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 18.0079X	Issue No: 0	Certificate history: Issue No. 0 (2018-06-15)
Status:	**Current**	Page 1 of 3	
Date of Issue:	**2018-06-15**		

Applicant: **Cortem S.p.A.**
Via Aquileia 10,
34070 Villesse,
Gorizia
Italy

Equipment: **LFEE Luminaires**
Optional accessory:

Type of Protection: **Increased safety, flameproof, encapsulation, dust, optical**

Marking:

Ex db eb mb op is IIC T5/T6 Gb

Ex tb op is IIIC T70°C/T60°C Db IP66

-30°C ≤ Ta ≤ +55°C/+45°C (non-emergency versions)

-20°C ≤ Ta ≤ +55°C/+45°C (emergency versions)

Approved for issue on behalf of the IECEx Certification Body: H M Amos MIET

Position: Technical Manager

Signature:
(for printed version)

Date: June 15, 2018

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 : 2017 Edition:7.0	Explosive atmospheres - Part 0: Equipment - General requirements
IEC 60079-1 : 2014-06 Edition:7.0	Explosive atmospheres - Part 1: Equipment protection by flameproof enclosures "d"
IEC 60079-18 : 2014 Edition:4.0	Explosive atmospheres – Part 18: Equipment protection by encapsulation "m"
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"
IEC 60079-7 : 2015 Edition:5.0	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:

GB/CML/ExTR18.0106/00

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 Luminaires type LFEE are a series of increased safety LED luminaires for hazardous gas and dust environments requiring equipment protection levels Gb and Db.

The equipment comprises an encapsulated LED light tube, flameproof driver, optional flameproof inverter, and optional batteries, and optional indicator LED, all housed within a stainless steel enclosure with a glass or polycarbonate window.The equipment is intended to be mounted on a wall or bulkhead and one or two cable gland entries is provided for field wiring which is terminated to a component certified terminal block within the enclosure.

See Annex for full description and Conditions of Manafacture

SPECIFIC CONDITIONS OF USE: YES as shown below:

See Annex for details

Annex:

IECEx CML 18.0079X Annex Issue 0.pdf

Annexe to:	IECEx CML 18.0079X Issue 0
Applicant:	Cortem S.p.A.
Apparatus:	Luminaires type LFEE

Product Description

The Luminaires type LFEE are a series of increased safety LED luminaires for hazardous gas and dust environments requiring equipment protection levels Gb and Db.

The equipment comprises an encapsulated LED light tube, flameproof driver, optional flameproof inverter, and optional batteries, and optional indicator LED, all housed within a stainless steel enclosure with a glass or polycarbonate window.The equipment is intended to be mounted on a wall or bulkhead and one or two cable gland entries is provided for field wiring which is terminated to a component certified terminal block within the enclosure.

The part number defines the options available as follows:

LFEE-112 .../...

Other		Other particulars not related to explosion protection
Equipment type	Blank	Normal service only
	E	Emergency service only
	N	Normal and emergency service
Wattage	12	12W
No. of LED light tubes	1	1

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Conditions of manufacture

The following are conditions of manufacture

i. Where the product incorporates certified parts or safety critical components the manufacturer shall ensure that any changes to those parts or components do not affect the compliance of the certified product that is the subject of this certificate.

ii. The equipment shall be subjected to an electric strength test in accordance with IEC60079-7 Clause 6.1 using a test voltage of:

- 1500Vac applied between supply connections and frame, for a period of 60 secs

Alternatively, a test voltage of 20% higher may be applied for 0.1 seconds.

A DC test voltage is allowed as an alternative to the AC test voltage and shall be 140% of the specified AC r.m.s. test voltage.

iii. Each encapsulated LED assembly shall be subjected to a routine dielectric strength test of 500V for 1 second, as per IEC60079-18 Clause 9.2. Alternatively, the test may be carried out at 1.2 times the test voltage for 100ms.

iv. The encapsulated LED assembly shall be subjected to a visual inspection. No damage shall be evident, such as cracks in the compound, exposure of the parts, flaking, inadmissible shrinkage, swelling, decomposition, failure of adhesion, or softening.

v. When the equipment is supplied with integral Cortem NAV cable glands, the manufacturer shall ensure that copies of certificates IMQ 17ATEX016X and IECEx IMQ 17.0010X are made available to the equipment user and/or installer.

Conditions Of Certification

i. For models with a polycarbonate window, under certain extreme circumstances, the non-metallic parts incorporated in the enclosure of this equipment may generate an ignition-capable level of electrostatic charge. Therefore, the equipment shall not be installed in a location where the external conditions are conducive to the build-up of electrostatic charge on such surfaces. In addition, the equipment shall only be cleaned with a damp cloth.

ii. Cable entries into the equipment shall utilise suitably certified Ex eb IIC Gb/Ex tb IIIC Db cable glands and shall provide a minimum degree of protection of IP66 , having a service temperature range of -30°C to +70°C.

iii. Unused cable entry apertures shall be closed with suitably certified Ex eb IIC Gb/Ex tb IIIC Db blanking plugs which provide a minimum degree of protection of IP66, having a service temperature range of -30°C to +70°C..

iv. This equipment contains flameproof joints. These are not intended to be repaired.