

CESI

CERTIFICATE



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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 02 ATEX 049 X/05

[4] **Product:** Adaptors and plugs
 series RE., REB., REM., REN. and PLG..

[5] **Manufacturer:** ELFTT S.p.A.
 [6] **Address:** Aquileia, 12 – 34070 Villesse (GO) – Italy.

[7] This supplementary certificate extends EC-Type Examination Certificate CESI 02 ATEX 049X, 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-B6015933.

[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 Ex eb IIC Gb
 Ex tb IIC Db

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Date 26. 07.2016 - Translation issued the 26th.07.2016

Prepared
 Emanuele Bruno

Verified
 Mirko Balaz

Approved
 Roberto Piccin

CESI S.p.A.

Testing & Certification Division
 Business Area Certification

Il Responsabile

(Roberto Piccin)



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 02 ATEX 049 X/05

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

- Variation 1 - Upgrade to ATEX directive 2014/34/EU;
- Variation 2 – Conformity to standards EN 60079-0:2012 + A11:2013, EN 60079-1:2014, EN 60079-7:2015, EN 60079-31:2014;
- Variation 3 - Update of marking;
- Variation 4 - Upgrade minimum ambient temperature from -50°C to -60°C;
- Variation 5 - Added additional marking with CORTEM GROUP brand.

Description of equipment...


The Adaptors series RE., REB., REM., and REN., are suitable to be mounted on cable conduits, on flameproof enclosures and on increased safety enclosures. They are used for coupling equipments, pipes and hubs having different threaded or plane entries, changing a male thread into a female thread or vice versa, larger thread diameter into smaller thread diameter or vice versa. Besides they are suitable to connect parts with different threads.


The male closing Plugs series PLG., are suitable for closing female hubs or unused openings on Ex d conduit or Ex d or Ex e enclosures.


They are identified by a code as follows:


RE:	Adaptor male-female;
REB:	Adaptor female-male;
REM:	Adaptor female-female;
REN:	Adaptor male-male;
PLG:	Male closing plug.


The adaptors series RE., REB., REM., and REN and plugs series PLG., are marked as follow:

ELFIT RE...  CE 0722 II 2GD - Ex db IIC Gb/Ex eb IIC Gb
Ex tb IIIC Db - IP66/67 CESI 02 ATEX 049X

ELFIT REB...  CE 0722 II 2GD - Ex db IIC Gb/Ex eb IIC Gb
Ex tb IIIC Db - IP66/67 CESI 02 ATEX 049X

ELFIT REM...  CE 0722 II 2GD - Ex db IIC Gb/Ex eb IIC Gb
Ex tb IIIC Db - IP66/67 CESI 02 ATEX 049X

ELFIT REN...  CE 0722 II 2GD - Ex db IIC Gb/Ex eb IIC Gb
Ex tb IIIC Db - IP66/67 CESI 02 ATEX 049X

ELFIT PLG...  CE 0722 II 2GD - Ex db IIC Gb/Ex eb IIC Gb
Ex tb IIIC Db - IP66/67 CESI 02 ATEX 049X

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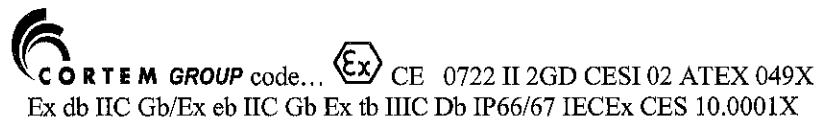
[14] SUPPLEMENTARY EU-TYPE EXAMINATION CERTIFICATE n. CESI 02 ATEX 049 X/05

The property of this certificate is ELFIT S.p.A. which it is the manufacturer that normally put in the market the product with ATEX certificate.

The same product is IECEx certified in the name of CORTEM SpA.

ELFIT and CORTEM are members of brand CORTEM GROUP.

When the product is marked with both numbers of certificate, then the identification of manufacturer is made from trademark of brand "CORTEM GROUP".



The standard male and female thread is NPT ANSI ASME B1.20.1 from 1/4" up to 6".

Other types of threads are admitted as indicated on drawing A4-4952 rev.2 (for tapered threads) and A4-5404 rev.1 (for cylindrical threads).

Thread length are made according to Annex C of EN 60079-1.

Thread lengths:

- for tapered threads, minimum 6 threads;
- for cylindrical threads, the length comprise at least 8 full threads to ensure 5 threads engaged.

The Adaptors and Plugs can be made in nickel-plated brass, stainless steel, galvanised nickel-alloy steel ASTM A203 or carbon steel ASTM A105 or in aluminium alloy. The Adaptors and Plugs with diameter lower than 25 mm made of aluminium alloy cannot be used.

To guarantee the IP 66/67 degree of protection the Adaptors and Plugs series RE., REB., REM., REN., and PLG., with cylindrical threads have a sealing edge machined for fitting a gasket made of Silicon rubber, while for all other threads the IP 66/67 degree of protection is achieved with sealant put at least on two complete threads engaged of the threaded joint.

For Standard RE., REB., REM., and REN., Adaptors both types of threads are the same and they are identified by a standard code. When the types of threads are different (as example NPT type on first side and Metric type on second side) they are considered as specials and the identification coding system is different.

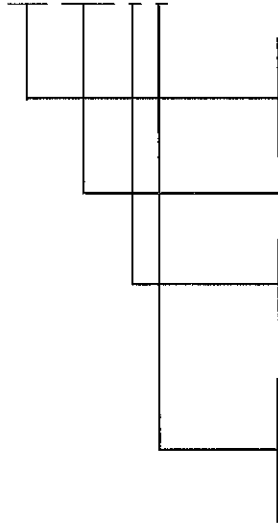
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[14] SUPPLEMENTARY EU-TYPE EXAMINATION CERTIFICATE n. CESI 02 ATEX 049 X/05

Identification of adaptors (standard codes):

*** **** * *



Code which identifies the series:

- **RE:** Adaptor male-female
- **REB:** Adaptor female-male
- **REM:** Adaptor female-female
- **REN:** Adaptor male-male

Size of adaptor (see Table 1)

Type of threads (same type for both of adaptor threads):

- **N:** NPT ANSI/ASME B1.20.1
- **C:** GAS ISO 228-1
- **blank:** Gk (CEI EN 60079-1, Annex 1)

Type of material:

- **A:** Aluminium alloy
- **B:** Nickel-plated brass
- **S:** Stainless steel
- **G:** Galvanized carbon steel ASTM A105
- **GL:** Galvanized nickel-alloy steel ASTM A203

Standard sizes and threads of Adaptors series RE., REB., REM., and REN. are listed on the following Table 1:

Table 1:

Adaptor sizes		Adaptor sizes		Adaptor sizes		Adaptor sizes		Adaptor sizes		Adaptor sizes	
Code	Threads	Code	Threads	Code	Threads	Code	Threads	Code	Threads	Code	Threads
3814	3/8"-1/4"	11	1/2"- 1/2"	61	2"- 1/2"	81	3"- 1/2"	101	4"- 1/2"	121	5"- 1/2"
114	1/2"-1/4"	21	3/4"- 1/2"	62	2"- 3/4"	82	3"- 3/4"	102	4"- 3/4"	122	5"- 3/4"
138	1/2"- 3/8"	22	3/4"- 3/4"	63	2"- 1"	83	3"- 1"	103	4"- 1"	123	5"- 1"
214	3/4"- 1/4"	31	1"- 1/2"	64	2"-1 1/4"	84	3"-1 1/4"	104	4"-1 1/4"	124	5"-1 1/4"
238	3/4"- 3/8"	32	1"- 3/4"	65	2"- 1 1/2"	85	3"-1 1/2"	105	4"- 1 1/2"	125	5"- 1 1/2"
314	1"- 1/4"	33	1"- 1"	66	2"- 2"	86	3"- 2"	106	4"- 2"	126	5"- 2"
338	1"- 3/8"	41	1 1/4"- 1/2"	71	2 1/2"- 1/2"	87	3"-2 1/2"	107	4"-2 1/2"	127	5"- 2 1/2"
414	1 1/4"- 1/4"	42	1 1/4"- 3/4"	72	2 1/2"- 3/4"	88	3"- 3"	108	4"- 3"	128	5"- 3"
438	1 1/4"- 3/8"	43	1 1/4"- 1"	73	2 1/2"- 1"	91	3 1/2"- 1/2"	109	4"-3 1/2"	129	5"- 3 1/2"
514	1 1/2"- 1/4"	44	1 1/4"-1 1/4"	74	2 1/2"-1 1/4"	92	3 1/2"- 3/4"	1010	4"- 4"	1210	5"- 4"
538	1 1/2"- 3/8"	51	1 1/2"- 1/2"	75	2 1/2"-1 1/2"	93	3 1/2"- 1"	--	--	1212	5"- 5"
614	2"- 1/4"	52	1 1/2"- 3/4"	76	2 1/2"-2"	94	3 1/2"-1 1/4"	--	--	1414	6"- 6"
638	2"- 3/8"	53	1 1/2"- 1"	77	2 1/2"-2 1/2"	95	3 1/2"-1 1/2"	--	--	--	--
--	--	54	1 1/2"-1 1/4"	--	--	96	3 1/2"- 2"	--	--	--	--
--	--	55	1 1/2"-1 1/2"	--	--	97	3 1/2"-2 1/2"	--	--	--	--
--	--	--	--	--	--	98	3 1/2"- 3"	--	--	--	--
--	--	--	--	--	--	99	3 1/2"-3 1/2"	--	--	--	--

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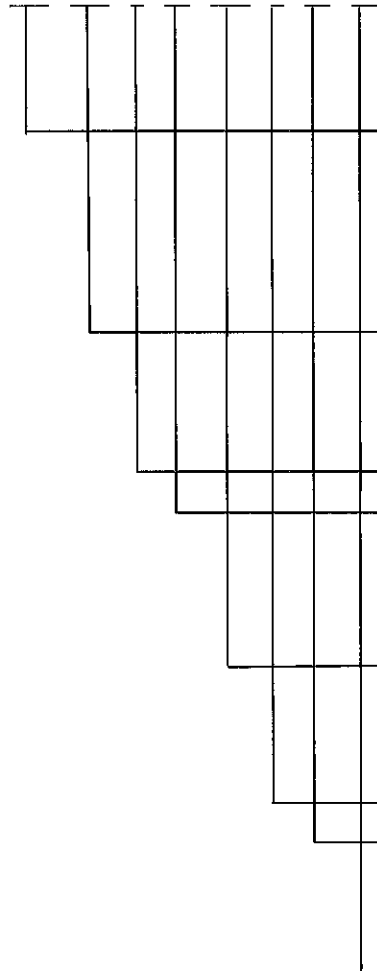
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[14] SUPPLEMENTARY EU-TYPE EXAMINATION CERTIFICATE n. CESI 02 ATEX 049 X/05

Identification of Special adaptors (special codes):

*** ** * ** *** * ** **



Code which identifies the series:

- **RE:** Adaptor male-female
- **REB:** Adaptor female-male
- **REM:** Adaptor female-female
- **REN:** Adaptor male-male

Type of first thread:

- **N:** NPT ANSI/ASME B1.20.1
- **I:** ISO 261 pitch 1,5
- **IX2:** ISO 261 pitch 2
- **NC:** NPSM ANSI/ASME B1.20.1
- **P:** PG DIN 40430
- **C:** GAS ISO 228-1
- **G:** Gk (CEI EN 60079-1, Annex 1)

Gender of first thread: M = male; F = female

Size of first thread (*see Table 2*)

Type of second thread:

- **N:** NPT ANSI/ASME B1.20.1
- **I:** ISO 261 pitch 1,5
- **IX2:** ISO 261 pitch 2
- **NC:** NPSM ANSI/ASME B1.20.1
- **P:** PG DIN 40430
- **C:** GAS ISO 228-1
- **G:** Gk (CEI EN 60079-1, Annex 1)

Gender of second thread: M = male; F = female

Size of second thread (*see Table 2*)

Type of material:

- **A:** Aluminum alloy
- **B:** Nickel-plated brass
- **S:** Stainless steel
- **G:** Galvanized carbon steel ASTM A105
- **GL:** Galvanized nickel-alloy steel ASTM A203

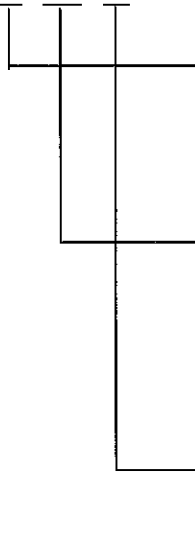
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[14] SUPPLEMENTARY EU-TYPE EXAMINATION CERTIFICATE n. CESI 02 ATEX 049 X/05

Identification of Plugs:

PLG **** *** ****



Code which identifies the size (*see table 2*)

Type of thread:

- N: NPT ANSI/ASME B1.20.1
- I: ISO 261 pitch 1,5
- IX2: ISO 261 pitch 2
- NC: NPSM ANSI/ASME B1.20.1
- P: PG DIN 40430
- C: GAS ISO 228-1
- blank: Gk (CEI EN 60079-1, Annex 1)

Type of material:

- A: Aluminum alloy
- B: Nickel plated brass
- S: Stainless steel
- G: Galvanized carbon steel ASTM A105
- GL: Galvanized nickel-alloy steel ASTM A203

Sizes and threads of special Adaptors and Plugs are listed on the following Table 2.

Table 2:

Size Code	Thread size		Size Code	Thread size	Size Code	Thread size
	NPT or NPSM or ISO 228-1	Gk		ISO 261		ISO 261
02	1/4"	--	12	M 12x1,5	--	--
01	3/8"	--	16	M 16x1,5	--	--
1	1/2"	1/2	20	M 20x1,5	--	--
2	3/4"	3/4	25	M 25x1,5	--	--
3	1"	1	32	M 32x1,5	--	--
4	1 ¼ "	1 ¼	40	M 40x1,5	--	--
5	1 ½ "	1 ½	50	M 50x1,5	--	--
6	2"	2	63	M 63x1,5	63X2	M 63x2
7	2 ½ "	2 ½	75	M 75x1,5	75X2	M 75x2
8	3"	3	90	M 90x1,5	90X2	M 90x2
9	3 ½ "	--	--	--	--	--
10	4"	4	100	M 100x1,5	100X2	M 100x2
12	5"	--	--	--	--	--
--	--	--	110	M 110x1,5	110X2	M 110x2
14	6"	--	--	--	--	--

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[14] **SUPPLEMENTARY EU-TYPE EXAMINATION CERTIFICATE n. CESI 02 ATEX 049 X/05**

[16] **Report n. EX-B6015933**

Routine tests

None

[17] **Special conditions for safe use**

- The coupling of the adaptors and plugs with the conduits or 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 conduit or at the electrical apparatus in such a way that accidental rotation and loosening will be prevented.
- Adaptors and plugs with diameter lower than 25 mm made of Aluminium alloy cannot be used.
- 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:

Adaptor or plug type	Materials	Gaskets	Min. Temperature	Max. Temperature
RE., REB., REM., REN., PLG..	Galvanised steel EN 10025 S355JR (ASTM A105), (On request Stainless steel, Brass, Aluminium alloy).	Silicon	-20 °C	+80 °C
RE., REB., REM., REN., PLG..	Galvanised steel EN 10025 S355JR (ASTM A203), (On request Stainless steel, Brass, Aluminium alloy).	Silicon	-40 °C	+150 °C
RE., REB., REM., REN., PLG..	Stainless steel	Silicon	-60 °C	+150 °C

- The degree of protection IP 66/67 according to the EN 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 + A11:2013 – General requirements;

EN 60079-1: 2014 – Equipment protection by flameproof enclosures ‘d’

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

EN 60079-31: 2014 – Equipment dust ignition protection by enclosure ‘t’

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[14] **SUPPLEMENTARY EU-TYPE EXAMINATION CERTIFICATE n. CESI 02 ATEX 049 X/05**

[19] **Descriptive documents (prot. EX-B6015934)**

- n. A4-1136 Technical Note (6 sheets)	Rev. 2	dated	07.07.2016
- n. A22 Safety maintenance and mounting instructions (5 sheets)	Rev.5	dated	07.07.2016
- n. 0140 Declaration of Conformity Fac Simile	Rev. 2	dated	07.07.2016
- n. A3-205	Rev. 3	dated	07.03.2016
- n. A3-209	Rev. 3	dated	07.03.2016
- n. A3-210	Rev. 3	dated	07.03.2016
- n. A3-211	Rev. 3	dated	07.03.2016
- n. A3-212	Rev. 3	dated	07.03.2016
- n. A3-262	Rev. 3	dated	07.03.2016

One copy of all documents is kept in CESI files.

Certificate history

Issue N°	Issue Date	Summary description of variation
05	26.07.2016	Upgrade to ATEX directive 2014/34/EU; Conformity to standards EN 60079-0:2012 + A11:2013, EN 60079-1:2014, EN 60079-7:2015, EN 60079-31:2014; Update of marking; Upgrade minimum ambient temperature from -50°C to -60°C; Added additional marking with CORTEM GROUP brand.
04	23.01.2015	Update to new edition of EN 60079-0: 2012, EN 60079-1: 2007, EN 60079-7:2007, EN 60079-31: 2009. - New minimum service temperature -50 °C. - Update of marking. - Special conditions for safe use (X) added.
03	25.01.2008	New maximum ambient temperature + 150°C
02	10.05.2007	Conformity to EN 60079-0:2006, EN 60079-1:2004, EN 60079-7 (2003), EN 61241-0:2006, EN 61241-1:2004; Update of nameplate
01	22.12.2005	New category II2 GD (added protection against the risk of explosion from combustible dusts in conformità with the standard EN 50281-1-1).
00	28.05.2016	First Issue of the Certificate