

CESI**CERTIFICATE**

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[1] **SUPPLEMENTARY EU-TYPE EXAMINATION CERTIFICATE**

[2] **Component intended for use on/in equipment or protective system
intended for use in potentially explosive atmospheres
Directive 2014/34/EU**

[3] Supplementary EU-Type Examination Certificate number:

CESI 01 ATEX 104 U/04

[4] Component: Fittings series **EM., NP., ELF., ELMF., ELM...**

[5] Manufacturer: **ELFIT S.p.A.**

[6] Address: Via Aquileia, 12 – 34070 Villesse (GO) - Italy

[7] This supplementary certificate extends EC-Type Examination Certificate CESI 01 ATEX 104 U, 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 component 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-B6015939.

[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] The sign "U" placed after the certificate number indicates that this certificate must not be mistaken for a certificate intended for an equipment or protective system. This partial certification may be used as a basis for certification of an equipment or protective system.

[11] This EU-TYPE EXAMINATION CERTIFICATE relates only to the design, examination and tests of the specified component in accordance to the Directive 2014/34/EU. Further requirements of the Directive apply to the manufacturing process and supply of this component. These are not covered by this certificate.

[12] The marking of the component shall include the following:



**II 2 GD Ex db IIC Gb Ex eb IIC Gb
Ex tb IIC Db**

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

Date 26.07.2016 - Translation issued the 26th.07.2016

Prepared
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Approved
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CESI S.p.A.

Testing & Certification Division
Business Area Certification
Il Responsabile

(Roberto Piccin)

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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

Schema di certificazione

CESI-ATEX

[13]

Schedule

[14] SUPPLEMENTARY EU-TYPE EXAMINATION CERTIFICATE n. CESI 01 ATEX 104 U /04

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

- 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 Nipples, Couplings and Elbow fittings series EM., NP., ELF., ELM., ELMF.. are suitable to be mounted on cable conduits, on flameproof enclosures and on increased safety enclosures.


They are identified by a code as below:


- EM: Coupling female-female;
- NP: Nipple male-male;
- ELF: Elbow female-female;
- ELMF: Elbow male-female;
- ELM: Elbow male-male.


The Nipples, couplings and Elbow fittings series EM., NP., ELF., ELM., ELMF.. are marked as follow:

ELFIT EM...  0722 II 2GD - Ex db IIC Gb/Ex eb IIC Gb
Ex tb IIIC Db - IP66/67 CESI 01 ATEX 104U

ELFIT NP...  0722 II 2GD - Ex db IIC Gb/Ex eb IIC Gb
Ex tb IIIC Db - IP66/67 CESI 01 ATEX 104U

ELFIT ELF...  0722 II 2GD - Ex db IIC Gb/Ex eb IIC Gb
Ex tb IIIC Db - IP66/67 CESI 01 ATEX 104U

ELFIT ELM...  0722 II 2GD - Ex db IIC Gb/Ex eb IIC Gb
Ex tb IIIC Db - IP66/67 CESI 01 ATEX 104U

ELFIT ELMF...  0722 II 2GD - Ex db IIC Gb/Ex eb IIC Gb
Ex tb IIIC Db - IP66/67 CESI 01 ATEX 104U

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
[14] SUPPLEMENTARY EU-TYPE EXAMINATION CERTIFICATE n. CESI 01 ATEX 104 U /04



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".

 **CORTEM GROUP EM...**  0722 II 2GD CESI 01 ATEX 104U
Ex db IIC Gb/Ex eb IIC Gb Ex tb IIIC Db IP66/67 IECEX CES 15.0005U

 **CORTEM GROUP NP...**  0722 II 2GD CESI 01 ATEX 104U
Ex db IIC Gb/Ex eb IIC Gb Ex tb IIIC Db IP66/67 IECEX CES 15.0005U

 **CORTEM GROUP EL...**  0722 II 2GD CESI 01 ATEX 104U
Ex db IIC Gb/Ex eb IIC Gb Ex tb IIIC Db IP66/67 IECEX CES 15.0005U

The Nipples, Couplings and Elbow fittings can be made in brass, stainless steel, galvanised steel ASTM A105 or ASTM A203 or in aluminium alloy.

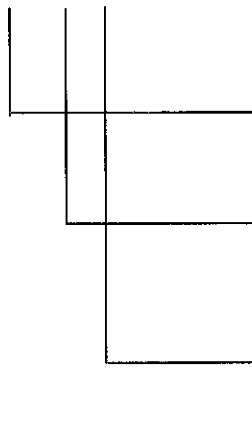
The Nipples, Couplings and Elbow fittings standard threads types are NPT/ANSI ASME B1.20.1 from 1/4" up to 6" for types EM.. and NP.. and from 1/4" up to 4" for types ELF., ELMF.. and ELM..

Alternative available tapered 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.

Identification of fittings:

**** ** *



Code which identifies the series:

- EM: Coupling female-female
- NP: Nipple male-male
- ELF: 90° Elbow female-female
- ELMF: 90° Elbow male-female (ELF + NP fitting coupling)
- ELM: 90° Elbow male-male (NP + ELF + NP fitting coupling)

Size of fitting (see table 1)

Type of material:

- A: Aluminium alloy
- B: Brass
- S: Stainless steel
- G: Galvanized carbon steel standard
- GL: Galvanized steel for low temperatures

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Types, sizes and threads of fittings are listed on the following Table 1:

Table 1:

| Fittings type | Size code | NPT Thread | Gk Thread | ISO pitch 1,5 Thread |
|---------------------------------------|-----------|------------|-----------|----------------------|
| EM., NP., ELF., ELMF., ELM.. | 02 | 1/4" | -- | M 12 |
| | 01 | 3/8" | -- | M 16 |
| | 1 | 1/2" | 1/2 | M 20 |
| | 2 | 3/4" | 3/4 | M 25 |
| | 3 | 1" | 1 | M 32 |
| | 4 | 1 1/4" | 1 1/4 | M 40 |
| | 5 | 1 1/2" | 1 1/2 | M 50 |
| | 6 | 2" | 2 | M 63 |
| | 7 | 2 1/2" | 2 1/2 | M 75 |
| | 8 | 3" | 3 | M 90 |
| EM., NP.. | 10 | 4" | 4 | M 100 |
| | 12 | 5" | -- | -- |
| | 14 | 6" | -- | -- |

[16] Report n. EX-B6015939

Routine tests

None

[17] Schedule of limitations

- The coupling of the fittings with the conduits or 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 fittings are mounted.
- The fittings shall be mounted in the electrical apparatus in such a way that accidental rotation and loosening will be prevented.
- Fittings with diameter lower than $\varnothing 3/4"$ (25mm) made of Aluminium alloy cannot be used.
- The fittings shall be installed in such a way that the temperature at the mounting point will remain within the following service temperature ranges:

| Type | Materials | Gasket | Ambient temperature |
|-----------|--------------------------------------|----------|---------------------|
| EM., NP.. | Galvanised steel EN 10025 S3555JR | Silicone | -20°C +80 °C |

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| | | | |
|---------------------|--|----------|---------------|
| | ASTM A105, brass, Aluminium alloy, Stainless steel. | | |
| EM., NP.. | Galvanised steel EN 10025 S3555JR ASTM A203, brass, Aluminium alloy, Stainless steel. | Silicone | -40°C +150 °C |
| EM., NP.. | Stainless steel | Silicone | -60°C+150 °C |
| ELF.. | Aluminium alloy | Silicone | -60°C+150 °C |
| ELM., ELMF.. | Aluminium alloy (ELF..) + | Silicone | -60°C+150 °C |

The degree of protection IP 66/67 according to the EN 60529 standard is guaranteed for the fittings if the holes into which fittings 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’

[19] Descriptive documents

(prot. EX-B6015940)

| | | | |
|--|-------|-------|------------|
| - Technical note A4-1135 (pg. 5) | rev.2 | dated | 07.07.2016 |
| - Safety, maintenance and mounting Instructions A3 (pg. 3) | rev.4 | dated | 07.07.2016 |
| - Attestation of Conformity no. 0139 FACSIMILE (pg. 1) | rev.0 | dated | 07.07.2016 |
| - Drawing A3-202 (pg. 1) | rev.3 | dated | 25.02.2016 |
| - Drawing A3-203 (pg. 1) | rev.3 | dated | 25.02.2016 |
| - Drawing A3-204 (pg. 1) | rev3 | dated | 25.02.2016 |

One copy of all documents is kept in CESI files.

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[14] SUPPLEMENTARY EU-TYPE EXAMINATION CERTIFICATE n. CESI 01 ATEX 104 U /04

Certificate history

| Issue N° | Issue Date | Summary description of variation |
|----------|------------|--|
| 04 | 26.07.2016 | Upgrade to ATEX directive 2014/34/EU; Conformity to standards EN 60079-0:2012 + A11:2013, EN 60079-1:2014, EN 60079-31:2014; Update of marking; Upgrade minimum ambient temperature from -50°C to -60°C; Added additional marking with CORTEM GROUP brand. |
| 03 | 14.04.2015 | Update to new edition of EN 60079-0:2012, EN 60079-1:2007, EN 60079-31:2009; Update of marking. |
| 02 | 21.12.2007 | Conformity to EN 60079-0:2006, EN 60079-1:2004, EN 61241-0:2006, EN 61241-1:2004; Update of nameplate; New operative range -55°C ÷ + 110°C. |
| 01 | 23.12.2005 | New category II2 GD (added protection against the risk of explosion from combustible dusts in conformità with the standard EN 50281-1-1). |
| 00 | 21.12.2001 | First Issue of the Certificate |