



IECEX Certificate of Conformity

40014

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 07.0001	Issue No: 3	Certificate history:
Status:	Current	Page 1 of 4	Issue No. 3 (2016-11-30)
Date of Issue:	2016-11-30		Issue No. 2 (2015-05-04)
			Issue No. 1 (2013-09-30)
			Issue No. 0 (2007-01-18)
Applicant:	CORTEM S.p.A. Via Aquileia 10, I - 34070 Villesse (Gorizia) Italy		
Equipment:	Luminaries, series EXEL.		
Optional accessory:			
Type of Protection:	Increased safety 'e'; Flameproof enclosures 'd'; Encapsulation 'm'; Dust ignition protection 't'		
Marking:	Ex de mb IIC T4 Gb or Ex de IIC T4 Gb and Ex tb IIIC T70°C Db or Ex tb IIIC T80°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:

30-11-2016

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 Pignatelli)

PAD B6026906 (2322217) - USO AZIENDALE



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Manufacturer: **CORTEM S.p.A.**
Via Aquileia 10,
I - 34070 Villesse (Gorizia)
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 : 2013 Edition:2	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/ExTR07.0001/00
IT/CES/ExTR13.0017/02

IT/CES/ExTR13.0017/00

IT/CES/ExTR13.0017/01

Quality Assessment Report:

IT/CES/QAR06.0002/10



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Schedule

EQUIPMENT:

Equipment and systems covered by this certificate are as follows:

The luminaires series EXEL-... is assembled in one increased safety housing with a transparent part hinged and locked in the two long sides to the body.

The luminaires series EXEL-... are made by a body in polyester resin reinforced by glass fibre and by a transparent part in polycarbonate. They are made in two versions: for normal service and for normal service and/or emergency service. The luminaires series EXEL are suitable for use of tubular fluorescent lamps with bi-pin cap G13.

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.

Lighting fixtures can be equipped with the following elements:

- metallic reflector
- bi-pin lamp holders (Ex-e, type G-0598 or G-0312)
- electronic ballast (Ex-d or Ex-mb)
- electronic inverter (Ex-d) with battery pack (Ex-e)
- Ex e terminals
- Ex d pilot LED
- Ex de safety switch.

See annex for further description.

CONDITIONS OF CERTIFICATION: NO



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

Variation 3

Variation 3.1 - New bi-pin lamp holders type CORTEM G-0598.

Variation 3.2 - Supports for new bi-pin lamp holders type CORTEM G-0598 have been added.

Annex:

Cortem IECEx CES 07.0001 Issue 3 ANNEX - EXEL.pdf



IECEX Certificate of Conformity



Prot: B6026906

Annex to certificate: IECEX CES 07.0001 Issue No.:3 of 2016-11-30
Applicant: CORTEM S.p.A.
 Via Aquileia 10, I - 34070 Villesse (GO), Italy
Electrical Apparatus: Luminaries, series EXEL

General product information:

Lighting fixture series EXEL... is assembled in one increased safety housing composed by a transparent part hinged and locked 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... are suitable for use of tubular fluorescent lamps with bi-pin cap G13.

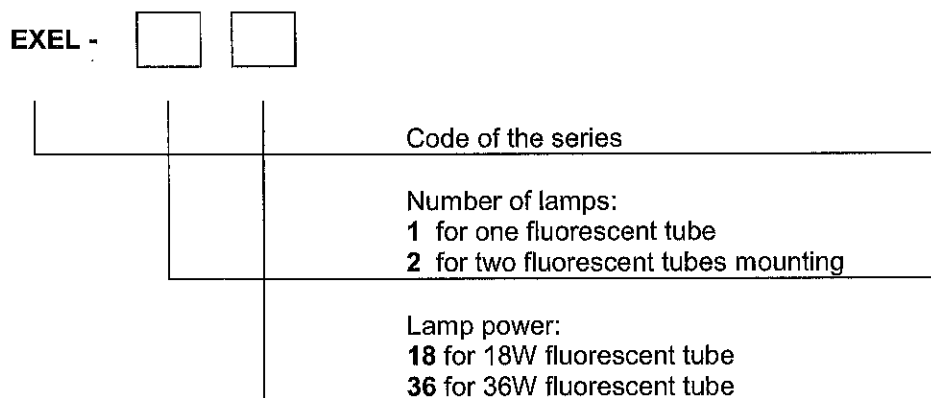
The lighting fixture containing the electrical and electronic apparatus, that are mounted on internal metal frame. There are installed lamp-holders (G-0598 or G-0312) for fluorescent tubes connection and safety switch/es (M-0530). When the lighting fixtures is foreseen for normal working, there are mounted on internal mounting plate the electronic ballast (EB.. or EBV-1) and the terminal block (covered with IECEx certificates). For normal + emergency working are added the electronic inverter (EI-58) , the rechargeable battery pack (G-0309.) and the signalling led (M-0487) mounted on reflector. All components are covered with IECEx certificates.

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:





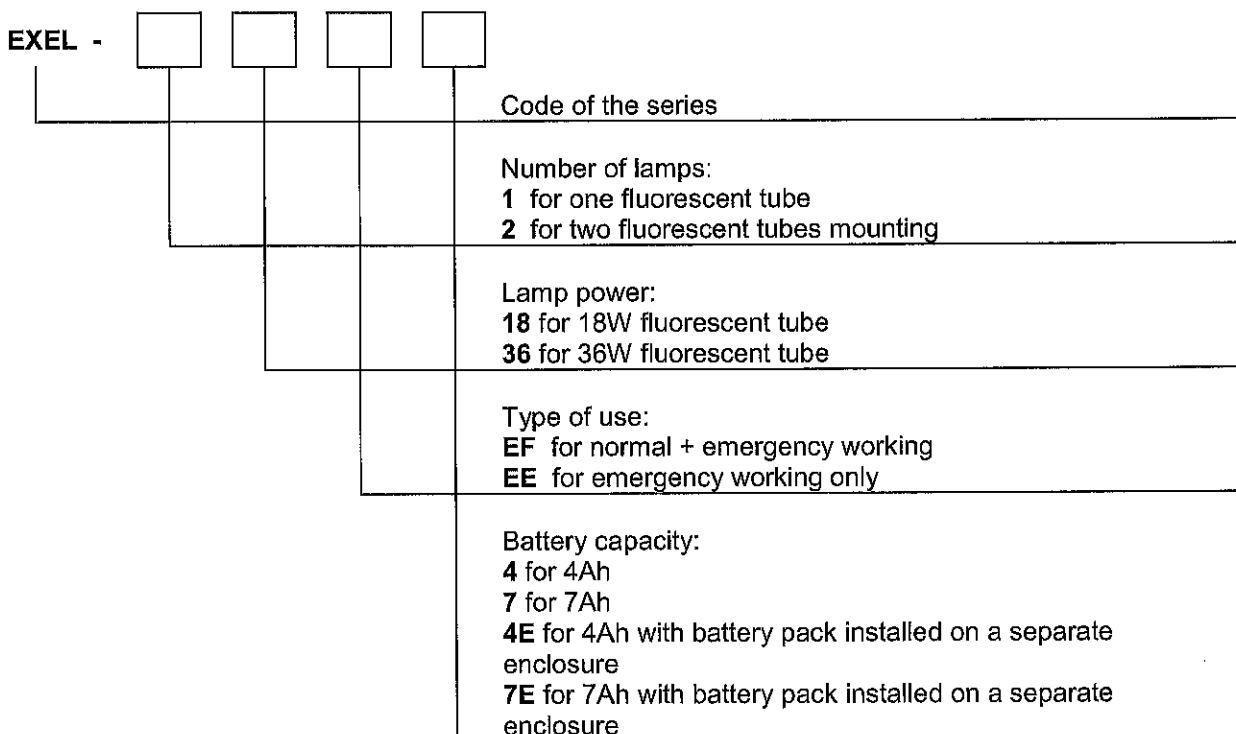
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Electrical Apparatus: Luminaries, series EXEL

Emergency operating lighting fixtures:



Electrical characteristics:

Nominal wattage: 1x18W, 1x36W, 2x18W or 2x36W
 Frequency: 50/60Hz
 Number of lamps: 1 or 2 fluorescent tubes T8 with G13 socket

Lighting fixture with electronic ballast type EB:

Nominal voltage: 110/230/240Vac 110/230/240 Vdc
 Voltage range: 100+264Vac 100+264Vdc

Lighting fixture with electronic ballast type EBV-1:

Nominal voltage: 110/230/240Vac 110/230/240 Vdc
 Voltage range: 99+264Vac 99+264Vdc

Lighting fixtures for emergency service only, with EI-58 unit:

Nominal voltage: 110/230/240Vac 110/230/240 Vdc
 Voltage range: 100+264Vac 100+264Vdc

Battery pack:

NiCd battery voltage: 6V
 NiCd battery capacity: 4Ah or 7Ah

Ingress protection: IP 66 (IEC 60529)

Ambient temperature range:

From -40°C to +55°C for lighting fixtures for normal service
 From -20°C to +50°C for lighting fixtures with battery pack inside.
 From -20°C to +55°C for lighting fixtures with battery pack installed in separate enclosure.



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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.

Lighting fixture type	Ambient temperature	Temperature class	Max. surface temperature	Notes
EXEL-118 EXEL-218 EXEL-136 EXEL-236	-40°C ÷ +55°C	T4	T80°C	None
EXEL-118EF4 EXEL-118EF7 EXEL-218EF4 EXEL-218EF7 EXEL-118EE4 EXEL-118EE7 EXEL-136EF4 EXEL-136EF7 EXEL-236EF4 EXEL-236EF7 EXEL-136EE4 EXEL-136EE7	-20°C ÷ +50°C	T4	T70°C	Battery pack installed inside of lighting fixtures
EXEL-118EF4E EXEL-118EF7E EXEL-218EF4E EXEL-218EF7E EXEL-118EE4E EXEL-118EE7E EXEL-136EF4E EXEL-136EF7E EXEL-236EF4E EXEL-236EF7E EXEL-136EE4E EXEL-136EE7E	-20°C ÷ +55°C	T4	T80°C	Battery pack installed on separate enclosure

The minimum operating ambient temperature for lighting fixtures with battery pack for emergency is -20°C. Lighting fixtures emergency working installed in ambient temperature up to +55°C shall be supplied with battery pack installed on separated housing.

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:

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

For lighting fixtures for normal working only:

"Warning - Do not open when energized."

For lighting fixtures with emergency unit:

"Do not open when an explosive gas atmosphere may be present."