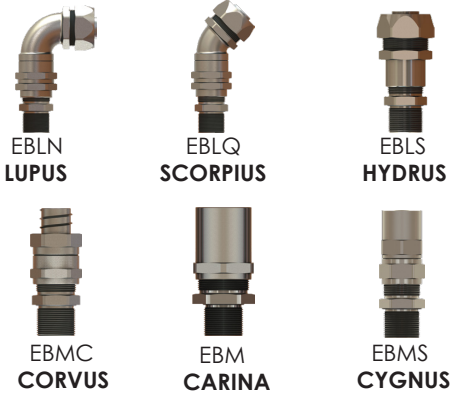


SAFETY, MAINTENANCE AND MOUNTING INSTRUCTIONS

IMQ 13 ATEX 018X IECEx IMQ 13.0006X GLANDS TYPES



Rev. 0

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MARKINGS

BMD EBLN..	CC 0722	IP66/68 Ex db IIC Gb Ex eb IIC Gb Ex Ib IIIC Db IECEx IMQ 13.0006X
BMD EBLN...(axb)	CC 0722	IP66/68 Ex db IIC Gb Ex Ib IIIC Db IP64/68 IMQ 13 ATEX 018X /IECEx IMQ 13.0006X

APPLICABLE STANDARDS

DIRECTIVE 2014/34/EU	EN/IEC 60079-7
EN/IEC 60079-0	EN/IEC 60079-31
EN/IEC 60079-1	EN/IEC 60529

OPERATING TEMPERATURES

for Ex db, Ex eb, Ex Ib execution, supplied with Silicon sealing rings, O-rings or washers: Ta -60°C +80°C supplied with Chloroprene sealing rings, O-rings or washers: Ta -40°C +80°C for Ex eb, Ex Ib execution, supplied with Silicon sealing rings, O-rings or washers: Ta -60°C +140°C supplied with Chloroprene sealing rings, O-rings or washers: Ta -40°C +80°C

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SAFETY INSTRUCTION

- Qualified personnel in compliance with the nation laws shall carry out the maintenance 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 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.
- In case of ambient temperature is below -30°C, austenitic steels must be used according to EN10213-3 (Brass or Stainless steel AISI 316).
- The clamping of the cables must be realised outside of enclosure by appropriate torque values to guarantee the mechanical characteristics.
- The cable glands can be used with Ex i circuits.
- The cable glands are only suitable for fixed installations. Cables shall be effectively clamped to prevent pulling or twisting.
- 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.
- When cable glands are installed with polyamide insert BDPX..., mechanical risk have to taken into account, depending on cable gland and insert tap. The upper operating temperature is limited to 70aC. When insert tap is removed in order to install to 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. Precautions shall be taken in order to guarantee protection against risk of mechanical damage is provided, when insert taps are suitable for low mechanical risk (4J) only.
- Cable glands for non-circular cables shall be fitted with proper cables, suitable 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.

3 Mounting Instruction EBLN & EBLQ

4 EBLN & EBLQ Size Tables

5 Mounting Instruction EBL5

6 EBL5 Size Tables

Step 1
1- Hold the assembled gland straight and disassemble the parts as A, B, C, D, E, F and G

Step 2
2- Choose the optimal seal combination according to the cable diameter which is going to be tightened. (For triple seal combination, it is enough to disassemble only part E, F and G)

Step 3
3- For double seal combination, part B is an obstacle to tighten the desired cable size. First take out part B to complete the seal combination.

Step 4
4- Assemble the seal combination inside part A. Mount parts A, C, D on the enclosure with sufficient torque value.

Step 5
5- Insert the cable inside the gland for installation and tighten part E on to part A with sufficient torque value.

Step 6
6- Place J and G on the conduit hose.

Step 7
7- Place H on the conduit hose and then screw conduit hose until it is fully engaged. And place H into the F.

Step 8
8- Tighten G on to the F with sufficient torque value.

Thread Type METRIC acc. to ISO 965-3								
Outer Thread Size (Male)	For Seal/Thread Nominal Size	Clamping Range			Torque			Part Number
		S1+S2+S3 min-max mm	S1+S2 min-max mm	S1 min-max mm	S1+S2+S3 Nm	S1+S2 Nm	S1 Nm	
M12x1.5	1/2"	4-6	6-8	-	20	18	-	EBLN02M
M16x1.5	1/2"	4-6	6-9	9-12	20	18	15	EBLN01M
M20x1.5	3/8"	4-6	6-9	9-10	20	18	15	EBLN15M
M25x1.5	1/2"	4-6	6-9	9-12	20	18	15	EBLN11M
M25x1.5	3/4"	10-12	12-14.5	14.5-18	25	20	18	EBLN2M
M32x1.5	1"	14-17	17-20	20-24	25	20	18	EBLN3M
M40x1.5	1 1/4"	22-24	24-27	27-32	56	35	45	EBLN4M
M50x1.5	1 1/2"	26-28	28-31	31-35	56	54	50	EBLN5M

Thread Type METRIC acc. to ISO 965-3								
Outer Thread Size (Male)	For Seal/Thread Nominal Size	Clamping Range			Torque			Part Number
		S1+S2+S3 min-max mm	S1+S2 min-max mm	S1 min-max mm	S1+S2+S3 Nm	S1+S2 Nm	S1 Nm	
M12x1.5	1/2"	4-6	6-8	-	20	18	-	EBLQ02M
M16x1.5	1/2"	4-6	6-9	9-12	20	18	15	EBLQ01M
M20x1.5	3/8"	4-6	6-9	9-10	22	20	18	EBLQ15M
M25x1.5	1/2"	4-6	6-9	9-12	20	18	15	EBLQ11M
M25x1.5	3/4"	10-12	12-14.5	14.5-18	25	20	18	EBLQ2M
M32x1.5	1"	14-17	17-20	20-24	25	20	18	EBLQ3M
M40x1.5	1 1/4"	22-24	24-27	27-32	56	35	45	EBLQ4M
M50x1.5	1 1/2"	26-28	28-31	31-35	56	54	50	EBLQ5M

Step 1
1- Hold the assembled gland straight and disassemble the parts as A, B, C, D, E, F, G and H.

Step 2
2- Choose the optimal seal combination according to the cable diameter which is going to be tightened. (For triple seal combination, it is enough to disassemble only part F, G and H.)

Step 3
3- For double seal combination, part B is an obstacle to tighten the desired cable size. First take out part B to complete the seal combination.

Step 4
4- Assemble the seal combination inside part A. Mount (parts A, C, D) on the enclosure with sufficient torque value.

Step 5
5- Insert the cable inside the gland for installation tighten part A and E with sufficient torque values.

Step 6
6- Place H and G on the conduit hose.

Step 7
7- Place F on the conduit hose and then screw conduit hose until it is fully engaged. Place F into the E.

Step 8
8- Tighten H on to the E with sufficient torque value.

Thread Type METRIC acc. to ISO 965-3								
Outer Thread Size (Male)	For Seal/Thread Nominal Size	Clamping Range			Torque			Part Number
		S1+S2+S3 min-max mm	S1+S2 min-max mm	S1 min-max mm	S1+S2+S3 Nm	S1+S2 Nm	S1 Nm	
M12x1.5	1/2"	4-6	6-8	-	20	18	-	EBLS02M
M16x1.5	1/2"	4-6	6-9	9-12	20	18	15	EBLS01M
M20x1.5	3/8"	4-6	6-9	9-10	20	18	15	EBLS15M
M25x1.5	1/2"	4-6	6-9	9-12	20	18	15	EBLS11M
M25x1.5	3/4"	10-12	12-14.5	14.5-18	25	20	18	EBLS2M
M32x1.5	1"	14-17	17-20	20-24	25	20	18	EBLS3M
M40x1.5	1 1/4"	22-24	24-27	27-32	56	35	45	EBLS4M
M50x1.5	1 1/2"	26-28	28-31	31-35	56	54	50	EBLS5M

7 Mounting Instruction EBMC

STEP-1
1- Hold the assembled gland straight and disassemble the parts as A,B,C,D and E.
2- Choose the optimal seal combination according to the cable diameter which is going to be tightened.

STEP-2
3- For double seal combination, part B is an obstacle to tighten the desired cable size. First take out part B to complete the seal combination.

STEP-3
4- Assemble the seal combination inside part A. Mount (parts A,C,D) on the enclosure with sufficient torque value.

STEP-4
5- Insert the cable inside the gland for installation.

STEP-5
6- Tighten part E to parts A,C,D with sufficient torque values.

STEP-6
7- Place E on the conduit hose and then screw conduit hose until it is fully engaged.

8 EBMC Size Table

Outer Thread Size (Male)	For Seal/Inlet Nominal Size	Clamping Range			Torque			Part Number
		S1+S2+S3 min-max	S1+S2 min-max	S1 min-max	S1+S2 S1	S1	S1	
M12x1.5	1/2"	4-6	6-8	-	20	18	-	EBMCS0M
M16x1.5	3/8"	-	3-6	6-9	-	25	18	EBMCO15M
	1/2"	4-6	6-9	9-12	20	18	15	EBMCO11M
M20x1.5	3/8"	-	3-6	6-9	-	25	18	EBMCS1M
	1/2"	4-6	6-9	9-12	20	18	15	EBMCS1M
M25x1.5	3/4"	10-12	12-14.5	14.5-16	22	20	18	EBMC2M
	1"	14-17	17-20	-	25	20	-	EBMC23M
M32x1.5	1"	14-17	17-20	20-24	25	20	18	EBMC3M
	1 1/4"	22-24	24-27	27-28	34	34	34	EBMC34M
M40x1.5	1 1/4"	22-24	24-27	27-32	56	35	45	EBMC4M
	1 1/2"	26-28	28-31	31-34	56	54	50	EBMC45M
M50x1.5	1 1/2"	26-28	28-31	31-35	56	54	50	EBMC5M
	2"	35-38	38-41	41-44	130	125	120	EBMC56M
M63x1.5	2"	35-38	38-41	41-45	190	125	140	EBMC6M
M75x1.5	2 1/2"	46-51	51-56	56-59	130	125	120	EBMC7M

9 Mounting Instruction EBM

STEP-1
1- Hold the assembled gland straight and disassemble the parts as A,B,C,D and E.
2- Choose the optimal seal combination according to the cable diameter which is going to be tightened.

STEP-2
3- For double seal combination, part B is an obstacle to tighten the desired cable size. First take out part B to complete the seal combination.

STEP-3
4- Assemble the seal combination inside part A. Mount (parts A,C,D) on the enclosure with sufficient torque value.

STEP-4
5- Insert the cable inside the gland for installation.

STEP-5
6- Tighten part E to parts A,C,D with sufficient torque values.

STEP-6
7- Place the rigid conduit on the E and then screw the rigid conduit until it is fully engaged.

10 EBM Size Table

Outer Thread Size (Male)	Inner Thread Size (Female)	Clamping Range			Torque			Part Number
		S1+S2+S3 min-max	S1+S2 min-max	S1 min-max	S1+S2 S1	S1	S1	
M12x1.5	NPT 1/4"	4-6	6-8	-	20	18	-	EBMOSM05N
	NPT 3/8"	4-6	6-8	-	20	18	-	EBMOSM01N
M16x1.5	NPT 1/4"	4-6	6-8	-	20	18	-	EBM01M05N
	NPT 3/8"	4-6	6-9	9-12	20	18	15	EBM01M01N
M20x1.5	NPT 1/2"	4-6	6-9	9-12	20	18	15	EBM01M12N
	NPT 3/4"	10-12	12-14.5	14.5-16	22	20	18	EBM12M01N
M25x1.5	NPT 1/2"	10-12	12-14.5	14.5-16	22	20	18	EBM12M12N
	NPT 3/4"	10-12	12-14.5	14.5-18	25	20	18	EBM23M2N
M32x1.5	NPT 1/2"	14-17	17-20	-	25	20	-	EBM23M34N
	NPT 1"	14-17	17-20	20-24	25	20	18	EBM34M3N
M40x1.5	NPT 1 1/4"	22-24	24-26	-	34	34	-	EBM34M34N
	NPT 1 1/4"	22-24	24-27	27-28	56	35	45	EBM34M45N
M50x1.5	NPT 1 1/4"	22-24	24-27	28-32	56	35	45	EBM45M4N
	NPT 1 1/2"	26-28	28-31	31-34	56	54	50	EBM45M45N
M63x1.5	NPT 1 1/2"	26-28	28-31	31-35	56	54	50	EBM45M5N
	NPT 2"	35-38	38-41	41-44	190	125	140	EBM56M67N
M75x1.5	NPT 1 1/2"	35-38	38-41	41-44	190	125	140	EBM67M56N
	NPT 2"	35-38	38-41	41-45	190	125	140	EBM67M67N
M90x1.5	NPT 2 1/2"	46-51	51-56	56-62	130	125	120	EBM78M78N
	NPT 3"	60-65	65-69	-	120	115	-	EBM78M81N
M100x1.5	NPT 2 1/2"	60-64	-	-	120	-	-	EBM81OM78N
	NPT 3"	60-65	65-70	70-75	123	115	107	EBM81OM81N
M110x1.5	NPT 3"	75-78	78-81	81-82	130	125	120	EBM81OM10N
	NPT 4"	75-78	78-81	81-85	130	125	120	EBM10M10N

11 Mounting Instruction EBMS

STEP-1
1- Hold the assembled gland straight and disassemble the parts as A,B,C,D and E.
2- Choose the optimal seal combination according to the cable diameter which is going to be tightened.

STEP-2
3- For double seal combination, part B is an obstacle to tighten the desired cable size. First take out part B to complete the seal combination.

STEP-3
4- Assemble the seal combination inside part A. Mount (parts A,C,D) on the enclosure with sufficient torque value.

STEP-4
5- Insert the cable inside the gland for installation.

STEP-5
6- Tighten part E to parts A,C,D with sufficient torque values.

STEP-6
8- Place the rigid conduit on the E and then screw the rigid conduit until it is fully engaged.

12 EBMS Size Table

Outer Thread Size (Male)	Inner Thread Size (Female)	Clamping Range			Torque			Part Number
		S1+S2+S3 min-max	S1+S2 min-max	S1 min-max	S1+S2 S1	S1	S1	
M16x1.5	NPT 3/8"	4-6	6-9	9-12	20	18	15	EBMS01M01N
	NPT 1/2"	4-6	6-9	9-12	20	18	15	EBMS01M12N
M20x1.5	NPT 3/8"	4-6	6-9	9-12	20	18	15	EBMS12M01N
	NPT 1/2"	4-6	6-9	9-12	20	18	15	EBMS1M1N
M25x1.5	NPT 1/2"	10-12	12-14.5	14.5-16	22	20	18	EBMS12M12N
	NPT 3/4"	10-12	12-14.5	14.5-16	22	20	18	EBMS12M23N
M32x1.5	NPT 1/2"	14-17	17-20	-	25	20	-	EBMS23M12N
	NPT 3/4"	14-17	17-20	20-24	25	20	18	EBMS23M23N
M40x1.5	NPT 1 1/4"	22-24	24-27	27-28	34	34	34	EBMS34M34N
	NPT 1 1/4"	22-24	24-27	27-32	56	35	45	EBMS45M4N
M50x1.5	NPT 1 1/4"	22-24	24-27	28-31	56	54	50	EBMS45M45N
	NPT 1 1/2"	26-28	28-31	31-34	56	54	50	EBMS45M56N
M63x1.5	NPT 1 1/2"	26-28	28-31	31-35	56	54	50	EBMS56M56N
	NPT 2"	35-38	38-41	41-44	130	125	120	EBMS56M67N
M75x1.5	NPT 1 1/2"	35-38	38-41	41-45	190	125	140	EBMS67M56N
	NPT 2"	35-38	38-41	41-45	190	125	140	EBMS67M67N
M90x1.5	NPT 2 1/2"	46-51	51-56	56-62	130	125	120	EBMS78M78N
	NPT 3"	60-65	65-69	-	120	115	-	EBMS78M81N
M100x1.5	NPT 2 1/2"	60-64	-	-	120	-	-	EBMS81OM78N
	NPT 3"	60-65	65-70	70-75	123	115	107	EBMS81OM81N
M110x1.5	NPT 3"	75-78	78-81	81-82	130	125	120	EBMS10M10N
	NPT 4"	75-78	78-81	81-85	130	125	120	EBMS10M11N

13 Safety Instruction (IP Protection)

IP Protection for Non Threaded enclosure applications

Metric Threads	G Threads (GAS UNI ISO 228/1)	PG Threads
Thread	Hole Diameter (min. - max. mm)	Hole Diameter (min. - max. mm)
M8x1.25	G 1/4"	PG 7
M12x1.5	G 3/8"	PG 9
M16x1.5	G 1/2"	PG 11
M20x1.5	G 3/4"	PG 13.5
M25x1.5	G 1"	PG 16
M32x1.5	G 1 1/4"	PG 21
M40x1.5	G 1 1/2"	PG 29
M50x1.5	G 2"	PG 36
M63x1.5	G 2 1/2"	PG 42
M75x1.5	G 3"	PG 48
M90x1.5	G 4"	-
M100x1.5	G 5"	-
M110x1.5	G 6"	-
M120x1.5	G 8"	-

IP Protection for Threaded Tapered Threaded Joints

IP Protection for Cylindrical Threaded Joints

Ex d Execution:
- Assemble the gland with o-ring or flat washer through the threaded hole.
- The wall has to be thick enough to engage at least 5 full threads.
- The minimum engaged thread depth must be at least 8 mm.

Ex e & Ex Ib Execution:
- Assemble the gland with o-ring or flat washer through the threaded hole.
- You have to respect the minimum wall thickness of 1.5 mm.

14 EU DECLARATION OF CONFORMITY

EU DECLARATION OF CONFORMITY

bimed

Bimed Teknik Aletler San. ve Tic. A.Ş.
S.S. Bakır Pirinç Sanayi Sitesi Leylak Cad. No:16 34524 Beyliközü /İstanbul TÜRKİYE
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declares that the products designed to be placed on the market for use in the explosive atmosphere described below:

Cable Gland Types: EBM, EBS, EBLS, EBQ, EBM, EBMS, EBLN

are in execution II 2GD Ex dH IIC Ex eH IIC Ex eH IIC Db IP66/68 with certificate number: **IMO 13 ATEX 018X**

Cable Gland Types: EBH, EBLS, EBMS, EBLN, EBQ, EBH, EBM, EBMS, EBMS, EBLN, EBMS, EBLN

are in execution II 2 GD Ex dH IIC Ex eH IIC Db IP66/68 with certificate number: **IMO 13 ATEX 018X**

EU Directive: ATEX 2014/54/EU

The harmonized standards applied: EN 60079-0:2018, EN 60079-1:2014, EN 60079-2:2015, EN 60079-3:2014

The compliance of the equipment is not influenced by the modifications introduced by harmonized standards: EN IEC 60079-7:2015/A1:2018

Notified body CSES 0722

İstanbul, 15.04.2021

General Manager
Yakup Güllüoğlu
TEKNİK SAĞLIK VE
SANAYİ MÜHÜR