

INTERNATIONAL ELECTROTECHNICAL COMMISSION IEC Certification Scheme for Explosive Atmospheres

for rules and details of the IECEx Scheme visit www.iecex.com

Certificate No.:

IECEx CES 15.0005U

issue No.:0

Certificate history:

Status:

Current

Date of Issue:

2015-06-18

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Applicant:

CORTEM S.p.A. Via Aquileia 10 I - 34070 Villesse (GO)

Italy

Electrical Apparatus:

Optional accessory:

Nipples, Couplings and Elbow, series NP.., EM.., ELF.., ELM.. and ELMF..

Type of Protection:

Flameproof enclosure "d", Increased safety "e", Dust ignition protection 't'

Marking:

Ex d IIC Gb Ex e IIC Gb Ex tb IIIC Db IP 66/67

Approved for issue on behalf of the IECEx

Mirko Balaz

Certification Body:

Position:

Head of ExCB

Signature:

(for printed version)

Date:

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1. This certificate and schedule may only be reproduced in full.

2. This certificate is not transferable and remains the property of the issuing body.

3. The Status and authenticity of this certificate may be verified by visiting the Official IECEx Website.

Certificate issued by:

CESI
Centro Elettrotecnico
Sperimentale Italiano S.p.A.
Via Rubattino 54
20134 Milano
Italy

CESI S.P.A.

Testing & Certification Division
Business Area Certification

Roberto Ficcin





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Manufacturer:

CORTEM S.p.A. Via Aquileia 10 I - 34070 Villesse (GO)

Additional Manufacturing location (s):

This certificate is issued as verification that a sample(s), representative of production, was assessed and tested and found to comply with the IEC Standard list below and that the manufacturer's quality system, relating to the Ex products covered by this certificate, was assessed and found to comply with the IECEx Quality system requirements. This certificate is granted subject to the conditions as set out in IECEx Scheme Rules, IECEx 02 and Operational Documents as amended.

STANDARDS:

The electrical apparatus and any acceptable variations to it specified in the schedule of this certificate and the identified documents, was found to comply with the following standards:

IEC 60079-0: 2011

Explosive atmospheres - Part 0: General requirements

Edition: 6.0

IEC 60079-1: 2007-04

Explosive atmospheres - Part 1: Equipment protection by flameproof enclosures "d"

Edition: 6

IEC 60079-31: 2008

Explosive atmospheres – Part 31: Equipment dust ignition protection by enclosure 't'

Edition: 1

IEC 60079-7 : 2006-07

Explosive atmospheres - Part 7: Equipment protection by increased safety "e"

Edition: 4

This Certificate does not indicate compliance with electrical safety and performance requirements other than those expressly included in the Standards listed above.

TEST & ASSESSMENT REPORTS:

A sample(s) of the equipment listed has successfully met the examination and test requirements as recorded in

Test Report:

IT/CES/ExTR15.0008/00

Quality Assessment Report:

IT/CES/QAR06.0002/09



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Schedule

EQUIPMENT

Equipment and systems covered by this certificate are as follows:

The Nipples, Couplings and Elbow series **EM..**, **NP..**, **ELF..**, **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: Nippie male-male;
- ELF: Elbow female-female;
- ELMF: Elbow male-female;
- ELM: Elbow male-male.

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

The Nipples, Couplings and Elbow series EM.., NP.., ELF.., ELM., ELMF.. characteristics and a Schedule of Limitations are further described in the Annexe of this certificate.

CONDITIONS OF CERTIFICATION: NO



Prot: B5012235

Annex to certificate:

IECEx CES 15.0005U Issue No.: 0 of 2015-06-18

Applicant:

COR.TEM S.p.A., Via Aquileia 10, I - 34070 Villesse (GO), Italy

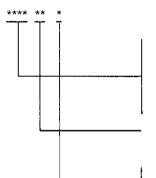
Electrical Apparatus:

Nipples, Couplings and Elbow fittings, series EM, NP, ELF, ELM, ELMF

Identification and description of the fittings

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 Gk CEI EN 60079-1, Annex 1. While for cylindrical threads are ISO Metric 965/1 and ISO 965/3, NPSM ANSI/ASME B1.20.1 and GAS ISO 228/1.

Identification of fittings:



Code which identifies the series:

Coupling female-female - EM:

- NP: Nipple male-male

- ELF: 90° Elbow female-female

- **ELMF**: 90° Elbow male-female (*ELF elbow + NP nipple coupling*)

- **ELM**: 90° Elbow male-male (NP nipple + ELF elbow + NP nipple coupling)

Size of fitting (see table 1)

Type of material:

Aluminium alloy - A:

- B: Brass

- S: Stainless steel

- G: Galvanized carbon steel standard

- GL: Galvanized steel for low temperatures

All the comprised size codes 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	11/4"	11/4	M 40
	5	11/2"	1½	M 50
	6	2"	2	M 63
	7	2½"	21/2	M 75
	8	3"	3	M 90
	10	4"	4	M 100
EM, NP	12	5"		
	14	6"		





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Electrical Apparatus:

Nipples, Couplings and Elbow fittings, series EM, NP, ELF, ELM, ELMF

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 with the conduit or at the electrical apparatus in such a way that accidental rotation and loosening will be prevented.
- Fittings with diameter lower than ø3/4" (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:

Fittings type	Materials	Min. Temperat ure	Max. Temperat ure
EM, NP	Galvanised steel ASTM A105, brass, Aluminium alloy, Stainless steel.	-20 °C	+80 °C
EM, NP	Galvanised steel ASTM A203, brass, Aluminium alloy, Stainless steel.	-40 °C	+150 °C
EM, NP	Stainless steel.	-50 °C	+150 °C
ELF	Aluminium alloy.	-50 °C	+150 °C
ELM, ELMF	Aluminium alloy (ELF) + Stainless steel (NP).	-50 °C	+150 °C

The degree of protection IP 66/67 according to the IEC 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.