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 13.0017 Issue No.:0	Certificate history:
Status:	**Current**	
Date of Issue:	**2013-09-30**	Page 1 of 3

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

Electrical Apparatus: **Lighting fixtures, series EXEL-V....S**
Optional accessory:

Type of Protection: **Increased safety 'e';Flameproof enclosures 'd'; Encapsulation "m"; Dust ignition protection 't'**

Marking: **Ex e mb IIC T4 Gb or**
Ex de mb IIC T4 Gb or
Ex de IIC T4 Gb and
Ex tb IIIC T70°C Db
IP66

Approved for issue on behalf of the IECEx Certification Body: Mirko Balaz

Position: Head of IECEx CB

Signature:
(for printed version)

Date: 30-09-2013

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
Fiorenzo Bregani

IECEx Certificate of Conformity

Certificate No.: IECEx CES 13.0017

Date of Issue: **2013-09-30** Issue No.: **0**

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

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 Edition: 6.0	Explosive atmospheres - Part 0: General requirements
IEC 60079-1 : 2007-04 Edition: 6	Explosive atmospheres - Part 1: Equipment protection by flameproof enclosures "d"
IEC 60079-18 : 2009 Edition: 3	Explosive atmospheres Part 18: Equipment protection by encapsulation "m"
IEC 60079-31 : 2008 Edition: 1	Explosive atmospheres – Part 31: Equipment dust ignition protection by enclosure 't'
IEC 60079-7 : 2006-07 Edition: 4	Explosive atmospheres - Part 7: Equipment protection by increased safety "e"

*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/ExTR13.0016/00

Quality Assessment Report:

IT/CES/QAR06.0002/07

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Schedule

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

The lighting fixtures series EXEL-V....S are assembled in one increased safety housing made in stainless steel and with a transparent part made in tempered glass hinged and locked by clips in the two long sides to the body. One silicon gasket between body and transparent part guarantees the IP66 protection degree.

The lighting fixtures containing the electrical and electronic apparatus, that are mounted on internal mounting plate made in stainless steel, on the front side there are installed lamp-holders for fluorescent tubes connection, on the rear side are installed electronic ballast, terminals, electronic inverter and battery pack (for emergency working version).

The internal mounting plate is fixed on two points to the body of lighting fixture by two stainless steel bushing, that allows the rotation of the mounting plate for an easy access to the electrical devices. It is locked to the body by two stainless steel screw .The lock system is made by metal clips that close the transparent glass part on the body.

See annex for further description.

CONDITIONS OF CERTIFICATION: NO

Annex: Cortem IECEx CES 13.0017 ANNEX EXEL-V_S.pdf

Prot: B3028877

IECEx Certificate of Conformity

CESI

Annex to certificate: **IECEx CES 13.0017 Issue No.:0** of 2013-09-30
Applicant: **CORTEM S.p.A., Via Aquileia 10,**
I - 34070 Villesse (GO), Italy
Electrical Apparatus: **Lighting Fixtures series EXEL-V...S**

General product information:

The lighting fixtures series EXEL-V....S are assembled in one increased safety housing made in stainless steel and with a transparent part made in tempered glass hinged and locked by clips in the two long sides to the body. One silicon gasket between body and transparent part guarantees the IP66 protection degree.
The luminaires series EXEL-V...S are suitable for use of tubular fluorescent lamps with bi-pin cap G13.

On the internal mounting plate is mounted different electrical and/or electronic equipment, all the equipment are fixed by stainless steel screws.
There are installed lamp-holders (IECEx CES 13.0009U) for fluorescent tubes connection.
When the lighting fixtures is foreseen for normal working, are mounted on internal mounting plate the electronic ballast (IECEx CES 13.0007U) and the terminal block (covered with IECEx certificates). For normal + emergency working are added the electronic inverter (IECEx CES 13.0008U) , the rechargeable battery pack (IECEx CES 13.0006U) and the signalling led (IECEx CES 11.0030U) mounted on reflector.

Each types of lighting fixtures can have following operation system:
- for normal working
- for normal + emergency working
- for emergency working only.

Model Identification:

Normal operating lighting fixtures:

EXEL-V - [ ] [ ] [ ]

- 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
- **S** for stainless steel material

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Electrical Apparatus: **Lighting Fixtures series EXEL-V...S**

Emergency operating lighting fixtures:

EXEL-V - ☐ ☐ ☐ ☐ ☐

- 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 use:
  EF for normal+emergency working
  EE for emergency working only
- Battery capacity:
  4 for 4Ah
  7 for 7Ah
- **S** for stainless steel material

Electrical characteristics:

Nominal wattage:	1x18W, 1x36W, 2x18W or 2x36W	
Nominal voltage:	110/230/240Vac	110/230/240 Vdc
Voltage range:	99÷264Vac	99÷264Vdc
Frequency:	50/60Hz	
Number of lamps:	1 or 2 fluorescent tubes T8 with G13 socket	
Ingress protection:	IP 66 (IEC 60529)	
Batery pack:		
NiCd battery voltage:	6V	
NiCd battery capacity:	4Ah or 7Ah	
Ambient temperature:	–40℃ ...+50℃	
	–20℃ ...+40℃ (Valid for lighting fixtures with ba tteries)	

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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:

Lighting fixture type	Ambient temperature	Temperature class	Max. surface temperature	Notes
EXEL-V...S	-40℃ + +50℃	T4	T70℃	None
EXEL-V...EF...S EXEL-V...EE...S	-20℃ + +40℃	T4	T70℃	Valid for lighting fixtures with batteries

Installation conditions:

The accessories used for cable entries and for closing unused openings shall be suitably certified according to IEC 60079-0, IEC 60079-7 and IEC 60079-31 standards. A minimum degree of protection IP66 shall be guaranteed according to IEC 60529 standard.
The coupling between the cable glands or plugs and the lighting fixture shall be provided using a gasket and a locknut.

Warning label:

For all lighting fixtures:
"Warning - Do not open when energized"

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