



Brief Description The Peppers A8F/D8XF/E8XF family of cable glands are for use in the appropriate Hazardous Areas with flat/heat trace cable. A8 and E8 types give environmental protection to IP66/67. D8 type glands are for indoor use and offer IP54 environmental protection. A termination suitable for EMC protection can be made using braided/armoured cables with D8 and E8 glands. They are suitable for normal industrial environments of temperature, humidity and vibration. Construction materials include steel and brass, and silicone rubber. To minimise galvanic corrosion, the metallic gland components are made from similar materials. Material compatibility under chemical corrosion or attack by aggressive substance must be considered before installation.

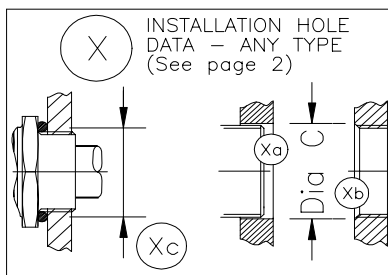
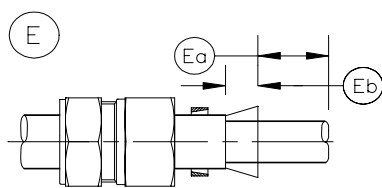
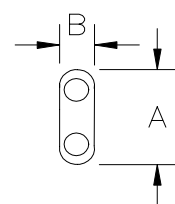
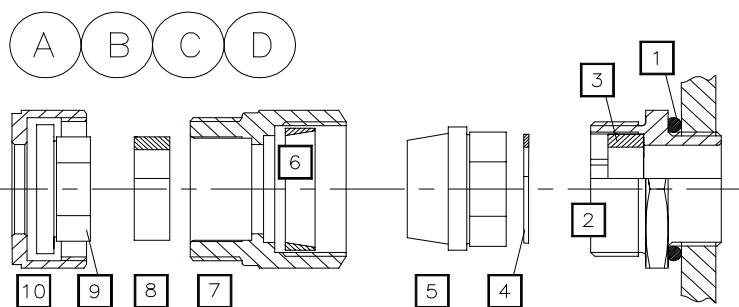
Warning

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.

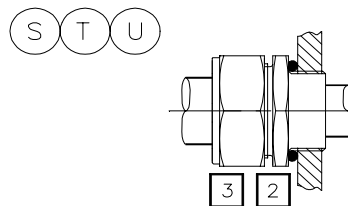
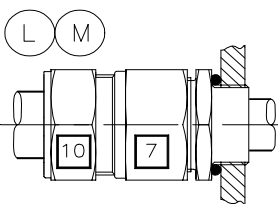
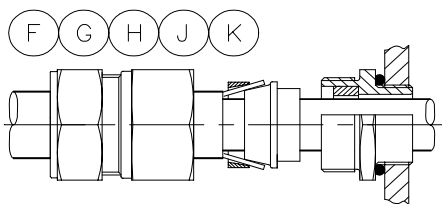
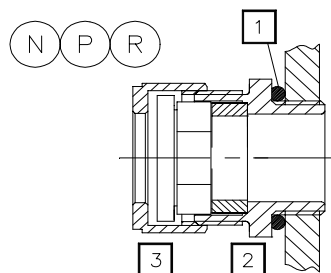
STEP-BY-STEP FITTING INSTRUCTIONS

TYPES E8/D8 (Note: No parts [8], [9] or [10] in D8 gland)

Cable Sizes
See page 2



TYPE A8



STEP-BY-STEP FITTING INSTRUCTIONS

TYPES E8/D8 (Note: No parts [8], [9] or [10] in D8 gland)

- A** Split gland as shown. N.B:- Seal [8] must be separate from [7] to prevent cable twist when tightening [7].
- B** O-ring [1] with special orders only. Fit sealing washer if required.
- C** Fit [2]. For correct torque see page 2. **DO NOT EXCEED MAX TORQUE FOR ENCLOSURE.**
- D** Slide parts [6] - [10] onto cable as shown.
- E** Prepare cable as shown in diagram.
 - Ea** Strip outer jacket and braid, length to suit installation.
 - Eb** Expose braid approx. 20mm long.
- F** Slide [4] (20R gland only) and [5] onto inner sheath and under braid. Slide [6] onto exposed braid.
- G** Insert cable through [2] and [3].
- H** At all stages, if necessary use 2nd spanner on [2] to avoid stripping enclosure thread.
- J** Tighten [7] to [2] to make-off braid. **FOR CORRECT TORQUE SEE PAGE 2.**
- K** Loosen off [7] to visually check braid is securely locked.
- L** Re-tighten [7] to correct torque. Push seal [8] into [7].
- M** Engage [9] and [10] to [7]. Tighten [10] and check that cable is completely sealed.

TYPE A8

- N** Check there is no tension in the threads.
- P** O-ring [1] with special orders only. Fit sealing washer if required.
- R** Fit the complete cable gland to the enclosure by tightening [2]. **DO NOT EXCEED MAX TORQUE FOR ENCLOSURE.** At all stages, if

- necessary use 2nd spanner on [2] to avoid stripping enclosure thread.
- S** Insert cable through cable gland. Prepare cable end as required.
- T** Position the cable correctly. The seal must grip the outer jacket of the cable when the cable gland is tightened.
- U** Tighten [3] to [2]. FOR CORRECT TORQUE SEE BELOW.

X INSTALLATION HOLE DATA – ANY TYPE

- Xa** Diameter C for clearance holes (NOT EExd)
- Xb** Diameter C countersink for threaded holes (EExd) **Xc** Diameter O of O-ring seat

Cable Sizes (mm), Braid or armour Acceptance (mm) & Assembly Torques (Nm)

TYPES E8, D8

X Hole Data (see overleaf)		Gland Size	Torque Settings	Inner Sheath				Outer Sheath – Type E8				Max cable size – Type D8	Wire thickness Copper braid or woven steel wire
Dia O	Dia C			MIN		MAX		MIN		MAX			
				A	B	A	B	A	B	A	B	A	
22.2	20.5	20S	19.5	6.3	4.0	11.7	7.0	7.9	4.5	11.7	7.0	15.5	0.3
22.2	20.5	20	32.5	10.3	5.6	13.5	9.0	11.0	4.5	13.5	9.0	20.5	0.3
22.2	20.5	20R	32.5	9.1	3.7	13.5	6.2	10.7	5.4	16.1	8.3	20.5	0.45

TYPE A8

X Hole Data (see overleaf)		Gland Size	Torque Settings	Outer Sheath			
Dia O	Dia C			MIN		MAX	
				A	B	A	B
22.2	20.5	20S	19.5	6.3	4.0	11.7	7.0
22.2	20.5	20	32.5	10.3	5.6	13.5	9.0
22.2	20.5	20R	32.5	8.1	5.8	13.5	6.2

Installation Guidance

Point	Advice
1	<ul style="list-style-type: none"> ◆ BS EN 60079-10:1996 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	An O-ring or sealing washer should always be used with enclosures rated at above IP54. If a star washer is used, it should not be installed in such a way that it reduces the IP rating.
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. In the case of painted enclosures, a star washer should be fitted to break through the paint and make a satisfactory earth contact.
6	Once installed do not dismantle except for occasional inspection. If necessary, dismantle by reversing the Fitting Instructions given above. 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 4.3 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 (at least 6 for taper threads).																									
Cable construction	The glands should only be used with compact cables with extruded bedding (i.e. effectively filled cables).																									
Installation conditions	<table border="1"> <thead> <tr> <th>Gas Group?</th> <th>Internal Ignition Source?</th> <th>Enclosure Volume?</th> <th>Which Zone?</th> <th>Use Type A8/D8/E8 Gland?</th> </tr> </thead> <tbody> <tr> <td>IIC</td> <td>NO</td> <td>2 litres or less</td> <td>Zone 1 or 2</td> <td>YES</td> </tr> <tr> <td>IIB, IIA, II</td> <td>NO</td> <td>Any</td> <td>Zone 1 or 2</td> <td>YES</td> </tr> <tr> <td>IIB, IIA, II</td> <td>YES</td> <td>Any</td> <td>Zone 2</td> <td>YES</td> </tr> <tr> <td>IIB, IIA, II</td> <td>YES</td> <td>2 litres or less</td> <td>Zone 1</td> <td>YES</td> </tr> </tbody> </table>	Gas Group?	Internal Ignition Source?	Enclosure Volume?	Which Zone?	Use Type A8/D8/E8 Gland?	IIC	NO	2 litres or less	Zone 1 or 2	YES	IIB, IIA, II	NO	Any	Zone 1 or 2	YES	IIB, IIA, II	YES	Any	Zone 2	YES	IIB, IIA, II	YES	2 litres or less	Zone 1	YES
	Gas Group?	Internal Ignition Source?	Enclosure Volume?	Which Zone?	Use Type A8/D8/E8 Gland?																					
	IIC	NO	2 litres or less	Zone 1 or 2	YES																					
	IIB, IIA, II	NO	Any	Zone 1 or 2	YES																					
	IIB, IIA, II	YES	Any	Zone 2	YES																					
IIB, IIA, II	YES	2 litres or less	Zone 1	YES																						

Interpretation of Markings. Stampings on the outside of this gland carry the following meanings (See also 'Brief Description' page 1): -

Cable Gland Type & Size		GENELEC Certification Markings	
E	Gland type provides sealing to 2 sheaths & clamps copper braid or woven steel wire armour. D = seals on inner sheath & clamps copper braid or woven steel wire armour. A = seals on outer sheath only	E	Conformity with European Standard
8	Seal Type :- Silicone (Temp range -60 to +180C) for Flat Cables	Ex	Explosion Protection symbol
X	Braid or woven steel wire armour clamping	d	Protection type code :- d = Flameproof; e = Increased Safety
F	Dual certified Flameproof/Increased Safety	IIC	Gas Group Code suitable for Group IIC ignitable gas/air mixtures e.g. hydrogen, and also Groups IIB and IIA. II = non-ignitable (e-protection code).
20S	Gland size (typical example)	SIRA	Certifying Body
050NPT	Entry thread type and size (typical example)	01	Year of Certification
		ATEX	Certified compliant with ATEX Directive 94/9/EC
		1270	Certificate Serial Number
ATEX (EU Directive 94/9/EC) Markings		X	Special Conditions for Safe Use :- (1) These glands must not be used with EExd IIC enclosures with a volume greater than 2 litres. (2) These glands must not be used with enclosures where the temperature at the point of mounting exceeds -60° to +180°C. (3) A8 glands are for fixed installations, and the cable must be clamped near the gland to avoid pulling and twisting. Where D8X and E8X glands are used with copper braided cable, they must be fixed installations, and the cable must be clamped near the gland to avoid pulling and twisting.
	EU Explosive Atmosphere Symbol		
II	Equipment Group (II = Non-Mining)		
2	Equipment Category for Zones 1, 2, 21 and 22		
G	For use with potentially explosive gas mixtures		
D	For use with combustible dusts		
Other Markings			
IP66	Ingress Protection Rating	Year Code:	XX