



TECHNICAL DATA

CABLE GLAND TYPE : A2FHT, RA2FHT
INGRESS PROTECTION : IP66, IP67, IP68
PROCESS CONTROL SYSTEM : ISO 9001
 ISO/IEC 80079-34:2011

EXPLOSIVE ATMOSPHERES CLASSIFICATION

ATEX CERTIFICATION No : CML 18ATEX1308X, CML 18ATEX4312X
ATEX CERTIFICATION CODE : II 2G Ex db IIC Gb, II 2G Ex eb IIC Gb, II 1D Ex ta IIIC Da IP66, IP67, IP68
 II 3G Ex nR IIC Gc
UKEX CERTIFICATION No : CML 21UKEX1249X, CML 21UKEX4250X
UKEX CERTIFICATION CODE : II 2G Ex db IIC Gb, II 2G Ex eb IIC Gb, II 1D Ex ta IIIC Da IP66, IP67, IP68
 II 3G Ex nR IIC Gc
IECEx CERTIFICATION No : IECEx CML 18.0173X
IECEx CERTIFICATION CODE : Ex db IIC Gb, Ex eb IIC Gb, Ex ta IIIC Da, Ex nR IIC Gc IP66, IP67, IP68

IMPORTANT NOTES FOR INSTALLERS

- Read all instructions before beginning installation. Installation shall only be performed by competent, suitably trained personnel (in accordance with EN/IEC 60079-14) using the correct tools; spanners should be used for tightening.
- Inspection and maintenance shall only be performed by competent, suitably trained personnel (in accordance with EN/IEC 60079-14 (Initial Inspection) and EN/IEC 60079-17).
- The interface between a cable entry device and its associated enclosure / cable entry will require additional sealing to achieve ingress protection (IP) ratings higher than IP54. The minimum protection level is IP54 for explosive gas atmospheres and IP6X for explosive dust atmospheres. Parallel threads (and tapered threads when using a non-threaded entry) require a CMP sealing washer or integral O-ring face seal (where available) to maintain IP66, 67 and 68 (when applicable). It is the installers responsibility to ensure the IP rating is maintained at the interface.
 Note: When fitted to a threaded entry, all tapered threads will automatically provide an ingress protection rating of IP66.
 The standard product temperature range is **-60°C to +180°C**. The equipment should not be used outside of this range.
 Cable glands do not have any serviceable parts and are therefore not intended to be repaired.
 Cable glands are manufactured from Brass, Nickel Plated Brass, Stainless Steel, Mild Steel or Aluminium, with Silicone seals. The end user shall consider the performance of these materials with regard to attack by aggressive substances that may be present in the hazardous area. Consideration should be given to potential degradation due to galvanic corrosion at the interface of dis-similar metallic materials.
 It is the end user's responsibility to ensure the equipment materials are suitable for their final installation location. If in doubt consult CMP Products Limited.
- Once installed do not dismantle except for inspection. An inspection should be conducted as per IEC / EN 60079-17 by a qualified person. After inspection the gland should be re-assembled as instructed, ensuring the outer seal nut is correctly tightened to ensure the cable is secured.
- Metric entry threads comply with ISO 965-1 and ISO 965-3 with a 6g tolerance as required by IEC 60079-1:2014. The CMP standard metric thread pitch is 1.5mm for threads up to M75, and 2.0mm from M90 and above. Special thread pitches between 0.7 – 2.0mm are available on all products on request. See certificate for details of other thread types. NPT threads are in accordance with ASME B1.20.1-2013 gauging to CI 3.2 for external threads. For details of other thread types refer to IECEx certificate.
- The enclosure surface finish must be smooth and flat to facilitate sealing with an O-ring or Entry Thread Sealing Washer for the required IP rating.
- Enclosure will need to be sufficiently strong to support the cable and cable gland assembly. Enclosure entries must be perpendicular. Any draft angles from the casting/moulding process should have a perpendicular flat spot machined to facilitate sealing with an O-ring or Entry Thread Sealing Washer.
- CMP Products recommends when using the cable gland with a through-hole, the hole must be circular, free of burrs and the diameter no larger than 0.7mm above the thread major diameter. A suitable CMP Products locknut shall be used to secure the product. See CMP Products catalogue for locknut options.
- A CMP earth tag should be used when it is necessary to provide an earth bond connection. CMP earth tags have been independently tested to comply with Category B rating specified in IEC 62444 (no ratings stated in IEC 60079-0). Ratings are shown in the associated table. CMP earth tags slip over the cable gland or accessory entry thread from inside/outside the enclosure and must be secured with a locknut (if fitted internally).

CMP Earth Tag Size	Short Circuit Ratings Symmetrical Fault Current (kA) for 1 second
20	3.06
25	4.06
32	5.40
40	7.20
50	10.40
63	10.40
75	10.40

SPECIFIC CONDITIONS OF USE

- All cable gland types and sizes are only suitable for fixed installations. Cables must be effectively clamped to prevent pulling or twisting.
- Entry item component may be supplied with an alternative nearest equivalent recognised thread type and size to the metric thread, whilst maintaining a tolerance of fit, equal to or better than, a medium fit to ISO 965-1 & ISO 965-3. Intended for use within existing installations only, that incorporate female thread types that are no longer permitted by the current edition of EN/IEC 60079-1, but comply with the requirements of EN 50018:2000 & IEC 60079-1:2001.
- Ingress discs shall be removed (not remain fitted within cable glands) intended for installation within flameproof (Ex d) enclosures.

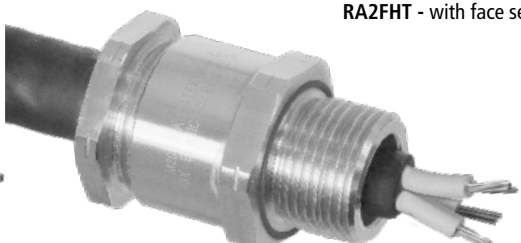


INSTALLATION INSTRUCTIONS FOR A2FHT, RA2FHT CABLE GLAND

CABLE GLAND FOR USE WITH UNARMoured AND BRAID ARMoured CABLES
 INCORPORATING EU DECLARATION OF CONFORMITY TO DIRECTIVE 2014/34/EU
 AND UK STATUTORY REQUIREMENTS SI 2016 No. 1107 (AS AMENDED)



A2FHT - no face seal



RA2FHT - with face seal

Cable Gland Selection Table																
Cable Gland Size	Available Entry Threads (Alternative Metric Thread Lengths Available)					Overall Cable Diameter		RA2FHT Across Flats	RA2FHT Across Corners	A2FHT Across Flats	A2FHT Across Corners	Protrusion Length	Combined Ordering Reference (Brass Metric)			
	Standard			Option												
	Metric	Thread Length (Metric)	NPT	Thread Lengths (NPT)	NPT	Min	Max	Max	Max	Max	Max	Max	Max	Size	Type	Ordering Suffix
16	M16	15.0	3/8"	15.3	-	3.2	8.0	24.0	-	26.4	24.0	26.4	34.9	16	A2FHT	1RA
16P	M16	15.0	-	-	-	3.2	8.0	-	-	22.0	24.2	34.7	16P	A2FHT	1RA	
20S16	M20	15.0	1/2"	19.9	3/4"	3.2	8.0	27.0	29.7	24.0	26.4	31.4	20S16	A2FHT	1RA	
20S16P	M20	15.0	-	-	-	3.2	8.0	-	-	22.0	24.2	32.1	20S16P	A2FHT	1RA	
20S	M20	15.0	1/2"	19.9	3/4"	6.5	11.2	27.0	29.7	24.0	26.4	32.1	20S	A2FHT	1RA	
20SP	M20	15.0	-	-	-	6.5	11.2	-	-	22.0	24.2	32.1	20SP	A2FHT	1RA	
20	M20	15.0	1/2"	19.9	3/4"	7.0	13.5	27.0	29.7	27.0	29.7	35.8	20	A2FHT	1RA	
20P	M20	15.0	-	-	-	7.0	13.5	-	-	24.0	26.4	41.4	20P	A2FHT	1RA	
25	M25	15.0	3/4"	20.2	1"	11.5	19.5	36.0	39.6	36.0	39.6	40.4	25	A2FHT	1RA	
25P	M25	15.0	-	-	-	11.5	19.5	-	-	32.0	35.2	49.7	25P	A2FHT	1RA	
32	M32	15.0	1"	25.0	1 1/4"	19.0	25.5	41.0	45.1	41.0	45.1	38.5	32	A2FHT	1RA	
40	M40	15.0	1 1/4"	25.6	1 1/2"	25.0	32.2	50.0	55.0	50.0	55.0	39.1	40	A2FHT	1RA	
50S	M50	15.0	1 1/2"	26.1	2"	31.0	38.2	60.0	66.0	55.0	60.5	41.4	50S	A2FHT	1RA	
50	M50	15.0	2"	26.9	2 1/2"	35.6	44.0	60.0	66.0	60.0	66.0	45.8	50	A2FHT	1RA	
63S	M63	15.0	2"	26.9	2 1/2"	41.5	49.9	75.0	82.5	70.5	77.6	43.3	63S	A2FHT	1RA	
63	M63	15.0	2 1/2"	39.9	3"	48.2	54.9	75.0	82.5	75.0	82.5	43.6	63	A2FHT	1RA	
75S	M75	15.0	2 1/2"	39.9	3"	54.0	61.9	89.9	98.9	84.0	92.4	45.4	75S	A2FHT	1RA	
Dimensions are displayed in millimetres unless otherwise stated																

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In the above example ordering references, add 'R' for RA2FHT cable glands (with 'O' Ring face seal included) e.g. 32RA2FHT1RA4

ACCESSORIES

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

CMP Products Limited on its sole responsibility declares that the equipment referred to herein conforms to the requirements of the ATEX Directive 2014/34/EU and UK statutory requirements SI 2016 No. 1107 (as amended). This is shown in the following harmonised/designated standards;
 EN 60079-0:2018, EN 60079-1:2014, EN 60079-7:2015 + A1:2018, EN 60079-15:2017, EN 60079-31:2014, BS 6121:1989, EN 62444:2013

J. Hichens

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 17th March 2020

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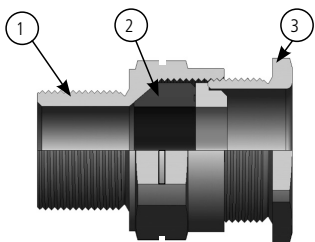
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FI497		
Certificate	Revision	Date
UKEX	0	04/21
IFS	14	09/21
ATEX / IECEx	11	4/19

INSTALLATION INSTRUCTIONS FOR CMP CABLE GLAND TYPES A2FHT, RA2FHT

CABLE GLAND COMPONENTS

- 1. Entry Item
- 2. Seal
- 3. Seal Nut

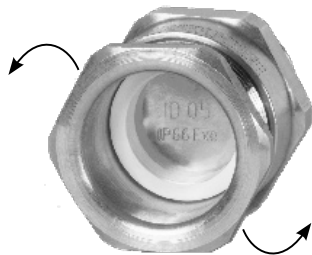


PLEASE READ ALL INSTRUCTIONS CAREFULLY BEFORE BEGINNING THE INSTALLATION

USING OPTIONAL CMP INGRESS DISCS

CMP ingress discs are used as a means of maintaining the integrity of the enclosure and exclude dust and moisture, enabling the cable gland to be installed prior to the cable.

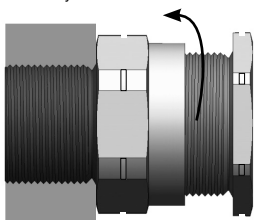
Ingress discs are rated to IP66.
Do not re-use the disc once removed.



*Seal nut (3) should be loosened to relax the seal (2) then tightened using finger pressure until light resistance is felt, then turn the seal nut:
16 – 25 = 1 turns
32 – 75s = 1.5 turns
with a spanner

When Cable Glands with Ingress Discs are installed, the Cable Gland protection concept is de-rated to Ex eb IIC Gb & Ex ta IIIC Da & Ex nRc IIC Gc only.

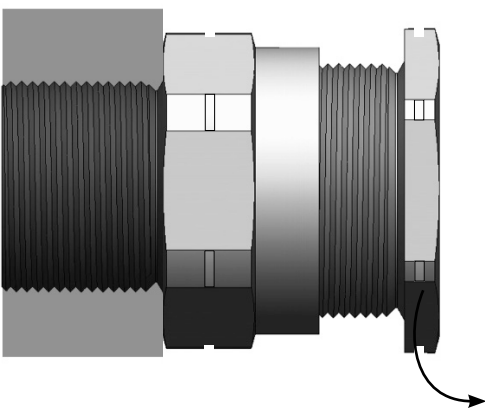
1. Fit the gland into the equipment and fully tighten the entry item (1). RA2FHT 'O' ring face seal will engage when fully tightened



2. Determine the conductor length required to suit the installation and prepare the cable accordingly, removing part of the outer sheath where required to reveal the insulated conductors.

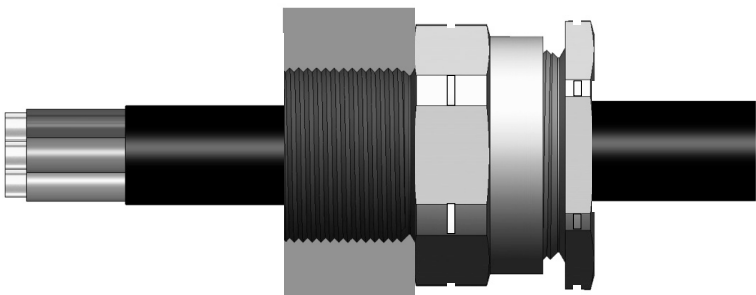


3. Slacken the seal nut (3) to relax the seal (2).



4. Only using finger pressure, tighten the seal nut until light resistance to tightening is met.

Then use the seal tightening guide table below, to determine how much further to tighten the seal using a spanner.



Outer Seal Tightening Guide												
Number of turns to tighten	GLAND SIZE											
	16/16P	20S16/20S16P	20S/20SP	20/20P	25/25P	32	40	50S	50	63S	63	75S
	CABLE DIAMETER											
0.5	8.0	8.0								49.9	54.9	61.5
1.0	7.1	7.1						37.7	43.6	48.4	54.1	60.3
1.5	6.4	6.4	11.2	12.7	18.7	25.5	31.6	36.5	42.7	47.3	53.0	59.3
2.0	5.5	5.5	10.3	11.3	17.6	24.2	30.6	35.5	41.8	46.2	52.0	58.3
2.5	4.5	4.5	9.5	10.2	16.4	22.9	29.6	34.6	40.9	45.2	51.0	57.4
3.0	3.2	3.2	8.8	9.3	15.3	21.5	28.5	33.7	40.0	44.3	50.1	56.6
3.5			8.0	8.4	14.0	20.3	27.4	32.9	39.1	43.4	49.2	55.8
4.0			7.2	7.7	12.8	19.0	26.2	32.1	38.1	42.6	48.2	55.1
4.5			6.5	7.0	11.5		25.0	31.4	37.2	41.8		54.4
5.0									36.2			
5.5												