



IECEX Certificate of Conformity

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 14.0019X

Issue No: 1

Certificate history:

Status: Current

Issue No. 1 (2017-10-20)

Issue No. 0 (2014-06-24)

Date of Issue: 2017-10-20

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Applicant: **CORTEM S.p.A.**
Via Aquileia 10
I - 34070 Villesse (GO)
Italy

Equipment: **Sealing fittings series EYS, EZS, EYD and EZD**
Optional accessory:

Type of Protection: **Flameproof enclosures 'd'; Dust ignition protection 't'**

Marking:
Ex db IIC Gb (for EYD and EZD series only)
or
Ex db IIC Gb (for EYS and EZS series only)
Ex tb IIIC Db
IP66

Approved for issue on behalf of the IECEx
Certification Body:

Mirko Balaz

Position:

Head of IECEx CB

Signature:
(for printed version)

Date:

20-10-2017

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

CESI S.p.A.
Testing & Certification Division
Business Area Certification
Il Responsabile
(Roberto Piccini)



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Manufacturer: **CORTEM S.p.A.**
Via Aquileia 10
I - 34070 Villesse (GO)
Italy

Additional Manufacturing location(s):

ELFIT S.p.a.
Via Aquileia 12
I - 34070 Villesse (GO)
Italy

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 Edition:6.0	Explosive atmospheres - Part 0: General requirements
IEC 60079-1 : 2014-06 Edition:7.0	Explosive atmospheres - Part 1: Equipment protection by flameproof enclosures "d"
IEC 60079-31 : 2013 Edition:2	Explosive atmospheres - Part 31: Equipment dust ignition protection by enclosure "t"

*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/ExTR14.0016/00 IT/CES/ExTR14.0016/01

Quality Assessment Report:

IT/CES/QAR06.0002/11 IT/CES/QAR13.0001/04



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Schedule

EQUIPMENT:

Equipment and systems covered by this certificate are as follows:

The sealing fittings series EYS, EZS, EYD and EZD are the stopping box with compound filling and are suitable to be mounted on cable conduit or on flameproof enclosures.

The sealing fittings types are identified as follows:

- EYS for sealing in vertical position;
- EZS for sealing in horizontal and/or vertical position;
- EYD for sealing in vertical position complete with drain valve;
- EZD for sealing in horizontal and/or vertical position complete with drain valve.

The sealing fittings characteristics are further described in the Annexe of this certificate.

SPECIFIC CONDITIONS OF USE: YES as shown below:

- The total cross-sectional area of the cables, including insulation, shall be not more than 40% of the cross-sectional area of the fitting according to IEC 60079-14.
- The minimum length of the compound shall be $\geq 20\text{mm}$ and at least 20% of that cross-sectional area shall be filled with compound.
- The sealing fittings shall be coupled with the enclosure or with cable conduit as indicated by the manufacturer's documents in order to not jeopardise the type of protection of the electrical apparatus on which the sealing fittings are mounted.
- The sealing fittings are approved to be used with setting compound provided by manufacturer and may be applied by installer or user of electrical apparatus following the manufacturer's instructions.
- The service temperature range of the sealing fittings is: from -20°C to $+100^{\circ}\text{C}$.
- The ambient temperature range of the sealing fittings is:
 - - from -20°C to $+60^{\circ}\text{C}$ for series EYD and EZD with drain valve and
 - - from -20°C to $+100^{\circ}\text{C}$ for series EYS and EZS.



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DETAILS OF CERTIFICATE CHANGES (for issues 1 and above):

Variation 1.1

The Sealing fittings EYS**, EZS**, EYD** and EZD** series originally assessed in compliance to IEC 60079-0:2011, IEC 60079-1:2007 and IEC 60079-31:2008 have been re-assessed on the basis of IEC 60079-1:2014 and IEC 60079-31:2013 Standards.

Variation 1.2

Additional Manufacturer address of EL.FIT SPA, Via Aquileia, 12 - 34070 Villesse (Gorizia - Italy) and CORTEM GROUP Trademark were added.

Annex:

CORTEM IECEX CES 14.0019X Issue 1 - ANNEX EYS-EZS-EYD-EZD.pdf



IECEX Certificate of Conformity

CESI

Prot: B7027188

Annex to certificate:

Applicant:

Electrical Apparatus:

IECEX CES 14.0019X Issue No.:1 of 2017-10-20

CORTEM S.p.a.,

Via Aquileia 10, I - 34070 Villesse (GO), Italy

Sealing fittings series EYS, EZS, EYD and EZD

General product information:

The sealing fittings **EYS****, **EZS****, **EYD**** and **EZD**** series consist in resin fillable stopping boxes with female threaded joints and can be used for the passage of cables between conduits and/or flameproof enclosures. The sealing fittings **EYS**** and **EZS**** series are also protected against the risk of explosion for the presence of combustible dusts, in this case they have an IP 66 degree of protection.

The sealing fittings types are identified as follows:

- **EYS**** for sealing in vertical position;
- **EZS**** for sealing in horizontal and/or vertical position;
- **EYD**** for sealing in vertical position complete with drain valve;
- **EZD**** for sealing in horizontal and/or vertical position complete with drain valve.

Sealing fittings series **EYS**** are provided of two coaxial threaded. They are used for vertical connections.

These fittings are divided on two construction types:

- from size 1/2" up to 1" the body of fitting have one lateral threaded hub used for glass fibre positioning and for compound filling;
- from size 1 1/4" up to 3" the body of fitting have two lateral threaded hubs, one at 45° from vertical axis used for compound filling and one bigger at 90° from vertical axis for glass fibre positioning.

The glass fibre is used to containing the compound into sealing fitting during filling operation. At the end of filling operation, the lateral threaded hubs are plugged by certified threaded plugs PLG series with IECEX CES 10.0001X certificate.

Sealing fittings series **EZS**** are provided of two coaxial threaded hubs. They are used for each horizontal and vertical connections. These fittings have the same construction form for all sizes from 1/2" up to 3". They are complete with a threaded cover at 90° from vertical axis used for glass fibre positioning. The cover has a threaded hub for compound filling. The glass fibre is used to containing the compound into sealing fitting during filling operation. At the end of filling operation, the threaded hub on the cover is plugged by certified threaded plugs PLG series with IECEX CES 10.0001X certificate.

Sealing fittings series **EYD**** are provided of two coaxial threaded hubs. They are used for vertical connections. These fittings are divided on two construction types:

- from size 1/2" up to 1" the body of fitting have one lateral threaded hub used for glass fibre positioning and for compound filling;
- from size 1 1/4" up to 3" the body of fitting have two lateral threaded hubs, one at 45° from vertical axis used for compound filling and one bigger at 90° from vertical axis for glass fibre positioning.

The glass fibre is used to containing the compound into sealing fitting during filling operation. At the end of filling operation, the lateral threaded hubs are plugged by certified threaded plugs PLG series with IECEX CES 10.0001X certificate. Furthermore, **EYD**** fittings are also complete with drain valve type ECD110 with IECEX CES 14.0016U certificate.

Sealing fittings series **EZD**** are provided of two coaxial threaded hubs. They are used for each horizontal and vertical connections. These fittings have the same construction form for all sizes from 1/2" up to 3". They are complete with a threaded cover at 90° from vertical axis used for glass fibre positioning. The cover has a threaded hub for compound filling. The glass fibre is used to containing the compound into sealing fitting during filling operation. At the end of filling operation, the threaded hub on the cover is plugged by certified threaded plugs PLG series IECEX CES 10.0001X. Furthermore, **EZD**** fittings are also complete with drain valve type ECD110 with IECEX CES 14.0016U certificate

To guarantee the IP 66 degree of protection of **EYS**** and **EZS**** sealing fittings it is applied a sealant put at least on two complete threads engaged of the threaded coupling.



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Applicant:

Electrical Apparatus:

IECEX CES 14.0019X Issue No.:1 of 2017-10-20

CORTEM S.p.a.,

Via Aquileia 10, I - 34070 Villesse (GO), Italy

Sealing fittings series EYS, EZS, EYD and EZD

The ambient temperature range of the sealing fittings are:

- from -20°C up to +60°C for series **EYD**** and **EZD**** with drain valve;
- from -20°C up to +100°C for series **EYS**** and **EZS****.

All sealing fitting types are suitable for the service temperature range from -20°C up to +100°C.

Constructional characteristics

Degree of protection (IEC 60529):

IP 66 for **EYS**** and **EZS**** sealing fittings only.

Identification of sealing fittings

CODE-

Code of the series:
EYS, EZS, EYD, EZD

Size of thread:
1 = 1/2" (or M20)
2 = 3/4" (or M25)
3 = 1" (or M32)
4 = 1 1/4" (or M40)
5 = 1 1/2" (or M50)
6 = 2" (or M63)
7 = 2 1/2" (or M75)
8 = 3" (or M90)

Type of thread:
N = NPT ANSI ASME B1.20.1
I = ISO metric pitch 1,5mm
NC = NPSM ANSI ASME B1.20.1
P = PG DIN 40430
C = GAS UNI 228/1

Type of material:
Blank = aluminium
S = stainless steel

Other suffix can be added on the code for particular configurations..