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EU-TYPE EXAMINATION CERTIFICATE

[2] Product Intended for use in Potentially Explosive Atmospheres Directive 2014/34/EU

[3] EU-Type Examination Certificate Number: **Presafe 20 ATEX 48906X** **Issue 0**

[4] Product: **A Range of Compression Type Cable Glands**

[5] Manufacturer: **METALMECH ENGINEERING**

[6] Address: **Plot No. 4246, Road-E , GIDC, Phase-III, Dared, Jamnagar- 361 004, Gujarat, INDIA.**

[7] This product and any acceptable variation thereto is specified in the schedule to this certificate and the documents therein referred to.

[8] DNV Product Assurance AS, notified body number 2460, in accordance with Article 17 and Article 21 of Directive 2014/34/EU of the European Parliament and of the Council, dated 26 February 2014, certifies that this product has been found to comply with the Essential Health and Safety Requirements relating to the design and construction of products intended for use in potentially explosive atmospheres, given in Annex II to the Directive.

The examination and test results are recorded in confidential reports listed in item 16.

[9] Compliance with the Essential Health and Safety Requirements has been assured by compliance with: **EN IEC 60079-0:2018, EN 60079-1: 2014, EN 60079-7: 2015 and EN 60079-31: 2014**

Where additional criteria beyond those given here have been used, they are listed at item 18 in the Schedule.

[10] If the sign "X" is placed after the certificate number, it indicates that the product is subject to the Specific Conditions of Use specified in the schedule to this certificate.

[11] This EU-TYPE EXAMINATION CERTIFICATE relates only to the design and construction of the specified product in accordance to the Directive 2014/34/EU. Further requirements of the Directive apply to the manufacturing process and supply of this product. These are not covered by this certificate.

[12] The marking of the product shall include the following:



II 2 GD

Ex db IIC Gb

Ex eb IIC Gb

Ex tb IIIC Db



Date of issue:
2021-03-03



Asle Kaastad
For DNV Product Assurance AS
The Certificate has been digitally signed.
See www.dnv.com/digitalsignatures for info

[13]

Schedule

 [14] **EU-Type Examination Certificate No:**

Presafe 20 ATEX 48906X

Issue 0

 [15] **Description of Product**

A range of compression type cable glands are manufactured in brass or stainless steel SS304 / SS 316L grade material. The glands may be supplied with metric or NPT thread forms. These glands are intended for use with effectively filled circular cables.

Type MM-EX A2F ** ** ** series cable glands are intended for use with effectively filled and circular unarmoured/ screened / braided cables and comprises following components:

- a) An entry component
- b) A compressible sealing ring
- c) A skid washer
- d) A back nut
- e) O ring for metric threaded entry component

Type MM-EX E1FUNV *** ** ** series cable glands are intended for use with effectively filled and circular armoured cable and comprises following components:

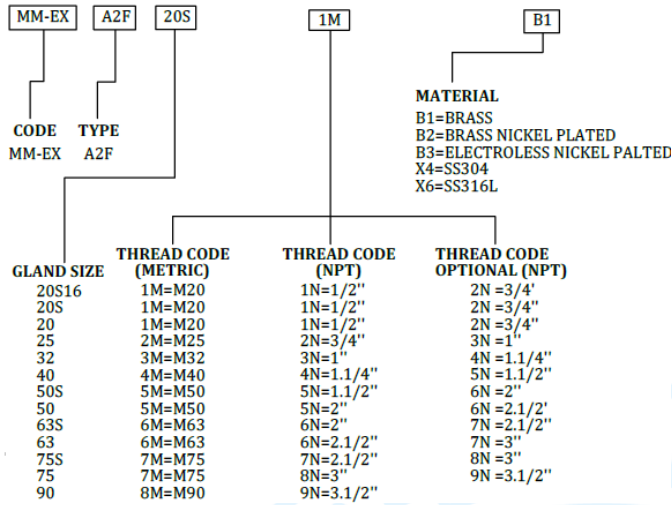
- a) An entry component
- b) A compressible inner sealing ring
- c) An inner skid washer
- d) A combined intermediate body and armour clamping cone
- e) A reversible armour clamping ring
- f) A middle nut
- g) A compressible outer sealing ring
- h) An outer skid washer
- i) A back nut
- j) O ring for metric threaded entry component

Cable glands with metric threaded entry components are fitted with silicon O ring retained next to threaded part for ingress protection IP66 / IP68.

Type designation

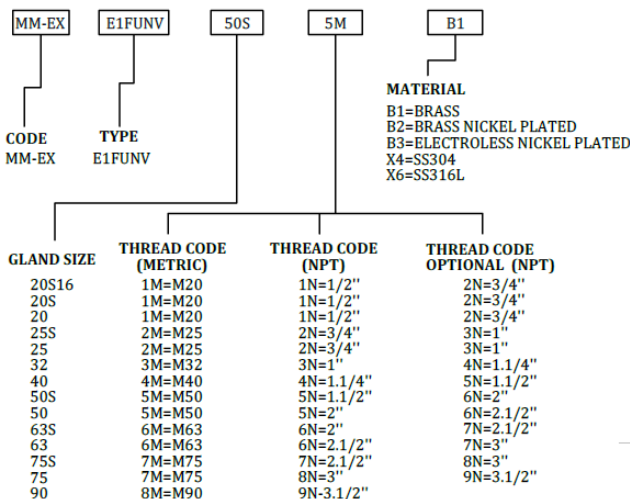
1. Coding and Model Nomenclature of MM-EX A2F ** ** ** series cable glands for unarmoured cable:

Gland Size	Entry Thread		Cable Diameter in mm		Tightening Torque Value in Nm
	Standard (Metric)	Optional (NPT)	Minimum	Maximum	
20S16	M20 X 1.5	1/2" or 3/4"	3.2	8.5	11
20S	M20 X 1.5	1/2" or 3/4"	6.2	11.6	8
20	M20 X 1.5	1/2" or 3/4"	8.0	13.9	11
25	M25 X 1.5	3/4" or 1"	11.2	19.6	15
32	M32 X 1.5	1" or 1 1/4"	17.1	26.0	24
40	M40 X 1.5	1 1/4" or 1 1/2"	23.6	31.6	35
50S	M50 X 1.5	1 1/2" or 2"	31.1	37.5	46
50	M50 X 1.5	1 1/2" or 2"	35.7	43.1	41
63S	M63 X 1.5	2" or 2 1/2"	41.6	48.7	57
63	M63 X 1.5	2" or 2 1/2"	47.3	55.2	46
75S	M75 X 1.5	2 1/2" or 3"	54.1	61.2	90
75	M75 X 1.5	3" or 3 1/2"	61.2	67.2	68
90	M90 X 2	3 1/2" or 4"	66.7	79.2	101



2. Model Nomenclature of MM-EX E1FUNV *** ** ** series cable glands for armoured cable:

Gland Size	Entry Thread		Inner Sheath Cable Diameter in mm		Outer Sheath Cable Diameter in mm		Tightening Torque Value in Nm
	Standard (Metric)	Optional (NPT)	Minimum	Maximum	Minimum	Maximum	
M20S16	M20 X 1.5	1/2" or 3/4"	3.2	8.5	6.2	13.1	15
M20S	M20 X 1.5	1/2" or 3/4"	6.2	11.6	9.6	15.5	10
M20	M20 X 1.5	1/2" or 3/4"	8.0	13.9	12.5	20.9	15
M25S	M25 X 1.5	3/4" or 1"	11.2	19.6	14	21.5	22
M25	M25 X 1.5	3/4" or 1"	11.2	19.6	18.3	25.6	22
M32	M32 X 1.5	1" or 1 1/4"	17.1	26.0	23.7	33.4	30
M40	M40 X 1.5	1 1/4" or 1 1/2"	22.1	31.6	28.0	39.5	52
M50S	M50 X 1.5	1 1/2" or 2"	29.5	37.5	35.2	46.0	66
M50	M50 X 1.5	1 1/2" or 2"	35.6	43.1	40.5	52.4	41
M63S	M63 X 1.5	2" or 2 1/2"	40.1	48.7	45.6	58.5	74
M63	M63 X 1.5	2" or 2 1/2"	47.2	55.2	54.6	64.5	63
M75S	M75 X 1.5	2 1/2" or 3"	52.8	61.2	59.0	70.4	112
M75	M75 X 1.5	3" or 3 1/2"	59.1	67.2	66.7	76.3	96
M90	M90 X 2	3 1/2" or 4"	66.6	79.2	76.2	87.2	137



Electrical Data

Not Applicable

Degrees of protection (IP Code)

IP66/ IP68 (1.5 meter, 2 Hours)

Ambient temperature:

-55°C to +160°C

Routine tests

N/ A

[16] **Report No.:** 2020-9627

Project No.: PRJN-182328-2020-PA-IND

[17] **Specific Conditions of Use**

1. Cable glands are suitable for use within an operating temperature range of -55°C to +160°C.
2. Cables must be effectively clamped to prevent pulling and twisting for Type MM-EX A2F ** ** series of cable glands to ensure that pulling is not transmitted to the terminations.
3. The cable glands shall only be used with substantially round cables.
4. Cable gland must be installed in accordance with requirements of IEC 60079-14.

[18] **Essential Health and Safety Requirements**

Met by compliance with the requirements mentioned in item 9.

[19] **Drawings and documents**

Number	Title	Rev.	Date
MM-EX-A2F	Technical Drawing of Cable Glands A2F Model (2 Sheets)	0	06.08.2019
MM-EX-E1FUNV	Technical Drawing of Cable Glands E1FUNV Model (4 Sheets)	0	06.08.2019

[20] **Certificate History**

Issue	Description	Issue date	Report no.
0	Original issue	2021-03-03	2020-9627

END OF CERTIFICATE