

**POLYAMIDE CABLE GLANDS TYPE B.-.; B.DC-  
PLUG TYPE T.-.  
AND  
HIGH IMPACT POLYAMIDE CABLE GLANDS TYPE HIB.-.; HIB.-.(DS); MHIB.-.; MHIB.-.(DS)  
AND  
HIGH IMPACT PLUG TYPE HIT.-.  
HIGH IMPACT PROTECTION TAP BP.-.  
SAFETY, MAINTENENCE AND MOUNTING INSTRUCTIONS**

**CERTIFICATE**

BMD BM-X2   0722 II 2GD Ex e IIC Gb/ Ex tb IIIC IP66/68  
Ta-40°C +80°C IMQ 13 ATEX 010X / IECEx IMQ 13.0003X  
BMD TP-X3   0722 II 2GD Ex e IIC Gb/ Ex tb IIIC IP66/68  
Ta-40°C +80°C IMQ 13 ATEX 010X / IECEx IMQ 13.0003X  
BMD HIBM-X5   0722 II2GD Ex e IIC Gb Ex tb IIIC Db IP66/68  
Ta -40°C +70°C IMQ 13 ATEX 010X / IECEx IMQ 13.0003X  
BMD HIBM-X5(DS)   0722 II2GD Ex e IIC Gb Ex tb IIIC Db IP66/68  
Ta -40°C +70°C IMQ 13 ATEX 010X / IECEx IMQ 13.0003X  
BMD MHIBM-X5   0722 II2GD Ex e IIC Gb Ex tb IIIC Db IP66/68  
Ta -40°C +70°C IMQ 13 ATEX 010X / IECEx IMQ 13.0003X  
BMD MHIBM-X5(DS)   0722 II2GD Ex e IIC Gb Ex tb IIIC Db IP66/68  
Ta -40°C +70°C IMQ 13 ATEX 010X / IECEx IMQ 13.0003X  
BMD BPT-X5/BPM-X2L (PG 16/ M20)

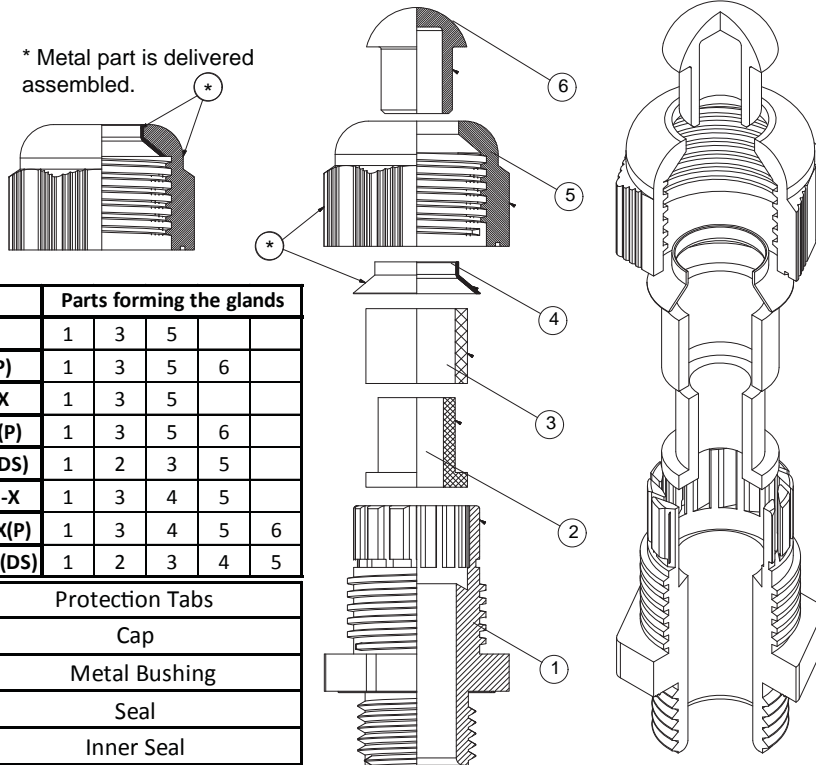
**APPLICABLE CODES**

|                 |                        |
|-----------------|------------------------|
| EN/IEC 60079-0  | EN/IEC 60079-31        |
| EN/IEC 60079-7  | EN/IEC 60529           |
| EN/IEC 60079-11 | DIRECTIVE 94/9/CE ATEX |

## SAFETY AND ASSEMBLING INSTRUCTIONS



- They are destined to qualified personnel in compliance with the national laws and where applicable, in accordance with EN/IEC 60079-17 (maintenance), and EN/IEC 60079-14 (installation)
- Standard, concerning electrical appliances to products are not allowed.
- Changes to products are not allowed.
- Only Bimed spare parts must be used.
- Everyday and extraordinary maintenance operations must be carried out only by qualified personnel after approval from expert technicians.
- The maintenance operations must be carried out only after the engine has been cut of from mains or from the related electrical appliance.
- The following instructions must be strictly followed in order to get a perfect assembly.
- The national safety rules and accident prevention regulations, specified as in this thecnical booklet, must be strictly respected.
- Warning: potential electrostatic charges hazard- clean only with wet clothes.



|    | Codes           | Parts forming the glands |   |   |   |   |
|----|-----------------|--------------------------|---|---|---|---|
| A  | BM-X            | 1                        | 3 | 5 |   |   |
| B  | BM-X(P)         | 1                        | 3 | 5 | 6 |   |
| C  | HIBM-X          | 1                        | 3 | 5 |   |   |
| D  | HIBM-X(P)       | 1                        | 3 | 5 | 6 |   |
| E  | HIBM-X(DS)      | 1                        | 2 | 3 | 5 |   |
| F  | MHIBM-X         | 1                        | 3 | 4 | 5 |   |
| G  | MHIBM-X(P)      | 1                        | 3 | 4 | 5 | 6 |
| H  | MHIBM-X(DS)     | 1                        | 2 | 3 | 4 | 5 |
| 6  | Protection Tabs |                          |   |   |   |   |
| 5  | Cap             |                          |   |   |   |   |
| 4  | Metal Bushing   |                          |   |   |   |   |
| 3  | Seal            |                          |   |   |   |   |
| 2  | Inner Seal      |                          |   |   |   |   |
| 1  | Body            |                          |   |   |   |   |
| No | Part Name       |                          |   |   |   |   |

## Non Threaded enclosure applications ( Ex e and Ex tb )

Recomended Hole Diameters For Non Threaded enclosure applications in relation with the used thread types are shown below.

| Metric Threads (EN 60423) |                                | PF Threads(GAS UNI ISO 228/1) |                                | PG Threads |                                |
|---------------------------|--------------------------------|-------------------------------|--------------------------------|------------|--------------------------------|
| Thread                    | Hole Diameter (min. - max. mm) | Thread                        | Hole Diameter (min. - max. mm) | Thread     | Hole Diameter (min. - max. mm) |
| M16 x 1.5                 | Ø16,0 - 16,3                   | G 3/8"                        | Ø16,6 - 16,9                   | PG 9       | Ø15,2 - 15,5                   |
| M20 x 1.5                 | Ø20,0 - 20,3                   | G 1/2"                        | Ø21,0 - 21,3                   | PG 11      | Ø18,6 - 18,9                   |
| M25 x 1.5                 | Ø25,0 - 25,3                   | G 3/4"                        | Ø26,4 - 26,7                   | PG 13,5    | Ø20,4 - 20,8                   |
| M32 x 1.5                 | Ø32,0 - 32,3                   | G 1"                          | Ø33,3 - 33,6                   | PG 16      | Ø22,5 - 22,8                   |
| M40 x 1.5                 | Ø40,0 - 40,3                   | G 1 1/4"                      | Ø41,9 - 42,2                   | PG 21      | Ø28,3 - 28,6                   |
| M50 x 1.5                 | Ø50,0 - 50,3                   | G 1 1/2"                      | Ø47,8 - 48,1                   | PG 29      | Ø37,0 - 37,3                   |
| M63 x 1.5                 | Ø63,0 - 63,3                   | G 2"                          | Ø59,6 - 59,9                   | PG 36      | Ø47,0 - 47,3                   |

### Remarks

- \*For non-threaded enclosure applications, min 3 threads should be engaged with the lock nut.
- \* For non-threaded enclosures it is recomended to use flat washer (flat, silicon, chloroprene, NBR) between the gland body and enclosure. During the assembly it is recommended to rotate the locknut. If the assembly needs to be done by rotating the gland, then oring should be used. The assembly is shown below.
- \*For oring material chloroprene (neoprene) or silicon, for flat washer material fiber, chloroprene (neoprene) or silicon rubber can be used.

### Mounting Instructions for BM-X, HIBM-X, HIBM-X(DS), MHIBM-X, MHIBM-X(DS), BM-X(P), HIBM-X(P), MHIBM-X(DS)

The gland is delivered as assembled. Loosen the cap so that the cable can pass through it.

- 1) Lead the cable through the cable gland.
- 2) Mount the cable gland to the appropriate opening on the enclosure. Tighten the gland or use a lock nut to tighten it if the enclosure is unthreaded.
- 3) Adjust the free length of the cable inside the enclosure and tighten the cap of the gland with sufficient torque.

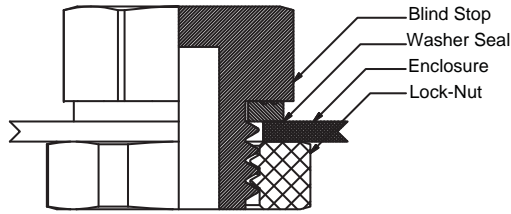
### Note:

- i) Double seal gasket combination offers wide cable clamping ranges. According to the diameter of the cable the outer sealing (3) or both (3 and 4) sealings shall be used.
- ii) Depending on temperature and humidity metal reinforced cap shall be used.

## Mounting Instructions of Blind Plugs

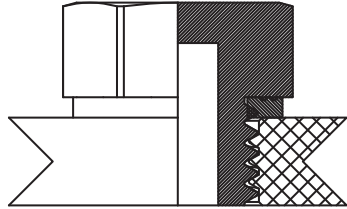
### Case 1

Blind plug is assembled with a washer and it is put through the enclosure's cut-out. The blind plug is then fixed with the aid of a lock nut and appropriate torque value and hole is sealed.



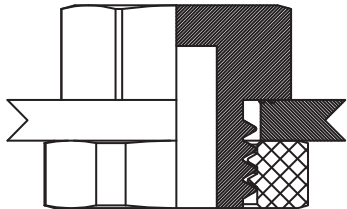
### Case 2

The product can be assembled with a thicker and threaded enclosure without a problem.



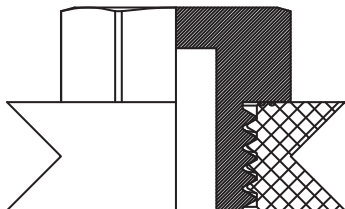
### Case 3

When water tightness is not an issue, the product is put through the enclosure's cut-out and the connection is maintained with a nut. This applies only non-threaded enclosures.



### Case 4

When water tightness is not an issue, the assembly is maintained without a washer provided that the thread form and enclosure thickness allow.



| Materials and service temperatures |                       |                        |   |   |                 |
|------------------------------------|-----------------------|------------------------|---|---|-----------------|
| Series                             | Service temperature * | Sealing rings material | Flat washer materials   | OR materials                                      | Mechanical risk |
| BX.-                               | -40 ÷ +80 °C          | chloroprene (neoprene) | chloroprene (neoprene)  | chloroprene (neoprene)<br>silicone                | Low (4J)        |
|                                    |                       | silicone               | silicone<br>KLINGERSIL® C-4400<br>EPDM rubber                           | EPDM rubber                                       |                 |
| B.DC.-                             | -40 ÷ +80 °C          | chloroprene (neoprene) | chloroprene (neoprene)  | chloroprene (neoprene)<br>silicone                | Low (4J)        |
|                                    |                       | silicone               | silicone<br>KLINGERSIL® C-4400<br>EPDM rubber                           | EPDM rubber                                       |                 |
| T.-                                | -40 ÷ +80 °C          | -                      | chloroprene (neoprene)<br>silicone<br>KLINGERSIL® C-4400<br>EPDM rubber | -   | Low (4J)        |
| HIB.-                              | -30 ÷ +70 °C          | NBR                    | chloroprene (neoprene)<br>silicone                                      | chloroprene (neoprene)<br>silicone<br>EPDM rubber | High (7J)       |
|                                    | -40 ÷ +70 °C          | chloroprene (neoprene) | KLINGERSIL® C-4400  |   |                 |
|                                    | -60 ÷ +70 °C          | silicone               | EPDM rubber   |   |                 |
| HIB.-.(DS)                         | -30 ÷ +70 °C          | NBR                    | chloroprene (neoprene)<br>silicone                                      | chloroprene (neoprene)<br>silicone<br>EPDM rubber | High (7J)<br>** |
|                                    | -40 ÷ +70 °C          | chloroprene (neoprene) | KLINGERSIL® C-4400  |   |                 |
|                                    | -60 ÷ +70 °C**        | silicone               | EPDM rubber   |   |                 |
| MHIB.-                             | -30 ÷ +70 °C          | NBR                    | chloroprene (neoprene)<br>silicone                                      | chloroprene (neoprene)<br>silicone<br>EPDM rubber | High (7J)<br>** |
|                                    | -40 ÷ +70 °C          | chloroprene (neoprene) | KLINGERSIL® C-4400  |   |                 |
|                                    | -60 ÷ +70 °C**        | silicone               | EPDM rubber   |   |                 |
| MHIB.-.(DS)                        | -30 ÷ +70 °C          | NBR                    | chloroprene (neoprene)<br>silicone                                      | chloroprene (neoprene)<br>silicone<br>EPDM rubber | High (7J)<br>** |
|                                    | -40 ÷ +70 °C          | chloroprene (neoprene) | KLINGERSIL® C-4400  |   |                 |
|                                    | -60 ÷ +70 °C**        | silicone               | EPDM rubber   |   |                 |
| HIT.-X.                            | -30 ÷ +70 °C          | -                      | NBR   | -   | High (7J)       |
|                                    | -40 ÷ +70 °C          |                        | chloroprene (neoprene)<br>EPDM rubber                                   |   |                 |
|                                    | -60 ÷ +70 °C          |                        | silicone  |   |                 |
|                                    | -60 ÷ +70 °C          |                        | KLINGERSIL® C-4400  |   |                 |

| Model     | Thread   | Min-max cable [mm] | Mechanical risk |          |
|-----------|----------|--------------------|-----------------|----------|
| BM-SX2    | M20x1.5  | 5,0-10,0           | Low (4J)        |          |
| BM-X2     | M20x1.5  | 6,0-12,0           |                 |          |
| BM-X2L    | M20x1.5  | 6,0-12,0           |                 |          |
| BM-X3     | M20x1.5  | 10,0-14,0          |                 |          |
| BM-X4     | M20x1.5  | 10,0-14,0          |                 |          |
| BM-SX5    | M25x1.5  | 10,0-14,0          |                 |          |
| BM-X5     | M25x1.5  | 13,0-18,0          |                 |          |
| BM-SX6    | M25x1.5  | 10,0-14,0          |                 |          |
| BM-X6     | M25x1.5  | 13,0-18,0          |                 |          |
| BM-XEU25  | M25x1.5  | 11,0-17,0          |                 |          |
| BM-XEU32  | M32x1.5  | 15,0-21,0          | Low (4J)        |          |
| BM-SX7    | M32x1.5  | 13,0-18,0          |                 |          |
| BM-X7     | M32x1.5  | 18,0-25,0          |                 |          |
| BM-XEU40  | M40x1.5  | 19,0-28,0          |                 |          |
| BM-XEU40L | M40x1.5  | 19,0-28,0          |                 |          |
| BM-X8     | M40x1.5  | 22,0-32,0          |                 |          |
| BM-X9     | M50x1.5  | 30,0-38,0          |                 |          |
| BM-X10    | M63x1.5  | 34,0-44,0          |                 |          |
| BN-SX2    | NPT 1/2" | 5,0-10,0           |                 | Low (4J) |
| BN-X2     | NPT 1/2" | 6,0-12,0           |                 |          |
| BN-LX2    | NPT 1/2" | 10,0-14,0          |                 |          |
| BN-X3     | NPT 3/4" | 13,0-18,0          |                 |          |
| BN-X4     | NPT 1"   | 18,0-25,0          | Low (4J)        |          |
| BPF-SX2   | PF 1/2"  | 5,0-10,0           |                 |          |
| BPF-X2    | PF 1/2"  | 6,0-12,0           |                 |          |
| BPF-LX2   | PF 1/2"  | 10,0-14,0          |                 |          |
| BPF-X3    | PF 3/4"  | 13,0-18,0          |                 |          |
| BPF-X4    | PF 1"    | 18,0-25,0          | Low (4J)        |          |
| BP-X4     | PG 13,5  | 6,0-12,0           |                 |          |
| BP-X5     | PG 16    | 10,0-14,0          |                 |          |
| BP-X6     | PG 21    | 13,0-18,0          |                 |          |
| BP-X7     | PG 29    | 18,0-25,0          |                 |          |
| BP-X8     | PG 36    | 22,0-32,0          |                 |          |
| BP-X9     | PG 42    | 30,0-38,0          |                 |          |
| BP-X10    | PG 48    | 34,0-44,0          |                 |          |
| BMDC-X3   | M25x1.5  | 12,0-18,0          | Low (4J)        |          |

| Table 3.8: BP-.-           |                         |           |   |
|----------------------------|-------------------------|-----------|---|
| From size ...              | ... to size             | Material  | Mechanical risk                             |
| M16/PG9/PF 3/4" / NPT 3/4" | M63/PG48/PF 2" / NPT 2" | polyamide | High (7J) at T≥-40°C<br>Low (4J) at T<-40°C |

| Model       | Min-max cable [mm] | Mechanical risk |
|-------------|--------------------|-----------------|
| HIB.-OX5    | 4-6.5              | High (7J)       |
| HIB.-X5     | 4-6.5              |                 |
| HIB.-SX1    | 5-8                |                 |
| HIB.-SX1L   | 5-8                |                 |
| HIB.-X1     | 6-10               |                 |
| HIB.-X1L    | 6-10               |                 |
| HIB.-SX2    | 6-10               |                 |
| HIB.-X2     | 7-12               |                 |
| HIB.-X2L    | 7-12               |                 |
| HIB.-MX2    | 7-13               |                 |
| HIB.-X3     | 11-14              | High (7J)       |
| HIB.-X4     | 11-14              |                 |
| HIB.-SX5    | 11-14              |                 |
| HIB.-SX6    | 11-14              |                 |
| HIB.-XEU25  | 12-17              |                 |
| HIB.-XEU25L | 12-17              |                 |
| HIB.-X5     | 14-18              |                 |
| HIB.-X6     | 14-18              |                 |
| HIB.-SX7    | 14-18              |                 |
| HIB.-XEU32  | 16-21              |                 |
| HIB.-XEU32L | 16-21              | High (7J)       |
| HIB.-X7     | 19-25              |                 |
| HIB.-XEU40  | 20-28              |                 |
| HIB.-XEU40L | 20-28              |                 |
| HIB.-X8     | 23-32              |                 |
| HIB.-X9     | 31-38              |                 |
| HIB.-X10    | 35-44              |                 |

| Model           | Min-max cable [mm] |       | Mechanical risk   |
|-----------------|--------------------|-------|---|
|                 | S1+S2              | S1    |   |
| HIB.-OX5(DS)    | 3-4                | 4-6.5 | High (7J)   |
| HIB.-XS(DS)     | 3-4                | 4-6.5 |   |
| HIB.-SX1(DS)    | 4-5                | 5-8   | High (7J)<br>Models with silicone sealing rings have the reduced temperature range -40±70°C |
| HIB.-SX1L(DS)   | 4-5                | 5-8   |   |
| HIB.-X1(DS)     | 4-7                | 6-10  |   |
| HIB.-X1L(DS)    | 4-7                | 6-10  |   |
| HIB.-SX2(DS)    | 4-7                | 6-10  |   |
| HIB.-X2(DS)     | 6-8.5              | 7-12  |   |
| HIB.-X2L(DS)    | 6-8.5              | 7-12  |   |
| HIB.-MX2(DS)    | 4-7                | 7-13  |   |
| HIB.-X3(DS)     | 8-12               | 11-14 |   |
| HIB.-X4(DS)     | 8-12               | 11-14 |   |
| HIB.-SX5(DS)    | 8-12               | 11-14 | High (7J)   |
| HIB.-SX6(DS)    | 8-12               | 11-14 |   |
| HIB.-XEU25(DS)  | 9-13               | 12-17 |   |
| HIB.-XEU25L(DS) | 9-13               | 12-17 |   |
| HIB.-X5(DS)     | 10-14              | 14-18 |   |
| HIB.-X6(DS)     | 10-14              | 14-18 |   |
| HIB.-SX7(DS)    | 10-14              | 14-18 |   |
| HIB.-XEU32(DS)  | 12-16              | 16-21 |   |
| HIB.-XEU32L(DS) | 12-16              | 16-21 |   |
| HIB.-X7(DS)     | 14-20              | 19-25 |   |
| HIB.-XEU40(DS)  | 17-21              | 20-28 |   |
| HIB.-XEU40L(DS) | 17-21              | 20-28 |   |
| HIB.-X8(DS)     | 21-26              | 23-32 |   |
| HIB.-X9(DS)     | 22-31              | 31-38 |   |
| HIB.-X10(DS)    | 28-35              | 35-44 |   |

**EC DECLARATION OF CONFORMITY**

We declare that the products designed to be placed on the market for use in the explosive atmospheres described below:

Cable glands type; B..-X, B..DC-X,  
High impact cable glands type; HIB..-X, HIB..-X(DS), MHIB..-X, MHIB..-X(DS)  
Plugs type; TP-X,  
High impact plugs type; HTP-X

are in execution Ex e IIC Gb/ Ex tb IIIC Db IP66/68

Certificate number : IMQ 13 ATEX 10X

Satisfy

The dispositions applied of them directive ATEX 94/9/EC  
The harmonized standards applied :  
EN 60070-0:2012; EN 60079-7:2007; EN 60079-11:2012; EN 60079-31:2009

These products has been designed, manufactured and controlled within the guidelines of a quality insurance system which is certificated to be conform with ISO 9001:2008 and EN ISO 80079-34.

Notified body CESI 0722

Istanbul 22-06-2015

General Manager

bimed  
TEKNIK ALETLER  
SANAYİ VE TİCARET  
A.Ş.

| Model            | Min-max cable [mm] |       | Mechanical risk  |
|------------------|--------------------|-------|--|
|                  | S1+S2              | S1    |  |
| MHIB.-0XS(DS)    | 3-4                | 4-6.5 | High (7J)<br>Models with silicone sealing rings have the reduced temperature range -40/+70°C |
| MHIB.-XS(DS)     | 3-4                | 4-6.5 |  |
| MHIB.-SX1(DS)    | 4-5                | 5-8   |  |
| MHIB.-SX1L(DS)   | 4-5                | 5-8   |  |
| MHIB.-X1(DS)     | 4-7                | 6-10  |  |
| MHIB.-X1L(DS)    | 4-7                | 6-10  |  |
| MHIB.-SX2(DS)    | 4-7                | 6-10  |  |
| MHIB.-X2(DS)     | 6-8.5              | 7-12  |  |
| MHIB.-X2L(DS)    | 6-8.5              | 7-12  |  |
| MHIB.-MX2(DS)    | 4-7                | 7-13  |  |
| MHIB.-X3(DS)     | 8-12               | 11-14 |  |
| MHIB.-X4(DS)     | 8-12               | 11-14 |  |
| MHIB.-SX5(DS)    | 8-12               | 11-14 |  |
| MHIB.-SX6(DS)    | 8-12               | 11-14 |  |
| MHIB.-XEU25(DS)  | 9-13               | 12-17 |  |
| MHIB.-XEU25L(DS) | 9-13               | 12-17 |  |
| MHIB.-X5(DS)     | 10-14              | 14-18 |  |
| MHIB.-X6(DS)     | 10-14              | 14-18 |  |
| MHIB.-X7(DS)     | 10-14              | 14-18 |  |
| MHIB.-XEU32(DS)  | 12-16              | 16-21 |  |
| MHIB.-XEU32L(DS) | 12-16              | 16-21 |  |
| MHIB.-X7(DS)     | 14-20              | 19-25 |  |
| MHIB.-XEU40(DS)  | 17-21              | 20-28 |  |
| MHIB.-XEU40L(DS) | 17-21              | 20-28 |  |
| MHIB.-X8(DS)     | 21-26              | 23-32 |  |
| MHIB.-X9(DS)     | 22-31              | 31-38 |  |
| MHIB.-X10(DS)    | 28-35              | 35-44 |  |

| Model        | Min-max cable [mm] | Mechanical risk  |
|--------------|--------------------|--|
| MHIB.-0XS    | 4-6.5              | High (7J)<br>Models with silicone sealing rings have the reduced temperature range -40/+70°C |
| MHIB.-XS     | 4-6.5              |  |
| MHIB.-SX1    | 5-8                |  |
| MHIB.-SX1L   | 5-8                |  |
| MHIB.-X1     | 6-10               |  |
| MHIB.-X1L    | 6-10               |  |
| MHIB.-SX2    | 6-10               |  |
| MHIB.-X2     | 7-12               |  |
| MHIB.-X2L    | 7-12               |  |
| MHIB.-MX2    | 7-13               |  |
| MHIB.-X3     | 11-14              |  |
| MHIB.-X4     | 11-14              |  |
| MHIB.-SX5    | 11-14              |  |
| MHIB.-SX6    | 11-14              |  |
| MHIB.-XEU25  | 12-17              |  |
| MHIB.-XEU25L | 12-17              |  |
| MHIB.-X5     | 14-18              |  |
| MHIB.-X6     | 14-18              |  |
| MHIB.-X7     | 14-18              |  |
| MHIB.-XEU32  | 16-21              |  |
| MHIB.-XEU32L | 16-21              |  |
| MHIB.-X7     | 19-25              |  |
| MHIB.-XEU40  | 20-28              |  |
| MHIB.-XEU40L | 20-28              |  |
| MHIB.-X8     | 23-32              |  |
| MHIB.-X9     | 31-38              |  |
| MHIB.-X10    | 35-44              |  |