



IECEX Certificate of Conformity

INTERNATIONAL ELECTROTECHNICAL COMMISSION IEC Certification System for Explosive Atmospheres

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

Ex COMPONENT CERTIFICATE

Certificate No.: **IECEX IMQ 22.0009U** Page 1 of 3 [Certificate history:](#)

Status: **Current** Issue No: 0

Date of Issue: 2023-02-21

Applicant: **CORTEM S.p.A**
Via Aquileia 10
34070 Villesse
Gorizia
Italy

Ex Component: Fittings for flexible conduit, serie ESP

This component is NOT intended to be used alone and requires additional consideration when incorporated into other equipment or systems for use in explosive atmospheres (refer to IEC 60079-0).

Type of Protection: **Ex eb; Ex tb**

Marking: Ex eb IIC Gb
Ex tb IIIC Db

Approved for issue on behalf of the IECEx
Certification Body:

Mr. Mauro CASARI

Position:

IMQ ExCB Manager

Signature:
(for printed version)

Date:
(for printed version)

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Certificate issued by:

Istituto Italiano del Marchio di Qualità S.p.A
Via Quintiliano 43
20138 Milano
Italy





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Manufacturer: **CORTEM S.p.A**
Via Aquileia 10
34070 Villesse
Gorizia
Italy

Manufacturing
locations:

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 component 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 60079-0:2017](#) Explosive atmospheres - Part 0: Equipment - General requirements
Edition:7.0

[IEC 60079-31:2022-01](#) Explosive atmospheres – Part 31: Equipment dust ignition protection by enclosure "t"
Edition:3.0

[IEC 60079-31:2013](#) Explosive atmospheres - Part 31: Equipment dust ignition protection by enclosure "t"
Edition:2

[IEC 60079-7:2017](#) Explosive atmospheres - Part 7: Equipment protection by increased safety "e"
Edition:5.1

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

TEST & ASSESSMENT REPORTS:

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

Test Report:

[IT/IMQ/ExTR22.0009/00](#)

Quality Assessment Report:

[IT/CES/QAR06.0002/16](#)



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Ex Component(s) covered by this certificate is described below:

The fittings for flexible conduits, series ESP, are used to connect increased safety or dust tight equipment that is offset, housing or equipment subject to vibrations such as electrical motors.

The fixed model of fitting is composed of:

- Body of fittings suitable for Metric thread or NPT thread or Gas thread (conical ISO 7/1 or cylindrical type ISO 228/1) in male or female versions;
- Sealing ring
- Locknut
- Shell
- O-ring (used only for cylindrical thread of the body)

For Revolving model there are also these components in addition to the previous:

- intermediate nipple
- metallic snap ring
- O-ring (on the intermediate nipple and on the body with cylindrical thread)

Body, locknut and intermediate nipple of fittings can be made of stainless steel material or Nickel plated brass, metallic snap ring is made of Fe while the shell is made of zamak alloy (Zinc).

Sealing ring can be made of Silicone or PA6 while O-ring of Silicone.

The component is suitable for gas Group IIC and dust Group IIIC.

It has respectively the types of protection "Ex eb" and "Ex tb".

Degree of protection: IP66 according to IEC 60079-0 and IEC 60529.

Trademark: CORTEM; ELFIT; CORTEM GROUP

Full details in Annex.

SCHEDULE OF LIMITATIONS:

Component (with taper thread) is intended to be coupled only to threaded entries.

Appropriate conformity assessment shall be considered during the final installation or application.

Operating temperature: from -40°C to +80°C (PA6 seals);

from -60°C to +80°C (Silicone seals).

Annex:

[IECEX IMQ 22.0009 U issue No. 0 Annex_1.pdf](#)

Annex to: IECEx IMQ 22.0009U issue No. 0
Applicant: CORTEM S.p.A.
Apparatus: Fittings for flexible conduit
Series ESP



General description

The fittings for flexible conduits, series ESP, are used to connect increased safety or dust tight equipment that is offset, housing or equipment subject to vibrations such as electrical motors.

The fixed model of fitting is composed of:

- Body of fittings suitable for Metric thread or NPT thread or Gas thread (conical ISO 7/1 or cylindrical type ISO 228/1) in male or female versions;
- Sealing ring
- Locknut
- Shell
- O-ring (used only for cylindrical thread of the body)

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Sealing ring can be made of Silicone or PA6 while O-ring of Silicone.

The component is suitable for gas Group IIC and dust Group IIIC.

It has respectively the types of protection "Ex eb" and "Ex tb".

Degree of protection: IP66 according to IEC 60079-0 and IEC 60529

Warning

Not present

Installation conditions:

The component shall be installed according to current edition of IEC 60079-14 (In particular, clauses no. 9.4, 9.5, 9.6, 10.2, 10.3, 10.7 shall be duly considered)

Components are not intended to be make direct connection to the "Ex d" enclosure

It is the end-user's responsibility to ensure that operative temperature limits are complied with during installation keeping into account the ambient temperatures at the place of installation.

For the internal cylindrical thread (female part), an appropriate gasket is required to guarantee the IP protection. When no gasket or seal is used, at least 5 full engaged threads are required (for cylindrical threads) and 3½ threads (for the tapered threads). This must be realised during installation and is the responsibility of the end-user.

In order to ensure the IP Rating, the fitting shall be installed with its relative conduit.

The end user has to ensure that there is electrical continuity between the fitting and the associated enclosure that have to be correctly bonded.

