



[1] EU-TYPE EXAMINATION CERTIFICATE

[2] Equipment or Protective System intended for use in potentially explosive atmospheres - Directive 2014/34/EU – Annex III – MODULE B: EU-TYPE EXAMINATION

[3] EU-type Examination Certificate number: **IMQ 13 ATEX 018 X**

[4] PRODUCT: **Metal cable glands**
TYPE/SERIES: **EBU...; EBM.....; EBMC...; EBS...; EBLs...; EBLQ...; EBLN...; EBMS.....; NBU...
EBU...(axb); EBM.....(axb); EBMC.. (axb); EBS.. (axb); EBLs.. (axb);
EBLQ.. (axb); EBLN.. (axb); EBMS.....(axb)**

[5] MANUFACTURER: **Bimed Teknik Aletler San ve Tic. A.S.**

[6] ADDRESS: **S.S Bakır ve Piriç Sanayi Sitesi Leylak Caddesi No:16 TR-34524 Beylikdüzü
İstanbul - Turkey**

[7] This equipment and any acceptable variation thereto are specified in the annex to this certificate and the documents therein referred to.

[8] IMQ, notified body N° 0051, in accordance with Article 17 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 equipment and protective systems intended for use in potentially explosive atmospheres given in Annex II to the Directive.

The examination and test results are recorded in Report No.: **AT21-0072183-01_D**

[9] Compliance with Essential Health and Safety Requirements, except in respect of those listed at item 18 of the annex, has been assured by compliance with:

EN IEC 60079-0:2018; EN 60079-1:2014; EN IEC 60079-7:2015+A1:2018; EN 60079-31:2014

[10] If the sign "X" is placed after the certificate number, it indicates that the equipment or protective system is subject to special conditions for safe 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. 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 equipment or protective system shall include the following:



II 2 GD

**Ex db IIC Gb
Ex eb IIC Gb
Ex tb IIIC Db**

THIS CERTIFICATE CANCELS AND REPLACES THE PREVIOUS ONE. IT INCLUDES 1 ANNEX.

FIRST ISSUE 2013/12/09
CURRENT ISSUE 2021/12/15
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EXPIRING DATE 2031/12/14

B.U. PRODUCT CONFORMITY ASSESSMENT
CERTIFICATION SECTOR - MANAGER

This Certificate may only be reproduced in its entirety and without any change. It is subject to the general rules for assessing conformity to community directives for which IMQ operates as notified body n°. 0051 and to the special requirements for Directive 2014/34/EU (ATEX) "Equipment and protective systems for potentially explosive atmospheres" annex III - MODULE B – EU Type-examination.



PRD N° 005 B

Membro degli Accordi di Mutuo Riconoscimento EA, IAF e ILAC Signatory of EA, IAF and ILAC Mutual Recognition Agreements

[13] **Annex**

[14] EU-type Examination Certificate number: **IMQ 13 ATEX 018 X**

[15] **Description of product:**

The cable glands series EBU...; EBM.....; EBMC...; EBS...; EBL...; EBLQ...; EBLN...; EBMS..... are suitable for inserting circular cables into Ex db enclosures having threaded entries and Ex eb or Ex tb enclosures having either threaded or plane entries.

Suitability of each model for Ex db, Ex eb and Ex tb execution is shown in following tables.

The cable glands series NBU... are suitable for inserting circular cables into Ex eb or Ex tb enclosures having either threaded or plane entries.

The cable glands series EBU...(axb); EBM.....(axb); EBMC...(axb); EBS...(axb); EBL...(axb); EBLQ...(axb); EBLN...(axb); EBMS.....(axb) are suitable for inserting flat cables into Ex eb or Ex tb enclosures having either threaded or plane entries.

Cable glands are suitable for not-armoured cables, and are made of metal body (aluminium; stainless steel; brass; galvanized steel; nickel plated brass). Sealing rings are made of silicon or neoprene (chloroprene) for all types of cable glands for circular cables, except for NBU... type in which sealing rings are made of silicone or EPDM rubber. Cable glands for flat cables have sealing rings made of silicone only.

O-ring made of: neoprene, silicone, EPDM rubber, Viton.

Flat washer made of: chloroprene (neoprene), silicone, EPDM rubber, fiber KLINGERSIL® C-4400 (-50÷130 °C), PA washer (-60÷65 °C).

To guarantee the IP 66/68 degree of protection the cable glands with cylindrical threads have a sealing edge machined for fitting an elastomeric gasket, while for all other threads the IP66/68 degree of protection is achieved with sealant put at least on two complete threads engaged of the threaded coupling.

Cable glands are suitable for cable type where sealing and retention is required by gripping the outer sheath (including armoured/screened/braided cables when the armour/screen/braid is clamped inside the terminating equipment).

Cable glands should be also used for intrinsically safe circuits Ex i. These cable glands shall have a light blue painted part.

Cable glands for circular cables can be supplied with tap, commercial called "dome plug", polyamide made, as accessory (BDPX.-.-, available in black, green, blue color), suitable to guarantee IP degree when installed according to manufacturer's instructions.

[13] **Annex**

[14] EU-type Examination Certificate number: **IMQ 13 ATEX 018 X**

Table 2: Materials¹

Series	Body materials	Sealing rings material	Flat washer materials	O-ring	Accessories
EBU...	stainless steel; brass ; aluminium; nickel plated brass; galvanized steel	chloroprene (neoprene) silicone	chloroprene (neoprene), silicone, EPDM rubber, fiber KLINGERSIL® C-4400, PA washer	neoprene silicone EPDM, Viton	serrated washer dome plug
EBM.....	stainless steel; brass ; aluminium; nickel plated brass; galvanized steel	chloroprene (neoprene) silicone	chloroprene (neoprene), silicone, EPDM rubber, fiber KLINGERSIL® C-4400, PA washer	neoprene silicone EPDM, Viton	serrated washer dome plug
EBMC...	stainless steel; brass ; aluminium; nickel plated brass; galvanized steel	chloroprene (neoprene) silicone	chloroprene (neoprene), silicone, EPDM rubber, fiber KLINGERSIL® C-4400, PA washer	neoprene silicone EPDM, Viton	serrated washer dome plug
EBS...	stainless steel; brass ; aluminium; nickel plated brass; galvanized steel	chloroprene (neoprene) silicone	chloroprene (neoprene), silicone, EPDM rubber, fiber KLINGERSIL® C-4400, PA washer	neoprene silicone EPDM, Viton	serrated washer dome plug
EBLS...	stainless steel; brass ; aluminium; nickel plated brass; galvanized steel	chloroprene (neoprene) silicone	chloroprene (neoprene), silicone, EPDM rubber, fiber KLINGERSIL® C-4400, PA washer	neoprene silicone EPDM, Viton	serrated washer dome plug
EBLQ...	stainless steel; brass ; aluminium; nickel plated brass; galvanized steel	chloroprene (neoprene) silicone	chloroprene (neoprene), silicone, EPDM rubber, fiber KLINGERSIL® C-4400, PA washer	neoprene silicone EPDM, Viton	serrated washer dome plug
EBLN...	stainless steel; brass ; aluminium; nickel plated brass; galvanized steel	chloroprene (neoprene) silicone	chloroprene (neoprene), silicone, EPDM rubber, fiber KLINGERSIL® C-4400, PA washer	neoprene silicone EPDM, Viton	serrated washer dome plug
EBMS.....	stainless steel; brass ; aluminium; nickel plated brass; galvanized steel	chloroprene (neoprene) silicone	chloroprene (neoprene), silicone, EPDM rubber, fiber KLINGERSIL® C-4400, PA washer	neoprene silicone EPDM, Viton	serrated washer dome plug
NBU...	stainless steel; brass ; aluminium; nickel plated brass; galvanized steel	EPDM rubber silicone	chloroprene (neoprene), silicone, EPDM rubber, fiber KLINGERSIL® C-4400, PA washer	neoprene silicone EPDM, Viton	serrated washer dome plug
EBU...(axb)	stainless steel; brass ; aluminium; nickel plated brass; galvanized steel	silicone	chloroprene (neoprene), silicone, EPDM rubber, fiber KLINGERSIL® C-4400, PA washer	neoprene silicone EPDM, Viton	serrated washer
EBM.....(axb)	stainless steel; brass ; aluminium; nickel plated brass; galvanized steel	silicone	chloroprene (neoprene), silicone, EPDM rubber, fiber KLINGERSIL® C-4400, PA washer	neoprene silicone EPDM, Viton	serrated washer
EBMC...(axb)	stainless steel; brass ; aluminium; nickel plated brass; galvanized steel	silicone	chloroprene (neoprene), silicone, EPDM rubber, fiber KLINGERSIL® C-4400, PA washer	neoprene silicone EPDM, Viton	serrated washer
EBS...(axb)	stainless steel; brass ; aluminium; nickel plated brass; galvanized steel	silicone	chloroprene (neoprene), silicone, EPDM rubber, fiber KLINGERSIL® C-4400, PA washer	neoprene silicone EPDM, Viton	serrated washer
EBLS...(axb)	stainless steel; brass ; aluminium; nickel plated brass; galvanized steel	silicone	chloroprene (neoprene), silicone, EPDM rubber, fiber KLINGERSIL® C-4400, PA washer	neoprene silicone EPDM, Viton	serrated washer
EBLQ...(axb)	stainless steel; brass ; aluminium; nickel plated brass; galvanized steel	silicone	chloroprene (neoprene), silicone, EPDM rubber, fiber KLINGERSIL® C-4400, PA washer	neoprene silicone EPDM, Viton	serrated washer
EBLN...(axb)	stainless steel; brass ; aluminium; nickel plated brass; galvanized steel	silicone	chloroprene (neoprene), silicone, EPDM rubber, fiber KLINGERSIL® C-4400, PA washer	neoprene silicone EPDM, Viton	serrated washer
EBMS.....(axb)	stainless steel; brass ; aluminium; nickel plated brass; galvanized steel	silicone	chloroprene (neoprene), silicone, EPDM rubber, fiber KLINGERSIL® C-4400, PA washer	neoprene silicone EPDM, Viton	serrated washer

¹ Service temperature is related to material of sealing rings which cable glands body is made of, but can be additionally limited by material of flat washer/OR/accessories material temperature limitations: chloroprene (-40+100 °C); silicone (-60+180 °C); EPDM rubber (-40+110 °C); KLINGERSIL® C-4400 fiber (-50+130 °C); NBR (-40+100 °C), PA (-60+65 °C); Viton (-17+210 °C). The use of these materials has to be taken into account in determination of lower and upper limit of service temperature of cable glands.

[13] Annex

[14] EU-type Examination Certificate number: **IMQ 13 ATEX 018 X**

[15.1] **Models/Series Identification:**

Type	Code	TD ISO 965-3	D Clamping Range Ø min-max	S1+S2+S3	S1+S2	S1	Torque S1+S2+S3 [Nm]	Torque S1+S2 [Nm]	Torque S1 [Nm]
EBU	0XSM	M8x1.25	2,0-4,0	-	-	2-4	-	-	4
EBU	0SM	M12x1.5	4,0-8,0	4-6	6-8	-	20	18	-
EBU	0M	M12x1.5	3,0-8,0	-	3-6	6-8	-	25	18
EBU	01SM	M16x1.5	3,0-9,0	-	3-6	6-9	-	25	18
EBU	01M	M16x1.5	4,0-12,0	4-6	6-9	9-12	20	18	16
EBU	1SM	M20x1.5	3,0-9,0	-	3-6	6-9	-	25	18
EBU	1M	M20x1.5	4,0-12,0	4-6	6-9	9-12	20	18	16
EBU	12M	M20x1.5	10,0-16,0	10-12	12-14,5	14,5-16	25	22	18
EBU	2SM	M25x1.5	4,0-12,0	4-6	6-9	9-12	20	18	16
EBU	2M	M25x1.5	10,0-18,0	10-12	12-14,5	14,5-18	25	22	18
EBU	23M	M25x1.5	14,0-20,0	14-17	17-20	-	28	23	-
EBU	3SM	M32x1.5	10,0-18,0	10-12	12-14,5	14,5-18	25	22	18
EBU	3M	M32x1.5	14,0-24,0	14-17	17-20	20-24	28	23	20
EBU	34M	M32x1.5	22,0-28,0	22-24	24-27	27-28	56	50	35
EBU	4SM	M40x1.5	14,0-24,0	14-17	17-20	20-24	28	23	20
EBU	4M	M40x1.5	22,0-32,0	22-24	24-27	27-32	56	50	45
EBU	45M	M40x1.5	26,0-34,0	26-28	28-31	31-34	57	55	52
EBU	5SM	M50x1.5	22,0-32,0	22-24	24-27	27-32	56	50	45
EBU	5M	M50x1.5	26,0-35,0	26-28	28-31	31-35	57	55	52
EBU	56M	M50x1.5	35,0-44,0	35-38	38-41	41-44	190	155	140
EBU	6SM	M63x1.5	26,0-35,0	26-28	28-31	31-35	57	55	52
EBU	6S2M	M63x2.0	26,0-35,0	26-28	28-31	31-35	57	55	52
EBU	6M	M63x1.5	35,0-45,0	35-38	38-41	41-45	190	155	140
EBU	62M	M63x2.0	35,0-45,0	35-38	38-41	41-45	190	155	140
EBU	67SM	M63x1.5	42,0-56,0	42-48	48-52	52-56	130	145	135
EBU	67S2M	M63x2.0	42,0-56,0	42-48	48-52	52-56	130	145	135
EBU	67M	M63x1.5	46,0-56,0	46-48	48-52	52-56	160	145	135
EBU	672M	M63x2.0	46,0-56,0	46-48	48-52	52-56	160	145	135
EBU	7SM	M75x1.5	35,0-45,0	35-38	38-41	41-45	190	155	140
EBU	7S2M	M75x2.0	35,0-45,0	35-38	38-41	41-45	190	155	140
EBU	7M	M75x1.5	46,0-62,0	46-51	51-56	56-62	185	175	150
EBU	72M	M75x2.0	46,0-62,0	46-51	51-56	56-62	185	175	150
EBU	78M	M75x1.5	60,0-69,0	60-65	65-69	-	123	118	-
EBU	782M	M75x2.0	60,0-69,0	60-65	65-69	-	123	118	-
EBU	80M	M80x1.5	60,0-71,0	60-65	65-70	70-71	123	118	110
EBU	82M	M80x2.0	60,0-71,0	60-65	65-70	70-71	123	118	110
EBU	8SM	M90x1.5	46,0-62,0	46-51	51-56	56-62	185	175	150
EBU	8S2M	M90x2.0	46,0-62,0	46-51	51-56	56-62	185	175	150
EBU	8M	M90x1.5	60,0-75,0	60-65	65-70	70-75	123	118	110
EBU	82LM	M90x2.0	60,0-75,0	60-65	65-70	70-75	123	118	110
EBU	810M	M90x1.5	75,0-82,0	75-78	78-81	81-82	135	130	125
EBU	8102M	M90x2.0	75,0-82,0	75-78	78-81	81-82	135	130	125
EBU	10SM	M100x1.5	60,0-75,0	60-65	65-70	70-75	123	118	110
EBU	10S2M	M100x2.0	60,0-75,0	60-65	65-70	70-75	123	118	110
EBU	10M	M100x1.5	75,0-85,0	75-78	78-81	81-85	135	130	125
EBU	102M	M100x2.0	75,0-85,0	75-78	78-81	81-85	135	130	125
EBU	11M	M110x1.5	85,0-95,0	85-88	88-91	91-95	180	175	170
EBU	112M	M110x2.0	85,0-95,0	85-88	88-91	91-95	180	175	170
EBU	115XSM	M115x2.0	75,0-85,0	75-78	78-81	81-85	135	130	125
EBU	115SM	M115x2.0	85,0-95,0	85-88	88-91	91-95	180	175	170
EBU	115M	M115x2.0	95,0-105,0	95-98	98-101	101-105	450	450	450
EBU	13M	M130x2.0	105,0-115,0	105-108	108-111	111-115	526	500	535

Note: EBU0XSM and EBU0SM are only for Ex eb, Ex tb applications.

[13] **Annex**

[14] EU-type Examination Certificate number: **IMQ 13 ATEX 018 X**

Type	TD ISO pitch 1,5	D Clamping Range Ø min.-max.	S1+S2+S3	S1+S2	S1	Torque S1+S2+S3 [Nm]	Torque S1+S2 [Nm]	Torque S1 [Nm]
EBMC	0SM (M12)	4-8	4-6	6-8	-	20	18	-
EBMC	01SM(M16)	3-9	-	3-6	6-9	-	25	18
EBMC	01M (M16)	4-12	4-6	6-9	9-12	20	18	16
EBMC	1SM(M20)	3-9	-	3-6	6-9	-	25	18
EBMC	1M (M20)	4-12	4-6	6-9	9-12	20	18	16
EBMC	12M (M20)	10-16	10-12	12-14,5	14,5-16	25	22	18
EBMC	2M (M25)	10-18	10-12	12-14,5	14,5-18	25	22	18
EBMC	23M (M25)	14-20	14-17	17-20	-	28	23	-
EBMC	3M (M32)	14-24	14-17	17-20	20-24	28	23	20
EBMC	34M (M32)	22-28	22-24	24-27	27-28	56	50	35
EBMC	4M (M40)	22-32	22-24	24-27	27-32	56	50	45
EBMC	45M (M40)	26-34	26-28	28-31	31-34	57	55	52
EBMC	5M (M50)	26-35	26-28	28-31	31-35	57	55	52
EBMC	56M (M50)	35-44	35-38	38-41	41-44	190	155	140
EBMC	6M (M63)	35-45	35-38	38-41	41-45	190	155	140
EBMC	7M (M75)	46-59	46-51	51-56	56-59	185	175	150

Note: EBMC0SM is only for Ex eb, Ex tb applications.

[13] **Annex**

[14] EU-type Examination Certificate number: **IMQ 13 ATEX 018 X**

Type	Code	TD ISO 965-3	D Clamping Range \varnothing min- max	Torque S1+S2+S3 [Nm]	Torque S1+S2 [Nm]	Torque S1 [Nm]	Suitable for Ex d	Suitable for Ex eb Ec tb
EBS	01SM	M16x1.5	4,0-8,0	-	25	18	yes	yes
EBS	01M	M16x1.5	4,0-8,0	-	25	18	yes	yes
EBS	1M	M20x1.5	4,0-12,0	20	18	16	yes	yes
EBS	2M	M25x1.5	10,0-18,0	25	22	18	yes	yes
EBS	3M	M32x1.5	14,0-24,0	28	23	20	yes	yes
EBS	4M	M40x1.5	22,0-32,0	56	50	45	yes	yes
EBS	5M	M50x1.5	26,0-35,0	57	55	52	yes	yes
EBS	6M	M63x1.5	35,0-45,0	190	155	140	yes	yes
EBS	62M	M63x2.0	35,0-45,0	190	155	140	yes	yes
EBS	7M	M75x1.5	46,0-62,0	185	175	150	yes	yes
EBS	72M	M75x2.0	46,0-62,0	185	175	150	yes	yes
EBS	8M	M90x1.5	60,0-75,0	123	118	110	yes	yes
EBS	82M	M90x2.0	60,0-75,0	123	118	110	yes	yes
EBS	10M	M100x1.5	75,0-85,0	135	130	125	yes	yes
EBS	102M	M100x2.0	75,0-85,0	135	130	125	yes	yes
EBS	11M	M110x1.5	85,0-95,0	180	175	170	yes	yes
EBS	112M	M110x2.0	85,0-95,0	180	175	170	yes	yes

[13] **Annex**

[14] EU-type Examination Certificate number: **IMQ 13 ATEX 018 X**

Type	D		S1+S2+S3	S1+S2	S1	Torque (Nm)		
	Clamping Range Ø					(S1+S2+S3)	(S1+S2)	(S1)
	min.	max.						
EBM 0SM 0SM	4	8	4-6	6-8	-	20	18	-
EBM 0SM 01M	4	8	4-6	6-8	-	20	18	-
EBM 01M 0SM	4	10	4-6	6-9	9-10	20	18	16
EBM 01M 01M	4	12	4-6	6-9	9-12	20	18	16
EBM 01M 12M	4	12	4-6	6-9	9-12	20	18	16
EBM 12M 01M	4	12	4-6	6-9	9-12	20	18	16
EBM 1M 1M	4	12	4-6	6-9	9-12	20	18	16
EBM 12M 12M	10	16	10-12	12-14,5	14,5-16	25	22	18
EBM 12M 23M	10	16	10-12	12-14,5	14,5-16	25	22	18
EBM 23M 12M	10	16	10-12	12-14,5	14,5-16	25	22	18
EBM 2M 2M	10	18	10-12	12-14,5	14,5-18	25	22	18
EBM 23M 23M	14	20	14-17	17-20	-	28	23	-
EBM 23M 34M	14	20	14-17	17-20	-	28	23	-
EBM 34M 23M	14	20	14-17	17-20	-	28	23	-
EBM 3M 3M	14	24	14-17	17-20	20-24	28	23	20
EBM 34M 34M	22	28	22-24	24-27	27-28	56	50	35
EBM 34M 45M	22	28	22-24	24-27	27-28	56	50	35
EBM 45M 34M	22	28	22-24	24-27	27-28	56	50	35
EBM 4M 4M	22	32	22-24	24-27	27-32	56	50	45
EBM 45M 45M	26	34	26-28	28-31	31-34	57	55	52
EBM 45M 56M	26	34	26-28	28-31	31-34	57	55	52
EBM 5M 45M	26	34	26-28	28-31	31-34	57	55	52
EBM 5M 5M	26	35	26-28	28-31	31-35	57	55	52
EBM 56M 56M	35	44	35-38	38-41	41-44	190	155	140
EBM 56M 67M	35	44	35-38	38-41	41-44	190	155	140
EBM 67M 56M	35	44	35-38	38-41	41-44	190	155	140
EBM 6M 6M	35	45	35-38	38-41	41-45	190	155	140
EBM 67M 67M	46	56	46-48	48-52	52-56	160	145	135
EBM 67M 78M	46	56	46-48	48-52	52-56	160	145	135
EBM 78M 67M	46	56	46-48	48-52	52-56	160	145	135
EBM 7M 7M	46	62	46-51	51-56	56-62	185	175	150
EBM 78M 78M	60	69	60-65	65-69	-	123	118	-
EBM 78M 810M	60	69	60-65	65-69	-	123	118	-
EBM 810M 78M	60	69	60-65	65-69	-	123	118	-
EBM 8M 8M	60	75	60-65	65-70	70-75	123	118	110
EBM 810M 810M	75	82	75-78	78-81	81-82	135	130	125
EBM 810M 10M	75	82	75-78	78-81	81-82	135	130	125
EBM 10M 810M	75	82	75-78	78-81	81-82	135	130	125
EBM 10M 10M	75	85	75-78	78-81	81-85	135	130	125
EBM 11M 10M	75	85	75-78	78-81	81-85	135	130	125
EBM 11M 11M	85	95	85-89	89-92	92-95	180	175	170

Note: EBM0SM and EBM01M are only for Ex eb, Ex tb applications.

[13] **Annex**

[14] EU-type Examination Certificate number: **IMQ 13 ATEX 018 X**

Type	TD ISO Pitch 1,5	D Clamping Range Ø min.-max.	S1+S2+S3	S1+S2	S1	Torque S1+S2+S3 [Nm]	Torque S1+S2 [Nm]	Torque S1 [Nm]
EBLN	02M (M12)	4,0-8,0	4-6	6-8	-	20	18	-
EBLN	01M (M16)	4,0-12,0	4-6	6-9	9-12	20	18	16
EBLN	1SM(3/8") (M20)	4,0-10,0	4-6	6-9	9-10	20	18	16
EBLN	1M (M20)	4,0-12,0	4-6	6-9	9-12	20	18	16
EBLN	2M (M25)	10,0-18,0	10-12	12-14,5	14,5-18	25	22	18
EBLN	3M (M32)	14,0-24,0	14-17	17-20	20-24	28	23	20
EBLN	4M (M40)	22,0-32,0	22-24	24-27	27-32	56	50	45
EBLN	5M (M50)	26,0-35,0	26-28	28-31	31-35	57	55	52

Note: EBLN02M is only for Ex eb, Ex tb applications.

[13] **Annex**

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Type	D Clamping Range Ø		S1+S2+S3	S1+S2	S1	Torque (Nm)		
	min.	max.				(S1+S2+S3)	(S1+S2)	(S1)
EBMS 01M 01M	4	12	4-6	6-9	9-12	20	18	16
EBMS 01M 12M	4	12	4-6	6-9	9-12	20	18	16
EBMS 12M 01M	4	12	4-6	6-9	9-12	20	18	16
EBMS 1M 1M	4	12	4-6	6-9	9-12	20	18	16
EBMS 12M 12M	10	16	10-12	12-14,5	14,5-16	25	22	18
EBMS 12M 23M	10	16	10-12	12-14,5	14,5-16	25	22	18
EBMS 23M 12M	10	16	10-12	12-14,5	14,5-16	25	22	18
EBMS 2M 2M	10	18	10-12	12-14,5	14,5-18	25	22	18
EBMS 23M 23M	14	20	14-17	17-20	-	28	23	-
EBMS 23M 34M	14	20	14-17	17-20	-	28	23	-
EBMS 34M 23M	14	20	14-17	17-20	-	28	23	-
EBMS 3M 3M	14	24	14-17	17-20	20-24	28	23	20
EBMS 34M 34M	22	28	22-24	24-27	27-28	56	50	35
EBMS 34M 45M	22	28	22-24	24-27	27-28	56	50	35
EBMS 45M 34M	22	28	22-24	24-27	27-28	56	50	35
EBMS 4M 4M	22	32	22-24	24-27	27-32	56	50	45
EBMS 45M 45M	26	34	26-28	28-31	31-34	57	55	52
EBMS 45M 56M	26	34	26-28	28-31	31-34	57	55	52
EBMS 56M 45M	26	34	26-28	28-31	31-34	57	55	52
EBMS 5M 5M	26	35	26-28	28-31	31-35	57	55	52
EBMS 56M 56M	35	44	35-38	38-41	41-44	190	155	140
EBMS 56M 67M	35	44	35-38	38-41	41-44	190	155	140
EBMS 67M 56M	35	44	35-38	38-41	41-44	190	155	140
EBMS 6M 6M	35	45	35-38	38-41	41-45	190	155	140
EBMS 67M 67M	46	56	46-48	48-52	52-56	160	145	135
EBMS 67M 78M	46	56	46-48	48-52	52-56	160	145	135
EBMS 78M 67M	46	56	46-48	48-52	52-56	160	145	135
EBMS 7M 7M	46	62	46-51	51-56	56-62	185	175	150
EBMS 78M 78M	60	69	60-65	65-69	-	123	118	-
EBMS 78M 810M	60	69	60-65	65-69	-	123	118	-
EBMS 810M 78M	60	69	60-65	65-69	-	123	118	-
EBMS 8M 8M	60	75	60-65	65-70	70-75	123	118	110
EBMS 810M 810M	75	82	75-78	78-81	81-82	135	130	125
EBMS 810M 10M	75	82	75-78	78-81	81-82	135	130	125
EBMS 10M 810M	75	85	75-78	78-81	81-85	135	130	125
EBMS 10M 10M	75	85	75-78	78-81	81-85	135	130	125
EBMS 10M 11M	75	85	75-78	78-81	81-85	135	130	125
EBMS 11M 10M	75	85	75-78	78-81	81-85	135	130	125
EBMS 11M 11M	85	95	85-89	89-92	92-95	180	175	170

[13] **Annex**

[14] EU-type Examination Certificate number: **IMQ 13 ATEX 018 X**

NBU ...					
Model	Min-max cable Ø mm	Torque value [Nm]		Suitable for	
		S1+S2 double sealing ring	S1 single sealing ring	Ex db	Ex eb Ex tb
NBU OXS..	4-7	-	4	no	yes
NBU O1S..	5-8	-	8	no	yes
NBU 1..	8-14	10	10	no	yes
NBU 2..	10-16	12	12	no	yes
NBU 3..	16-21	13	13	no	yes
NBU 4..	18-27	25	25	no	yes
NBU 5..	26-35	33	33	no	yes
NBU 6..	32-49	45	35	no	yes

Flat sealing ring details							
Sealing ring type	Sealing ring dimensions [mm x mm]	Cable min [mm x mm]	Cable max [mm x mm]	Sealing ring type	Sealing ring dimensions [mm x mm]	Cable min [mm x mm]	Cable max [mm x mm]
FxA1	5 x 12,2	5 x 10	5,75 x 12,2	FxA2	5 x 12,8	5 x 10,4	5,5 x 14
FxB1	6 x 8,5	5,75 x 8,5	6 x 10	FxB2	6 x 8,5	5,75 x 8,5	6 x 10
FxC1	5,5 x 11,7	5,3 x 11,3	5,5 x 11,7	FxC2	5,5 x 11,7	5,3 x 11,3	5,5 x 11,7
FxD1	6 x 12,2	5,3 x 11,3	6,5 x 14,5	FxD2	6 x 14	5,5 x 12	6,5 x 14,5
FxE1	6,3 x 10,8	5,3 x 11,3	6,3 x 10,8	FxE2	9,1 x 12,3	7 x 10	9,1 x 12,3
FxG1	6,7 x 12,7			FxF2	7,35 x 13,4	5,6 x 10	9 x 14
-	-	-	-	FxG2	6,8 x 15,3	6,5 x 14,8	6,8 x 15,3
-	-	-	-	FxH2	5,5 x 10,7	5,2 x 10	7 x 12

EBU(axb)				
Model	Sealing ring type (refer to table 6)	Torque value [Nm]	Suitable for	
			Ex db	Ex eb Ex tb
EBU 1S..	FxA1; FxB1; FxC1; FxD1; FxE1; FxG1	16	no	yes
EBU 1..		16	no	yes
EBU 12..		16	no	yes
EBU 2..	FxA2; FxB2; FxC2; FxD2; FxE2; FxF2; FxG2;	18	no	yes
EBU 23..	FxH2	18	no	yes

EBM(axb); EBMS(axb)					
Model	Sealing ring type (refer to table 6)	Torque value [Nm]	Suitable for		
			Ex db	Ex eb Ex tb	
EBM 12.01..	FxA1; FxB1; FxC1; FxD1; FxE1; FxG1	16	no	yes	
EBM 1.1..		16	no	yes	
EBM 12.12..		16	no	yes	
EBM 12.23..		16	no	yes	
EBM 23.12..	FxA2; FxB2; FxC2; FxD2; FxE2; FxF2; FxG2; FxH2	18	no	yes	
EBM 2.2..		18	no	yes	
EBM 23.23..		18	no	yes	
EBM 23.34..		18	no	yes	

[13] **Annex**

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EBMC(axb)				
Model	Sealing ring type (refer to table 6)	Torque value [Nm]	Suitable for	
			Ex db	Ex eb Ex tb
EBMC 1S..	FxA1; FxB1; FxC1; FxD1; FxE1; FxG1	16	no	yes
EBMC 1..		16	no	yes
EBMC 12..		16	no	yes
EBMC 2..	FxA2; FxB2; FxC2; FxD2; FxE2; FxF2; FxG2;	18	no	yes
EBMC 23..	FxH2	18	no	yes

EBS(axb)				
Model	Sealing ring type (refer to table 6)	Torque value [Nm]	Suitable for	
			Ex db	Ex eb Ex tb
EBS 1..	FxA1; FxB1; FxC1; FxD1; FxE1; FxG1	16	no	yes
EBS 2..	FxA2; FxB2; FxC2; FxD2; FxE2; FxF2; FxG2; FxH2	18	no	yes

Table 4.5: EBLN(axb); EBLS(axb); EBLQ(axb)						
Model			Sealing ring type (refer to table 6)	Torque value [Nm]	Suitable for	
EBLN 1S..	EBLS 1S..	EBLQ 1S..			Ex db	Ex eb Ex tb
EBLN 1..	EBLS 1..	EBLQ 1..	FxA1; FxB1; FxC1; FxD1; FxE1; FxG1	16	no	yes
EBLN 2..	EBLS 2..	EBLQ 2..	FxA2; FxB2; FxC2; FxD2; FxE2; FxF2; FxG2; FxH2	18	no	yes

Table 5: BDP--21			
From size to size	Material	Mechanical risk
M12/PG7/PF 1/4" / NPT1/4"	M32/PG21/PF 1" / NPT 1"	polyamide	High (7J)
M32/PG21/PF 1" / NPT 1"	M63/PG48/PF 2" / NPT 2"		High (7J) at T≥-40°C Low (4J) at T<-40°C

[13] **Annex**

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Key code (if present):

EBU	1	2	3	4	5	6	7	1	Table 1 . Model codes corresponding to thread type and sizes (according to thread sizes allowed for each cable glands model reported in tables from page 18)
EBMC	1	3	4	5	6	7		2	Optional
EBS	1	2	3	4	5	6	7		Blank : standard features 2 or 3 or 4 or 5 or 6 or 7 or 8 or 10 : larger clamping range XS or S : reduced clamping range (XS used only for M115)
EBLS	1	3	4	5	6	7		3	Pitch (for Metric thread only)
EBLQ	1	3	4	5	6	7			Blank : 1,25 pitch (for only M8) Blank : 1,5 pitch (from M12 to M100, excluded M115 and M130) Blank : 2,0 pitch (only for M115 and M130) 2 : 2,0 pitch (for M63,M75, M80, M90, M100 only)
EBLN	1	3	4	5	6	7		4	Thread type
									"N" : NPT ANSI ASME B1.20.1 "M" : Metric ISO pitch 1,5 (ISO 965/1 and ISO 965/3) "P" : PG DIN 40430 (Ex e only) "S" : N.P.S.M. "C" : GAS UNI ISO 228/1 "G" : GAS ISO 7/1 "K" : GAS Gk UNI 6125 (for Ex e only)
								5	Body material
									"B" : brass "X" : stainless steel "A" : aluminium "BN" : nickel plated brass "Z" : galvanized steel
								6	Sealing material
									"C" : Chloroprene "S" : Silicone
								7	Flat washer material
									Blank : None "WC" : Chloroprene "WE" : EPDM "WS" : Silicone "WP" : Polyamide "WF" : Fiber
								8	Sealing hole type
									Blank : Circular sealing ring hole dimensions (axb) : Flat sealing ring hole dimensions

Note: Only for EBU: This key code does not apply for EBU 82M (M80x2) and EBU 82LM (M90x2).

Code	Metric	NPT	PG	NPSM	GAS ISO 7/1	Gk
0XS	M8	-	-	-	-	-
0	M12	1/2"	-	1/2"	1/2"	1/2"
1	M16	3/8"	-	3/8"	3/8"	3/8"
1	M20	1/2"	PG7	1/2"	1/2"	1/2"
2	M25	3/4"	PG9	3/4"	3/4"	3/4"
3	M32	1"	PG11	1"	1"	1"
4	M40	1 1/4"	PG13,5	1 1/4"	1 1/4"	1 1/4"
5	M50	1 1/2"	PG16	1 1/2"	1 1/2"	1 1/2"
6	M63	2"	PG21	2"	2"	2"
7	M75	2 1/4"	PG29	2 1/4"	2 1/4"	2 1/4"
80	M80	--	--	--	--	--
8	M90	3"	PG36	3"	3"	3"
9	-	-	PG42	-	-	-
10	M100	4"	PG48	4"	4"	4"
11	M110	4"	-	4"	4"	4"
115	M115	4"	-	4"	4"	4"
13	M130	5"	-	5"	5"	5"

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EBM	1	2	3	4	5	6	7	8	1	Male sizes according to Table 1 . Model codes corresponding to thread type and sizes (according to thread sizes allowed for each cable glands model reported in tables from page 18)
EBMS	1	2	3	4	5	6	7	8	2	Male thread type "N" : NPT ANSI ASME B1.20.1 "M" : Metric ISO pitch 1.5 (ISO 965/1 and ISO 965/3)
									3	Female sizes according to Table 1 . Model codes corresponding to thread type and sizes (according to thread sizes allowed for each cable glands model reported in tables from page 18)
									4	Female thread type: "N" : NPT ANSI ASME B1.20.1 "M" : Metric ISO pitch 1.5 (ISO 965/1 and ISO 965/3)
									5	Body material "B" : brass "X" : stainless steel "A" : aluminium "BN" : nickel plated brass "Z" : galvanized steel
									6	Sealing material "C" : Chloroprene "S" : Silicone
									7	Flat washer material Blank : None "WC" : Chloroprene "WE" : EPDM "WS" : Silicone "WP" : Polyamide "WF" : Fiber
									8	Sealing hole type Blank : Circular sealing ring hole dimensions (axb) flat sealing ring hole dimensions (axb) : Flat sealing ring hole dimensions
BDPX	1	2	2	3					1	Blank : Black colour "B" : Blue colour "G" : Green colour
									2	: size and dimensions (example : 15-21)
									3	: Plug size (example M16)

[15.2] **Ratings:**

For minimum and maximum diameters of permitted cables and torque values, see tables in the safety instructions doc. N. MI 01 .

[13] **Annex**

[14] EU-type Examination Certificate number: **IMQ 13 ATEX 018 X**

[15.3] **Safety Ratings:** N/A

[15.4] **Ambient temperature and temperature classes:**

Serie:	Ex eb – Ex tb	Ex db
EBU...	neoprene sealing ring: -40°C ÷ +80°C silicone sealing ring: -60°C ÷ +140°C	neoprene sealing ring: -40°C ÷ +80°C silicone sealing ring: -60°C ÷ +80°C
EBM....		
EBMC...		
EBS...		
EBLS...		
EBLQ...		
EBLN...		
EBMS....		
NBU...		
EBU...(axb)	silicone sealing ring: -60°C ÷ +140°C	-
EBM....(axb)		
EBMC...(axb)		
EBS...(axb)		
EBLS...(axb)		
EBLQ...(axb)		
EBLN...(axb)		
EBMS....(axb)		

[15.5] **Degree of protection (IP code):** IP66/68 (IPX8 degree suitable for 30 minutes at 5 bar)

[15.6] **Warnings:**

None

[16] **Report:** AT21-0072183-01_D

[16.1] **Routine (factory) tests:**

The manufacturer shall carry out the routine test prescribed at clauses 27 of the EN 60079-0.

[16.2] **Conformity with the documentation:**

The manufacturer shall carry out the verifications or tests necessary to ensure that the product complies with the documentation.

Marking the equipment in accordance with Clause 29 of EN 60079-0, the manufacturer attests on his own responsibility that:

- the equipment has been constructed in accordance with the applicable requirements of the relevant standards in safety matters;
- the routine verifications and routine tests in 28.1 of EN 60079-0 have been successfully completed with positive results.

[16.3] **Installation conditions:**

Above referred equipment is foreseen to be installed in locations where there are environmental conditions, as clearly specified at clause 1, par. 2 of EN 60079-0.

Installation and use in atmospheric and environmental conditions that are out of above-mentioned intervals request special considerations and additional measures by the side of installer or user.

These should be specified to the manufacturer by the user;

It is not a required by applicable standard listed in [9] that the certification body confirm suitability for the adverse conditions.

Installation of equipment has to proceed according to EN 60079-14.

The coupling of the cable glands to the enclosure and torque values of cap clamping shall be made as indicated by the manufacturer in the documents annexed to this certificate in order to respect the type of protection of the electrical apparatus on which cable glands are mounted.

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The cable gland installation shall be done according to safety manufacturer instructions to maintain degree of protection.

The cable gland installation shall be done in such a way that the temperature at the mounting point will remain within the service temperature ranges declared in this certificate.

[17] **Special Condition of use (X):**

The cable glands are only suitable for fixed installations. Cables shall be effectively clamped to prevent pulling or twisting.

When cable glands are installed with polyamide insert (BDPX.-.-), mechanical risk have to be taken into account, depending on cable gland and insert tap. The upper operating temperature is limited to 70 °C. When insert tap is removed in order to install the proper cable, the integrity of sealing rings have to be checked, in order to guarantee the correct tightness. If necessary, sealing rings have to be replaced with new ones (original spare parts only). Precautions shall be taken in order to guarantee protection against risk of mechanical damage is provided, when insert taps are suitable for low mechanical risk (4J) only.

Cable glands for non circular cables shall be fitted with proper cables, suitable for sealing ring, according to manufacturer's instruction.

[18] **Essential Health and safety Requirements:**

This Certificate **does not** indicate compliance with electrical safety and performance requirements other than those expressly included in the Standards listed in [9].

This Certificate **does not** cover hazards coming from environmental conditions different from those clearly and precisely indicated and covered in clause 1 of EN 60079-0.

ESHR 1.2.7 According Annex VIII of the Directive

ESHR 1.4 Not verified.

ESHR 1.5 Not verified.

ESHR 3 Not applied.

In addition to the Essential Health and Safety Requirements (EHSRs) covered by the standards listed at [9], the following are considered relevant to this product, and conformity is demonstrated in the report:

N/A

[19] **Descriptive documents:**

DL-AT21-0072183-01_D, dated 2021-11-24

[20] **Certification Validity Conditions:**

The use of this Certificate is subject to the Certification Scheme and to the Regulation applicable to holders of IMQ Certificates.

The validity of this certificate is subject to the condition that the manufacturer complies with the results of the document review and of the pertinent requirement if any included, recorded in the relevant copy of documentation as per 19.

One copy of the mentioned documentation is kept in IMQ file.

[13] **Annex**

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[21] **Variations**

43AO00020 – rev. 1:

- Standard updating to IEC 60079-0:2011, 6th Edition
- Adding of mode of protection Ex d for types already included in IT/IMQ/ExTR13.0006/00: EBU... (from size EBU01.. to size EBU11..); EBM..... (from size EBM01.01... to size EBM11.11...); EBMC... (from size EBMC01.. to size EBMC7..); EBS... (all sizes); EBSL... (from size EBSL01.. to size EBSL5..); EBLQ... (from size EBLQ01.. to size EBLQ5..); EBLN... (from size EBLN01.. to size EBLN5..). Limitation of temperature range with silicone sealing ring if these cable glands types are in execution Ex d.
- Adding new model EBU01S. included as execution Ex d, Ex e and Ex tb.
- Adding new type EBMS..... derived from already mentioned cable glands types: differences have no effects on protection mode.
- Adding new type NBU... in execution Ex e and Ex tb.
- Adding KLINGERSIL® C-4400 as material used for additional gasket between cable gland and enclosure.

AT15A0453108-02 – rev. 2:

- Standard updating to IEC 60079-0:2011, 6th Edition and IEC 60079-31:2013, 2nd edition
- New models EBU (axb), EBM (axb), EBS (axb), EBMC (axb), EBLN (axb), EBLQ (axb), EBSL (axb), EBMS (axb) for non circular (flat cables) for M20 and M25 threads, silicone sealing ring only (-60÷140°C), Ex e Ex tb execution only
- For Ex e Ex tb execution only: upgrade upper temperature for silicone sealing rings from 100°C to 140°C, for the series EBU, EBM, EBS, EBMC, EBLN, EBLQ, EBSL, EBMS
- Dome plug in polyamide, black colour, for sizes M16 ... M63.
- Insert PA gasket and metal (carbon steel or stainless steel) serrated washer.

AT16A0608408-01 – rev. 3:

- Standard updating to EN 60079-7:2015
- Change in length for some sizes
- Adding new intermediate sizes and new bigger sizes for EBU, EBMC, EBS series
- Insert green version of polyamide dome plug
- Insert Viton O-ring (COT: -17÷230 °C).

AT18-0026023-01 – rev.4:

- New sizes M80x1,5 and M80x2,0 were added to EBU, EBM and EBMS type cable glands.

AT20-0048249-01 – rev. 5:

- Standard updating to EN IEC 60079-0:2018, 7th Edition
- New clamping range for size M63 has been added to EBU type cable glands for Ex eb and Ex tb execution, for all body type material except aluminium.

AT21-0064572-01 – rev. 6:

- Adding x2.0 thread option for cable glands EBU and EBS series having sizes bigger than M63

AT21-0072183-01 D – rev. 7:

- Standard updating to EN IEC 60079-7:2015+A1:2018