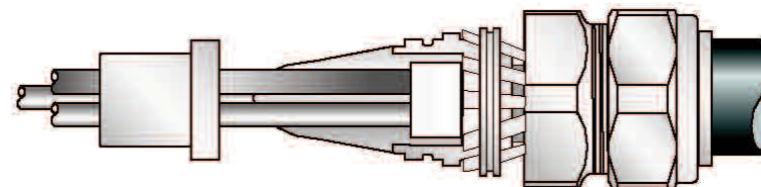


5. Remove any bedding or fillers from around the cable cores. If the cable cores have screens, these should be unravelled and then twisted together to form a single core. Wearing the protective gloves supplied, mix all of the two-part epoxy compound (1) until it is pliable and an even colour is achieved (minimum mixing temperature 10°C).

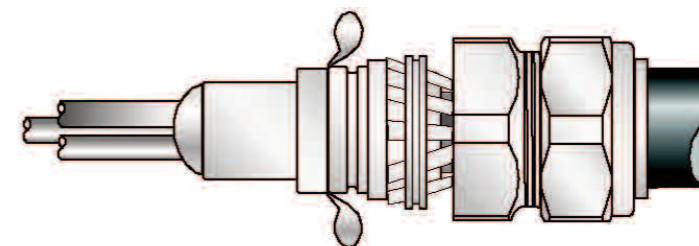
6. Separate the cores and apply the compound to the crutch of the cable for a distance of about 6mm and pack into place. If a drain wire is present then it should be sleeved using some heat shrink tubing which is pushed into the compound before shrinking with the application of some heat. If screens have been twisted together at stage 5, also be sleeved using heat shrink sleeving.



7. Bring the cores together again and pack more compound around them to a length and diameter sufficient to fill the compound tube, ending in a taper

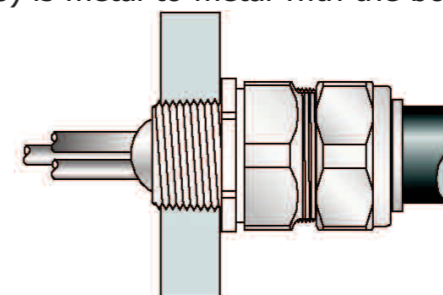


8. Pass the compound tube (3) over the conductors until the stepped end is fully located with the armour cone (5). Pack more compound into place until the compound tube is fully filled



9. Re-install the cable assembly into the entry item making sure that the compound is not disturbed and fully tighten the body (6) onto the entry item (2). Tighten the outer seal nut assembly (8) until it comes to an effective stop. This will occur when :-

- A) The outer seal nut (8) has clearly engaged the cable and cannot be further tightened without the use of excessive force by the installer.
- B) The outer seal nut (8) is metal to metal with the body of the gland (6).



The gland and conductors must be left undisturbed to allow the compound to cure. This may take up to 24 hours depending upon temperature.