



[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 010X**

[4] PRODUCT: Polyamide cable glands for circular/non circular cables and plugs
TYPE/SERIES: B...; B..DC...; T...; HIB...; HIB... (axb)...; HIB... (DS)...; EHIB...; EHIB... (DS)...; HIT...; BDPX...

[5] MANUFACTURER: **Bimed Teknik Aletler San. Ve Tic. A.Ş.**

[6] ADDRESS: **S.S Bakır ve Piriç Sanayi Sitesi
Leylak Cd. No:16 - 34524 Beylikdüzü – Istanbul - 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_B**

[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 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 eb IIC Gb
Ex tb IIIC Db**

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

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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

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[13] **Annex**

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

[15] **Description of product:**

The polyamide cable glands series 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-e or type of protection Ex-t. Cable glands can 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.-., 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 cap, polyamide made, as accessory (BDPX.-.), suitable to guarantee IP degree when installed according to manufacturer's instructions. Details in Table 4.

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.

Details on sealing rings material, flat washer (placed between the body and the cover of enclosures) materials and limitations are listed in Table 1.

The cable glands and plugs can be factory made with the following threads:

- Metric ISO pitch 1,5 (ISO 965/1, ISO 965/2, ISO 965/3)
- NPT ANSI ASME B1.20.1
- PF ISO 228/1
- PG DIN 40430

[13] **Annex**

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

Table 1: materials and service temperatures

| Series | Service temperature ¹ | Sealing rings material | Flat washer materials | OR materials | Mechanical risk |
|--------------------------------|----------------------------------|------------------------------------|---|--|-----------------|
| B.-. | -40 ÷ +80 °C ± | chloroprene (neoprene) silicone | chloroprene (neoprene) silicone KLINGERSIL® C-4400 EPDMrubber NBR | chloroprene (neoprene) silicone EPDMrubber | Low (4J) |
| BM-X2S, BM-SX2S, BM-SX7S | -40 ÷ +85 °C | silicone | chloroprene (neoprene) silicone KLINGERSIL® C-4400 EPDMrubber NBR | chloroprene (neoprene) silicone EPDMrubber | Low (4J) |
| B.DC.- | -40 ÷ +80 °C ± | chloroprene (neoprene) silicone | chloroprene (neoprene) silicone KLINGERSIL® C-4400 EPDMrubber NBR | chloroprene (neoprene) silicone EPDMrubber | Low (4J) |
| T.-. | -40 ÷ +80 °C | - | chloroprene (neoprene) silicone KLINGERSIL® C-4400 EPDMrubber NBR | - | Low (4J) |
| HIB.-. | -30 ÷ +70 °C | NBR | chloroprene (neoprene) silicone KLINGERSIL® C-4400 EPDMrubber NBR | chloroprene (neoprene) silicone EPDMrubber | High (7J) |
| | -40 ÷ +70 °C | chloroprene (neoprene) | | | |
| | -60 ÷ +70 °C | silicone | | | |
| EHIB.-. | -30 ÷ +70 °C | NBR | chloroprene (neoprene) silicone KLINGERSIL® C-4400 EPDMrubber NBR | chloroprene (neoprene) silicone EPDMrubber | High (7J) |
| | -40 ÷ +70 °C | chloroprene (neoprene) | | | |
| | -60 ÷ +70 °C | silicone | | | |
| HIB.-.(axb) | -60 ÷ +70 °C | silicone | chloroprene (neoprene) silicone KLINGERSIL® C-4400 EPDMrubber NBR | chloroprene (neoprene) silicone EPDMrubber | High (7J) |
| HIB.-.(DS) | -30 ÷ +70 °C | NBR | chloroprene (neoprene) silicone KLINGERSIL® C-4400 EPDMrubber NBR | chloroprene (neoprene) silicone EPDMrubber | High (7J) |
| | -40 ÷ +70 °C | chloroprene (neoprene) | | | |
| | -60 ÷ +70 °C ± | silicone | | | |
| EHIB.-.(DS) | -30 ÷ +70 °C | NBR | chloroprene (neoprene) silicone KLINGERSIL® C-4400 EPDMrubber NBR | chloroprene (neoprene) silicone EPDMrubber | High (7J) |
| | -40 ÷ +70 °C | chloroprene (neoprene) | | | |
| | -60 ÷ +70 °C | silicone | | | |
| HIT.-X | -30 ÷ +70 °C | - | NBR | - | High (7J) |
| | -40 ÷ +70 °C | | chloroprene (neoprene) EPDMrubber | | |
| | -60 ÷ +70 °C | | silicone | | |
| | -80 ÷ +70 °C | | KLINGERSIL® C-4400 | | |

Notes
¹ Service temperature is related to material of sealing rings and polyamide which cable glands body is made of, but can be additionally limited by material of flat washer/OR material temperature limitations: chloroprene (-40÷100 °C); silicone (-60÷180 °C); EPDMrubber (-40÷110 °C); KLINGERSIL® C-4400 fiber (-50÷130 °C). The use of these materials in flat washer/OR has to be taken into account in determination of lower limit of service temperature of cable glands, while upper limit is 80 °C for BX.-, B.DC.-, T.-, and 70°C for all other models.
² When used blue caps (B.I.; B.IDC.-) and/or BP.- protection tap is used, the service temperature is -40÷70 °C. Low mechanical risk (4J).

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

Sizes of models, recommended torque and (for cable glands) range of diameter for suitable cables are shown in following tables.

S1 means single sealing ring mounted inside cable gland.

S1+S2 means double sealing rings mounted inside cable gland.

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Table 3.1: B...; B..DC-

| Model | Thread | Min-max cable [mm] | Recommended Torque value (cap) [Nm] | Recommended torque value (body) [Nm] | Mechanical risk |
|------------|----------|--------------------|-------------------------------------|--------------------------------------|-----------------|
| BM.-SX2 | M20x1.5 | 5,0-10,0 | 2,5 | 2,5 | Low (4J) |
| BM.-X2 | M20x1.5 | 6,0-12,0 | 5,0 | 5,0 | |
| BM.-X2L | M20x1.5 | 6,0-12,0 | 5,0 | 5,0 | |
| BM.-X3 | M20x1.5 | 10,0-14,0 | 5,5 | 5,5 | |
| BM.-X4 | M20x1.5 | 10,0-14,0 | 5,5 | 5,5 | |
| BM.-SX5 | M25x1.5 | 10,0-14,0 | 5,5 | 5,5 | |
| BM.-X5 | M25x1.5 | 13,0-18,0 | 7,0 | 7,0 | |
| BM.-SX6 | M25x1.5 | 10,0-14,0 | 5,5 | 5,5 | |
| BM.-X6 | M25x1.5 | 13,0-18,0 | 7,0 | 7,0 | |
| BM.-XEU25 | M25x1.5 | 11,0-17,0 | 5,0 | 5,0 | |
| BM.-XEU32 | M32x1.5 | 15,0-21,0 | 6,0 | 6,0 | |
| BM.-SX7 | M32x1.5 | 13,0-18,0 | 7,0 | 7,0 | |
| BM.-X7 | M32x1.5 | 18,0-25,0 | 9,0 | 9,0 | |
| BM.-XEU40 | M40x1.5 | 19,0-28,0 | 5,0 | 5,0 | |
| BM.-XEU40L | M40x1.5 | 19,0-28,0 | 5,0 | 5,0 | |
| BM.-X8 | M40x1.5 | 22,0-32,0 | 17,0 | 17,0 | |
| BM.-X9 | M50x1.5 | 30,0-38,0 | 22,0 | 22,0 | |
| BM.-X10 | M63x1.5 | 34,0-44,0 | 23,0 | 23,0 | |
| BN.-SX2 | NPT 1/2" | 5,0-10,0 | 2,5 | 2,5 | Low (4J) |
| BN.-X2 | NPT 1/2" | 6,0-12,0 | 5,0 | 5,0 | |

| | | | | | |
|-----------|------------|-----------|------|------|----------|
| BN.-LX2 | NPT 1/2" | 10,0-14,0 | 5,5 | 5,5 | |
| BN.-X3 | NPT 3/4" | 13,0-18,0 | 7,0 | 7,0 | |
| BN.-X4 | NPT 1" | 18,0-25,0 | 9,0 | 9,0 | |
| BN.-X8 | NPT 1 1/4" | 22,0-32,0 | 17,0 | 17,0 | |
| BN.-X9 | NPT 1 1/2" | 30,0-38,0 | 22,0 | 22,0 | |
| BN.-X10 | NPT 2" | 34,0-44,0 | 23,0 | 23,0 | |
| BPF.-SX2 | PF 1/2" | 5,0-10,0 | 2,5 | 2,5 | Low (4J) |
| BPF.-X2 | PF 1/2" | 6,0-12,0 | 5,0 | 5,0 | |
| BPF.-LX2 | PF 1/2" | 10,0-14,0 | 5,5 | 5,5 | |
| BPF.-X3 | PF 3/4" | 13,0-18,0 | 7,0 | 7,0 | |
| BPF.-X4 | PF 1" | 18,0-25,0 | 9,0 | 9,0 | |
| BP.-X4 | PG 13,5 | 6,0-12,0 | 5,0 | 5,0 | Low (4J) |
| BP.-X5 | PG 16 | 10,0-14,0 | 5,5 | 5,5 | |
| BP.-X6 | PG 21 | 13,0-18,0 | 7,0 | 7,0 | |
| BP.-X7 | PG 29 | 18,0-25,0 | 9,0 | 9,0 | |
| BP.-X8 | PG 36 | 22,0-32,0 | 17,0 | 17,0 | |
| BP.-X9 | PG 42 | 30,0-38,0 | 22,0 | 22,0 | |
| BP.-X10 | PG 48 | 34,0-44,0 | 23,0 | 23,0 | |
| BM.DC.-X3 | M25x1.5 | 12,0-18,0 | 8,0 | 8,0 | Low (4J) |

Table 3.2: T...-

| Model | | | | Torque value [Nm] | Mechanical risk |
|--------|--------|--------|--------|-------------------|-----------------|
| TP-X02 | TN-X02 | TG-X02 | TB-X02 | 1.5 | Low (4J) |
| TP-X01 | TN-X01 | TG-X01 | TB-X01 | 1.5 | |
| TP-X1 | TN-X1 | TG-X1 | TB-X1 | 2 | |
| TP-X2 | TN-X2 | TG-X2 | TB-X2 | 2.5 | |
| TP-X3 | TN-X3 | TG-X3 | TB-X3 | 4 | |
| TP-X4 | TN-X4 | TG-X4 | TB-X4 | 6 | |
| TP-X5 | TN-X5 | TG-X5 | TB-X5 | 8 | |
| TP-X6 | TN-X6 | TG-X6 | TB-X6 | 10 | |

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| Table 3.3: HIB...; EHIB...; | | | | | |
|-----------------------------|---------------|--------------------|-------------------------|--------------------------------------|-----------------|
| Model | | Min-max cable [mm] | Torque value (cap) [Nm] | Recommended torque value (body) [Nm] | Mechanical risk |
| HIB...0XS | EHIB...0XS | 4-6.5 | 2 | 2 | High (7I) |
| HIB...XS | EHIB...XS | 4-6.5 | 2 | 2 | |
| HIB...SX1 | EHIB...SX1 | 5-8 | 4 | 4 | |
| HIB...SX1L | EHIB...SX1L | 5-8 | 4 | 4 | |
| HIB...X1 | EHIB...X1 | 6-10 | 4 | 4 | |
| HIB...X1L | EHIB...X1L | 6-10 | 4 | 4 | |
| HIB...SX2 | EHIB...SX2 | 6-10 | 2.5 | 2.5 | |
| HIB...X2 | EHIB...X2 | 7-12 | 5 | 5 | |
| HIB...X2L | EHIB...X2L | 7-12 | 5 | 5 | |
| HIB...MX2 | EHIB...MX2 | 7-13 | 4.5 | 4.5 | |
| HIB...X3 | EHIB...X3 | 11-14 | 5.5 | 5.5 | |
| HIB...X4 | EHIB...X4 | 11-14 | 5.5 | 5.5 | |
| HIB...SX5 | EHIB...SX5 | 11-14 | 5.5 | 5.5 | |
| HIB...SX6 | EHIB...SX6 | 11-14 | 5.5 | 5.5 | |
| HIB...XEU25 | EHIB...XEU25 | 12-17 | 5 | 5 | |
| HIB...XEU25L | EHIB...XEU25L | 12-17 | 5 | 5 | |
| HIB...X5 | EHIB...X5 | 14-18 | 8 | 8 | |
| HIB...X6 | EHIB...X6 | 14-18 | 8 | 8 | |
| HIB...SX7 | EHIB...SX7 | 14-18 | 8 | 8 | |
| HIB...XEU32 | EHIB...XEU32 | 16-21 | 6 | 6 | |
| HIB...XEU32L | EHIB...XEU32L | 16-21 | 6 | 6 | |
| HIB...X7 | EHIB...X7 | 19-25 | 9 | 9 | |
| HIB...XEU40 | EHIB...XEU40 | 20-28 | 5 | 5 | |
| HIB...XEU40L | EHIB...XEU40L | 20-28 | 5 | 5 | |
| HIB...X8 | EHIB...X8 | 23-32 | 17.5 | 17.5 | |
| HIB...X9 | EHIB...X9 | 31-38 | 22 | 22 | |
| HIB...X10 | EHIB...X10 | 35-44 | 24 | 24 | |

| Table 3.4: HIB... (axb) | | | | | | | |
|-------------------------|-----------------------------------|-------------------------|---------------------|---------------------|-------------------------|--------------------------------------|-----------------|
| Cable gland code | Sealing ring dimensions [mm x mm] | Complete code | Cable min [mm x mm] | Cable max [mm x mm] | Torque value (cap) [Nm] | Recommended torque value (body) [Nm] | Mechanical risk |
| HIB...SX5 | 6,0x10,8 | HIB...SX5 (6,0x10,8) | 4,21x11,69 | 5,23 x 13,21 | 8 | 8 | High (7I) |
| | 5,0x12,8 | HIB...SX5 (5,0x12,8) | 5,03 x 12,50 | 6,05 x 14,02 | | | |
| HIB...X5 | 6,0x10,8 | HIB...X5 (6,0x10,8) | 4,21x11,69 | 5,23 x 13,21 | | | |
| | 5,0x12,8 | HIB...X5 (5,0x12,8) | 5,03 x 12,50 | 6,05 x 14,02 | | | |
| HIB...XEU25 | 5,0x15,0 | HIB...X5 (5,0x15,0) | 6,09 x 13,72 | 7,11 x 15,24 | | | |
| | 6,0x10,8 | HIB...XEU25 (6,0x10,8) | 4,21x11,69 | 5,23 x 13,21 | | | |
| HIB...XEU25 | 5,0x12,8 | HIB...XEU25 (5,0x12,8) | 5,03 x 12,50 | 6,05 x 14,02 | | | |
| | 5,0x15,0 | HIB...XEU25 (5,0x15,0) | 6,09 x 13,72 | 7,11 x 15,24 | | | |
| HIB...SX6 | 6,0x10,8 | HIB...SX6 (6,0x10,8) | 4,21x11,69 | 5,23 x 13,21 | | | |
| | 5,0x12,8 | HIB...SX6 (5,0x12,8) | 5,03 x 12,50 | 6,05 x 14,02 | | | |
| HIB...X6 | 6,0x10,8 | HIB...X6 (6,0x10,8) | 4,21x11,69 | 5,23 x 13,21 | | | |
| | 5,0x12,8 | HIB...X6 (5,0x12,8) | 5,03 x 12,50 | 6,05 x 14,02 | | | |
| HIB...X6 | 5,0x15,0 | HIB...X6 (5,0x15,0) | 6,09 x 13,72 | 7,11 x 15,24 | | | |
| | 6,0x10,8 | HIB...XEU25L (6,0x10,8) | 4,21x11,69 | 5,23 x 13,21 | | | |
| HIB...XEU25L | 5,0x12,8 | HIB...XEU25L (5,0x12,8) | 5,03 x 12,50 | 6,05 x 14,02 | | | |
| | 5,0x15,0 | HIB...XEU25L (5,0x15,0) | 6,09 x 13,72 | 7,11 x 15,24 | | | |

Mod. 3686/5



PRD N° 005 B

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| Table 3.5: HIB...-(DS); EHIB...-(DS) | | | | | | | |
|--------------------------------------|-------------------|--------------------|--------|-------------------------|------|--------------------------------------|-----------------|
| Model | | Min-max cable [mm] | | Torque value (cap) [Nm] | | Recommended torque value (body) [Nm] | Mechanical risk |
| | | S1+S2 | S1 | S1+S2 | S1 | | |
| HIB...0XS(DS) | EHIB...0XS(DS) | 3-4 | 4-6.5 | 1 | 2 | 2 | High (7J) |
| HIB...XS(DS) | EHIB...XS(DS) | 3-4 | 4-6.5 | 1 | 2 | 2 | |
| HIB...SX1(DS) | EHIB...SX1(DS) | 4-5 | 5-8 | 3.5 | 4 | 4 | |
| HIB...SX1L(DS) | EHIB...SX1L(DS) | 4-5 | 5-8 | 3.5 | 4 | 4 | |
| HIB...X1(DS) | EHIB...X1(DS) | 4-6 | 6-10 | 3.5 | 4 | 4 | |
| HIB...X1L(DS) | EHIB...X1L(DS) | 4-6 | 6-10 | 3.5 | 4 | 4 | |
| HIB...SX2(DS) | EHIB...SX2(DS) | 4-6 | 6-10 | 3.2 | 2.5 | 2.5 | |
| HIB...X2(DS) | EHIB...X2(DS) | 6-7.5 | 7.5-12 | 5 | 5 | 5 | |
| HIB...X2L(DS) | EHIB...X2L(DS) | 6-7.5 | 7.5-12 | 5 | 5 | 5 | |
| HIB...MX2(DS) | EHIB...MX2(DS) | 4-7 | 7-13 | 3.5 | 4.5 | 4.5 | |
| HIB...X3(DS) | EHIB...X3(DS) | 8-11 | 11-14 | 5.5 | 5.5 | 5.5 | |
| HIB...X4(DS) | EHIB...X4(DS) | 8-11 | 11-14 | 5.5 | 5.5 | 5.5 | |
| HIB...SX5(DS) | EHIB...SX5(DS) | 8-11 | 11-14 | 5.5 | 5.5 | 5.5 | |
| HIB...SX6(DS) | EHIB...SX6(DS) | 8-11 | 11-14 | 5.5 | 5.5 | 5.5 | |
| HIB...XEU25(DS) | EHIB...XEU25(DS) | 9-13 | 13-17 | 5 | 5 | 5 | |
| HIB...XEU25L(DS) | EHIB...XEU25L(DS) | 9-13 | 13-17 | 5 | 5 | 5 | |
| HIB...X5(DS) | EHIB...X5(DS) | 10-13 | 13-18 | 5.5 | 8 | 8 | |
| HIB...X6(DS) | EHIB...X6(DS) | 10-13 | 13-18 | 5.5 | 8 | 8 | |
| HIB...SX7(DS) | EHIB...SX7(DS) | 10-13 | 13-18 | 5.5 | 8 | 8 | |
| HIB...XEU32(DS) | EHIB...XEU32(DS) | 12-16 | 16-21 | 4.5 | 6 | 6 | |
| HIB...XEU32L(DS) | EHIB...XEU32L(DS) | 12-16 | 16-21 | 4.5 | 6 | 6 | |
| HIB...X7(DS) | EHIB...X7(DS) | 14-20 | 20-25 | 8 | 9 | 9 | |
| HIB...XEU40(DS) | EHIB...XEU40(DS) | 17-21 | 21-28 | 5 | 5 | 5 | |
| HIB...XEU40L(DS) | EHIB...XEU40L(DS) | 17-21 | 21-28 | 5 | 5 | 5 | |
| HIB...X8(DS) | EHIB...X8(DS) | 21-25 | 23-32 | 15 | 17.5 | 17.5 | |
| HIB...X9(DS) | EHIB...X9(DS) | 22-31 | 31-38 | 18 | 22 | 22 | |
| HIB...X10(DS) | EHIB...X10(DS) | 28-35 | 35-44 | 22 | 24 | 24 | |

| Table 3.8: HIT...- | | | | | | | |
|--------------------|------------|------------|-------------------|-----------|-----|-------------------|-----------------|
| Model | | | Torque value [Nm] | Model | | Torque value [Nm] | Mechanical risk |
| HITP-X02 | HITN-X02 | HITG-X02 | 1.5 | HITB-X1 | 1.5 | High (7J) | |
| HITP-X01 | HITN-X01 | HITG-X01 | 1.5 | HITB-X2 | 1.5 | | |
| HITP-X01L | HITN-X01L | HITG-X01L | 1.5 | HITB-X2L | 1.5 | | |
| HITP-X01HL | HITN-X01HL | HITG-X01HL | 1.5 | HITB-X2HL | 1.5 | | |
| HITP-X1 | HITN-X1 | HITG-X1 | 2 | HITB-X3 | 1.5 | | |
| HITP-X1L | HITN-X1L | HITG-X1L | 2 | HITB-X4 | 2 | | |
| HITP-X1HL | HITN-X1HL | HITG-X1HL | 2 | HITB-X4L | 2 | | |
| HITP-X2 | HITN-X2 | HITG-X2 | 2.5 | HITB-X4HL | 2 | | |
| HITP-X2HL | HITN-X2HL | HITG-X2HL | 2.5 | HITB-X5 | 2 | | |
| HITP-X3 | HITN-X3 | HITG-X3 | 4 | HITB-X6 | 2.5 | | |
| HITP-X4 | HITN-X4 | HITG-X4 | 6 | HITB-X6HL | 2.5 | | |
| HITP-X5 | HITN-X5 | HITG-X5 | 8 | HITB-X7 | 4 | | |
| HITP-X6 | HITN-X6 | HITG-X6 | 10 | HITB-X8 | 6 | | |
| - | - | - | - | HITB-X9 | 8 | | |
| - | - | - | - | HITB-X10 | 10 | | |

| Table 4: BDPX...- | | | | |
|---------------------------|-------------------------|-----------|---|--------------|
| From size ... | ... to size | Material | Mechanical risk | Sealing ring |
| M12/PG7/PF 1/4" / NPT1/4" | M63/PG48/PF 2" / NPT 2" | polyamide | High (7J) at T≥-40°C Low (4J) at T<-40°C | Single |
| M12/PG7/PF 1/4" / NPT1/4" | M32/PG21/PF 1" / NPT 1" | | High (7J) at T≥-40°C | Double |
| 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:

| Table 2: 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 | |
| HIB | 1 3 - 2 4 - 5 - 6 | |
| EHIB | 1 3 - 2 4 - 5 - 6 | |
| HIB | 1 - 2 4 (axb) 5 - 6 | 2 size and dimensions, according to Tables 3 |
| HIB | 1 3 - 2 4 - (DS) 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 - (DS) 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 (DS) double sealing ring (S1; S1+S2) DC double crowns (sealing rings) |
| | | 4 Sealing Material C: Chloroprene seal S: Silicone seal N: NBR (only codes H.. and EH..) |
| | | 5 Flat washer material Blank: Same material with sealing 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 |
| 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 |
| HIT | 1 - 2 3 4 | 2: size and dimensions, according to Tables 3 |

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| | | |
|---------------------------|-------------------|---|
| | 3 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 |
| BDPX 1 - 2 - 2 (3) | 1: | “ “ - 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.

[15.3] **Safety Ratings:**

None

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

See table 1 on page 3

[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:** AT21-0072183-01_B

[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.

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[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 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 B.-.; B..DC-. and T.-.
- The cable gland installation shall be done according to safety manufacturer instructions to maintain degree of protection.
- For gas installations (only for cable glands with M50/PG42/PF 1 1/2"/NPT 1 1/2" threads and following) and dust installations: Warning. Potential electrostatic charging hazard - See instructions. Clean only with antistatic clothes.
- When cable glands are installed with polyamide insert BDPX.-., mechanical risk have to be taken into account, depending on cable gland and insert cap. When insert cap 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 this 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

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[19] **Descriptive documents:**

DL-AT21-0072183-01_B 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.

[21] **Variations**

2015, February:

- 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 cap, 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.-.

August 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 :

- Changes in clamping range for rationalization between single and double sealing rings, for series HIB.-; HIB.-.(DS); EHIB.-; EHIB.-.(DS). These changes does not impair the validity of tests already performed.
- Change in cap shape for series EHIB.-; EHIB.-.(DS). The new design does not impair the validity of tests already performed.
- Change name for protection cap from BP.-. to BDPX.-.

April, 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).

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- Removing from series of cable gland Mhib... (samples with metal insert inside body).

May, 2017 :

- Change of address

July, 2017 :

- Editorial changes in Marking Specification

March, 2021:

- Standard update
- Temperature range for models BM-X2S, BM-SX5S, BM-SX7S has been changed from $-40^{\circ}\text{C} \div +80^{\circ}\text{C}$ to $-40^{\circ}\text{C} \div +85^{\circ}\text{C}$.
- Introduction of small equipment marking for model Ehib.-X M12-M16 cable gland sizes.

September, 2021

- Document list update

December, 2021

- Standard update