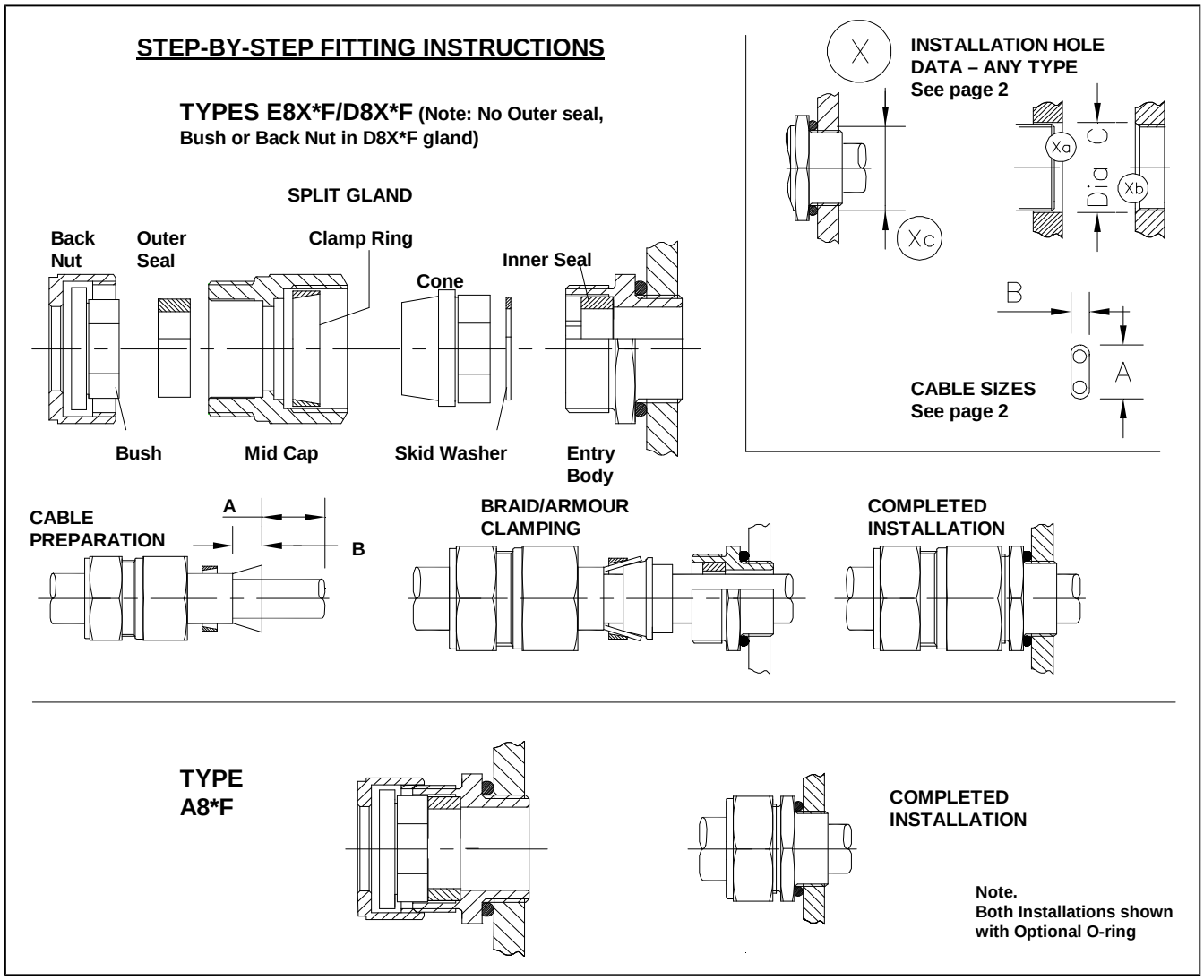
Peppers Cable Glands Ltd. Stanhope Road Camberley GU15 3BT UK

A8*F/D8X*F/E8X*F Cable Glands for flat cable – ASSEMBLY INSTRUCTIONS FOR SAFE USE

Brief Description
The Peppers A8*F/D8X*F/E8X*F range of cable glands is for use in the appropriate Hazardous Areas with flat/heat trace cable. A8*F and E8X*F types give environmental protection to IP66/67/68. D8XF 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 D8X*F and E8X*F glands.

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 E8X*F/D8X*F (Note: No Outer Seal, Bush or Back Nut in D8 gland)

1 Split gland as shown. N.B:- Outer Seal must be separate from Mid Cap to prevent cable twist when tightening Mid Cap.
2 Fit Entry Body. For correct torque see page 2. DO NOT EXCEED MAX TORQUE FOR ENCLOSURE.
3 Slide Clamp Ring, Mid Cap, Outer Seal, Bush & Back Nut onto cable as shown.
4 Prepare cable as shown in diagram.
  A Strip outer jacket and braid, length to suit installation.
  B Expose braid approx. 20mm long. Splay out braid to fit Cone.
5 Slide Skid Washer (20R gland only) and Cone onto inner sheath and under braid. Slide Clamp ring onto exposed braid.
6 Insert cable through Inner Seal and Entry Body.
7 Tighten Mid Cap to Entry Body to lock onto braid. FOR CORRECT TORQUE SEE PAGE 2.
9 Loosen off Mid Cap to visually check braid is securely locked.
9 Re-tighten Mid Cap to correct torque. Push Outer Seal into Mid Cap.
10 Engage Bush and Back Nut to Mid Cap. Tighten Back Nut and check that cable is completely sealed.

TYPE A8*F

1 Check there is no tension in the threads.
2 Fit the complete cable gland to the enclosure by tightening Entry Body. DO NOT EXCEED MAX TORQUE FOR ENCLOSURE.
3 Insert cable through cable gland. Prepare cable end as required.
4 Position the cable correctly. The seal must grip the outer jacket of the cable when the cable gland is tightened.
5 Tighten Back Nut to Entry Body. FOR CORRECT TORQUE SEE PAGE 2.

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X INSTALLATION HOLE DATA – ANY TYPE

Xa Diameter for clearance holes (NOT Ex d)
Xb Diameter of countersink for threaded holes (Ex d)
Xc Diameter of O-ring seat

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

TYPES E8X*F, D8X*F

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
				MIN		MAX		MIN		MAX			
Dia Xc	Dia Xa/Xb			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*F

X Hole Data (see overleaf)		Gland Size	Torque Settings	Outer Sheath			
				MIN		MAX	
Dia Xc	Dia Xa/Xb			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	♦ BS EN 60079-10 Classification of Hazardous Areas ♦ BS EN 60079-14 Electrical Installations in hazardous areas (other than mines) ♦ BS 6121, Part 5 Selection, Installation and Maintenance of Cable Glands ♦ IEC 61241-0:2004 and IEC 61241-1:2004 Ignitable dust – Protection by enclosure
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. Also see page 1 diagram and Hole Data above.
5	To ensure the stated IP rating is maintained, at the point of interface the surface of the enclosure should be flat, free from debris and rigid with the hole drilled straight and to an appropriate diameter.
6	Where an earth contact is required the surface of the enclosure should be sufficiently flat and rigid. With painted enclosures a serrated star washer should be fitted to break through the paint and make a satisfactory earth contact.
7	Once installed do not dismantle except for occasional inspection. If necessary, dismantle by reversing the Instructions given above. The gland is not serviceable and spare parts are not supplied.
8	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 IEC/EN 60079-1. Do not damage threads on assembly. Check that the number of fully engaged threads is at least 5.				
Cable construction	The glands should only be used with compact cables with extruded bedding (i.e. effectively filled cables).				
Installation conditions	**Gas Group?**	**Internal Ignition Source?**	**Enclosure Volume?**	**Which Zone?**	**Use Type A8*F/D8X*F/E8X*F 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. Markings on the outside of this gland carry the following meanings:

Cable Gland Type & Size E8XF-aaa-bbb-IP66-nn

8 = Seal Type Blue silicone (temp range –60º to +180ºC)
X = Braid/woven steel wire armour clamping (Not in A-type glands)
aaa = Gland size
bbb = Entry thread type and size
IP66 = Ingress Protection code
nn = year of manufacture

Protection Concept and Gas Groups: Ex d IIC / Ex e II / Ex tD A21 IP66 / Ex nR II

Certificate Numbers: (ATEX) **SIRA 01ATEX1270X / SIRA09ATEX1221X** (GOST-R) **РОСС GB.ГБ06.B00853**
(IEC) **IECEx SIR 05.0020X**

ATEX Markings: ⟨Ex⟩ II 2/3 GD

GOST-R Approval: ExdIICU / ExeIIU / ExnRIIU

Special Conditions for Safe Use

(1) These glands must not be used with Exd 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*F glands are for fixed installations, and the cable must be clamped near the gland to avoid pulling and twisting. Where D8X*F and E8X*F 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.
(4) These glands are certified with one specific size of flameproof sealing ring per gland size as supplied.
(5) The interfaces between the male thread of the products and an associated enclosure cannot be defined. Therefore it is the user's responsibility to ensure that the appropriate Ingress Protection level is maintained at these interfaces.