



EU-TYPE EXAMINATION CERTIFICATE

[2] **Equipment or Protective System intended for use in potentially explosive atmospheres - Directive 2014/34/EU**

[3] EU-type Examination Certificate number:

IMQ 13 ATEX 010 X

[4] PRODUCT: CABLE GLANDS AND PLUGS
 TYPE/SERIES: **B...-...-...; B..DC-...-...; T...-...-...;
 HIB...-...-...; HIB...-(axb)-...-...; HIB...-...-(DS)-...-...;
 EHIB...-...-...; EHIB...-...-(DS)-...-...; HIT...-...-...**

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

[6] ADDRESS: S.S. BAKIR PIRINÇ SANAYİ SİT. LEYLAK CAD. N. 16 - TR – 34524 BEYLİKDÜZÜ – İSTANBUL

APPLICANT: **Bimed Teknik Aletler San ve Tic. A.S.**
 ADDRESS: S.S. BAKIR PIRINÇ SANAYİ SİT. LEYLAK CAD. N. 16 - TR – 34524 BEYLİKDÜZÜ – İSTANBUL

[7] This equipment and any acceptable variation there to 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 confidential Report No.:

AT17-0013098-01

[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 60079-0:2012 + A11:2013; EN 60079-7:2015; 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:

II2G Ex eb IIC Gb
II2D Ex tb IIIC Db

THIS DOCUMENT IS COMPOSED OF 6 PAGES INCLUDING 1 ANNEX.

IMQ

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SGQ N° 005 A EMAS N° 003 P
 SGA N° 006 D PRD N° 005 B
 SGE N° 006 M PRS N° 080 C
 SCR N° 005 F ISP N° 063 E
 SSI N° 003 G LAB N° 0121
 FSM N° 007 I LAT N° 021

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[14] EU-type Examination Certificate: **IMQ 13 ATEX 010 X**

[15] **DESCRIPTION OF PRODUCT:**

The polyamide cable glands serie **B**...-...-...; **B..DC**...-...-...; **HIB**...-...-...; **HIB**...-...-...**(DS)**...-...; **EHIB**...-...-...; **EHIB**...-...-...**(DS)**...-... are used to introduce permanently circular cables into enclosure. The polyamide cable glands series **HIB**...-...**(axb)**...-... are used to introduce permanently non-circular (flat) cables into enclosure. Plugs series **T**...-... and **HIT**...-... are used to close unused cable entry of an enclosure. Cable glands and plugs are suitable for electrical equipment either with type of protection Ex eb or type of protection Ex tb. Cable glands should be also used for intrinsically safe circuits Ex i. Cable glands **HIB**...-...**(DS)**...-...; **EHIB**...-...**(DS)**...-... are provided with single (S1) or double (S1+S2) sealing rings. Cable glands **HIB**...-...-...; **HIB**...-...**(DS)**...-...; **EHIB**...-...-... are provided with single (S1) sealing rings only. Cable glands series **HIB**...-...**(axb)**...-... are provided with sealing ring specific for non-circular (flat) cables, sealing ring hole dimensions are specified in brackets.

Cable glands **B**...-...-...; **B..DC**...-...-...; **HIB**...-...-...; **HIB**...-...**(DS)**...-...; **EHIB**...-...-...; **EHIB**...-...**(DS)**...-... can be supplied with tap, polyamide made, as accessory (**BDPX**...-...(.)), suitable to guarantee IP degree when installed according to manufacturer's instructions.

Additionally, dust plugs are used for Ex polyamide cable glands to protect the glands from dust during the shipment. It is taken out during installation.

For details, see technical note CA4-170 and instructions manual MI-06 listed in DL-AT17-0013098-01.

[15.1] **MODELS/SERIES IDENTIFICATION:**

The characteristics of the cable glands are codified according to the following key-code:

B	1	3	-	2	4	-	5	-	6	1	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 "PF" – ISO 228/1	
B	1	3	DC	-	2	4	-	5	-	6	2	Size and dimensions, according to Tables 3
HIB	1	3	-	2	4	-	5	-	6	3	Cap: "I" – blue cap for use in circuits Ex-i none – black cap "T" – Tampon blue print on black material	
EHIB	1	3	-	2	4	-	5	-	6	(axb)	Dimensions in mm of sealing ring, as follows: type SXL 5,0x15,0 type SXM 5,0x12,8 type SXS 6,0x10,8	
HIB	1	-	2	4	(axb)	-	5	-	6	(DS)	double sealing ring (S1; S1+S2)	
HIB	1	3	-	2	4	-	(DS)	5	-	6	DC	double crowns (sealing rings)
EHIB	1	3	-	2	4	-	(DS)	5	-	6	4	Sealing rings material: C: Chloroprene seal S: Silicone seal N: NBR (only codes H.. and EH..)
											5	Flat washer material: blank: same material with sealing ring WF: Fiber washer WE: EPDM washer WN: NBR washer
											6	O-ring material: Blank: None OC: Chloroprene O-Ring OS: Silicone O-Ring OE: EPDM O-Ring



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T	1	-	2	3	-	4	1 Thread type: "N" – NPT ANSI ASME B1.20.1 "P" – Metric ISO pitch 1,5 (ISO 965/1 and ISO 965/3) "B" – PG DIN 40430 "G" – ISO 228/1 2 Size and dimensions, according to Tables 3 3 Flat washer material: Blank: None C: Chloroprene washer S: Silicone washer WF: Fiber washer WE: EPDM washer WN: NBR washer 4 O-ring material: Blank: None OC: Chloroprene O-Ring OS: Silicone O-Ring OE: EPDM O-Ring Note: O-ring or flat washer must be always fitted with plug
HIT	1	-	2	3	-	4	
BDPX	1	-	2	-	2	(3)	1: color " " – Black colour "B" – Blue colour "G" – Green colour 2: Size and dimensions (example; -13-22) 3: Plug size (example PG11)

[15.2] **RATINGS:**

For minimal and maximal diameters of permitted cables and torque values, see instructions manual MI06 listed in DL-AT17-0013098-01.

[15.3] **SAFETY RATINGS:**

None

[15.4] **AMBIENT TEMPERATURE AND TEMPERATURE CLASSES:**

Series	Service temperature	Sealing rings material	Series	Service temperature	Sealing rings material
B...-...-	-40 ÷ +80 °C	chloroprene (neoprene) silicone	HIB...-(axb)-...-	-60 ÷ +70 °C	silicone
B..DC...-...-	-40 ÷ +80 °C	chloroprene (neoprene) silicone	HIB...-(DS)-...-	-30 ÷ +70 °C	NBR
T...-...-	-40 ÷ +80 °C	-		-40 ÷ +70 °C	chloroprene (neoprene)
HIB...-...-	-30 ÷ +70 °C	NBR	EHIB...-(DS)-...-	-60 ÷ +70 °C	silicone
	-40 ÷ +70 °C	chloroprene (neoprene)		-30 ÷ +70 °C	NBR
-60 ÷ +70 °C	silicone	-40 ÷ +70 °C		chloroprene (neoprene)	
EHIB...-...-	-30 ÷ +70 °C	NBR	HIT...-...-	-60 ÷ +70 °C	silicone
	-40 ÷ +70 °C	chloroprene (neoprene)		-60/-40/-30 ÷ +70 °C	-
-60 ÷ +70 °C	silicone				

More details in instructions manual MI06 listed in DL-AT17-0013098-01.



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[15.5] **DEGREE OF PROTECTION (IP CODE):**

IP66/68

[15.6] **WARNINGS:**

For gas installations (only for cable glands with M50/PG42/PF 1 ½"/NPT 1 ½" threads and following) and dust installations:

Warning. Potential electrostatic charging hazard - See instructions. Clean only with antistatic clothes.

[16] **REPORT:** AT17-0013098-01.

[16.1] **ROUTINE (FACTORY) TESTS:**

The manufacturer shall carry out the routine test prescribed at clause 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.
- The installation shall be done according to safety manufacturer instructions to maintain degree of protection.

[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.
- The cable glands/plugs and the relevant cables, shall be used where a protection against risk of mechanical damage is provided, when they are suitable for low mechanical risk (4J) only.
- For gas installations (only for cable glands with M50/PG42/PF 1 ½"/NPT 1 ½" threads and following) and dust installations: *Warning. Potential electrostatic charging hazard - See instructions. Clean only with antistatic clothes.*



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- When cable glands are installed with polyamide insert BDPX--(.), mechanical risk have to be taken into account, depending on cable gland and insert tap. 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).
- 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 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 applied.

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: additional Requirements for the products have not been considered.

[19] **DESCRIPTIVE DOCUMENTS:**

DL- AT17-0013098-01, rev. 0, dated 2017-07-05, 46 pages.



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[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.

[21] In accordance with Article 41 of Directive 2014/34/EU, Certificates referring to 94/9/EC that were in existence prior to the date of application of 2014/34/EU (20 April 2016) may be referenced as if they were issued in accordance with Directive 2014/34/EU. New issues of such certificates may continue to bear the original certificate number issued prior to 20 April 2016.

[22] **VARIATIONS:**

[22.1] **MARCH 2015**

- Standard updating
- Adding new model BM-XEU40L derived from already tested cable glands types: differences have no effects on protection mode.
- Adding KLINGERSIL® C-4400 or EPDM rubber as material used for additional gasket between cable gland and enclosure.
- Cable glands B.-. and B.DC.-. can be supplied with tap, polyamide made, as accessory (BP.-.), suitable to guarantee IP degree when installed according to manufacturer's instructions.
- New cable glands series HIB.-.; HIB.-.(DS); MHIB.-.; MHIB.-.(DS), new plugs series HIT.-.

NOVEMBER 2015

- Standard update
- Introductions of alternative of blue cap for the following series: B.-.; B..DC; HIB.-.; HIB.-.(DS). Change of related key code. The blue cap versions of cable glands are used for Ex i circuits.
- Addition of models BN.-X8, BN.-X9, BN.-X10.
- New models HIB.-.(axb) with sealing rings specific for non circular (flat) cables
- New models EHIB.-.; EHIB.-.(DS) with alternative cap versions

FEBRUARY 2016

- Standard update
- Introductions of alternative of blue cap for the following series: B.-.; B..DC; HIB.-.; HIB.-.(DS). Change of related key code. The blue cap versions of cable glands are used for Ex i circuits.
- New models HIB.-.(axb) with sealing rings specific for non circular (flat) cables
- New models EHIB.-.; EHIB.-.(DS) with alternative cap versions

MAY 2017

- Standard update
- New colour for BDPX.-. (Green colour cap tested for UV resistance)
- Changes in length for some models (see new tables in technical documents and tests).
- Removing from series of cable gland MHIB... (samples with metal insert inside body).
- Change address of Applicant and Manufacturer

JULY 2017

- Editorial changes in [15.1] "MODELS/SERIES IDENTIFICATION".