

**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, MAINTENANCE 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

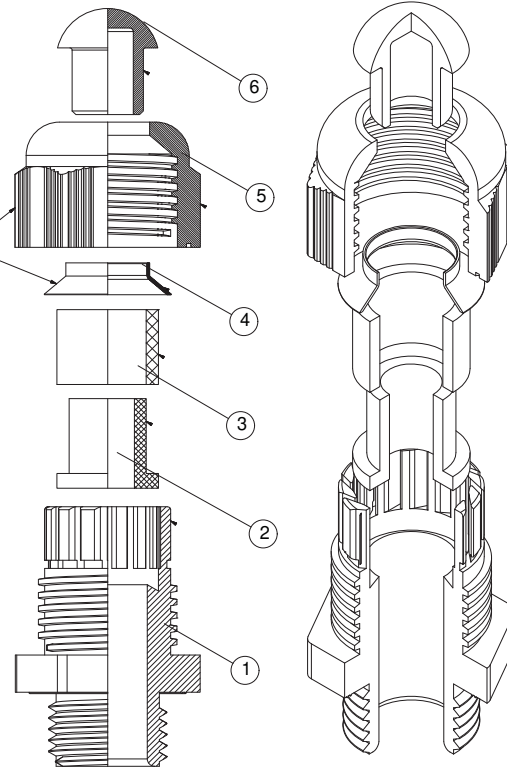
EN/IEC 60079-0	EN/IEC 60079-31
EN/IEC 60079-7	EN/IEC 60529
EN/IEC 60079-11	DIRECTIVE 94/9/CE ATEX

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.

* Metal part is delivered assembled.

	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 recommended 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.

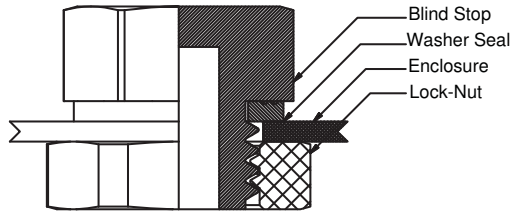
Note:

- 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

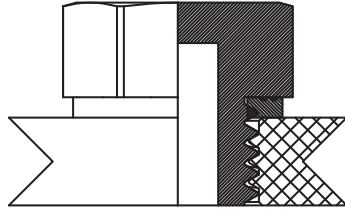
Case 1

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.



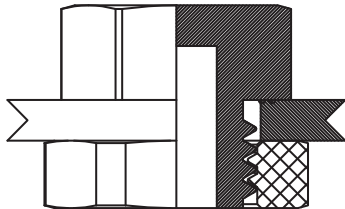
Case 2

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



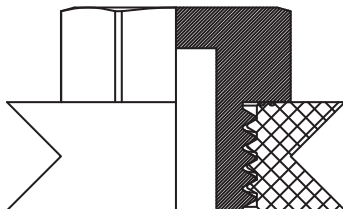
Case 3

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) silicone	Low (4J)
		silicone	silicone	EPDM rubber	
			KLINGERSIL® C-4400		
			EPDM rubber		
B.DC.-.	-40 ÷ +80 °C	chloroprene (neoprene)	chloroprene (neoprene)	chloroprene (neoprene) silicone	Low (4J)
		silicone	silicone	EPDM rubber	
			KLINGERSIL® C-4400		
			EPDM rubber		
T.-.	-40 ÷ +80 °C	-	chloroprene (neoprene)	-	Low (4J)
			silicone		
			KLINGERSIL® C-4400		
			EPDM rubber		
HIB.-.	-30 ÷ +70 °C	NBR	chloroprene (neoprene)	chloroprene (neoprene) silicone	High (7J)
			silicone	EPDM rubber	
	-40 ÷ +70 °C	chloroprene (neoprene)	KLINGERSIL® C-4400		
	-60 ÷ +70 °C	silicone	EPDM rubber		
HIB.-.(DS)	-30 ÷ +70 °C	NBR	chloroprene (neoprene)	chloroprene (neoprene) silicone	High (7J)
			silicone	EPDM rubber	**
	-40 ÷ +70 °C	chloroprene (neoprene)	KLINGERSIL® C-4400		
	-60 ÷ +70 °C**	silicone	EPDM rubber		
MHIB.-.	-30 ÷ +70 °C	NBR	chloroprene (neoprene)	chloroprene (neoprene) silicone	High (7J)
			silicone	EPDM rubber	**
	-40 ÷ +70 °C	chloroprene (neoprene)	KLINGERSIL® C-4400		
	-60 ÷ +70 °C**	silicone	EPDM rubber		
MHIB.-.(DS)	-30 ÷ +70 °C	NBR	chloroprene (neoprene)	chloroprene (neoprene) silicone	High (7J)
			silicone	EPDM rubber	**
	-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)		
			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	
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	Low (4J)
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	
BN-X2	NPT 1/2"	6,0-12,0	Low (4J)
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	
BPF-SX2	PF 1/2"	5,0-10,0	Low (4J)
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/PG ¾" / NPT ¾"	M63/PG48/PG 2" / NPT 2"	polyamide	High (7J) at T≥-40°C 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	
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	
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) 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	
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	High (7J)
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; HITP-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
MHIB...0XS(DS)	3-4	4-6.5	High (7J) 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	High (7J)
MHIB...XEU25L(DS)	9-13	12-17	
MHIB...X5(DS)	10-14	14-18	
MHIB...X6(DS)	10-14	14-18	
MHIB...SX7(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	4-6.5	High (7J) Models with silicone sealing rings have the reduced temperature range -40/+70°C
MHIB...XS	4-6.5	4-6.5	
MHIB...SX1	5-8	5-8	
MHIB...SX1L	5-8	5-8	
MHIB...X1	6-10	6-10	
MHIB...X1L	6-10	6-10	
MHIB...SX2	6-10	6-10	
MHIB...X2	7-12	7-12	
MHIB...X2L	7-12	7-12	
MHIB...MX2	7-13	7-13	
MHIB...X3	11-14	11-14	
MHIB...X4	11-14	11-14	
MHIB...SX5	11-14	11-14	
MHIB...SX6	11-14	11-14	
MHIB...XEU25	12-17	12-17	High (7J)
MHIB...XEU25L	12-17	12-17	
MHIB...X5	14-18	14-18	
MHIB...X6	14-18	14-18	
MHIB...SX7	14-18	14-18	
MHIB...XEU32	16-21	16-21	
MHIB...XEU32L	16-21	16-21	
MHIB...X7	19-25	19-25	
MHIB...XEU40	20-28	20-28	
MHIB...XEU40L	20-28	20-28	
MHIB...X8	23-32	23-32	
MHIB...X9	31-38	31-38	
MHIB...X10	35-44	35-44	