SAFETY, MAINTENANCE AND MOUNTING INSTRUCTIONS

CESI 13 ATEX 066X / IECEx CES 13.0022X / CML 22 UKEX 1184X

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..

bimed
Özar Sanayi Bölgesi, Deliklikaya Mh. Yüzbaşı Mehmet Hilmi Cd. No.28/1 Arnavutköy 34555 Istanbul / Türkiye
Tel: +90 212 875 73 76 Mail: info@bimedteknik.com
Url: www.bimedteknik.com E-mail: info@bimedteknik.com

CONTENTS

MARKINGS

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

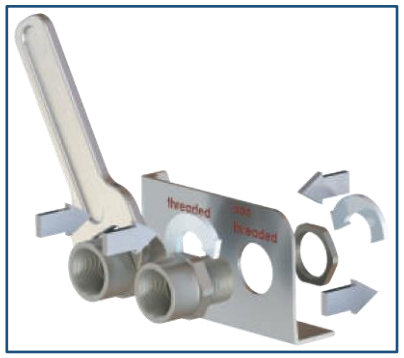
APPLICABLE STANDARDS

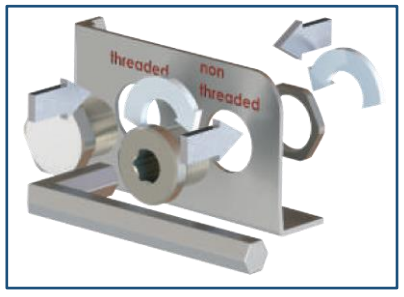
DIRECTIVE 2014/34/EU	SI 2016 No. 1107 (amended by SI 2019 No. 696)	
EN IEC 60079-0:2018	IEC 60079-0:2017 Ed.7.0	IEC 60529: 1989
EN 60079-1:2014	IEC 60079-1:2014-06 Ed.7.0	EN 60529: 1991
EN IEC 60079-7:2015+ A1:2018	IEC 60079-7:2017 Ed.5.1	
EN 60079-31:2014	IEC 60079-31:2013 Ed.2	

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

2 Mounting Instruction for Adaptors & Plugs

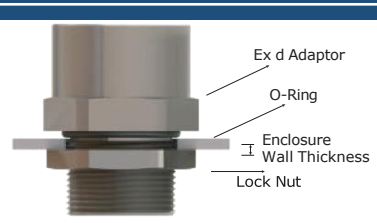




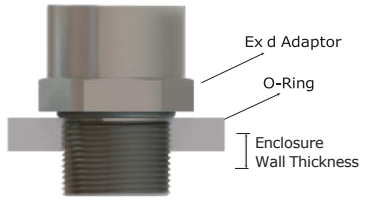
Mount the Adaptor or Plug to the appropriate opening on the enclosure.

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

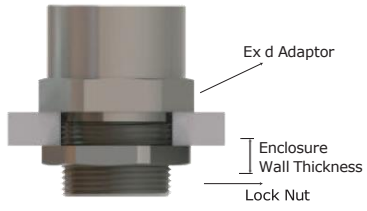
3 Mounting Instruction for Adaptors & Plugs



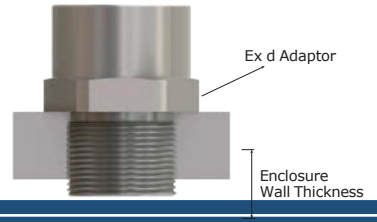
Adaptor is assembled with a O-Ring and it is put through the enclosure's cutout. The Adaptor is then fixed with the aid of a lock nut and appopriate torque value and hole is sealed.



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



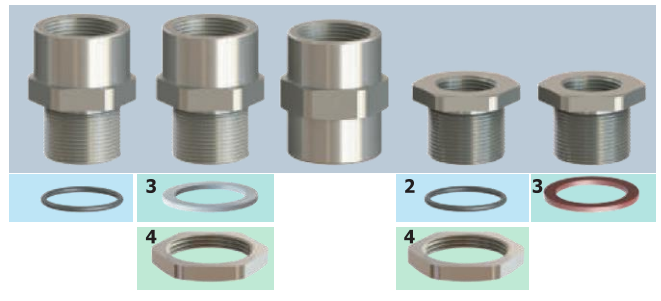
When water tightness is not an issue, the product is put through the enclosure's cutout and the connection is mainteined with a nut. This applies only non-threaded enclosures.

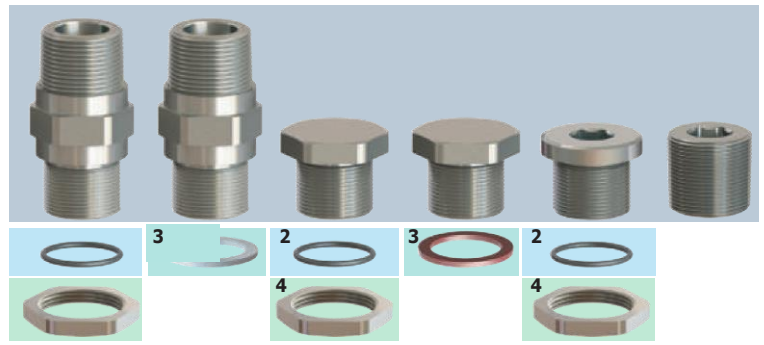


When water tightness is not an issue, the assembly is maintained without a washer provided that the thread form and enclosure thickness allow.

4 ADAPTORS & PLUGS PARTS

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





5 SAFETY INSTRUCTION

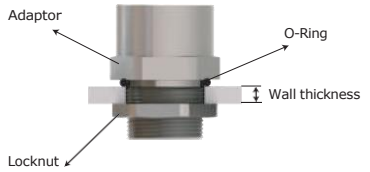
- Qualified personnel in compliance with the national laws shall carry out the maintanence in accordance with EN/IEC 60079-17 and installation in accordance with EN/IEC 60079-14.
- Changes to products are not allowed.
- Only Bimed spare parts must be used.
- Everyday and extraordinary maintenance operations 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.
- 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. For non-threaded enclosures it is recomended to use flat washer,between the gland body and enclosure.

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

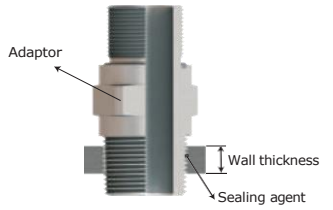


Ex db execution :
Min 5 threads must be engaged for threaded enclosure applications. The min engaged thread depth must be at least 8 mm.
In case of a sealing agent is used, the metallic continuity must be guaranteed.

Ex eb and Ex tb execution :
The recomended wall thickness is min 1,5 mm for non threaded enclosures and in case of enclosurre 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



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

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.

8 CONSTRUCTIONAL CHARACTERISTIC

Threads Type	Sizes															
M ISO 965-3	01 (16)	1 (20)	2 (25)	3 (32)	4 (40)	5 (50)	60 (60)	6 (63)	70 (70)	7 (75)	80 (80)	85 (85)	8 (90)	9 (100)	10 (110)	
N NPT ANSI Bl.20.1	01 (3/8")	1 (1/2")	2 (3/4")	3 d")	4 (1 1/4")	5 (1 1/2")		6 (2")		7 (2 1/2")			8 (3")	9 (3 1/2")	10 (4")	
C GAS UNI ISO 228/1	01 (3/8")	1 (1/2")	2 (3/4")	3 d")	4 (1 1/4")	5 (1 1/2")		6 (2")		7 (2 1/2")			8 (3")	9 (3 1/2")	10 (4")	
P PG DIN 40430	2 (9)	3 (11)	4 (13.5)	5 (16)	6 (21)	7 (29)		8 (36)		9 (42)			10 (48)			

9 PLUG SIZE TABLE

Thread Size			
M16x1.5	Pg 9	Pf 3/8"	NPT3/8"
M20x1.5	Pg 11	Pf 1/2"	NPT1/2"
M25x1.5	Pg 13,5	Pf 3/4"	NPT3/4"
M32x1.5	Pg 16	Pf 1"	NPT1"
M40x1.5	Pg 21	Pf 1 1/4"	NPT1 1/4"
M50x1.5	Pg 29	Pf 1 1/2"	NPT1 1/2"
M63x1.5	Pg 36	Pf 2"	NPT2"
M75x1.5	Pg 42	Pf 2 1/2"	NPT2 1/2"
M90x1.5	Pg 48	Pf 3"	NPT3"
M110x1.5		Pf 4"	NPT4"

10 ADAPTOR SIZE TABLE

M	F
M20x1.5	M16x1.5
M25x1.5	M16x1.5
	M20x1.5
M32x1.5	M16x1.5
	M20x1.5
	M25x1.5
M40x1.5	M16x1.5
	M20x1.5
	M25x1.5
	M32x1.5
M50x1.5	M16x1.5
	M20x1.5
	M25x1.5
	M32x1.5
	M40x1.5
M60x1.5	M16x1.5
	M20x1.5
	M25x1.5
	M32x1.5
	M40x1.5
	M50x1.5
M63x1.5	M16x1.5
	M20x1.5
	M25x1.5
	M32x1.5
	M40x1.5
	M50x1.5
M70x1.5	M16x1.5
	M20x1.5
	M25x1.5
	M32x1.5
	M40x1.5
	M50x1.5
	M60x1.5
M75x1.5	M20x1.5
	M25x1.5
	M32x1.5
	M40x1.5
	M50x1.5
	M60x1.5
	M63x1.5

M	F
M80x1.5	M25x1.5
	M32x1.5
	M40x1.5
	M50x1.5
	M60x1.5
	M63x1.5
	M70x1.5
M85x1.5	M25x1.5
	M32x1.5
	M40x1.5
	M50x1.5
	M60x1.5
	M63x1.5
	M70x1.5
	M75x1.5
M90x1.5	M25x1.5
	M32x1.5
	M40x1.5
	M50x1.5
	M60x1.5
	M63x1.5
	M70x1.5
	M75x1.5
	M80x1.5
M100x1.5	M32x1.5
	M40x1.5
	M50x1.5
	M60x1.5
	M63x1.5
	M70x1.5
	M75x1.5
	M80x1.5
	M85x1.5
	M90x1.5
M110x1.5	M40x1.5
	M50x1.5
	M63x1.5
	M75x1.5
	M90x1.5
	M100x1.5

11 DECLARATION OF CONFORMITY

EU DECLARATION OF CONFORMITY

bimed

Bimed Teknik Aletler San. ve Tic. A.Ş.
Özar Sanayi Bölgesi, Deliklikaya Mh. Yüzbaşı Mehmet Hilmi Cd. No.28/1
Arnavutköy – İstanbul-TÜRKİYE Tel. +90 212 8757376 Fax. +90 212 8750823

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

Adaptor and Plug Types;	B-RA, B-RB, B-RM, B-RN,B-TS, MB-TS
Certificate Number;	CESI 13 ATEX 066X
Protection Type ;	II 2 GD; Ex db IIC Gb; Ex eb IIC Gb ; Ex tb IIIC Db IP66/68
	I M2 ; Ex db I Mb; Ex eb I Mb; Ex tb IIIC Db IP66/68
Plug Types;	NB-TS
Certificate Number;	CESI 13 ATEX 066X
Protection Type ;	II 2 GD; Ex eb IIC Gb ; Ex tb IIIC Db IP66/68
EU Directive;	ATEX 2014/34/EU
The harmonized standards applied;	EN IEC 60079-0:2018 EN 60079-1:2014 EN IEC 60079-7:2015/A1:2018 EN 60079-31:2014

Notified body: CESI 0722

General Manager
Yakup Gülnihal

Istanbul, 02.10.2025

rev:08

UK DECLARATION OF CONFORMITY

bimed

Bimed Teknik Aletler San. ve Tic. A.Ş.
Özar Sanayi Bölgesi, Deliklikaya Mh. Yüzbaşı Mehmet Hilmi Cd. No.28/1
Arnavutköy – İstanbul-TÜRKİYE Tel. +90 212 8757376 Fax. +90 212 8750823

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

Adaptor and Plug Types;	B-RA, B-RB, B-RM, B-RN,B-TS, MB-TS
Certificate Number;	CML 22 UKEX 1184X
Protection Type ;	II 2 GD; Ex db IIC Gb; Ex eb IIC Gb ; Ex tb IIIC Db IP66/68
	I M2 ; Ex db I Mb; Ex eb I Mb; Ex tb IIIC Db IP66/68
Plug Types;	NB-TS
Certificate Number;	CML 22 UKEX 1184X
Protection Type ;	II 2 GD; Ex eb IIC Gb ; Ex tb IIIC Db IP66/68
UK Directive;	SI 2016 No. 1107 (amended by SI 2019 No. 696)
The designated standards applied;	EN IEC 60079-0:2018 EN 60079-1:2014 EN IEC 60079-7:2015/A1:2018 EN 60079-31:2014

Approved body: CML 2503

General Manager
Yakup Gülnihal

Istanbul, 01.10.2025

rev:08