Peppers Cable Glands Ltd., Stanhope Road, Camberley, GU15 3BT, U.K.

CR-X* Compound-Filled Cable Gland - ASSEMBLY INSTRUCTIONS FOR SAFE USE

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0518

Brief Description
The Peppers CR-X* type Compound-filled cable gland is for outdoor use in the appropriate Hazardous Areas with unarmoured cable of any construction, with or without braids or screens, where the braids or screens pass through the compound. A variant giving electrical continuity to a lead sheath is available. It gives environmental protection to IP68 and Deluge

Warning
PLEASE STUDY CAREFULLY BOTH PAGES OF THESE INSTRUCTIONS BEFORE INSTALLATION. These glands should not be used in any application other than those mentioned here or in our Data Sheets, unless Peppers states in writing that the product is suitable for such application. Peppers can take no responsibility for any damage, injury or other consequential loss caused where the glands are not installed or used according to these instructions. This leaflet is not intended to advise on the selection of cable glands. Further guidance can be found in the standards listed overleaf

STEP-BY-STEP FITTING INSTRUCTIONS

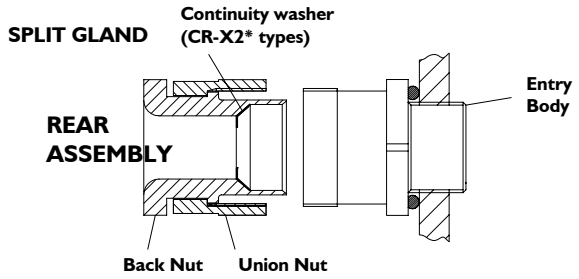
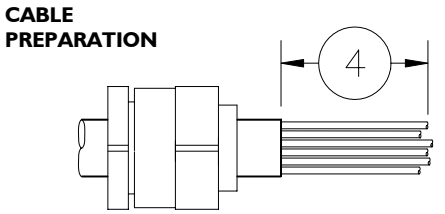
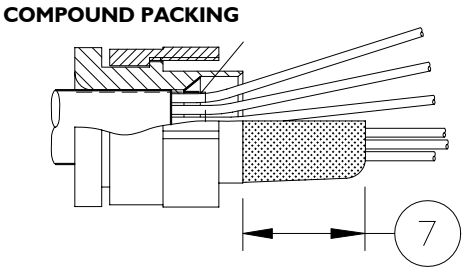
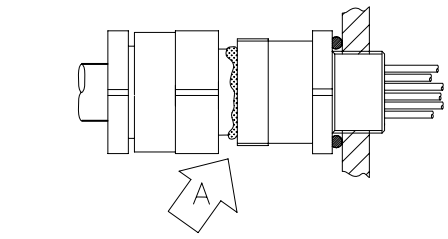
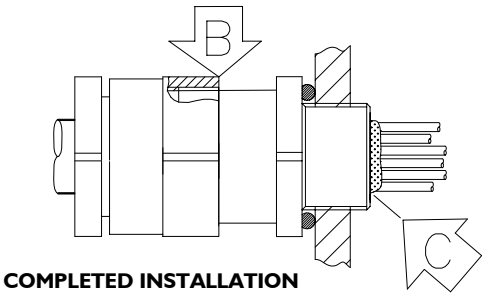


TABLE 1	
Gland size	7 Compound length
16 – 25	40mm
32 – 40	45mm
50S – 75	50mm
80 – 100	60mm









STEP-BY-STEP FITTING INSTRUCTIONS

1 Split gland as shown
2 Fit Entry Body. Hand-tighten, then using wrench tighten a further ½ turn. DO NOT EXCEED MAX TORQUE FOR ENCLOSURE
3 Slide Rear onto cable as shown
4 **CABLE PREPARATION**
Strip jacket so that cores are fully exposed in the compound chamber, length to suit installation. Lead sheath must be cut to push through the continuity washer. Remove protective foils, and any cords/fillers from around and between the cores. Take care not to cut the insulating sleeves of the cores. Pigtail and sleeve any screens to be passed through compound.

HEALTH AND SAFETY WARNING The resin used in the compound can cause eye and skin irritation. For your personal protection, wear the gloves supplied while mixing and applying. The uncured compound should not be allowed to come into contact with foodstuffs.
A COMPREHENSIVE SAFETY DATA SHEET PROVIDED BY THE COMPOUND MANUFACTURER IS AVAILABLE ON REQUEST

5 Check compound has not passed its "Use By" date. Installation at temperatures below 10°C should be avoided.
6 Trim any hardened pieces from ends of stick. Mix the compound by rolling, folding and breaking. Ease mixing by cutting large sticks in half. Fully mixed compound has a uniform yellow colour with no streaks.
7 Support the cable and Rear Assembly, holding them roughly concentric. Any lead sheath is pushed through the continuity washer. Splay out the cores. Starting at the middle, pack small amounts of rolled-out compound between the cores. Re-straighten each core and work outwards until all gaps are filled. Bundle the cores with cord or tape so they are not disturbed. Pack around the outside of the outer cores to

completely fill the Rear Assembly cup. Build up compound around the outside of the cores, with a slight taper & to approximate compound length shown in diagram & Table 1 column 7

8 Pass cores through & push compound into Entry Body until Rear Assembly engages. Remove squeezed out compound at arrow A. Support the Back Nut and screw Union Nut 7 full turns onto Entry Body (arrow B). Ensure that compound emerges at entry thread (arrow C)

9 Clean off excess compound from Entry Body to allow withdrawal when cured (arrow C). Cores may be disturbed after 1 hour. Leave to cure for 4 hours when working at 21ºC

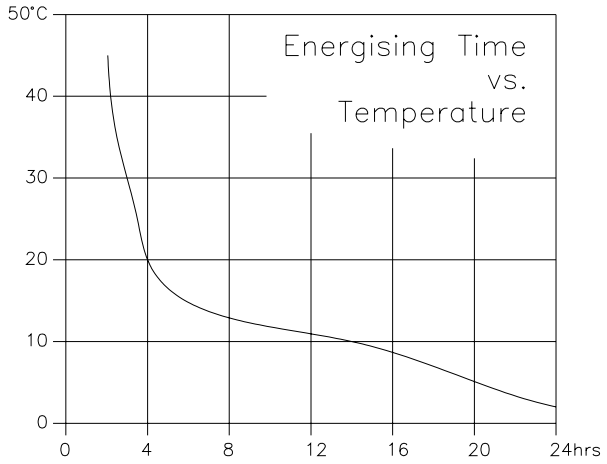
10 To release and pull back joint for inspection, unscrew Union Nut

11 Hand-tighten Union Nut to remake joint. Then refer to table below and tighten using wrench to the given amount

12 The equipment should not be energised until the compound has been left to cure for at least 4 hours when working at 21ºC. See chart 'Energising Time vs. Temperature' for further guidance

Wrench tightening information (Instruction 11), cable sizes (mm) & permitted cores

Gland Size	Tighten using wrench	Max Diameter over Cores	Max No of Cores	Outer Sheath Max
20S	½-turn	10.4	8	11.7
20	½-turn	12.5	14	14.0
25	½-turn	17.8	25	20.0
32	¼-turn	23.5	50	26.3
40	¼-turn	28.8	80	32.2
50	½-turn	39.4	100	44.1
63	½-turn	50.0	120	56.0
75	½-turn	60.8	140	68.0
80	½-turn	64.4	160	72.0
85	¾-turn	69.8	180	78.0
90	¾-turn	75.1	200	84.0
100	¾-turn	80.5	220	90.0



Installation Guidance

Point	Advice
1	♦ BS EN 60079-10:2003 Classification of Hazardous Areas ♦ BS EN 60079-14:1997 Electrical Installations in hazardous areas (other than mines) ♦ BS 6121, Part 5:1993 Selection, Installation and Maintenance of Cable Glands
2	Installation should only be carried out by a competent electrician, skilled in cable gland installation.
3	NO INSTALLATION SHOULD BE CARRIED OUT UNDER LIVE CONDITIONS.
4	To maintain Ingress Protection ratings above IP54, use IP washers or O-rings for parallel threads. For taper threads use thread sealant.
5	The surface of the enclosure should be sufficiently flat and rigid to make both the IP joint, and (where necessary) a suitable earth contact. Relieve enclosure entry thread holes no more than 1.5mm above thread diameter.
6	Once installed do not dismantle except for occasional inspection. The gland is not serviceable and spare parts are not supplied.
7	Parts are not interchangeable with any other design. If manufacturers' parts are mixed, certification will be invalidated.

Limitations on Usage. Be sure your installation complies with the following:-

Feature	Comment
Enclosure entry thread	The female thread in the enclosure must comply with clause 5.3 of EN 50018:2000, or clause 5.3 of IEC 79-1, as appropriate. Do not damage threads on assembly. Check the number of full turns of thread engaged is at least 5.

Interpretation of Markings. Markings on the outside of this gland carry the following meanings: -

Cable Gland Type & Size			
CR	Product range		
X	Barrier gland for unarmoured cable Seal Type :- Epoxy resin-based cement (Temp range –60°C to+85°C)		
2	Lead sheath continuity option only		
B	Main component material : B = brass; S = stainless steel		
20S	Gland size	**IP68**	Ingress Protection code
PG16	Entry thread type and size	**Year Code:**	XX

ATEX (EU Directive 94/9/EC) Markings	
⟨Ex⟩	EU Explosive Atmosphere Symbol
I M2	Mining use, Category M2
II 2	Surface use, Category 2, Zones 1, 2, 21 and 22
G	For use with potentially explosive gas mixtures
D	For use with combustible dusts

CENELEC Certification Markings	
E	Conformity with European Standard
Ex	Explosion Protection symbol
d	Protection type code : d = Flameproof
I & IIC	Gas Group Code suitable for Group I (e.g. methane) and Group IIC (e.g. hydrogen) ignitable gas/air mixtures, *and also* Groups IIB and IIA
SIRA	Certifying Body
03	Year of Certification
ATEX	Certified compliant with ATEX Directive 94/9/EC
1479	Certificate Serial Number
X	**Special Conditions for Safe Use :-** These glands must not be used with enclosures where the temperature at the point of mounting exceeds –60ºC to +85ºC