



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 CML 18.0044X	Issue No: 1	Certificate history: Issue No. 1 (2018-10-29) Issue No. 0 (2018-06-08)
Status:	Current	Page 1 of 4	
Date of Issue:	2018-10-29		
Applicant:	Cortem S.p.A. via Aquileia 10 34070 Villesse Gorizia Italy		
Equipment:	Lighting Fixtures EXENC -... Series		
Optional accessory:			
Type of Protection:	Ex n Ex t Ex op is		
Marking:	Fluorescent type for EXENC-...: Ex tb IIIC T** °C Db LED type EXENC-...L: Ex tb op is IIIC T** °C Db Fluorescent / LED type EXENC-... and EXENC-...L: Ex nA IIC T** Gc, Ex tc IIIC T** °C Dc IP66 ** T Class and Maximum Surface Temperature: See Annex Tamb: See Annex		

Approved for issue on behalf of the IECEx
Certification Body:

D R Stubbings MIET

Position:

Technical Director

Signature:
(for printed version)

Date:

2018-10-29

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:

Certification Management Limited
Unit 1, Newport Business Park
New Port Road
Ellesmere Port, CH65 4LZ
United Kingdom





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Manufacturer: Cortem S.p.A.
via Aquileia 10
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 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 60079-15 : 2010 Edition:4	Explosive atmospheres - Part 15: Equipment protection by type of protection "n"
IEC 60079-28 : 2015 Edition:2	Explosive atmospheres - Part 28: Protection of equipment and transmission systems using optical radiation
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:

GB/CML/ExTR18.0052/00 GB/CML/ExTR18.0201/00

Quality Assessment Report:

IT/CES/QAR06.0002/12



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Schedule

EQUIPMENT:

Equipment and systems covered by this certificate are as follows:

The Lighting Fixtures EXENC -... Series are luminaires suitable for use in Gas and Dust atmospheres.

They are constructed using a 2-part housing with lockable Polycarbonate transparent lid, hinged to a Polyester resin glass fibre reinforced base. The enclosure has an environmental rating of IP66.

The enclosures contain electrical equipment for LED or Fluorescent Tube lighting sources mounted on internal frames. The Fluorescent Tube version is available with and without a rechargeable battery for either emergency and normal working.

See Annex for additional information

SPECIFIC CONDITIONS OF USE: YES as shown below:

See Annex for specific conditions of use.



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

Issue 1

This issue introduces the following changes:

1. Changes to the model numbering system
2. The introduction of emergency working LED models
3. A change to the label marking which does not affect product certification

Annex:

Certificate Annex IECEx CML 18.0044X Iss 1.pdf

Annexe to: IECEx CML 18.0044X Issue 1
Applicant: Cortem S.p.A.
Apparatus: Lighting Fixtures EXENC -... Series



Description

The Lighting Fixtures EXENC-... Series are luminaries suitable for use in Gas and Dust atmospheres. They are constructed using a 2-part housing with lockable Polycarbonate transparent lid, hinged to a Polyester resin glass fibre reinforced base. The enclosure has an environmental rating of IP65. The manufacturer may claim a higher rating.

The enclosures contain electrical equipment for LED or Fluorescent Tube lighting sources mounted on internal frames. The Fluorescent Tube version is available with and without a rechargeable battery for either emergency and normal working.

The Lighting Fixtures EXENC-... Series consists of the following types:

- EXENC-... Fluorescent Tube lighting source for normal working only.
- EXENC-...EE Fluorescent Tube lighting source for emergency working only.
- EXENC-...EF Fluorescent Tube lighting source for normal working and emergency working.
- EXENC-...L LED lighting source for normal working only
- EXENC-...LEE LED lighting source for emergency working only
- EXENC-...LEF LED lighting source for normal working and emergency working

Nomenclature:

EXENC- a bb cc - dd e

Where:

EXENC- Lighting Fixture Series

a = No. Fluorescent Tubes/ LED Strips

- 1 1 x Tube or 1 x LED Tube
- 2 2 x Tubes or 2 x LED Tube

bb = Power (W)

- 18 18 W Fluorescent Tube
- 36 36 W Fluorescent Tube
- 01 Short LED Tube LTT36700N
- 02 Medium LED Tube LTT72700N

cc = Model Type

- None Fluorescent Tubes
- L LED Strips

dd = Emergency Lighting Fixture

- EF Normal + Emergency Working
- EE Emergency Working Only

e = Emergency Unit Battery Rating

- 4 4 Ah
- 7 7 Ah

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The Lighting Fixtures EXENC-... Series are suitable for use in the following Temperature Classes, Maximum Surface Temperatures and ambient temperature ranges dependant on the EPL:

Fluorescent type EXENC-...						
Type		Internal Battery Pack	Minimum Ambient Temperature (EPL 3G /3D)	Temperature Class/ Maximum Surface Temperature		
				Tamb: +40°C	Tamb: +47°C	Tamb: +50°C
EXENC-1..	Normal Only	NO	-20°C/-20°C	T4 /	T4 /	T3 /
EXENC-2..				T55°C	T62°C	T65°C
EXENC-1..EF	Normal + Emergency	YES	-20°C/-20°C	T4 /	T4 /	T3 /
EXENC-2..EF				T55°C	T62°C	T65°C
EXENC-1..EE	Emergency Only	YES	-20°C/-20°C	T4 /	T4 /	T3 /
EXENC-2..EE				T55°C	T62°C	T65°C

Fluorescent type EXENC-...						
Fixture Type		Internal Battery Pack	Minimum Ambient Temperature (EPL 2D only)	Temperature Class/ Maximum Surface Temperature		
				Tamb: +40°C	Tamb: +47°C	Tamb: +50°C
EXENC-1..	Normal Only	NO	-20°C	T55°C	T62°C	T65°C
EXENC-2..						
EXENC-1..EF	Normal + Emergency	YES	-20°C	T55°C	T62°C	T65°C
EXENC-2..EF						
EXENC-1..EE	Emergency Only	YES	-20°C	T55°C	T62°C	T65°C
EXENC-2..EE						

LED type EXENC-... L						
Fixture Type		Internal Battery Pack	Minimum Ambient Temperature (EPL 3G/ 3D)	Temperature Class/ Maximum Surface Temperature		
				Tamb: +40°C	Tamb: +47°C	Tamb: +50°C
EXENC-1..L	Normal only	NO	-40°C/-40°C	T4 /	T4 /	N/A
EXENC-2..L				T55°C	T62°C	
EXENC-1..LEF	Normal + Emergency	YES	-20°C/-20°C	T4 /	T4 /	N/A
EXENC-2..LEF				T55°C	T62°C	
EXENC-1..LEE	Emergency Only	YES	-20°C/-20°C	T4 /	T4 /	N/A
EXENC-2..LEE				T55°C	T62°C	



LED type EXENC-...L						
Fixture Type		Internal Battery Pack	Minimum Ambient Temperature (EPL 2D only)	Temperature Class/ Maximum Surface Temperature		
				Tamb: +40°C	Tamb: +47°C	Tamb: +50°C
EXENC-1..L	Normal only	NO	-40°C/-40°C	T50°C	T57°C	N/A
EXENC-2..L						
EXENC-1..LEF	Normal + Emergency	YES	-20°C/-20°C	T50°C	T57°C	N/A
EXENC-2..LEF						
EXENC-1..LEE	Emergency Only	YES	-20°C/-20°C	T50°C	T57°C	N/A
EXENC-2..LEE						

The Lighting Fixtures EXENC-... Series has the following electrical ratings:

Rating - Fluorescent type EXENC-...

Type	Power Supply		Pilot Line		Battery pack	Power rating	
	INPUT VOLTAGE	INPUT FREQUENCY	INPUT VOLTAGE	INPUT FREQUENCY		bb=18	bb=36
EXENC-1..	220 – 240 Vac	50/60 Hz				24W	41W
EXENC-2..							39W
EXENC-1..EE			100 – 240 Vac	50/60 Hz	4 Ah or 7 Ah 6 V	24W	41W
EXENC-2..EE						39W	68W
EXENC-1..EF	220 – 240 Vac	50/60 Hz				24W	41W
EXENC-2..EF					39W	68W	

Rating - LED type EXENC-...L

Type	Power Supply		Pilot Line		Battery pack	Power rating	
	INPUT VOLTAGE	INPUT FREQUENCY	INPUT VOLTAGE	INPUT FREQUENCY		bb=01	bb=02
EXENC-1..L	220 – 240 Vac	50/60 Hz				13W	25W
EXENC-2..L						26W	52W
EXENC-1..LEE			100 – 240 Vac	50/60 Hz	4 Ah or 7 Ah 6 V	13W	25W
EXENC-2..LEE						26W	52W
EXENC-1..LEF	220 – 240 Vac	50/60 Hz				13W	25W
EXENC-2..LEF					26W	52W	



Conditions of manufacture

The following conditions are required of the manufacturing process for compliance with the certification.

- 1 All Ex Components fitted shall be installed in compliance with their schedule of limitations and manufacturer's instructions. All other equipment shall be installed in accordance with the requirements of the manufacturer's instructions. The manufacturer shall provide the installer/user copies of all Ex Equipment and Components certificates.
- 2 When marked 'nA' All creepage and clearance distances shall satisfy the requirements of IEC 60079-15 Table 2.
- 3 The manufacturer shall ensure that when Bi-pin non-sparking lampholders are installed, the contact pressures shall be adequate, and the pins of the lamp shall be supported to prevent distortion when they are subject to contact side pressure. The mechanical dimensions and the mounting conditions in the luminaire shall take into account the mechanical values and the tolerances specified for the type of lamp in IEC 60061-1, IEC 61195 and IEC 60400.
- 4 Each luminaire shall be subjected to a routine electric strength test at a test voltage of minimum 1,500 V r.m.s. for 60 s. There shall be no breakdown.

The use of a d.c. test voltage is allowed as an alternative to the specified a.c. test voltage and shall be minimum 2,100 V d.c.

Specific Conditions of Use (Special Conditions)

The following conditions relate to safe installation and/or use of the equipment.

- 1 Under certain extreme circumstances, exposed plastic and unearthed metal parts of the enclosure may store an ignition-capable level of electrostatic charge. Therefore, the user/installer shall implement precautions to prevent the build-up of electrostatic charge, e.g. locate the equipment where a charge-generating mechanism (such as wind-blown dust and steam generation) is unlikely to be present. Additionally, clean with a damp cloth or Antistatic Product.
- 2 All cable glands and plugs/stoppers for unused entries shall be suitable for use with the equipment and shall be:
 - certified as Ex nA IIC Gc for EPL Gc, Ex tc IIIC Dc for EPL Dc and Ex tb IIIC Db for EPL Db
 - Minimum IP54 for Gc and IP6X for Db and Dc. However, to maintain the maximum ingress protection level of the equipment, they shall be IP65 minimum. Additionally, they shall be suitable for the lower ambient temperature and an upper temperature of at least 15K above the upper ambient.



- 3 The battery pack used in the emergency lighting has a minimum service temperature of -20 °C.
- 4 The Lighting Fixtures are manufactured from non-metallic materials that require installation in locations with respect to the risk of mechanical danger:

Types	Risk of Mechanical Danger
EXENC-136EF, EXENC-236EF; EXENC-136., EXENC-236.; EXENC-136EE, EXENC-236EE; EXENC-102L, EXENC-202L; EXENC-102LEE, EXENC-202LEE; EXENC-102LEF, EXENC-202LEF;	Low
EXENC-118EF, EXENC-218EF; EXENC-118., EXENC-218.; EXENC-118EE, EXENC-218EE; EXENC-101L EXENC-201L; EXENC-101LEE EXENC-201LEE; EXENC-101LEF EXENC-201LEF;	High

Variation 1

This variation introduces the following changes:

- i. Changes to the model numbering system
- ii. The introduction of emergency working LED models
- iii. A change to the label marking which does not affect product certification