

IECEx Certificate of Conformity

INTERNATIONAL ELECTROTECHNICAL COMMISSION IEC Certification System for Explosive Atmospheres

for rules and details of the IECEx Scheme visit www.iecex.com

Certificate No.: IECEx CML 18.0197X Page 1 of 4 Certificate history:

Issue 0 (2020-01-23)

Status: Current Issue No: 1

Date of Issue: 2020-03-06

Applicant: Wolf Safety Lamp Company Limited

Saxon Road Works Sheffield S8 0YA United Kingdom

Equipment: LX-XXX LinkEx LED Luminaires

Optional accessory:

Type of Protection: Increased Safety "eb", Intrinsic Safety "ib", Encapsulation "mb", Optical Radiation "op is", Dust Ignition "tb"

Marking:

Without IS switch	With IS switch	
Ex eb mb op is IIC $T3^{1}/T4^{2}$ Gb Ex tb op is IIIC $T170^{1}/T135^{2}$ °C Db IP6X**	Ex eb ib mb op is IIC T4 Gb Ex ib tb op is IIIC T135°C Db IP6X**	
Ta: -20°C to +40 ¹ /45 ³ /55 ² °C	Ta: -20°C to +45 ³ /55 ² °C	

¹ MK1 drivers

Approved for issue on behalf of the $\ensuremath{\mathsf{IECEx}}$

Certification Body:

D R Stubbings BA MIET

Position: Technical Director

Signature:

(for printed version)

Date: 2020-03-06

- L. This certificate and schedule may only be reproduced in full.
- 2. This certificate is not transferable and remains the property of the issuing body.
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Certificate issued by:

Eurofins E&E CML Limited Unit 1, Newport Business Park New Port Road Ellesmere Port, CH65 4LZ United Kingdom





² MK2 drivers

³ With protective cover

^{**}This coding may be omitted



IECEx Certificate of Conformity

Page 2 of 4 Certificate No.: **IECEX CML 18.0197X**

Date of issue: 2020-03-06 Issue No: 1

Manufacturer: **Wolf Safety Lamp Company Limited**

Saxon Road Works Sheffield S8 0YA **United Kingdom**

Additional manufacturing locations:

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 equipment 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 Explosive atmospheres - Part 0: Equipment - General requirements

Edition:7.0

IEC 60079-11:2011

Edition:6.0

Explosive atmospheres - Part 11: Equipment protection by intrinsic safety "i"

IEC 60079-18:2017

Edition:4.1

Explosive atmospheres - Part 18: 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 60079-7:2017 Edition:5.1

Explosive atmospheres - Part 7: Equipment protection by increased safety "e"

This Certificate does not indicate compliance with 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 Reports:

GB/CML/ExTR19.0068/00

GB/CML/ExTR19.0223/00

Quality Assessment Report:

GB/BAS/QAR06.0017/09



IECEx Certificate of Conformity

Certificate No.: IECEx CML 18.0197X Page 3 of 4

Date of issue: 2020-03-06 Issue No: 1

EQUIPMENT:

Equipment and systems covered by this Certificate are as follows:

The LX-XXX LinkEx LED Luminaires are suitable for temporary lighting installations. The luminaires comprise a clear, tubular, polycarbonate lamp envelope with two polycarbonate end mouldings.

Refer to Annex for full description and conditions of manufacture.

SPECIFIC CONDITIONS OF USE: YES as shown below:

Refer to Annex for specific conditions of use.



IECEx Certificate of Conformity

Certificate No.: IECEx CML 18.0197X Page 4 of 4

Date of issue: 2020-03-06 Issue No: 1

DETAILS OF CERTIFICATE CHANGES (for issues 1 and above) Issue 1 $\,$

This issue introduced the following changes:

- 1. Addition of the option to include an intrinsically safe switch certified under SEV 13ATEX0170 and IECEx SEV 13.0011.
- 2. Removal of battery pack thermal fuses for standard charging options
- 3. Option for the inclusion of a metallic adapter plate or metallic end cap for use with suitably certified socket arrangements.

Annex:

IECEx CML 18.0197X Iss. 1 Certificate Annex.pdf

Annexe to: IECEx CML 18.0197X Issue 0

Applicant: Wolf Safety Lamp Company Limited

Apparatus: LX-XXX LinkEx LED Luminaires



Description

The LX-XXX LinkEx LED Luminaires are suitable for temporary lighting installations. The luminaires comprise a clear, tubular, polycarbonate lamp envelope with two polycarbonate end mouldings. The lamp envelope is all treated with a clear anti-static coating to safely dissipate any static electricity. The end mouldings are secured to the tube via the internal gear tray, which is fabricated from steel or aluminium, two M5 and two M6 screws and bonded seals are used to secure each end cap. A silicone gasket is fitted within a groove on each end cap, thus maintaining the IP64 (as applicable) ratings. The luminaires have additionally been independently tested according to the requirements of EN/IEC 60529 to meet IP67, with no sockets fitted, and IP66 when sockets are fitted.

The luminaires are fitted with replaceable bump ring clamped between the seal ring and end plate, giving additional protection to the luminaire.

180° variant – These comprise a main gear tray, with the driver and terminal connection blocks on the underside with two encapsulated LED strips fitted to the upper, distributing the light through 180°.

360° variant – These comprise two gear trays and two narrow channels, with the driver and terminal connection blocks fitted along with two encapsulated LED strips, one fitted to each side, distributing the light through 360°.

Luminaires can be supplied with sockets fitted to the end caps with bolts, nuts and sealing washers and/or various lengths of cable with plugs fitted.

The luminaires can be fitted with an intrinsically safe switch.

The luminaires may be marked T3/T170°C or T4/T135°C (dependent upon the type of driver fitted). LX-XXXE models incorporate a battery for emergency operation in the event of power failure.

The T3 marked luminaires are designed for use with an electrical supply of either 85 Vac to 264 Vac, 50/60 Hz or 19 Vdc/ac, rms to 28 Vdc/ac, rms.

The T4 marked luminaires are designed for use with an electrical supply of either 0 Vac to 264 Vac 50/60 Hz or 0 V to 50 V ac/dc, 50/60 Hz.

The luminaires may be mounted in any attitude and are suitable for use with accessories.

Components covered by Ex Certificates issued to older editions of Standards

Certificate number	Standards (incl Ed)	Assessment result
IECEx BVS 15.0088U	IEC 60079-0 Ed 6	Technical differences evaluated and found satisfactory. For detail see GB/CML/ExTR19.0068/00

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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 encapsulated parts of the apparatus shall be subjected to a visual inspection. No visible damage of the compound shall be evident, such as cracks, exposure of the encapsulated parts, flaking, impermissible shrinkage, discoloration, swelling decomposition or softening, as required by EN/IEC 60079-18:2015 Clause 9.1.
- iii. For equipment rated in excess of 90 V peak, an electric strength test of 2U+1000 V (where U is the supply voltage) with a minimum of 1500 V ac, shall be applied between circuit and casing for at least 1 minute, as required by EN/IEC 60079-7:2015, Clause 6.1. No breakdown shall occur. Alternatively, a test at 1.2 times the test voltage may be applied for at least 100 ms. The test is also permitted to be conducted at a dc voltage of 140% of the specified ac r.m.s. test voltage.
- iv. For equipment rated less than 90 V peak, and electric strength test of 500 V r.m.s. shall be applied between the circuit and the casing for at least 1 minute, as required by EN/IEC 60079-7:2015, Clause 6.1. No breakdown shall occur. Alternatively, a test at 1.2 times the test voltage may be applied for at least 100 ms. The test is also permitted to be conducted at a dc voltage of 140% of the specified ac r.m.s. test voltage.
- v. The manufacturer shall ensure that any alternative, component certified socket fitted to the equipment shall be suitably certified, have a service temperature range of at least -20°C to +55°C, be used within its electrical ratings, and provide a minimum degree of protection of
 - IP64 (for models labelled as suitable for use in explosive dusts)
 - IP54 (for models not labelled as suitable for use in explosive dusts)

or that shown on the label, whichever is the higher.

Additionally, the manufacturer shall comply with all the requirements of the schedule of limitations of such components.

- vi. The manufacturer shall ensure that any equipment certified socket fitted to the equipment shall be suitably certified, have an operating temperature range of at least -20°C to +55°C, temperature class of T4 or better, be used within its electrical ratings, and provide a minimum degree of protection of
 - IP64 (for models labelled as suitable for use in explosive dusts)
 - IP54 (for models not labelled as suitable for use in explosive dusts) or that shown on the label, whichever is the higher.

Additionally, the manufacturer shall comply with all the conditions of use of such sockets.

- vii. When the luminaire is fitted with a socket that has associated special conditions for safe use, the manufacturer shall take all reasonable steps to ensure that the user/installer complies with these conditions.
- viii. The manufacturer shall select suitable materials for accessories as defined on certified drawings LX-702 & LX-703.

Specific Conditions of Use

The following condition relates to the safe use and installation of the equipment:

i. The user/installer shall ensure that, when the luminaire is fitted with a previously certified plug or socket that has associated specific conditions of use, they shall take into account any restrictions or conditions for safe use that are applicable to these devices.