

CESI



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Schema di certificazione

CESI-ATEX



PRD N. 018B
 Membro degli Accordi di Mutuo Riconoscimento EA, IAF e ILAC
 Signatory of EA, IAF and ILAC Mutual Recognition Agreements

CERTIFICATE



[1] EC-TYPE EXAMINATION CERTIFICATE

[2] **Equipment or Protective System intended for use in potentially explosive atmospheres**
Directive 94/9/EC

[3] EC-Type Examination Certificate number:

CESI 13 ATEX 066 X

[4] **Equipment:** **Adaptors and Plugs series B-RA., B-RB., B-RM., B-RN., B-TS...**

[5] **Manufacturer:** **Bimed Teknik Aletler Sanayi Ve Ticaret A.S.**

[6] **Address:** **S.S Bakir Piriñç Sanayi Sitesi Leylak Caddesi no:15**
TR - 34524 Beylikdüzü - Istanbul
(Turkey)

[7] This equipment or protective system and any acceptable variation thereto is specified in the schedule to this certificate and the documents therein referred to.

[8] CESI, notified body n. 0722 in accordance with Article 9 of the Council Directive 94/9/EC of 23 March 1994, certifies that this equipment or protective system has been found to comply with the Essential Health and Safety Requirements relating to the design and construction of equipment and protective systems intended for use in potentially explosive atmospheres given in Annex II to the Directive.
 The examination and test results are recorded in confidential report n. EX- B3030994.

[9] Compliance with the Essential Health and Safety Requirements has been assured by compliance with:

EN 60079-0: 2012 EN 60079-1: 2007 EN 60079-7: 2007 EN 60079-31: 2009

[10] If the sign "X" is placed after the certificate number, it indicates that the equipment or protective system is subject to special conditions for safe use specified in the schedule to this certificate.

[11] This EC-TYPE EXAMINATION CERTIFICATE relates only to the design, examination and tests of the specified equipment or protective system in accordance to the Directive 94/9/EC. Further requirements of the Directive apply to the manufacturing process and supply of this equipment or protective system. These are not covered by this certificate.

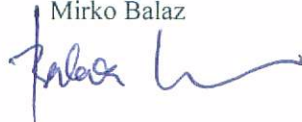
[12] The marking of the equipment or protective system shall include the following:

 **II2GD Ex d IIC Gb and Ex e IIC Gb and Ex tb IIIC Db**
IP66/68

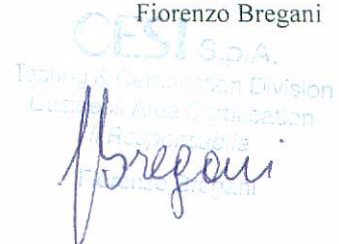
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Date 2014.02.17 - Translation issued the 2014.02.17

Prepared
 Mirko Balaz



Approved
 Fiorenzo Bregani



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Schedule

[14] EC-TYPE EXAMINATION CERTIFICATE n. CESI 13 ATEX 066 X

[15] **Description of equipment**

The Adaptors series **B-RA..**, **B-RB..**, **B-RM..** and **B-RN..** are used to match equipments, pipes and hubs having different taper threaded or plane entry sizes. Attachment of the Adaptors to an enclosure is by means of the male threaded portion on the body.

The typical uses of this series of adaptors are:

- **B-RA** – they reduce a female hub or increase a male hub.
- **B-RB** – they increase a female hub or reduce a male hub.
- **B-RM** – they vary the diameter of a male hub by transforming it into a female hub.
- **B-RN** – they vary the diameter of a female hub by transforming it into a male hub.

The male Plugs series **B-TS..** are suitable for closing female hubs or unused openings on Ex d pipes or Ex d or Ex e enclosures. Attachment of the male plugs to an enclosure is by means of the male threaded portion on the body.

To guarantee the IP 66/68 degree of protection the Adaptors series **B-RA..**, **B-RB..**, **B-RM..**, **B-RN..** and male Plugs series **B-TS..** with cylindrical threads have a sealing edge machined for fitting an elastomeric gasket, while for all other threads the IP 66/68 degree of protection is achieved with sealant put at least on two complete threads engaged of the threaded coupling.

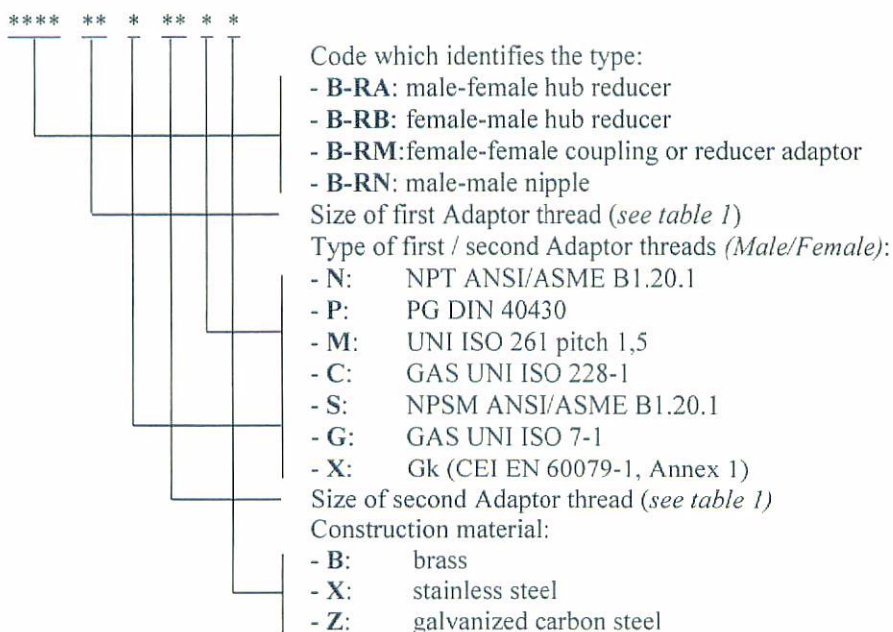
The Adaptors and male plugs are generally made in Brass (CuZn39Pb3 EN 12164). The following alternative material can be supplied on demand:

- Galvanized carbon steel type FE36; FE37 UNI 10233/4.
- Stainless steel type AISI316; AISI304; AISI303.

All the Adaptors and male plugs are suitable for a service temperature range between -40°C and +100°C with the exception of the Adaptors and male plugs made of galvanized carbon steel which are restricted to the lower temperature range of -20°C.

The Adaptors and male plugs standard threads types are NPT ANSI/ASME B1.20.1 from 3/8" up to 4" and cylindrical ISO Metric 965/1 and ISO 965/3 from M16x1.5 up to M110X1.5. Alternative available tapered threads are GAS UNI ISO 7/1 or Gk (CEI EN 60079-1, Annex 1) while cylindrical threads are GAS UNI ISO 228/1, NPSM ANSI/ASME B1.20.1 and type PG DIN 40430. Thread type PG DIN 40430 can be used for "Ex e" execution only.

The Adaptors are identified by a code as follows:



The Adaptors type **B-RM** and **B-RN** have both NPT threads or both Metric threads or coupling NPT-Metric threads.

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The part number and standard thread types and sizes of Adaptors are listed on the following Table 1:

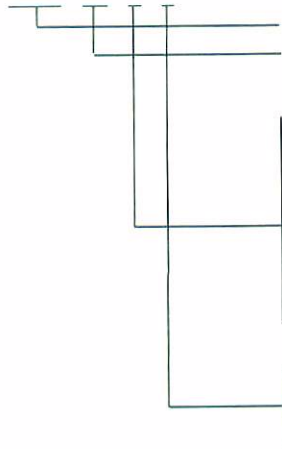
Table 1:

B-RA., B-RB., B-RM.. and B-RN..				
Adaptors size	NPT	ISO pitch 1,5	GAS UNI ISO 228-1	PG DIN 40430
01	3/8"	M 16	3/8"	9
1	1/2"	M 20	1/2"	11
2	3/4"	M 25	3/4"	13,5
3	1"	M 32	1"	16
4	1 1/4"	M 40	1 1/4"	21
5	1 1/2"	M 50	1 1/2"	29
6	2"	M 63	2"	36
7	2 1/2"	M 75	2 1/2"	42
8	3"	M 90	3"	48
10	4"	M 110	4"	/

The **B-RB..**, **B-RM..** and **B-RN..** Adaptors may be made with two different thread types and sizes combinations or with the same combinations.

The male Plugs are identified by a code as follows:

**** * * *



B-TS: Code which identifies the male Plug type

Size of male plug thread (*see table 2*)

Type of thread (*Male*):

- **N:** NPT ANSI/ASME B1.20.1
- **P:** PG DIN 40430
- **M:** UNI ISO 261 pitch 1,5
- **C:** GAS UNI ISO 228-1
- **G:** GAS UNI ISO 7-1
- **S:** N.P.S.M.
- **X:** Gk (CEI EN 60079-1, Annex 1)

Construction material:

- **B:** brass
- **X:** stainless steel
- **Z:** galvanized carbon steel

The part number and thread type and size of the Plugs are listed on the following Table 2:

Table 2:

B-TS..				
Male plugs size	NPT	ISO pitch 1,5	GAS UNI ISO 228-1	PG DIN 40430
01	3/8"	M 16	3/8"	9
1	1/2"	M 20	1/2"	11
2	3/4"	M 25	3/4"	13,5
3	1"	M 32	1"	16
4	1 1/4"	M 40	1 1/4"	21
5	1 1/2"	M 50	1 1/2"	29
6	2"	M 63	2"	36
7	2 1/2"	M 75	2 1/2"	42
8	3"	M 90	3"	48
10	4"	M 110	4"	/

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Constructional characteristics

Degree of protection (IEC 60529): IP 66 / IP 68 (50 m for 30 min.).

Service temperature range: - 40 ÷ + 100 °C for all models.
up to -20 °C for models made of Galvanized carbon steel.

[16] Report n. EX- B3030994

Routine tests

None.

Descriptive documents (prot. EX- B3030997)

- Technical note A4-IEC.32 (4 pg.)	rev.00	dated	2012.06.22
- Safety, maintenance and mounting instructions MI-IEC.34 (5 pg.)	rev.00	dated	2012.06.22
- Declaration of Conformity CE 002 (1 pg.)	rev.0	dated	2014.01.16
- Drawing A3-IEC.39 (1 sheet)	rev.00	dated	2012.06.22
- Drawing A3-IEC.38 (1 sheet)	rev.00	dated	2012.06.22
- Drawing A3-IEC.37 (1 sheet)	rev.00	dated	2012.06.22
- Drawing A3-IEC.43 (1 sheet)	rev.00	dated	2012.06.22
- Drawing A3-IEC.42 (1 sheet)	rev.00	dated	2012.06.22
- Drawing A3-IEC.41 (1 sheet)	rev.00	dated	2012.06.22
- Drawing A3-IEC.40 (1 sheet)	rev.00	dated	2012.06.22
- Drawing A3-IEC.46 (1 sheet)	rev.00	dated	2012.06.22
- Drawing A3-IEC.45 (1 sheet)	rev.00	dated	2012.06.22
- Drawing A3-IEC.50 (1 sheet)	rev.00	dated	2012.06.22
- Drawing A3-IEC.49 (1 sheet)	rev.00	dated	2012.06.22
- Drawing A3-IEC.52 (1 sheet)	rev.00	dated	2012.06.22
- Drawing A3-IEC.33 (1 sheet)	rev.00	dated	2012.06.22
- Drawing A3-IEC.79 (1 sheet)	rev.00	dated	2013.09.24
- Drawing A3-IEC.78 (1 sheet)	rev.00	dated	2013.09.24
- Drawing A3-IEC.83 (1 sheet)	rev.00	dated	2013.09.24
- Drawing A3-IEC.84 (1 sheet)	rev.00	dated	2013.09.24
- Drawing A4-IEC.77 (1 sheet)	rev.00	dated	2013.09.24
- Drawing A4-IEC.75 (1 sheet)	rev.00	dated	2013.09.24
- Drawing A4-IEC.74 (1 sheet)	rev.00	dated	2013.09.24
- Drawing A4-IEC.76 (1 sheet)	rev.00	dated	2013.09.24
- Drawing A4-IEC.82 (1 sheet)	rev.00	dated	2013.09.24
- Drawing A4-IEC.81 (1 sheet)	rev.00	dated	2013.09.24
- Drawing A4-IEC.80 (1 sheet)	rev.00	dated	2013.09.24

One copy of all documents is kept in CESI files.

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Schedule

[14] EC-TYPE EXAMINATION CERTIFICATE n. CESI 13 ATEX 066 X

[17] **Special conditions for safe use (X)**

- The coupling of the adaptors and plugs with the enclosures shall be made as indicated by the manufacturer in the documents annexed to this certificate in order respect the type of protection of the electrical apparatus on which the adaptors and plugs are mounted.
- The adaptors and plugs shall be mounted at the electrical apparatus in such a way that accidental rotation and loosening will be prevented.
- The adaptors and plugs shall be installed in such a way that the temperature at the mounting point will remain within the following service temperature ranges:
 - -40°C to +100°C for adaptors and plugs made of brass and stainless steel;
 - -20°C to +100°C for adaptors and plugs made of galvanized carbon steel.
- The degree of protection IP 66/68 according to the IEC 60529 standard will be guaranteed for the adaptors and plugs if the holes into which adaptors and plugs are mounted are suitably sealed. To this scope the correct positioning of the gaskets (for cylindrical threads) or the application of sealant on the threads (for tapered threads), shall be done as indicated in the manufacturer instruction.

[18] **Essential Health and Safety Requirements**

The Essential Health and Safety Requirements are assured by compliance to the following standards:

- EN 60079-0: 2012 Explosive atmospheres – Part 0: Equipment - General requirements;
- EN 60079-1: 2007 Explosive atmospheres – Part 1: Equipment protection by flameproof enclosure “d”;
- EN 60079-7: 2007 Explosive atmospheres – Part 7: Equipment protection by increased safety “e”;
- EN 60079-31: 2009 Explosive atmospheres – Part 31: Equipment dust ignition protection by enclosure “t”.