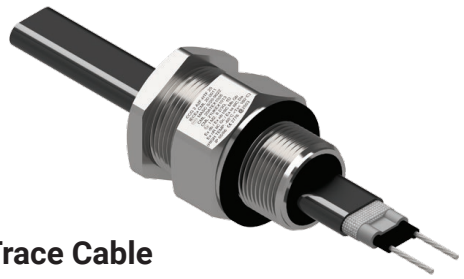
CCG CABLE TERMINATIONS



A2F-HTF

Ex db I/IIC, Ex eb I/IIC, Ex ta IIIC, Ex nR IIC

COMPRESSION GLAND for Single or Multi-Core Unarmored Heat Trace Cable

Features and Benefits

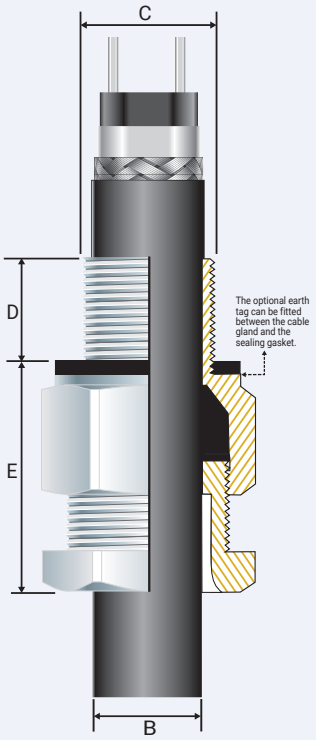
- Passes the IECEx / ATEX / UKEX 100% pull test, so no additional cable clamping is required.
- For indoor, outdoor, Group I, II, III, Zone 1, 2, 20, 21 and 22 hazardous areas.
- Fitted with a specially formulated elastomeric displacement seal, giving superior cable retention, explosion protection, and an IP rating.
- Precision manufactured from high-quality brass (Marine Grade Electroless Nickel Plated™) available in aluminium or stainless steel 316/316L on request. (Note: Aluminium is not suitable for Group I applications.)
- Supplied with a thread-sealing gasket with parallel threads only.

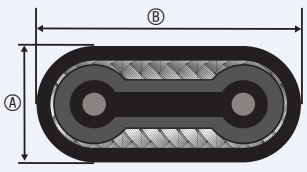
Technical Data

Type:	A2F-HTF
Gland Material:	Brass (Marine Grade Electroless Nickel Plated™), Aluminium or Stainless Steel 316/316L
Seal Material:	Standard Thermoset Elastomer or Extreme Temperature Seals
Sealing Gasket Material:	HDPE, Nylon 66 or PTFE
Cable Type:	Single or Multi-Core Unarmoured Heat Trace
Sealing Area:	Outer Sheath
Optional Accessories:	Adaptor, Reducer, Earth Tag, Locknut, Serrated Washer and Shroud
Note:	The installer should ensure that the materials are suitable for the installation environment.

Standards and Certifications

Equipment Protection Levels:	IECEx/INMETRO: Ex db I Mb, Ex eb I Mb, Ex db IIC Gb, Ex eb IIC Gb, Ex nR IIC Gc, Ex ta IIIC Da ATEX/UKEX: Ⓔx I M2 Ex db I Mb, Ex eb I Mb, Ⓔx II 2/3 G 1D Ex db IIC Gb, Ex eb IIC Gb, Ex nR IIC Gc, Ex ta IIIC Da	
Continuous Operating Temp:	Standard Seals:-60°C to +95°C /100°C (HDPE/ Nylon Sealing Gasket) Extreme Temp. Seals: -60°C to +160°C (PTFE Sealing Gasket)	
Conformance:	Standard:	Certificate:
IEC/BS EN	IEC/BS EN 62444	CML 14CA364
IECEx	IEC 60079 Part 0, 1, 7, 15, 31	IECEx TSA 23.0026
ATEX	EN 60079 Part 0, 1, 7, 31 EN 60079 Part 15	CML 20ATEX1026 CML 22 ATEX 4116
UKEX	BS EN 60079 Part 0, 1, 7, 31 BS EN 60079 Part 15	CML 21UKEX1013 CML 22UKEX4117
INMETRO (Brazil)	ABNT NBR IEC 60079 Part 0, 1, 7, 15, 31	TÜV 24.0267
SANS	SANS/IEC 60079 Part 0, 1, 7, 15, 31	MASC S/20-9022
IP66/68 850m – Parallel	IEC 60529	CML 15Y728
IP65/66 – Tapered	IEC 60529	
IP68 - Tapered and approved grease	IEC 60529	IECEx TSA 23.0026
Deluge Protection	DTS-01	CML 14CA370-2
Corrosion Protection	ASTM B117-11, BS EN ISO 3231	EXOVA N968667





Cable Detail

Conditions for Safe Use - X

- None.

Product Code	Gland Size Reference	Metric Entry Thread		NPT Entry Thread		Cable Detail				Maximum Length 'E'	Hexagonal Detail		Installation Torque Value Nm
		'C'	Min 'D'	'C'	Min 'D'	Min 'A'	Max 'A'	Min 'B'	Max 'B'		Max 'Flats'	Max 'Crns'	
0450-0	0-20s	M20x1.5	15	½/¾	15	4.2	6.4	8.8	11.0	30.5	24.0	27.0	32.5
045001	1-20	M20x1.5	15	½/¾	15	4.2	8.0	10.9	14.0	36.0	27.0	30.0	32.5
045002	2-25	M25x1.5	15	¾/1	15/19	4.8	7.0	13.7	16.0	36.0	35.0	39.0	47.5

All dimensions except NPT are in mm. Intermediate thread sizes are available on request. NPT threads should be tightened 'wrench tight'.

FITTING INSTRUCTIONS
Metric Illustration

CCG CABLE TERMINATIONS

A2F-HTF COMPRESSION GLAND

ENCLOSURES AND EQUIPMENT TO WHICH CABLE GLANDS ARE FITTED:-

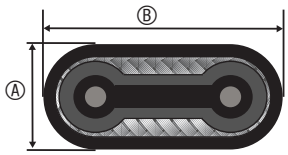
- Must be made from materials which are compatible with the cable gland materials.
- Have a sealing area around the cable gland entry point with a surface roughness < Ra 6.3 µm.
- Have entries that are perpendicular to the enclosure face in the area where the cable gland will seal to within 2.5°.
- Are sealed using the supplied sealing gasket (parallel threads) or by fully tightening into a threaded entry (tapered threads). Note that for tapered threads the IP rating can be improved to IP68 with the use of a suitable thread sealant.

MUST HAVE THREADED ENTRIES

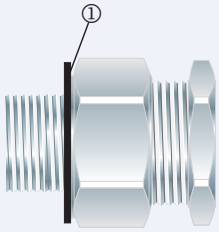
- The same thread size as the cable gland. (Thread adapters should be used to correct any mismatch).
- With a thread tolerance of metric class '6H' or equivalent.
- Where the thread length is a minimum of 10mm for Ex d applications or 3mm for all other applications

OR CLEARANCE HOLES (not Ex d)

- Where the hole size is the thread nominal size with a tolerance of +0.1 to +0.7mm. (e.g. the clearance hole for an M20 thread will have a diameter between 20.1mm and 20.7mm).
- Through material that is between 1mm and 12mm thick. (Thicker materials can be accommodated using glands with extended entry threads.)

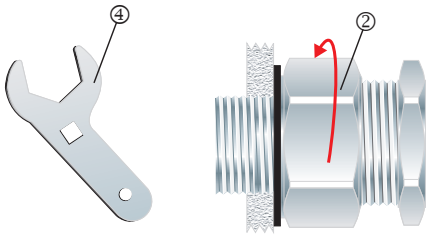


1. Measure the cable across its widest Ⓑ and narrowest Ⓐ dimensions to check for the correct fit.



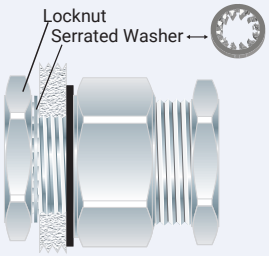
If the gland has NPT entry threads fitted to a threaded entry then IP68 (2m) can be achieved by applying one of the following tested and approved grease types to the thread:- Renolit Lubrene CA700 or LX220 EP2, Renolit LC-WP2 or Moly LX2, or Dow Corning 4 Electrical Compound.

2. To maintain IP66/68, ensure the gasket ① is in place.

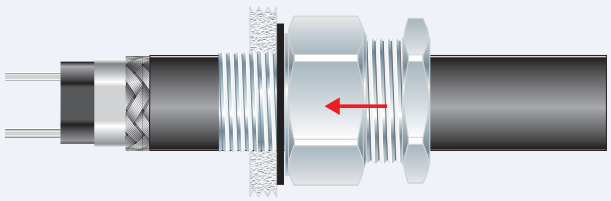


3. Screw the inner ② into the apparatus. Tighten the inner ② to the installation torque using a CCG Spanner ④.

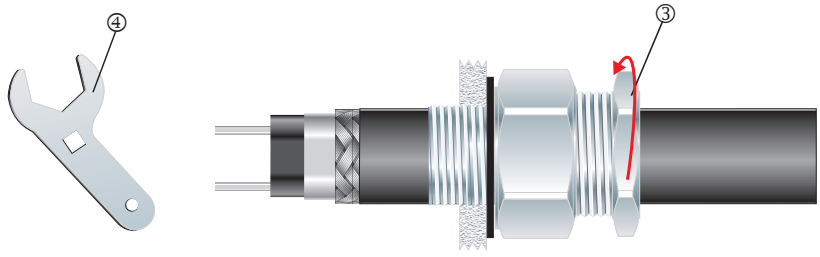
Alternative installation through an unthreaded entry.



If the apparatus is untapped use a locknut.



4. Pass the cable end through the gland assembly.



5. Tighten the outer nut ③ to the installation torque using a CCG Spanner ④ to produce a seal and grip on the cable.