



# 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](http://www.iecex.com)

Certificate No.: IECEx CES 12.0010 issue No.:0 Certificate history:

Status: **Current**

Date of Issue: **2012-05-14** Page 1 of 3

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

Electrical Apparatus: **Lighting fixtures, series EXEN...**  
*Optional accessory:*

Type of Protection: **Type of protection "nA"; Dust ignition protection by enclosure "t"**

Marking: **Ex nA IIC T5, T4 Gc**  
**Ex tb IIIC T65°C to T85°C Db**  
**IP66**


*Approved for issue on behalf of the IECEx  
Certification Body:*

Mirko Balaz

*Position:*

Head of IECEx CB

*Signature:  
(for printed version)*

  
\_\_\_\_\_  
14-5-2012

*Date:*

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  




# IECEx Certificate of Conformity

Certificate No.: IECEx CES 12.0010

Date of Issue: 2012-05-14

Issue No.: 0

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

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:

<b>IEC 60079-0 : 2007-10</b> Edition: 5	Explosive atmospheres - Part 0: Equipment - General requirements
<b>IEC 60079-15 : 2010</b> Edition: 4	Explosive atmospheres - Part 15: Equipment protection by type of protection "n"
<b>IEC 60079-31 : 2008</b> Edition: 1	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/ExTR11.0035/00

Quality Assessment Report:

IT/CES/QAR06.0002/06



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## Schedule

### EQUIPMENT:

*Equipment and systems covered by this certificate are as follows:*

Lighting fixtures series EXEN are made in polyester resin glass fibre reinforced with transparent part in polycarbonate hinged and locked on long side to the body. One silicon gasket between body and transparent part guarantees the IP 66 protection degree.

The lighting fixture containing the electrical equipment mounted on internal aluminium frame locked on body and is provided with n.4 passing through holes Ø25,5mm for cable entries.

The lighting fixtures are used for normal and emergency working with battery pack 6V, 4Ah or 7Ah. The batteries are assembled only with a Cortem electronic inverter, used with emergency working.

For further information see Annex.

CONDITIONS OF CERTIFICATION: NO



# IECEX Certificate of Conformity



Prot: B2015675

**Annex to certificate:** IECEX CES 12.0010 Issue No.:0 of 2012-05-14

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

**Electrical Apparatus:** Lighting fixtures, series EXEN...

### Model Identification:

EXEN -

					Code of the series
					Number of lamps: 1 for one fluorescent tube 2 for two fluorescent tubes mounting
					Lamp power: 18 for 18W fluorescent tube 36 for 36W fluorescent tube
					Type of operation : Blank for normal working EF for normal + emergency working EE for emergency working only
					Battery capacity: 4 for 4Ah 7 for 7Ah
					E for battery pack on external junction box
					<i>Other suffix can be added on the code for particular configurations (not affecting the type of protection)</i>

PAD B2015675 (1725708) - USO RISERVATO

**Lighting fixtures EXEN ... are equipped with the following:** metallic reflector, bi-pin lamp holders, electronic ballast, electronic inverter with battery pack, Ex e terminals, Ex d pilot LED (only on request) and Ex de safety switch (only on request).

### Electrical characteristics:

Nominal wattage: 18W or 36W  
 Nominal voltage: 230Vac (220V+240Vac) 230Vdc (220V+230Vdc)  
 Voltage range: 198+264Vac 198+254Vdc  
 Frequency: 50/60Hz  
 Number of lamps: 1 or 2 fluorescent tubes T8 with G13 socket  
 NiCd battery voltage: 6V  
 NiCd battery capacity: 4Ah or 7Ah  
 Degree of protection: IP 66 (IEC 60529)  
 Ambient temperature range: from -40°C to +40°C / + 50°C / +55°C



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**Electrical Apparatus:** Lighting fixtures, series EXEN...

### Temperature class and maximum surface temperature:

Following table show the temperature classes and the maximum surface temperatures of lighting fixtures according to the maximum ambient temperature admitted.

Table 1:

Model	Only normal working	Internal battery pack	External battery pack	Tamb +40°C Temp. class / Max surface temp.	Tamb +50°C Temp. class / Max surface temp.	Tamb +55°C Temp. class / Max surface temp.
EXEN - ***	X	-	-	T5/T65°C	T5/T80°C	T4/T85°C
EXEN - *** E **	-	X	-	T5/T65°C	T5/T80°C	-
EXEN - *** E ** E	-	-	X	-	-	T4/T85°C

Battery pack for lighting fixtures type EXEN - \*\*\* E \*\* E is installed on separate junction box type SA141410/P, made in polyester resin and connected to lighting fixture by two nipples.

### Installation conditions:

The accessories used for cable entries and for closing unused openings shall be certified according to IEC 60079-0, IEC 60079-15, IEC 60079-31 standards. A minimum degree of protection IP66 shall be guaranteed according to IEC 60529 standard. The coupling between the cable entry and the lighting fixture shall be provided using a locknut.

The luminaries are used for ambient temperature range from -40°C to +40°C, +50°C or +55°C. When are used as emergency lighting fixtures (with rechargeable batteries inside), the storage temperature can be up to -40°C but minimum services temperature of batteries can be up to -30°C.

Lighting fixtures with internal battery pack (type EXEN - \*\*\* E \*\* E) are suitable for ambient temperature up to +50°C.

### Warning label:

Caution electrostatic charges – clean only by wet cloth or antistatic products.

For lighting for normal working only:  
"Do not open when energized"

For lighting with emergency unit only:  
"Do not open when an explosive gas atmosphere may be present"

For models with temperature class T5:  
"Use cables for minimum service temperature 95°C"

For models with temperature class T4:  
"Use cables for minimum service temperature 105°C"