

SAFETY, MAINTENANCE AND MOUNTING INSTRUCTIONS

CESI 13 ATEX 033X IECEx CES 13.0013X

GLANDS TYPES



KBA (U,O) (ORION)
KBA..LT (U,O)(ORION LT)



KBU (CRATER)
MKBU (M-CRATER)



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MARKINGS

GROUP I	CE 0722	I M2 Ex db I Mb Ex eb I Mb IP66/68 Ta -40°C to +100°C CESI 13 ATEX 033X IECEx CES 13.0013X	
BMD KBA..	GROUP II	CE 0722	II 2GD Ex db IIC Gb Ex eb IIC Gb Ex Ib IIIC Db Ta -60°C +130°C IP66/68 CESI 13 ATEX 033X IECExCES 13.0013X
BMD KBA..LT..	GROUP II	CE 0722	II 2GD Ex db IIC Gb Ex eb IIC Gb Ex Ib IIIC Db Ta -60°C +130°C IP66/68 CESI 13 ATEX 033X IECEx CES 13.0013X
BMD KBU..	GROUP II	CE 0722	II 2GD Ex db IIC Gb Ex eb IIC Gb Ex Ib IIIC Db Ta -60°C +130°C IP66/68 CESI 13 ATEX 033X IECExCES 13.0013X
M KBU...	GROUP I	CE 0722	I M2 Ex db I Mb Ex eb I Mb IP66/68 Ta -40°C to +100°C CESI 13 ATEX 033X IECEx CES 13.0013X

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

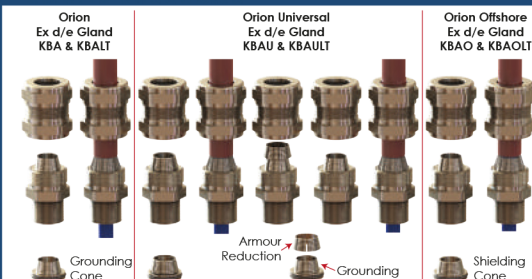


Koralenhoeve 13
B - 2160 Wommelgem
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Types	Sizes		Group		Body Material			Temperature1	
	from	to	Group I	Group II Group III	Brass Galvanised Steel	Stainless Steel	Aluminium	Chloroprene	Silicone2
KBA	M12	M110	NO	YES	YES	NO	NO	-40°C to +100°C	-60°C to +130°C
	M20	M90	YES	NO	YES	NO	NO	-40°C to +80°C	-60°C to +80°C
	M25	M75	NO	YES	NO	YES	NO	-40°C to +80°C	-60°C to +80°C
KBAO	M12	M110	NO	YES	YES	NO	NO	-40°C to +100°C	-60°C to +130°C
	M20	M90	NO	YES	NO	YES	NO	-40°C to +80°C	-60°C to +80°C
	M25	M75	NO	YES	NO	YES	NO	-40°C to +80°C	-60°C to +80°C
KBAU	M12	M110	NO	YES	YES	NO	NO	-40°C to +100°C	-60°C to +130°C
	M20	M90	NO	YES	NO	YES	NO	-40°C to +80°C	-60°C to +80°C
	M25	M75	NO	YES	NO	YES	NO	-40°C to +80°C	-60°C to +80°C
KBU	M12	M110	NO	YES	YES	NO	NO	-40°C to +100°C	-60°C to +130°C
	M20	M90	NO	YES	NO	YES	NO	-40°C to +80°C	-60°C to +80°C
	M25	M75	NO	YES	NO	YES	NO	-40°C to +80°C	-60°C to +80°C
MKBU	M12	M110	NO	YES	YES	NO	NO	-40°C to +100°C	-60°C to +130°C
	M20	M90	NO	YES	NO	YES	NO	-40°C to +80°C	-60°C to +80°C
	M25	M75	NO	YES	NO	YES	NO	-40°C to +80°C	-60°C to +80°C
KBAULT	M12	M110	NO	YES	YES	NO	NO	-40°C to +100°C	-60°C to +130°C
	M20	M90	NO	YES	NO	YES	NO	-40°C to +80°C	-60°C to +80°C
	M25	M75	NO	YES	NO	YES	NO	-40°C to +80°C	-60°C to +80°C
KBAULT	M12	M110	NO	YES	YES	NO	NO	-40°C to +100°C	-60°C to +130°C
	M20	M90	NO	YES	NO	YES	NO	-40°C to +80°C	-60°C to +80°C
	M25	M75	NO	YES	NO	YES	NO	-40°C to +80°C	-60°C to +80°C

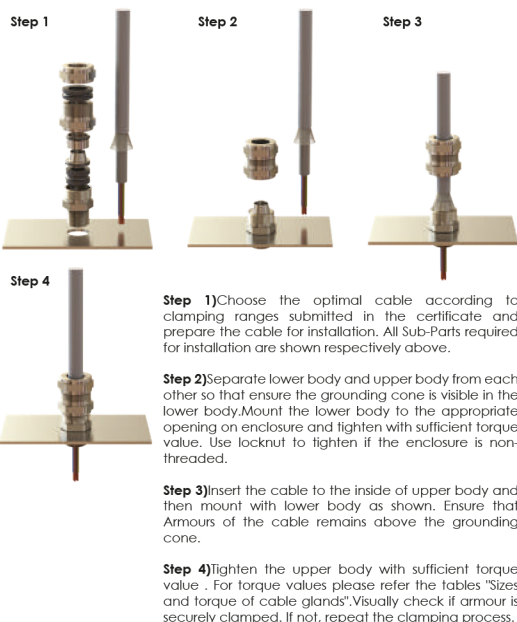
1. Cable glands made of galvanized steel can be used up to -20°C.
2. Min. temperature is limited by -50°C when the gland is used with fiber washer.

PRODUCTS PARTS

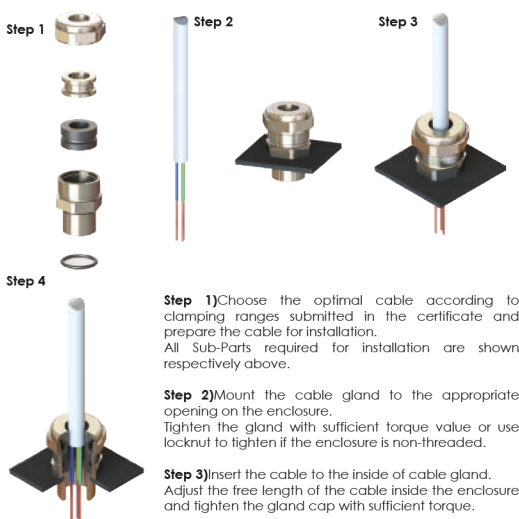


Rev. 04

3 Mounting Instruction KBA



4 Mounting Instruction KBU and MKBU



5 IP PROTECTION for NON-THREADED HOLES

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

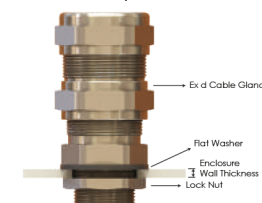
-For non-threaded enclosures it is recommended to use flat washer, between the gland body and enclosure.
-The recommended wall thickness is 1,5 mm for non threaded enclosures.
-In case of enclosure wall thickness is equal or lower than 1,5 mm, Bimed flat washer should be used. O-ring can stay in the 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.

Metric Threads		G 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)
M8x1.25	8,0-8,2	G 1/4"	13,2-13,4	PG 7	12,5-12,7
M12x1.5	12,0-12,2	G 3/8"	16,6-16,8	PG 9	15,2-15,4
M16x1.5	16,0-16,2	G 1/2"	21,0-21,2	PG 11	18,6-18,8
M20x1.5	20,0-20,2	G 3/4"	26,4-26,6	PG 13,5	20,4-20,6
M25x1.5	25,0-25,2	G 1"	33,3-33,6	PG 16	22,5-22,7
M32x1.5	32,0-32,3	G 1 1/4"	41,9-42,2	PG 21	28,3-28,5
M40x1.5	40,0-40,3	G 1 1/2"	47,8-48,1	PG 29	37,0-37,3
M50x1.5	50,0-50,3	G 2"	59,6-59,9	PG 36	47,0-47,3
M63x1.5	63,0-63,3	G 2 1/2"	75,2-75,5	PG 42	54,0-54,3
M75x1.5	75,0-75,3	G 3"	87,9-88,2	PG 48	59,3-59,6
M90x1.5	90,0-90,3	G 4"	113,1-113,4		
M100x1.5	100,0-100,3	G 5"	138,5-138,8		
M110x1.5	110,0-110,3				
M115x2,0	115,0-115,3				
M130x2,0	130,0-130,3				

6 IP PROTECTION for THREADED HOLES

Ingress Protection: In order to guarantee the specified IP66/68 rating, sealant agent shall be applied on at least two full threads before fitting the gland to the box. In any case you must pay attention to guarantee the metallic continuity. For threaded enclosures min. wall thickness must be equal to the thickness of the relevant locknut.

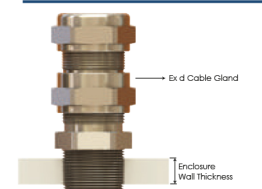
IP Protection for Cylindrical Threaded Joints



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.



IP Protection for Tapered Threaded Joints

Ex d Execution:

- The wall has to be thick enough to engage at least 5 full threads.

Ex e & Ex Ib Execution:

- For Ex Ib applications please refer to NPT ANSI B1.20.1 standard.

NPT	Minimum Engaged Thread Depth mm	inch
1/4	7,055	0,277
3/8	7,055	0,277
1/2	9,070	0,357
3/4	9,070	0,357
1	11,045	0,434
1 1/4	11,045	0,434
1 1/2	11,045	0,434
2	11,045	0,434
2 1/2	15,875	0,625
3	15,875	0,625
4	15,875	0,625
5	15,875	0,625

