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Schema di certificazione

CESI-ATEX

CERTIFICATE



[1] SUPPLEMENTARY EU-TYPE EXAMINATION CERTIFICATE

[2] **Equipment or Protective System intended for use
in potentially explosive atmospheres
Directive 2014/34/EU**

[3] Supplementary EU-Type Examination Certificate number:

CESI 13 ATEX 066 X /01

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

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

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

[7] This supplementary certificate extends EC-Type Examination Certificate CESI 13 ATEX 066X to apply to products designed and constructed in accordance with the specification set out in the Schedule of the said certificate but having any variations specified in the Schedule attached to this certificate and the documents therein referred to..

[8] CESI, notified body n. 0722 in accordance with Article 17 of the Directive 2014/34/EU of the Parliament and Council of 26 February 2014, 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-B6011122.

[9] In accordance with Article 41 of Directive 2014/34/EU, EC-Type Examination Certificates referring to 94/9/EC that were in existence prior to the date of application of 2014/34/EU (20 April 2016) may be referenced as if they were issued in accordance with Directive 2014/34/EU. Supplementary certificates to such EC-Type Examination Certificates, and new issues of such certificates, may continue to bear the original certificate number issued prior to 20 April 2016

[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 EU-TYPE EXAMINATION CERTIFICATE relates only to the design, examination and tests of the specified equipment or protective system in accordance to the Directive 2014/34/EU. 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:

II 2 GD Ex db IIC Gb and Ex eb IIC Gb and
Ex tb IIIC Db
IP66/68

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Date 2016.07.14 - Translation issued the 2016.07.14

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CESI S.p.A.

Testing & Certification Division
Business Area Certification
Il Responsabile

(Roberto Piccin)

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Schedule

[14] **SUPPLEMENTARY EU-TYPE EXAMINATION CERTIFICATE n. CESI 13 ATEX 066 X /01**

[15] **Description of the variation to the product**

- Updating to standards EN60079-1:2014; EN60079-7:2015; EN60079-31:2014.
- New M60, M70, M80, M85, M100 and 3" ½ NPT sizes were added.
- Silicon O-rings and flat washers, Chloroprene flat washers and Fiber flat washers were added.
- Nickel plated Brass is added as manufacturing raw material.
- Minor construction changes on B-TS.. Plugs series.
- New male plug types NB-TS and MB-TS were added.

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 threaded entry sizes. Attachment of the Adaptors to an enclosure is by means of the male threaded portion on the male body. Ingress protection of IP66/68 (50 m for 30 min.) is maintained when the Adaptors are installed in accordance with the manufacturer's instructions.

The series of available Adaptors are:

B-RA – they are used to reduce a female hub or increase a male hub.

B-RB – they are used to increase a female hub or reduce a male hub.

B-RM – they are used to vary the diameter of a male hub by transforming it into a female hub.

B-RN – they are used to vary the diameter of a female hub by transforming it into a male hub.

The male Plugs series **B-TS**, **MB-TS** and **NB-TS** are suitable for closing female hubs or unused openings on Ex db pipes or Ex db, Ex eb and Ex tb enclosures. Attachment of the Plugs to an enclosure is by means of the male threaded portion on the male body. Ingress protection of IP66/68 (50 m for 30 min.) is maintained when the Plugs are installed in accordance with the manufacturer's instructions.

The series of available Plugs are:

B-TS – they are used to close a female hub with cylindrical or tapered threads.

MB-TS – they are used to close a female hub with ISO Metric threads only.

NB-TS – they are used to close a female hub with NPT tapered threads and Ex eb or Ex tb execution only.

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

- Nickel-plated Brass type CuZn39Pb3 EN 12164.
- Galvanized carbon steel type FE36; FE37 UNI 10233/4.
- Stainless steel type AISI316; AISI304; AISI303.

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

All the Adaptors and male Plugs are suitable for a service temperature range between:

- -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;

with the exception of the Adaptors and Plugs made of galvanized carbon steel which are restricted to the lower temperature of -20°C.

The Adaptors and 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 ISO 7/1 or Gk (CEI EN 60079-1, Annex 1) while cylindrical threads are GAS ISO 228/1, NPSM ANSI/ASME B1.20.1 and type PG DIN 40430. Thread type PG DIN 40430 can be used for "Ex eb" execution only.

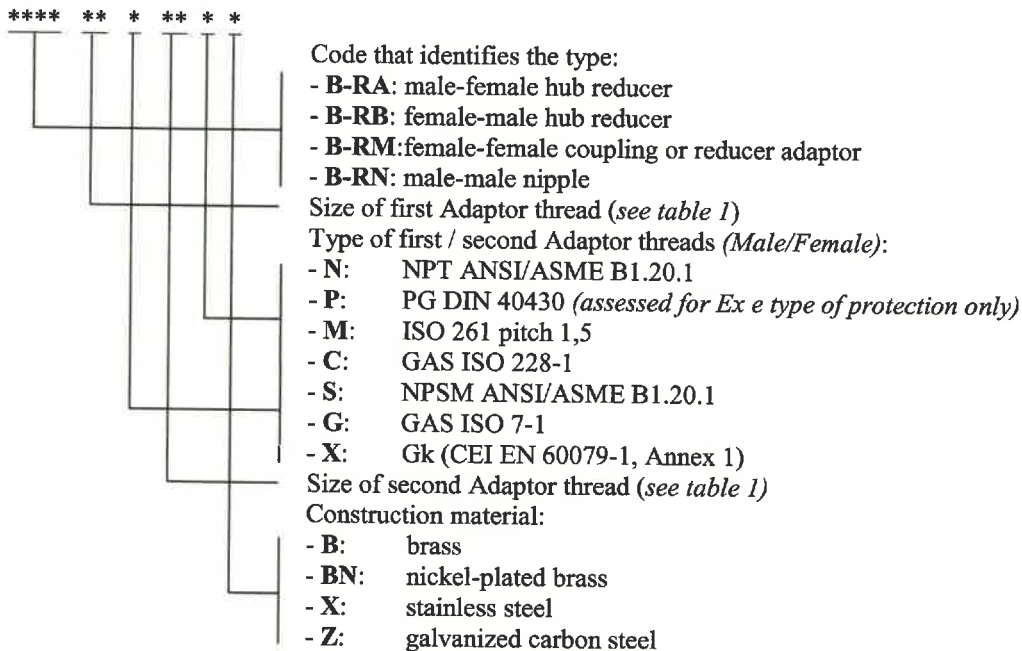
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Schedule

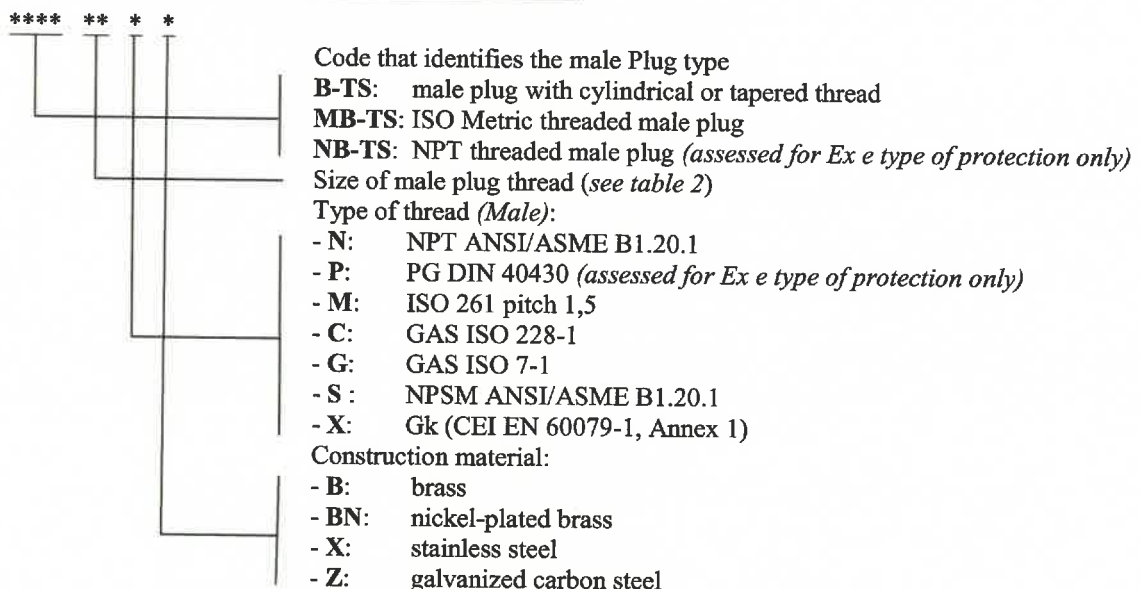
[14] SUPPLEMENTARY EU-TYPE EXAMINATION CERTIFICATE n. CESI 13 ATEX 066 X /01

The Adaptors are identified by a code as below:



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

The male Plugs are identified by a code as follows:



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[14] **SUPPLEMENTARY EU-TYPE EXAMINATION CERTIFICATE n. CESI 13 ATEX 066 X /01**

Table 1:

Adaptor size	Thread dimension			
	NPT	ISO 7-1 or 228/1	ISO pitch 1,5	PG DIN 40430
01	3/8"	3/8"	M 16	-
1	1/2"	1/2"	M 20	7
2	3/4"	3/4"	M 25	9
3	1"	1"	M 32	11
4	1 ¼ "	1 ¼ "	M 40	13.5
5	1 ½ "	1 ½ "	M 50	16
60	-	-	M 60	-
6	2"	2"	M 63	21
70	-	-	M 70	-
7	2 ½ "	2 ½ "	M 75	29
80	-	-	M 80	-
85	-	-	M 85	-
8	3"	3"	M 90	36
9	3 ½ "	-	M 100	42
10	4"	4"	M 110	48

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

Table 2:

Male plugs size	Thread dimension			
	NB-TS..		B-TS..	
	NPT	ISO pitch 1,5	GAS ISO 228-1	PG DIN 40430
01	3/8"	M 16	3/8"	-
1	1/2"	M 20	1/2"	7
2	3/4"	M 25	3/4"	9
3	1"	M 32	1"	11
4	1 ¼ "	M 40	1 ¼ "	13.5
5	1 ½ "	M 50	1 ½ "	16
60	-	M 60	-	-
6	2"	M 63	2"	21
70	-	M 70	-	-
7	2 ½ "	M 75	2 ½ "	29
80	-	M 80	-	-
85	-	M 85	-	-
8	3"	M 90	3"	36
9	3 ½ "	M 100	-	42
10	4"	M 110	4"	48

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Schedule

[14] **SUPPLEMENTARY EU-TYPE EXAMINATION CERTIFICATE n. CESI 13 ATEX 066 X /01**

Constructional characteristics

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

Service temperature ranges:

- 40°C and +100°C for Adaptors and Plugs with Chloroprene O-rings.
- 60°C and +130°C for Adaptors and Plugs with Silicon O-rings or flat washers.
- 40°C and +80°C for Adaptors and Plugs with Chloroprene or Fiber flat washers.
- up to -20 °C for models made of Galvanized carbon steel.

[16] **Report n. EX- B6011122**

Routine tests

None.

[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 to 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 and +100°C for Adaptors and Plugs with Chloroprene O-rings;
 - -60°C and +130°C for Adaptors and Plugs with Silicon O-rings or flat washers;
 - -40°C and +80°C for Adaptors and Plugs with Chloroprene or Fiber flat washers;
 - restricted use up to -20°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 guarantee 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**

Compliance with the Essential Health and Safety Requirements has been assured by compliance to the following standards:

EN 60079-0: 2012 Explosive atmospheres – Part 0: Equipment - General requirements;

EN 60079-0/A11: 2013 Explosive atmospheres – Part 0: Equipment - General requirements;

EN 60079-1: 2014 Explosive atmospheres – Part 1: Equipment protection by flameproof enclosure “d”;

EN 60079-7: 2015 Explosive atmospheres – Part 7: Equipment protection by increased safety “e”;

EN 60079-31: 2014 Explosive atmospheres – Part 31: Equipment dust ignition protection by enclosure “t”.

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Schedule

[14] **SUPPLEMENTARY EU-TYPE EXAMINATION CERTIFICATE n. CESI 13 ATEX 066 X /01**

[19] **Descriptive documents (prot. EX- B6011124)**

- Technical note A4-IEC.32 (pg. 7)	rev.1	dated	2016.03.10
- Safety, maintenance and mounting instruction MI-IEC.34 (pg. 12)	rev.1	dated	2016.01.12
- EU Declaration of Conformity FACSIMILE (pg. 1)		dated	2016.04.20
- Drawing A4-IEC.33 (1 sheet)	rev.1	dated	2016.01.12
- Drawing A4-IEC.34 (1 sheet)	rev.1	dated	2016.01.12
- Drawing A3-IEC.36 (1 sheet)	rev.1	dated	2016.03.10
- Drawing A3-IEC.37 (1 sheet)	rev.1	dated	2016.03.10
- Drawing A3-IEC.38 (1 sheet)	rev.1	dated	2016.03.10
- Drawing A3-IEC.39 (1 sheet)	rev.1	dated	2016.03.10
- Drawing A3-IEC.40 (1 sheet)	rev.1	dated	2016.03.10
- Drawing A3-IEC.41 (1 sheet)	rev.1	dated	2016.03.10
- Drawing A3-IEC.42 (1 sheet)	rev.1	dated	2016.03.10
- Drawing A3-IEC.43 (1 sheet)	rev.1	dated	2016.03.10
- Drawing A3-IEC.44 (1 sheet)	rev.1	dated	2016.03.10
- Drawing A3-IEC.45 (1 sheet)	rev.1	dated	2016.03.10
- Drawing A3-IEC.46 (1 sheet)	rev.1	dated	2016.03.10
- Drawing A3-IEC.47 (1 sheet)	rev.1	dated	2016.03.10
- Drawing A3-IEC.48 (1 sheet)	rev.1	dated	2016.03.10
- Drawing A3-IEC.49 (1 sheet)	rev.1	dated	2016.03.10
- Drawing A3-IEC.50 (1 sheet)	rev.1	dated	2016.03.10
- Drawing A3-IEC.51 (1 sheet)	rev.1	dated	2016.03.10
- Drawing A3-IEC.52 (1 sheet)	rev.1	dated	2016.03.10
- Drawing A3-IEC.53 (1 sheet)	rev.0	dated	2016.03.10
- Drawing A3-IEC.54 (1 sheet)	rev.0	dated	2016.03.10
- Drawing A3-IEC.74-1 (1 sheet)	rev.0	dated	2016.03.10
- Drawing A3-IEC.74-2 (1 sheet)	rev.0	dated	2016.03.10
- Drawing A3-IEC.74-3 (1 sheet)	rev.0	dated	2016.03.10
- Drawing A3-IEC.75 (1 sheet)	rev.1	dated	2016.03.10
- Drawing A3-IEC.76 (1 sheet)	rev.1	dated	2016.03.10
- Drawing A3-IEC.77 (1 sheet)	rev.0	dated	2016.03.10
- Drawing A3-IEC.78 (1 sheet)	rev.1	dated	2016.03.10
- Drawing A3-IEC.79 (1 sheet)	rev.1	dated	2016.03.10
- Drawing A3-IEC.80-1 (1 sheet)	rev.0	dated	2016.03.10
- Drawing A3-IEC.80-2 (1 sheet)	rev.0	dated	2016.03.10
- Drawing A3-IEC.81-1 (1 sheet)	rev.0	dated	2016.03.10
- Drawing A3-IEC.81-2 (1 sheet)	rev.0	dated	2016.03.10
- Drawing A3-IEC.82 (1 sheet)	rev.0	dated	2016.03.10
- Drawing A3-IEC.83 (1 sheet)	rev.1	dated	2016.03.10
- Drawing A3-IEC.84 (1 sheet)	rev.1	dated	2016.03.10
- Drawing A4-IEC.T70-1 (1 sheet)	rev.0	dated	2016.03.10
- Drawing A4-IEC.T70-2 (1 sheet)	rev.0	dated	2016.03.10

One copy of all documents is kept in CESI files.

Certificate history

Issue nr.	Issue Date	Summary description of variation
01	2016.05.30	Updating to standards EN60079-1:2014; EN60079-7:2015 and EN60079-31:2014. New sizes were added, use of Silicon O-rings and flat washers, Chloroprene flat washers and Fiber flat washers and new male plug types NB-TS and MB-TS were added. Nickel plated Brass is added as manufacturing raw material.
00	2014.02.17	First Issue of the Certificate

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