

CESI 13 ATEX 066X / IECEx CES 13.0022X



## ADAPTOR TYPES

### GRUS

Reducer Type B-RA..

### APUS

Enlarger Type B-RB..

### ARIES

Coupling Type B-RM..

### PAVO

Nipple Type B-RN

## PLUG TYPES

### AQUILA

Plug Types B-TS..., MB-TS..., NB-TS..



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## MARKINGS

BMD B-RA..	CE 0722 Ex	II2GD Ex db IIC Gb Ex eb IIC Gb Ex fb IIIC Db IP66/68 CESI 13 ATEX 066X /IECEx CES 13.0022X
BMD B-RB..	CE 0722 Ex	II2GD Ex db IIC Gb Ex eb IIC Gb Ex fb IIIC Db IP66/68 CESI 13 ATEX 066X /IECEx CES 13.0022X
BMD B-RM..	CE 0722 Ex	II2GD Ex db IIC Gb Ex eb IIC Gb Ex fb IIIC Db IP66/68 CESI 13 ATEX 066X /IECEx CES 13.0022X
BMD B-RN..	CE 0722 Ex	II2GD Ex db IIC Gb Ex eb IIC Gb Ex fb IIIC Db IP66/68 CESI 13 ATEX 066X /IECEx CES 13.0022X
BMD B-TS..	CE 0722 Ex	II2GD Ex db IIC Gb Ex eb IIC Gb Ex fb IIIC Db IP66/68 CESI 13 ATEX 066X /IECEx CES 13.0022X
BMD MB-TS..	CE 0722 Ex	II2GD Ex db IIC Gb Ex eb IIC Gb Ex fb IIIC Db IP66/68 CESI 13 ATEX 066X /IECEx CES 13.0022X
BMD NB-TS..	CE 0722 Ex	II2GD Ex eb IIC Gb Ex fb IIIC Db IP66/68 CESI 13 ATEX 066X /IECEx CES 13.0022X

## 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

-40°C and +100°C for Adaptors and Plugs supplied with Chloroprene O-rings  
 -60°C and +130°C for Adaptors and Plugs supplied with Silicon O-rings or flat washers  
 -40°C and +80°C for Adaptors and Plugs supplied with Chloroprene or Fiber flat washers

# bimed

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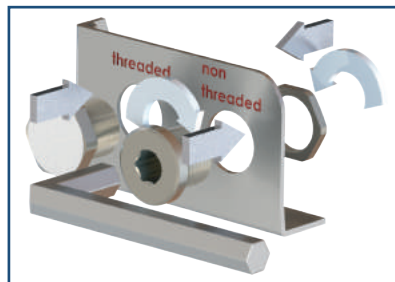
Rev. 04

## 2 Mounting Instruction for Adaptors & Plugs



Mount the Adaptor or Plug to the appropriate opening on the enclosure.

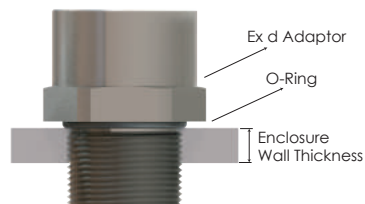
Tighten adaptor or plug by using screw tool or allen tool. Use locknut to tighten if the enclosure is non threaded.



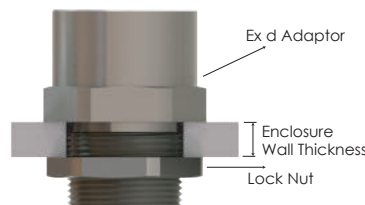
## 3 Mounting Instruction for Adaptors & Plugs



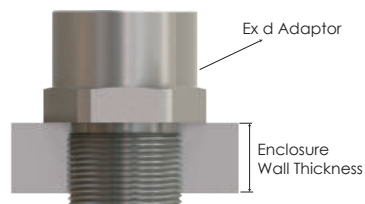
Adaptor is assembled with a O-Ring and it is put through the enclosure's cutout. The Adaptor is then fixed with the aid of a lock nut and appropriate torque value and hole is sealed.



The product can be assembled with a threaded enclosure which is thicker than the lock nut without a problem.



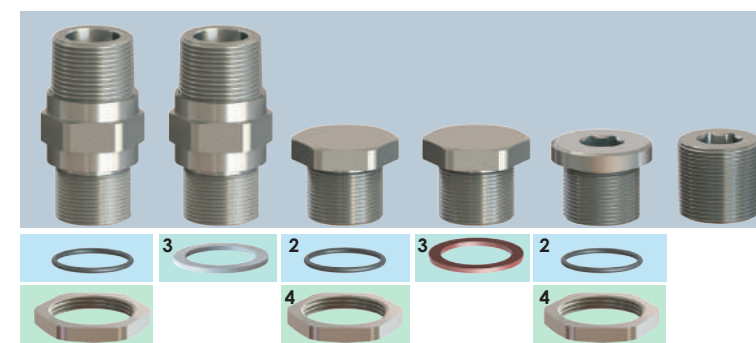
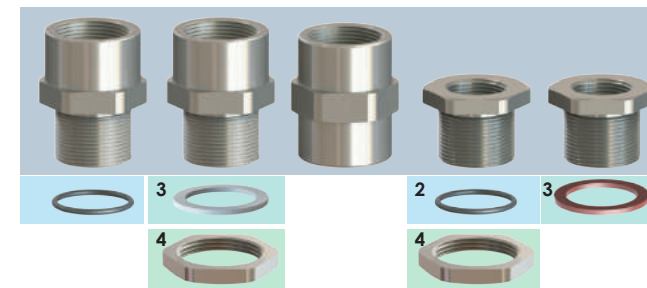
When water tightness is not an issue, the product is put through the enclosure's cutout and the connection is maintained with a nut. This applies only non-threaded enclosures.



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

## 4 ADAPTORS & PLUGS PARTS

Nr.	Items
1	Adaptor & Plug
2	O-Ring
3	Washer
4	Lock Nut



## SAFETY INSTRUCTION

- Qualified personnel in compliance with the national 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 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.
- Adaptor & plugs installation shall be done according to safety manufacturer instructions to maintain degree of protection.
- Adaptor & plugs installation shall be done taking into account the temperature range declared for Adaptor & plugs in relation to protection mode execution, versus the ambient temperature proper of installation.
- Adaptor & plugs are only suitable for fixed installations. Cables shall be effectively clamped to prevent pulling or twisting.
- Adaptor & plugs and the relevant cables, shall be used where a protection against risk of mechanical damage is provided.
- 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.
- Service temperature of Adaptor & plugs 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 Adaptor & plugs.
- For O-Ring material chloroprene/silicon or EPDM can be used.
- For Flat washer material fiber, silicon, chloroprene can be used.

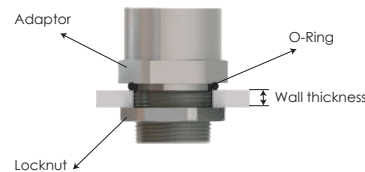
## 6 SAFETY INSTRUCTION (IP PROTECTION)

### IP protection for Non Threaded enclosure applications (Ex eb and Ex tb Recommended Hole)

Recommended hole diameters for non threaded enclosure applications in relation with the used thread types are shown below.

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				

### Example for cylindrical threaded joint



#### Ex db execution :

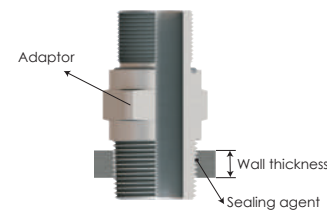
Min 5 threads must be engaged for threaded enclosure applications. The min engaged thread depth must be at least 8 mm. In case of a sealing agent is used, the metallic continuity must be guaranteed.

#### Ex eb and Ex tb execution :

The recommended wall thickness is min 1,5 mm for non threaded enclosures and in case of enclosure wall thickness is equal or lower than 1,5mm, flat washer should be used. O-Ring can be stayed in the channel if it is necessary to mount with flat washer. For threaded enclosures it is recommended to engage 3 full threads, otherwise it is recommended to use locknut. In case of a sealing agent is used, the metallic continuity must be guaranteed.

## 7 SAFETY INSTRUCTION (IP PROTECTION)

### Example for tapered threaded joint



#### Ex db execution:

Minimum number of engaged threads must be at least 5. The min effective engaged thread depth must be related according to the attached table with used thread size. In case of a sealing agent is used, the metallic continuity must be guaranteed.

#### Ex eb and Ex tb execution:

For Ex eb applications, please refer to NPT ANSI B1.20.1 standard. In case of a sealing agent is used, the metallic continuity must be guaranteed.

NPT"	Minimum 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

## 8 CONSTRUCTIONAL CHARACTERISTIC

Threads Type	Sizes														
M	01	1	2	3	4	5	60	70	7	80	85	8	9	10	
ISO 965-3	(16)	(20)	(25)	(32)	(40)	(50)	(60)	(63)	(70)	(75)	(80)	(85)	(90)	(100)	(110)
N	01	1	2	3	4	5	6	7	8	9	10				
NPT ANSI B1.20.1	(3/8")	(1/2")	(3/4")	(1")	(1 1/4")	(1 1/2")	(2")	(2 1/2")	(3")	(3 1/2")	(4")				
C	01	1	2	3	4	5	6	7	8	9	10				
GAS UNI ISO 228/1	(3/8")	(1/2")	(3/4")	(1")	(1 1/4")	(1 1/2")	(2")	(2 1/2")	(3")	(3 1/2")	(4")				
P	2	3	4	5	6	7	8	9	10						
PG DIN 40430	(9)	(11)	(13,5)	(16)	(21)	(29)	(36)	(42)	(48)						

## 10 ADAPTOR SIZE TABLE

M	F	M	F
M20x1.5	M16x1.5	M80x1.5	M25x1.5
M25x1.5	M16x1.5		M32x1.5
	M20x1.5		M40x1.5
	M16x1.5		M50x1.5
M32x1.5	M20x1.5		M60x1.5
	M25x1.5		M63x1.5
	M16x1.5		M70x1.5
	M20x1.5		M75x1.5
M40x1.5	M25x1.5		M80x1.5
	M32x1.5		M85x1.5
	M40x1.5		M90x1.5
	M16x1.5		M90x1.5
	M20x1.5		M63x1.5
	M25x1.5		M70x1.5
M63x1.5	M32x1.5		M75x1.5
	M40x1.5		M80x1.5
	M50x1.5		M80x1.5
	M16x1.5		M63x1.5
	M20x1.5		M70x1.5
	M25x1.5		M75x1.5
M70x1.5	M32x1.5		M80x1.5
	M40x1.5		M85x1.5
	M50x1.5		M90x1.5
	M60x1.5		M40x1.5
	M20x1.5		M50x1.5
	M25x1.5		M63x1.5
M75x1.5	M32x1.5		M75x1.5
	M40x1.5		M90x1.5
	M50x1.5		M100x1.5
	M60x1.5		
	M63x1.5		

## 11 EU DECLARATION OF CONFORMITY



### EU DECLARATION OF CONFORMITY

**bimed**

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declares that the products designed to be placed on the market for use in the explosive atmospheres described below are in conformity with the listed EU Directive and harmonized standards.

Adaptor and Plug Types:

Certificate Number:

Protection Type :

B-RA, B-RB, B-RM, B-RN, B-TS, MB-TS

CESI 13 ATEX 066X

II 2 GD; Ex db IIC Gb; Ex eb IIC Gb ;

Ex tb IIIC Db IP66/68

II M2 ; Ex db I Mb; Ex eb I Mb;

Ex tb IIIC Db IP66/68

Plug Types;

Certificate Number;

Protection Type :

NB-TS

CESI 13 ATEX 066X

II 2 GD; Ex eb IIC Gb ;

Ex tb IIIC Db IP66/68

EU Directive;

The harmonized standards applied;

ATEX 2014/34/EU

EN 60079-0:2018

EN 60079-1:2014

EN IEC 60079-7:2015/A1:2018

EN 60079-31:2014

Notified body

CESI 0722

Istanbul, 15.04.2021

General Manager  
Yakup Gülnihal  
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