TEKNIK ALETLER SANAYI VE TICARET A.S.
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Rev.02

Polyamide Cable Glands for circular cables Type B..-.; and Plug Type T.-.
High Impact Polyamide Cable Glands for circular cables Type HIB..-.; HIB..-.(DS); EHIB..-.; EHIB..-.(DS)
High Impact Polyamide Cable Glands for non-circular (flat) cables Type HIB.-.(axb)
High Impact Plug Type HIT.-.
High Impact Protection Tap BDPX-.-.
SAFETY, MAINTENENCE AND MOUNTING INSTRUCTIONS

CERTIFICATE

BMD BM... Ex CE 0722 II 2GD Ex e IIC Gb/ Ex tb IIIC IP66/68
IMQ 13 ATEX 010X / IECEx IMQ 13.0003X

BMD TP... Ex CE 0722 II 2GD Ex e IIC Gb/ Ex tb IIIC IP66/68
IMQ 13 ATEX 010X / IECEx IMQ 13.0003X

BMD HIBM... Ex CE 0722 II2GD Ex e IIC Gb Ex tb IIIC Db IP66/68
IMQ 13 ATEX 010X / IECEx IMQ 13.0003X

BMD HIBM...(DS) Ex CE 0722 II2GD Ex e IIC Gb Ex tb IIIC Db IP66/68
IMQ 13 ATEX 010X / IECEx IMQ 13.0003X

BMD EHIBM... Ex CE 0722 II2GD Ex e IIC Gb Ex tb IIIC Db IP66/68
IMQ 13 ATEX 010X / IECEx IMQ 13.0003X

BMD EHIBM-... Ex CE 0722 II2GD Ex e IIC Gb Ex tb IIIC Db IP66/68
IMQ 13 ATEX 010X / IECEx IMQ 13.0003X
BMD BDPX-18-22 (PG 16/ M20)

APPLICABLE CODES

EN/IEC 60079-0
EN/IEC 60079-7
EN/IEC 60529
DIRECTIVE 94/9/CE
DIRECTIVE 2014/34/EU
EN/IEC 60079-11
EN/IEC 60079-31

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SAFETY AND ASSEMBLING INSTRUCTIONS

-Qualified personnel in compliance with the nation laws shall carry out the maintanence in accordance with EN/IEC 60079-17 and installation in accordance with EN/IEC 60079-14.
-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 off from mains or from the related electrical appliance.
-The following instructions must be strictly followed in order to get a correct installation.
-The national safety rules and accident prevention regulations, must be strictly respected.
-Ex e II Gb cable glands can be used with Ex-i circuits, in that case caps shall be in blue color.
-The cable gland installation shall be done according to safety manufacturer instructions to maintain degree of protection.
-Cable gland installation shall be done taking into account the temperature range declared for cable glands in relation to protection mode execution, versus the ambient temperature proper of installation.
-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/PF1 1/2"/NPT1 1/2" threads and following) and dust installations: Warning. Potential electrostatic charging hazard - See instructions. Clean only with antistatic clothes.
-Cable glands for non circular cables shall be fitted with proper cables, sutiable for sealing ring, according to manufacturer's instruction.
-The certificate does not indicate compliance with electrical safety and performance requirements other than those expressly included in the Standards listed in the first page of the manual.
-The certificate does not cover hazards coming from environmental conditions different from those clearly and precisely indicated in clause 1 of EN 60079-0.
-Flat washer material should be same material with the inner sealing of the gland. Service temperature of the gland is related to the material of the sealing ring but can additionally be limited by the material of the flat washer/oring/accessories. The use of these materials has to be taken in account in determination of upper and lower service temperature of the glands.
-When cable glands are installed with polyamide insert BDPX-.-., mechanical risk have to be taken into account, depending on the cable gland and insert tap. When inster tap is removed in order to install the proper cable, the integrity of sealing rings have to be checked, in order to guarentee the correct tightness. If necessary, sealing rings have to be replaced with new ones (original spare parts only).
-For O-Ring material chloroprene/silicon or EPDM can be used.
-For Flat washer material fiber, silicon, chloroprene can be used.

IP protection for Non Threaded enclosure applications (Ex e and Ex tb)

Metric Threads	
Thread	Hole Diameter (min. - max. mm)
M8 x 1.25	Ø8,0 - 8,2
M12 x 1.5	Ø12,0 - 12,2
M16 x 1.5	Ø16,0 - 16,2
M20 x 1.5	Ø20,0 - 20,2
M25 x 1.5	Ø25,0 - 25,2
M32 x 1.5	Ø32,0 - 32,3
M40 x 1.5	Ø40,0 - 40,3
M50 x 1.5	Ø50,0 - 50,3
M63 x 1.5	Ø63,0 - 63,3
M75 x 1.5	Ø75,0 - 75,3
M90 x 1.5	Ø90,0 - 90,3
M100 x 1.5	Ø100,0 - 100,3
M110 x 1.5	Ø110,0 - 110,3
M115 x 2.0	Ø115,0 - 115,3
M130 x 2.0	Ø130,0 - 130,3

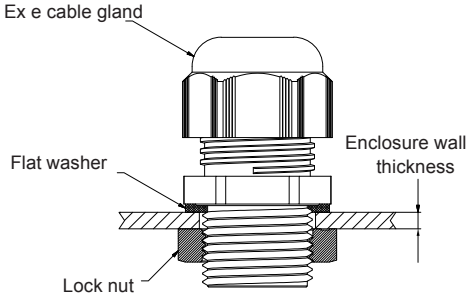
G Threads (GAS UNI ISO 228/1)	
Thread	Hole Diameter (min. - max. mm)
G 1/4"	Ø13,2 - 13,4
G 3/8"	Ø16,6 - 16,8
G 1/2"	Ø21,0 - 21,2
G 3/4"	Ø26,4 - 26,6
G 1"	Ø33,3 - 33,6
G 1 1/4"	Ø41,9 - 42,2
G 1 1/2"	Ø47,8 - 48,1
G 2"	Ø59,6 - 59,9
G 2 1/2"	Ø75,2 - 75,5
G 3"	Ø87,9 - 88,2
G 4"	Ø113,1 - 113,4
G 5"	Ø138,5 - 138,8

PG Threads	
Thread	Hole Diameter (min. - max. mm)
PG 7	Ø12,5 - 12,7
PG 9	Ø15,2 - 15,4
PG 11	Ø18,6 - 18,8
PG 13,5	Ø20,4 - 20,6
PG 16	Ø22,5 - 22,7
PG 21	Ø28,3 - 28,5
PG 29	Ø37,0 - 37,3
PG 36	Ø47,0 - 47,3
PG 42	Ø54,0 - 54,3
PG 48	Ø59,3 - 59,6

Recomended Hole Diameters For Non Threaded enclosure applications in relation with the used thread types are shown above. For for more detailed information please refer to CA4-IP.

For non-threaded enclosures it is recomended to use flat washer,between the gland body and enclosure. The recomended wall thickness is 1,5 mm for non threaded enclosures.
For non-threaded enclosures, in case of enclosure wall thickness is equal or lower than 1,5 mm, Bimed flat washer should be used. Oring can stay in the channel if it is necessary. 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 preferred.

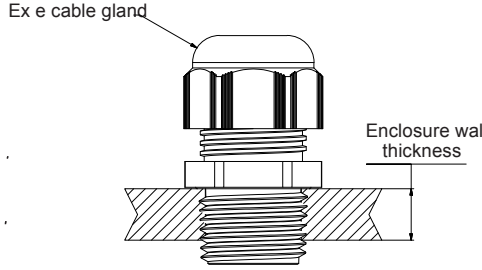
IP protection for cylindrical threaded joint



Ex e :

- The recomended wall thickness is min 1.5mm for non threaded enclosures.
- For threaded enclosures the recomended min wall thickness must be equal to the thickness of the relevant lock nut.

IP protection for tapered threaded joint



Ex e:
-For NPT thread Ex e applications, please refer to NPT ANSI B1.20.1 standard.

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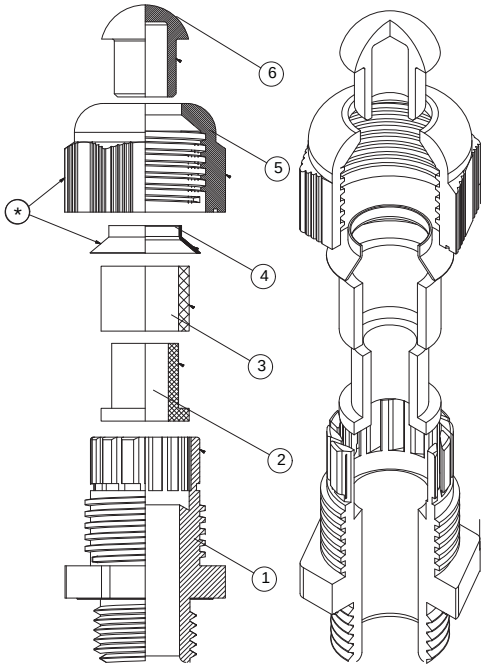
	Codes	Parts forming the glands				
A	BM-X	1	3	5		
B	BM-X(P)	1	3	5	6	
C	HIBM-X	1	3	5		
D	HIBM-X(P)	1	3	5	6	
E	HIBM-X(DS)	1	2	3	5	
F	EHIBM-X	1	3	5		
G	EHIBM-X(P)	1	3	5	6	
H	EHIBM-X(DS)	1	2	3	5	

No	Part Name
6	Protection Tabs
5	Cap
4	Metal Bushing
3	Seal
2	Inner Seal
1	Body



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

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

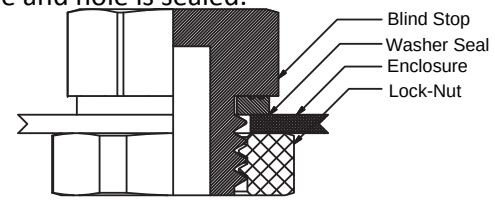
1) Lead the cable through the cable gland.
2) Mount the cable gland to the appropriate opening on the enclosure. Tighten the gland or use a lock nut to tighten it if the enclosure is unthreaded.
3) Adjust the free length of the cable inside the enclosure and tighten the cap of the gland with sufficient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

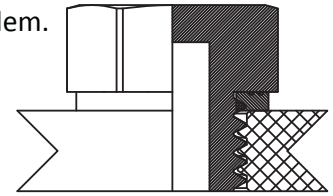
Case 1

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 appopriate torque value and hole is sealed.



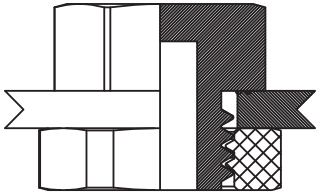
Case 2

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 mainteined 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.

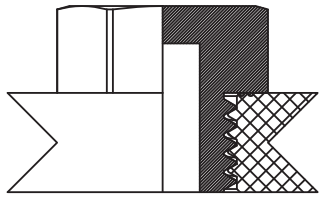


Table : BDPX.-.				
From size ...	... to size	Material	Mechanical risk	Sealing ring
M12/PG7/PF 1/4"/ NPT1/4"	M63/PG48/PF 2"/ NPT 2"	polyamide	High (7J) at T≥-40°C Low (4J) at T<-40°C	Single
M12/PG7/PF 1/4"/ NPT1/4"	M32/PG21/PF 1"/ NPT 1"		High (7J) at T≥-40°C	Double
M32/PG21/PF 1"/ NPT 1"	M63/PG48/PF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

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EU DECLERATION OF CONFORMITY

Bimed Teknik Aletler San. ve Tic. A.Ş.
S.S. Bakır Pirinç Sanayi Sitesi Leylak Cad. No:15 34524 Beylikdüzü/ İstanbul TURKEY
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declares that the products designed to be placed on the market for use in the explosive atmospheres descrived below;

Cable Gland Types:	**B.-., B.DC.-.**
High Impact Cable Gland Types:	**HIB.-., HIB.-.(DS), MHIB.-., MHIB.-.(DS), EHIB.-., EHIB.-.(DS)**
Plug Types:	**T.-.**
High Impact Plug Types:	**HIT.-.**

are in execution Ex e IIC Gb/ Ex tb IIIC Db IP66/68 with certificate number, **IMQ 13 ATEX 010X**

The dispositions applied of them directive; ATEX 2014/34/EU

The harmonized standards applied:
EN 60079-0:2012
EN 60079-7:2007
EN 60079-31:2014

The complience of the equipment is not influced by the modifications introduced by harmonized standards

EN 60079-7:2015

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 and EN ISO 80079-34.

Notified body CESI 0722

Istanbul, 20.04.2016

General Manager
Yakup Gülnihal

bimed TEKNİK ALETLER SANAYİ ve TİCARET A.Ş.

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		
EHIB.-.	-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		
EHIB.-.(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		