

Installation Manual for A2FMHRF Cable Gland

A2FMHRF Flameproof Cable Gland for Unarmoured Cables with Rigid conduit fitting

Please read all instructions carefully before beginning the installation

CABTEK A2FMHRF type Cable Glands are for Indoor and Outdoor use in the appropriate Hazardous areas with unarmoured cable. The seal on the outer jacket and give environmental protection to IP66/67. Glands are suitable for normal industrial environmental of temperature, humidity and vibration.

Cable Glands are made of Brass CW614N/SS 316L assembled with VMQ Silicone Rubber and Nylon Substrate.

Material Compatibility under chemical corrosion or attack by aggressive substance must be considered before installation.

Cable Gland confirm to following Standards for Group II, Category-2 for Zone 1, 2, 21 & 22 for ambient temperature range -60°C to +135°C.

Standards Applied: EN IEC 60079-0:2018

EN/IEC 60079-1:2014

EN/IEC 60079-31:2014/2013

Ex marking on A2FMHRF type Cable Glands:

20A2FMHRF-M20(M) -M20(F) (Ø2.5x7)

Ex db IIC Gb, Ex eb IIC Gb
 Ex tb IIIC Db IP66/67.....
 -60°C to +135°C
 ETL22ATEX0109X, IECEx ITS 16.0041X, P568411/1

Installation Guide:

1. Installation must be carried out by a competent electrician, skilled in cable gland installation.
2. Installation should not be carried out under live conditions.
3. Once installed do not dismantle except for occasional inspection. If necessary, dismantle by reverting the installation instruction. The gland is not serviceable and spare parts are not supplied separately.
4. Parts of glands are not interchangeable with any other design. If manufacturer's parts are mixed, certification will be invalidated.
5. The female thread in the enclosure must comply with relevant standard and do not damage threads on assemblies.
6. The glands should only be used with substantially round and compact cables with correct tools.
7. Installation should only be performed by a competent person using the correct torque tools. Spanners should be used for tightening. Read all instructions before beginning installation.

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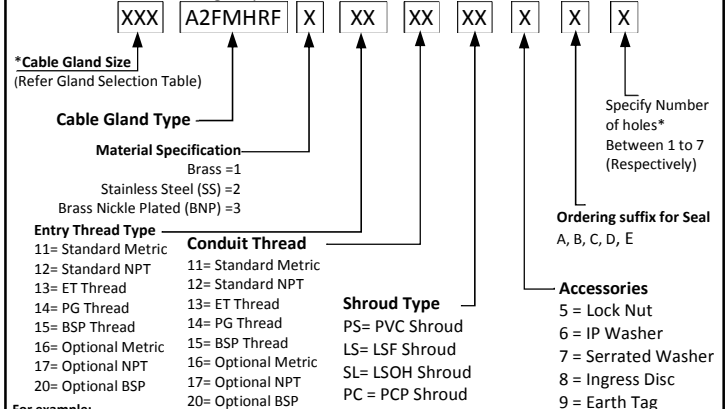
8. Any modification which differs from the condition as delivered is not permitted.
9. Accessories are available from CABTEK, as optional extras, to assist with fixing, sealing and earthing, Locknut, Earth Tag, Serrated Washer, Entry Thread seal (IP), Shroud.

Special Condition of Safe Use of Cable Glands:

1. Cable Glands are only suitable for fixed installations.
2. Cable must be effectively clamped from pulling and twisting.
3. Cable Glands shall not be used in enclosure where the temperatures at the point of entry /mounting are outside the range of ambient temperatures as detailed in general description.
4. The glands should only be used with substantially round cables and tightened to the rated torque with torque wrenches.
5. Install in accordance with requirements of EN60079-14.
6. The cable glands are provided with a sealing ring with an axial sealing height of at least 5 mm. With reference to the clearance groove, the end-user should ensure that at least five complete turns of the connector thread are made. In order to guarantee a screw depth of 8 mm, the enclosure should have a wall thickness of min. 10mm; if <10 mm, then if necessary, use a washer when cable entries are attached to the pressure-resistant enclosure.
7. In the case of NPT connecting threads, the end-user must ensure that the necessary IP protection is guaranteed; this can be done using a suitable thread sealing agent.
8. Installation should not be carried out under live conditions.

CABLE GLAND ORDERING DETAILS:

Product Code for Ordering Purpose



For example:

20A2FMHRF 3 11 11 PS 6 A 7 = A2FMHRF-20-M20(M)-M20(F) Nickel Plated Cable Gland with PVC Shroud, IP Washer & Seal A with 7 holes

20A2FMHRF 3 11 11 P5569A7 = A2FMHRF-20-M20(M)-M20(F) Nickel Plated Cable Gland Kit* with Seal A with 7 holes (*Kit includes PVC Shroud(PS), Lock Nut(5), IP Washer(6) & Tag(9)

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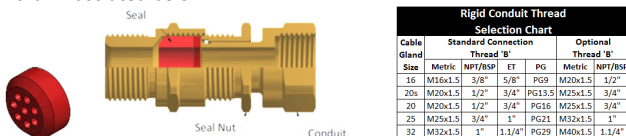
For cable gland technical details like Cable Gland Size, Cable diameter, thread and torque details given as below.

Cable Gland Size	Standard Entry Thread "C"				Multi Hole Seal Detail				Assembly Length		Torque (Nm)				
	Metric	NPT/BSP	ET	PG	Seal Hole Cable Ø (D)	Ordering Suffix for Seal	Number of Holes**	A/F	A/C	Compressed		Uncompressed			
16	M16x1.5	3/8"	5/8"	PG9	15	M20x1.5	1/2"	1.5	A	1 to 6	24.0	26.20	19.50	27.50	40.00
	M16x1.5	3/8"	5/8"	PG9	15	M20x1.5	1/2"	2.0	B	1 to 6	24.0	26.20	19.50	27.50	40.00
20*	M20x1.5	1/2"	3/4"	PG13.5	15	M25x1.5	3/4"	3.7	C	1 to 2	24.0	26.20	19.50	27.50	40.00
	M20x1.5	1/2"	3/4"	PG16	15	M25x1.5	3/4"	2.5	A	1 to 7	27.0	29.50	19.80	27.80	40.00
20	M20x1.5	1/2"	3/4"	PG16	15	M25x1.5	3/4"	3.0	B	1 to 7	27.0	29.50	19.80	27.80	40.00
	M20x1.5	1/2"	3/4"	PG16	15	M25x1.5	3/4"	3.6	C	1 to 7	27.0	29.50	19.80	27.80	40.00
	M20x1.5	1/2"	3/4"	PG16	15	M25x1.5	3/4"	4.0	D	1 to 7	27.0	29.50	19.80	27.80	40.00
	M20x1.5	1/2"	3/4"	PG16	15	M25x1.5	3/4"	4.7	E	1 to 2	27.0	29.50	19.80	27.80	40.00
	M25x1.5	3/4"	1"	PG21	15	M32x1.5	1"	2.5	A	1 to 7	36.0	39.20	25.80	35.80	45.00
	M25x1.5	3/4"	1"	PG21	15	M32x1.5	1"	3.0	B	1 to 7	36.0	39.20	27.90	37.90	45.00
25	M25x1.5	3/4"	1"	PG21	15	M32x1.5	1"	3.6	C	1 to 7	36.0	39.20	25.80	35.80	45.00
	M25x1.5	3/4"	1"	PG21	15	M32x1.5	1"	4.0	D	1 to 7	36.0	39.20	27.90	37.90	45.00
32	M32x1.5	1"	1.1/4"	PG29	15	M40x1.5	1.1/4"	2.5	A	1 to 7	41.0	45.00	27.90	37.90	55.00
	M32x1.5	1"	1.1/4"	PG29	15	M40x1.5	1.1/4"	3.0	B	1 to 7	41.0	45.00	27.90	37.90	55.00
	M32x1.5	1"	1.1/4"	PG29	15	M40x1.5	1.1/4"	3.6	C	1 to 7	41.0	45.00	27.90	37.90	55.00
	M32x1.5	1"	1.1/4"	PG29	15	M40x1.5	1.1/4"	4.0	D	1 to 7	41.0	45.00	27.90	37.90	55.00

** For Number of Holes, put a suffix (Between 1 to 7) to the end of Ordering Suffix for Seal in Ordering Code for purchase respectively.
 * Seal will be supplied with Haircut between holes & seal OD as shown.

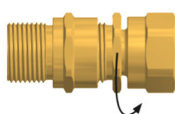
INSTALLATION INSTRUCTIONS FOR CABLE GLAND TYPES A2FMHRF

1. It is not necessary to separate components of the cable gland any further than illustrated below.

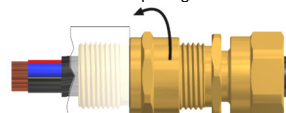


Cable Gland Size	Standard Connection Thread 'B'				Optional Thread 'B'	
	Metric	NPT/BSP	ET	PG	Metric	NPT/BSP
16	M16x1.5	3/8"	5/8"	PG9	M20x1.5	1/2"
20s	M20x1.5	1/2"	3/4"	PG13.5	M25x1.5	3/4"
20	M20x1.5	1/2"	3/4"	PG16	M25x1.5	3/4"
25	M25x1.5	3/4"	1"	PG21	M32x1.5	1"
32	M32x1.5	1"	1.1/4"	PG29	M40x1.5	1.1/4"

2. Check the seal in the entry component and it is in a relaxed state by loosening the outer seal nut.



3. Fit the complete cable glands to the enclosure. Use the thread seals to maintain the IP rating of equipment and cable glands. Hand-tighten then use wrench to tighten a further. DO NOT EXCEED MAX TORQUE FOR ENCLOSURE. The surface of the enclosure should be sufficiently flat and rigid to make both the IP joint and a suitable earth connection (if required). In the case of painted enclosures, serrated washer should be fitted to break through the paint and make satisfactory earth contact. Secure the complete gland into the enclosure by the outer seal nut.

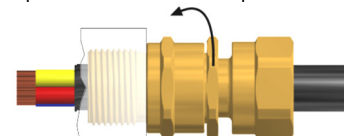


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4. Determine the conductor length required to suite the equipment and prepare the cable accordingly. Remove the Outer sheath of cable as per requirement to see the insulated conductors and pass through cable gland.



5. Tighten the seal nut by hand until resistance is felt and then tighten further one full turn with spanner as instructed torque.



6. Attach the conduit to the conduit coupler and fully tighten. Ensure that the seal nut does not come loose during this process by holding it with a spanner.



Warning:

Please study carefully these instructions before installation. These glands should not be used in any application other than those mentioned here, unless CABTEK states in writing that the product is suitable for such application. CABTEK will not take any responsibility for any damage, injury or other consequential loss caused where the glands are not installed or used according to installation instructions. This leaflet is not intended to advice on the selection of cable glands. Installation must be carried out by a competent electrician, skilled in cable gland installation. Installation should not be carried out under live conditions.

Customer Care:

For any more information regarding please send your query to us by mail or telephone number

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