



# [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.: **AT22-0075622-01\_A**

[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 2022/04/22  
PREVIOUS ISSUE 2021/12/15  
EXPIRING DATE 2022/04/22

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, PA washer.

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 may have light blue painted parts or any suitable identification according to the EN 60079-14.

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.

The cable gland series EBU...; EBM.....; EBMC...; EBS...; EBL...; EBLQ...; EBLN...; EBMS..... can be used with locknut, dome plug, serrated washer as accessories. The cable gland series EBU.....(axb); EBM.....(axb); EBMC... (axb); EBS... (axb); EBL... (axb); EBLQ... (axb); EBLN... (axb); EBMS.....(axb) can be used with locknut and serrated washer as accessories.

[13] **Annex**

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Table 2: Materials 1				
Series	Body materials	Sealing rings material	Flat washer materials	O-ring
EBU...	stainless steel; brass ; aluminium; nickel plated brass; galvanized steel	chloroprene (neoprene) silicone	chloroprene (neoprene), silicone, EPDM rubber, fiber,PA washer	neoprene silicone EPDM, Viton
EBM.....	stainless steel; brass ; aluminium; nickel plated brass; galvanized steel	chloroprene (neoprene) silicone	chloroprene (neoprene), silicone, EPDM rubber, fiber,PA washer	neoprene silicone EPDM, Viton
EBMC...	stainless steel; brass ; aluminium; nickel plated brass; galvanized steel	chloroprene (neoprene) silicone	chloroprene (neoprene), silicone, EPDM rubber, fiber,PA washer	neoprene silicone EPDM, Viton
EBS...	stainless steel; brass ; aluminium; nickel plated brass; galvanized steel	chloroprene (neoprene) silicone	chloroprene (neoprene), silicone, EPDM rubber, fiber,PA washer	neoprene silicone EPDM, Viton
EBLS...	stainless steel; brass ; aluminium; nickel plated brass; galvanized steel	chloroprene (neoprene) silicone	chloroprene (neoprene), silicone, EPDM rubber, fiber,PA washer	neoprene silicone EPDM, Viton
EBLQ...	stainless steel; brass ; aluminium; nickel plated brass; galvanized steel	chloroprene (neoprene) silicone	chloroprene (neoprene), silicone, EPDM rubber, fiber,PA washer	neoprene silicone EPDM, Viton
EBLN...	stainless steel; brass ; aluminium; nickel plated brass; galvanized steel	chloroprene (neoprene) silicone	chloroprene (neoprene), silicone, EPDM rubber, fiber,PA washer	neoprene silicone EPDM, Viton
EBMS.....	stainless steel; brass ; aluminium; nickel plated brass; galvanized steel	chloroprene (neoprene) silicone	chloroprene (neoprene), silicone, EPDM rubber, fiber,PA washer	neoprene silicone EPDM, Viton
NBU...	stainless steel; brass ; aluminium; nickel plated brass; galvanized steel	EPDM rubber silicone	chloroprene (neoprene), silicone, EPDM rubber, fiber,PA washer	neoprene silicone EPDM, Viton
EBU...(axb)	stainless steel; brass ; aluminium; nickel plated brass; galvanized steel	silicone	chloroprene (neoprene), silicone, EPDM rubber, fiber,PA washer	neoprene silicone EPDM, Viton
EBM.....(axb)	stainless steel; brass ; aluminium; nickel plated brass; galvanized steel	silicone	chloroprene (neoprene), silicone, EPDM rubber, fiber,PA washer	neoprene silicone EPDM, Viton
EBMC...(axb)	stainless steel; brass ; aluminium; nickel plated brass; galvanized steel	silicone	chloroprene (neoprene), silicone, EPDM rubber, fiber,PA washer	neoprene silicone EPDM, Viton
EBS...(axb)	stainless steel; brass ; aluminium; nickel plated brass; galvanized steel	silicone	chloroprene (neoprene), silicone, EPDM rubber, fiber,PA washer	neoprene silicone EPDM, Viton
EBLS...(axb;	stainless steel; brass ; aluminium; nickel plated brass; galvanized steel	silicone	chloroprene (neoprene), silicone, EPDM rubber, fiber,PA washer	neoprene silicone EPDM, Viton
EBLQ...(axb)	stainless steel; brass ; aluminium; nickel plated brass; galvanized steel	silicone	chloroprene (neoprene), silicone, EPDM rubber, fiber,PA washer	neoprene silicone EPDM, Viton
EBLN...(axb)	stainless steel; brass ; aluminium; nickel plated brass; galvanized steel	silicone	chloroprene (neoprene), silicone, EPDM rubber, fiber,PA washer	neoprene silicone EPDM, Viton
EBMS.....(axb)	stainless steel; brass ; aluminium; nickel plated brass; galvanized steel	silicone	chloroprene (neoprene), silicone, EPDM rubber, fiber,PA washer	neoprene silicone EPDM, Viton

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

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

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
EBMC	0SM (M12)	4-8	4-6	6-8	-
EBMC	01SM(M16)	3-9	-	3-6	6-9
EBMC	01M (M16)	4-12	4-6	6-9	9-12
EBMC	1SM(M20)	3-9	-	3-6	6-9
EBMC	1M (M20)	4-12	4-6	6-9	9-12
EBMC	12M (M20)	10-16	10-12	12-14,5	14,5-16
EBMC	2M (M25)	10-18	10-12	12-14,5	14,5-18
EBMC	23M (M25)	14-20	14-17	17-20	-
EBMC	3M (M32)	14-24	14-17	17-20	20-24
EBMC	34M (M32)	22-28	22-24	24-27	27-28
EBMC	4M (M40)	22-32	22-24	24-27	27-32
EBMC	45M (M40)	26-34	26-28	28-31	31-34
EBMC	5M (M50)	26-35	26-28	28-31	31-35
EBMC	56M (M50)	35-44	35-38	38-41	41-44
EBMC	6M (M63)	35-45	35-38	38-41	41-45
EBMC	7M (M75)	46-59	46-51	51-56	56-59

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

Type	Code	TD ISO 965-3	D Clamping Range Ømin- max	S1+S2+S3	S1+S2	S1
EBS	01SM	M16x1.5	4,0-8,0	-	4-6	6-8
EBS	01M	M16x1.5	4,0-8,0	-	4-6	6-8
EBS	1M	M20x1.5	4,0-12,0	4-6	6-9	9-12
EBS	2M	M25x1.5	10,0-18,0	10-12	12-14,5	14,5-18
EBS	3M	M32x1.5	14,0-24,0	14-17	17-20	20-24
EBS	4M	M40x1.5	22,0-32,0	22-24	24-27	27-32
EBS	5M	M50x1.5	26,0-35,0	26-28	28-31	31-35
EBS	6M	M63x1.5	35,0-45,0	35-38	38-41	41-45
EBS	62M	M63x2.0	35,0-45,0	35-38	38-41	41-45
EBS	7M	M75x1.5	46,0-62,0	46-51	51-56	56-62
EBS	72M	M75x2.0	46,0-62,0	46-51	51-56	56-62
EBS	8M	M90x1.5	60,0-75,0	60-65	65-70	70-75
EBS	82M	M90x2.0	60,0-75,0	60-65	65-70	70-75
EBS	10M	M100x1.5	75,0-85,0	75-78	78-81	81-85
EBS	102M	M100x2.0	75,0-85,0	75-78	78-81	81-85
EBS	11M	M110x1.5	85,0-95,0	85-88	88-91	91-95
EBS	112M	M110x2.0	85,0-95,0	85-88	88-91	91-95

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Type			D Clamping Range Ø		S1+S2+S3	S1+S2	S1
			min.	max.			
EBM	0SM	0SM	4	8	4-6	6-8	-
EBM	0SM	01M	4	8	4-6	6-8	-
EBM	01M	0SM	4	10	4-6	6-9	9-10
EBM	01M	01M	4	12	4-6	6-9	9-12
EBM	01M	12M	4	12	4-6	6-9	9-12
EBM	12M	01M	4	12	4-6	6-9	9-12
EBM	1M	1M	4	12	4-6	6-9	9-12
EBM	12M	12M	10	16	10-12	12-14,5	14,5-16
EBM	12M	23M	10	16	10-12	12-14,5	14,5-16
EBM	23M	12M	10	16	10-12	12-14,5	14,5-16
EBM	2M	2M	10	18	10-12	12-14,5	14,5-18
EBM	23M	23M	14	20	14-17	17-20	-
EBM	23M	34M	14	20	14-17	17-20	-
EBM	34M	23M	14	20	14-17	17-20	-
EBM	3M	3M	14	24	14-17	17-20	20-24
EBM	34M	34M	22	28	22-24	24-27	27-28
EBM	34M	45M	22	28	22-24	24-27	27-28
EBM	45M	34M	22	28	22-24	24-27	27-28
EBM	4M	4M	22	32	22-24	24-27	27-32
EBM	45M	45M	26	34	26-28	28-31	31-34
EBM	45M	56M	26	34	26-28	28-31	31-34
EBM	5M	45M	26	34	26-28	28-31	31-34
EBM	5M	5M	26	35	26-28	28-31	31-35
EBM	56M	56M	35	44	35-38	38-41	41-44
EBM	56M	67M	35	44	35-38	38-41	41-44
EBM	67M	56M	35	44	35-38	38-41	41-44
EBM	6M	6M	35	45	35-38	38-41	41-45
EBM	67M	67M	46	56	46-48	48-52	52-56
EBM	67M	78M	46	56	46-48	48-52	52-56
EBM	78M	67M	46	56	46-48	48-52	52-56
EBM	7M	7M	46	62	46-51	51-56	56-62
EBM	78M	78M	60	69	60-65	65-69	-
EBM	78M	810M	60	69	60-65	65-69	-
EBM	80M	80M	60	71	60-65	65-70	70-71
EBM	82M	82M	60	71	60-65	65-70	70-71
EBM	80M	8M	60	71	60-65	65-70	70-71
EBM	82M	8M	60	71	60-65	65-70	70-71
EBM	810M	78M	60	69	60-65	65-69	-
EBM	8M	8M	60	75	60-65	65-70	70-75
EBM	810M	810M	75	82	75-78	78-81	81-82
EBM	810M	10M	75	82	75-78	78-81	81-82
EBM	10M	810M	75	82	75-78	78-81	81-82
EBM	10M	10M	75	85	75-78	78-81	81-85
EBM	11M	10M	75	85	75-78	78-81	81-85
EBM	11M	11M	85	95	85-89	89-92	92-95

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

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

Type	D Clamping Range Ø		S1+S2+S3	S1+S2	S1
	min.	max.			
EBMS 01M 01M	4	12	4-6	6-9	9-12
EBMS 01M 12M	4	12	4-6	6-9	9-12
EBMS 12M 01M	4	12	4-6	6-9	9-12
EBMS 1M 1M	4	12	4-6	6-9	9-12
EBMS 12M 12M	10	16	10-12	12-14,5	14,5-16
EBMS 12M 23M	10	16	10-12	12-14,5	14,5-16
EBMS 23M 12M	10	16	10-12	12-14,5	14,5-16
EBMS 2M 2M	10	18	10-12	12-14,5	14,5-18
EBMS 23M 23M	14	20	14-17	17-20	-
EBMS 23M 34M	14	20	14-17	17-20	-
EBMS 34M 23M	14	20	14-17	17-20	-
EBMS 3M 3M	14	24	14-17	17-20	20-24
EBMS 34M 34M	22	28	22-24	24-27	27-28
EBMS 34M 45M	22	28	22-24	24-27	27-28
EBMS 45M 34M	22	28	22-24	24-27	27-28
EBMS 4M 4M	22	32	22-24	24-27	27-32
EBMS 45M 45M	26	34	26-28	28-31	31-34
EBMS 45M 56M	26	34	26-28	28-31	31-34
EBMS 56M 45M	26	34	26-28	28-31	31-34
EBMS 5M 5M	26	35	26-28	28-31	31-35
EBMS 56M 56M	35	44	35-38	38-41	41-44
EBMS 56M 67M	35	44	35-38	38-41	41-44
EBMS 67M 56M	35	44	35-38	38-41	41-44
EBMS 6M 6M	35	45	35-38	38-41	41-45
EBMS 67M 67M	46	56	46-48	48-52	52-56
EBMS 67M 78M	46	56	46-48	48-52	52-56
EBMS 78M 67M	46	56	46-48	48-52	52-56
EBMS 7M 7M	46	62	46-51	51-56	56-62
EBMS 78M 78M	60	69	60-65	65-69	-



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EBMS	78M	810M	60	69	60-65	65-69	-
EBMS	810M	78M	60	69	60-65	65-69	-
EBMS	80M	80M	60	71	60-65	65-69	69-71
EBMS	82M	82M	60	71	60-65	65-69	69-71
EBMS	80M	8M	60	71	60-65	65-69	69-71
EBMS	82M	8M	60	71	60-65	65-69	69-71
EBMS	8M	8M	60	75	60-65	65-70	70-75
EBMS	810M	810M	75	82	75-78	78-81	81-82
EBMS	810M	10M	75	82	75-78	78-81	81-82
EBMS	10M	810M	75	85	75-78	78-81	81-85
EBMS	10M	10M	75	85	75-78	78-81	81-85
EBMS	10M	11M	75	85	75-78	78-81	81-85
EBMS	11M	10M	75	85	75-78	78-81	81-85
EBMS	11M	11M	85	95	85-89	89-92	92-95

Model	Min-max cable Ø mm	S1	S1+S2
NBU 0XS..	4-7	4-7	-
NBU 01S..	5-8	5-8	-
NBU 1..	8-14	11-14	8-11
NBU 2..	10-16	13-16	10-13
NBU 3..	16-21	18-21	16-18
NBU 4..	18-27	22-27	18-22
NBU 5..	26-35	30-35	26-30
NBU 6..	32-49	40-49	32-40

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)	Suitable for	
		Ex db	Ex eb Ex tb
EBU 1S..	FxA1; FxB1; FxC1; FxD1; FxE1; FxG1	no	yes
EBU 1..		no	yes
EBU 12..		no	yes
EBU 2..	FxA2; FxB2; FxC2; FxD2; FxE2; FxF2; FxG2; FxH2	no	yes
EBU 23..		no	yes



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

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

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

Table 4.5: EBLN... (axb); EBL... (axb); EBLQ... (axb)					
Model			Sealing ring type (refer to table 6)	Suitable for	
				Ex db	Ex eb Ex tb
EBLN 1S..	EBLS 1S..	EBLQ 1S..	FxA1; FxB1; FxC1; FxD1; FxE1; FxG1	no	yes
EBLN 1..	EBLS 1..	EBLQ 1..		no	yes
EBLN 2..	EBLS 2..	EBLQ 2..	FxA2; FxB2; FxC2; FxD2; FxE2; FxF2; FxG2; FxH2	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 <sub>2</sub> -40°C Low (4J) at T<-40°C

Key code (if present):

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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
NBU	1	3	4	5	6	7			"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"	3/8"	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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<b>EBM</b>	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)
<b>EBMS</b>	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
<b>BDPX</b>	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.

[15.3] **Safety Ratings:**

N/A

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[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...	EPDM sealing ring: -40°C + +80°C silicone sealing ring: -60°C + +80°C	-
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 35 minutes at 5 bar)

[15.6] **Warnings:**

None

[16] **Report:** AT22-0075622-01\_A

[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).

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

The cable glands in metric threads can be produced with TL9,0mm for Ex eb and Ex tb only. In order to guarantee Ex tb type of protection in installation, external Oring or Gasket shall be mounted. For nonthreaded enclosure, the locknut shall be fully engaged.. The minimum wall thickness shall be 1,5 mm for non threaded enclosures.

[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-AT22-0075622-01\_A, dated 2022-03-01.

[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); EBLs... (from size EBLs01.. to size EBLs5..); 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 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), EBLs (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, EBLs, 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

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

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AT22-0075622-01 A -rev. 8:

- Alternative brass and alternative aluminium alloys added
- Alternative thread length TL9,0mm have been added to all cable gland types (EBU, EBM, EBS, EBMC, EBLN, EBLQ, EBLs, EBMS, NBU) in Metric threads, and Ex eb and Ex tb only.