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Schema di certificazione

# CESI-ATEX

[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 15 ATEX 029 X /01**

[4] **Product: Adaptors and Plugs series AD, AD.FF, AD.MM, SP.MD., SP.MA..**

[5] **Manufacturer: Pepperl+Fuchs GmbH**

[6] **Address: Lilienthalstraße 200, 68307 Mannheim  
Germany**

[7] This supplementary certificate extends EC-Type Examination Certificate CESI 15 ATEX 029X 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-B6018927.

[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

This certificate may only be reproduced in its entirety and without any change, schedule included.

Date 2016.11.26 - Translation issued the 2016.11.26

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

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## Schedule

[14] **SUPPLEMENTARY EU-TYPE EXAMINATION CERTIFICATE n. CESI 15 ATEX 029 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 were added.
- Minor construction changes on SP.MD.. Plugs series.
- AD.RE and AD.EN adaptor types were renamed with AD type.
- SP.MD plugs with tapered threads types were renamed with SP.MA.NPT.
- New male plug types SP.MD.NPT and SP.MA.M were added.

### Description of equipment

The Adaptors series **AD**, **AD.FF** and **AD.MM** 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:

**AD** – they are used to reduce a female hub or increase a male hub.

**AD** – they are used to increase a female hub or reduce a male hub.

**AD.FF** – they are used to vary the diameter of a male hub by transforming it into a female hub.

**AD.MM** – they are used to vary the diameter of a female hub by transforming it into a male hub.

The male Plugs series **SP.MD.M**, **SP.MA.NPT**, **SP.MA.M** and **SP.MD.NPT** 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:

**SP.MD.M** – they are used to close a female hub with cylindrical threads.

**SP.MA.NPT** – they are used to close a female hub with tapered threads.

**SP.MA.M** – they are used to close a female hub with ISO Metric threads only.

**SP.MD.NPT** – 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.
- Stainless steel type AISI316; AISI304; AISI303.

To guarantee the IP 66/68 degree of protection the Adaptors series **AD**, **AD.FF** and **AD.MM** and male Plugs series **SP.MD.M** and **SP.MA.M** with cylindrical threads have a sealing edge machined for fitting an elastomeric gasket, alternatively it is available a flat washer, while for all other threads of Adaptors and 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.

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 threads are cylindrical 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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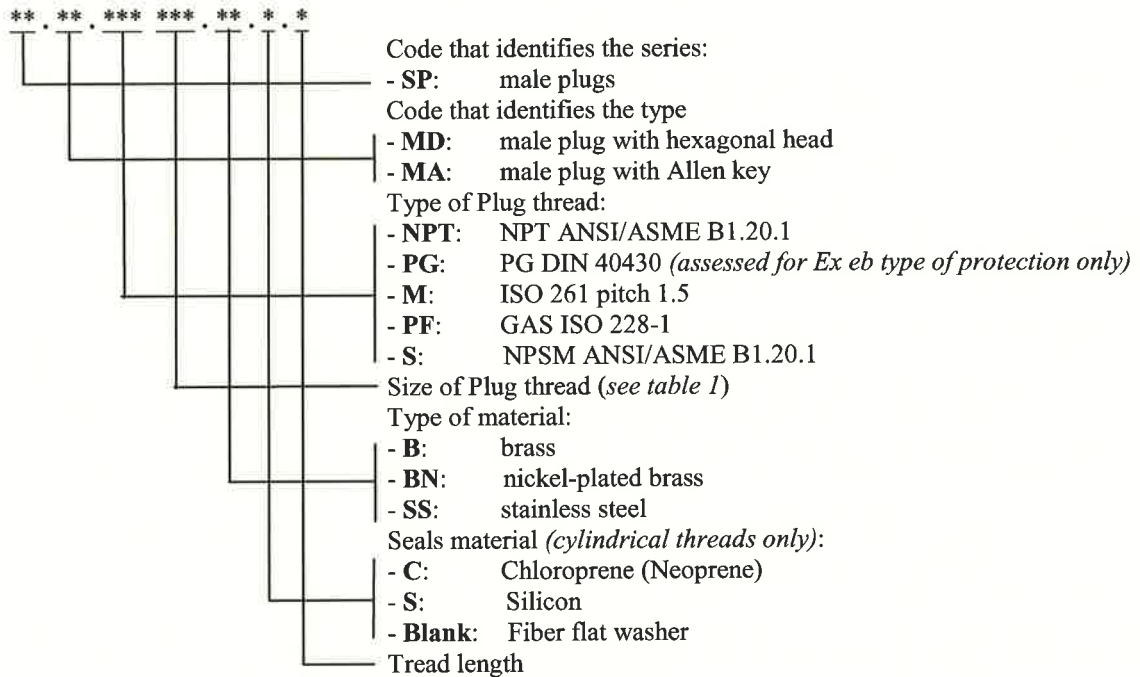


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## Schedule

[14] SUPPLEMENTARY EU-TYPE EXAMINATION CERTIFICATE n. CESI 15 ATEX 029 X /01

**The male Plugs are identified by a code as follows:**



**Table 1:**

Adaptors AD, AD.FF., AD.MM. and male Plugs SP.MD..							
Size	Thread NPT, NPSM	Size	Thread ISO 261	Size	Thread GAS ISO 228-1	Size	Thread PG DIN 40430
3/8	3/8"	16	M 16 x1.5	3/8	3/8"	-	-
1/2	1/2"	20	M 20 x1.5	1/2	1/2"	-	-
3/4	3/4"	25	M 25 x1.5	3/4	3/4"	9	9
1	1"	32	M 32 x1.5	1	1"	11	11
1-1/4	1 1/4"	40	M 40 x1.5	1-1/4	1 1/4"	13,5	13,5
1-1/2	1 1/2"	50	M 50 x1.5	1-1/2	1 1/2"	16	16
-	-	60	M 63 x1.5	-	-	-	-
2	2"	63	M 63 x1.5	2	2"	21	21
-	-	70	M 70 x1.5	-	-	-	-
2-1/2	2 1/2"	75	M 75 x1.5	2-1/2	2 1/2"	29	29
-	-	80	M 80 x1.5	-	-	-	-
-	-	85	M 85 x1.5	-	-	-	-
3	3"	90	M 90 x1.5	3	3"	36	36
3-1/2	3 1/2"	100	M100 x1.5	-	-	42	42
4	4"	110	M110 x1.5	4	4"	48	48

The AD, AD.FF and AD.MM Adaptors can be made with two different thread types and sizes combinations or with the same combinations.

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## Schedule

[14] **SUPPLEMENTARY EU-TYPE EXAMINATION CERTIFICATE n. CESI 15 ATEX 029 X /01**

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### 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.

[16] **Report n. EX- B6018927**

### 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;
- 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 15 ATEX 029 X /01**

[19] **Descriptive documents** (prot. EX- B6018934)

- Technical note PA4-IEC.32 (pg. 10)	rev.1	dated	2016.04.26
- Safety, maintenance and mounting instruction PMI-IEC.34 (pg. 12)	rev.1	dated	2016.04.26
- EU Declaration of Conformity FACSIMILE (pg. 2)		dated	2016.11.18
- Drawing PA4-IEC.33 (1 sheet)	rev.1	dated	2016.04.10
- Drawing PA4-IEC.34 (1 sheet)	rev.1	dated	2016.04.10
- Drawing PA3-IEC.36 (1 sheet)	rev.1	dated	2016.04.10
- Drawing PA3-IEC.37 (1 sheet)	rev.1	dated	2016.04.10
- Drawing PA3-IEC.38 (1 sheet)	rev.1	dated	2016.04.10
- Drawing PA3-IEC.39 (1 sheet)	rev.1	dated	2016.04.10
- Drawing PA3-IEC.40 (1 sheet)	rev.1	dated	2016.04.10
- Drawing PA3-IEC.41 (1 sheet)	rev.1	dated	2016.04.10
- Drawing PA3-IEC.42 (1 sheet)	rev.1	dated	2016.04.10
- Drawing PA3-IEC.43 (1 sheet)	rev.1	dated	2016.04.10
- Drawing PA3-IEC.44 (1 sheet)	rev.1	dated	2016.04.10
- Drawing PA3-IEC.45 (1 sheet)	rev.1	dated	2016.04.10
- Drawing PA3-IEC.46 (1 sheet)	rev.1	dated	2016.04.10
- Drawing PA3-IEC.47 (1 sheet)	rev.1	dated	2016.04.10
- Drawing PA3-IEC.48 (1 sheet)	rev.1	dated	2016.04.10
- Drawing PA3-IEC.49 (1 sheet)	rev.1	dated	2016.04.10
- Drawing PA3-IEC.50 (1 sheet)	rev.1	dated	2016.04.10
- Drawing PA3-IEC.51 (1 sheet)	rev.1	dated	2016.04.10
- Drawing PA3-IEC.52 (1 sheet)	rev.1	dated	2016.04.10
- Drawing PA3-IEC.53 (1 sheet)	rev.0	dated	2016.04.10
- Drawing PA3-IEC.54 (1 sheet)	rev.0	dated	2016.04.10
- Drawing PA3-IEC.74-1 (1 sheet)	rev.01	dated	2016.04.10
- Drawing PA3-IEC.74-2 (1 sheet)	rev.01	dated	2016.04.10
- Drawing PA3-IEC.74-3 (1 sheet)	rev.01	dated	2016.04.10
- Drawing PA3-IEC.75 (1 sheet)	rev.01	dated	2016.04.10
- Drawing PA3-IEC.76 (1 sheet)	rev.1	dated	2016.04.10
- Drawing PA3-IEC.77 (1 sheet)	rev.1	dated	2016.04.10
- Drawing PA3-IEC.78 (1 sheet)	rev.1	dated	2016.04.10
- Drawing PA3-IEC.79 (1 sheet)	rev.1	dated	2016.04.10
- Drawing PA3-IEC.80-1 (1 sheet)	rev.01	dated	2016.04.10
- Drawing PA3-IEC.80-2 (1 sheet)	rev.01	dated	2016.04.10
- Drawing PA3-IEC.81-1 (1 sheet)	rev.01	dated	2016.04.10
- Drawing PA3-IEC.81-2 (1 sheet)	rev.01	dated	2016.04.10
- Drawing PA3-IEC.82 (1 sheet)	rev.01	dated	2016.04.10
- Drawing PA3-IEC.83 (1 sheet)	rev.01	dated	2016.04.10
- Drawing PA3-IEC.84 (1 sheet)	rev.1	dated	2016.04.10
- Drawing PA4-IEC.T70-1 (1 sheet)	rev.0	dated	2016.04.10
- Drawing PA4-IEC.T70-2 (1 sheet)	rev.0	dated	2016.04.10

One copy of all documents is kept in CESI files.

**Certificate history**

Issue nr.	Issue Date	Summary description of variation
01	2016.11.26	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 new male plug types SP.MA.NPT, SP.MD.NPT and SP.MA.M were added. AD.RE and AD.EN adaptor types were renamed with AD type.
00	2015.05.27	First Issue of the Certificate

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