



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 EXV 19.0002X** Page 1 of 3 [Certificate history:](#)

Status: **Current** Issue No: 0

Date of Issue: 2021-09-13

Applicant: **Wolf Safety Lamp Co. Limited**
Saxon Road Works
Sheffield, S8 0YA
United Kingdom

Equipment: **LBX series Luminaires**

Optional accessory:

Type of Protection: **Increased Safety, Encapsulation, Dust**

Marking: Ex eb mb IIC T4 Gb
Ex tb IIIC T80°C Db

Approved for issue on behalf of the IECEx
Certification Body:

Sean Clarke CEng MSc FIET

Position:

Certification Manager

Signature:
(for printed version)

Date:

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 www.iecex.com or use of this QR Code.



Certificate issued by:

ExVeritas Limited
Units 16-18 Abenbury Way
Wrexham Ind. Est.
Wrexham LL 139UZ
United Kingdom





IECEX Certificate of Conformity

Certificate No.: **IECEX EXV 19.0002X**

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Date of issue: 2021-09-13

Issue No: 0

Manufacturer: **Wolf Safety Lamp Co. 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 60079-18:2017 Explosive atmospheres - Part 18: Protection by encapsulation "m"
Edition:4.1

IEC 60079-31:2013 Explosive atmospheres - Part 31: Equipment dust ignition protection by enclosure "t"
Edition:2

IEC 60079-7:2017 Explosive atmospheres - Part 7: Equipment protection by increased safety "e"
Edition:5.1

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 Report:

[GB/EXV/ExTR19.0004/00](#)

Quality Assessment Report:

[GB/BAS/QAR06.0017/10](#)



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EQUIPMENT:

Equipment and systems covered by this Certificate are as follows:

The LBX series luminaires are LED bulkhead luminaires for use in gas Group IIC and dust Group IIIC dust and gas hazardous atmospheres. The equipment comprises of a powder coated aluminium enclosure with either two or four M20 x 1.5 threaded gland entries, two at either end, and a cover with a sealed glass window. The enclosures are IP66/67 rated.

Internally, the luminaire contains LED drivers, LED modules, linear optics, and terminal blocks for user connections. Feed through terminals are provided for ease of connection and chain linking of multiple units.

The luminaires are supplied in three distinct variants, the standard LBX* versions contain only LED drivers, the LBX*E versions contain LED drivers and an emergency driver and battery pack, and is maintained equipment. The LBXNE versions are non-maintained equipment which contain only the emergency system components.

The equipment is available with two supply voltage ranges and a variety of ambient ranges, see Annex for full product range.

SPECIFIC CONDITIONS OF USE: YES as shown below:

- Cable entries into the equipment shall utilise suitably certified cable glands and shall provide a minimum degree of protection of IP66 or IP67 (dependent on the installation environment).
- Unused cable entry apertures shall be closed with suitably certified blanking plugs which provide a minimum degree of protection of IP66 or IP67 (dependent on the installation environment).
- When used in potentially hazardous dust atmospheres, the equipment shall be installed so as to minimize the risk from electrostatic discharge. In particular, the equipment shall not be installed where there is a likelihood of there being a static generating mechanism, such as steam generation or fast moving particles over the surface of the equipment.
- The equipment shall only be used with a power source having a prospective short circuit current which does not exceed 1500A.
- Emergency versions: The battery pack must not be replaced in or transported through a hazardous area (unless the area is shown to be non-hazardous)

Annex:

[IECEX EXV 19.0002X Annex 0 LBX.pdf](#)

Description Continued:**Model range and ratings:**

Type	Voltage (V)	Frequency (Hz)	Current (A)	Ambient Range	Temperature Ratings
LBXNE/110	100-140	50 - 60	0.05	-40°C to +55°C	T4 & T80°C
LBXNE/230	200 - 277	50 - 60	0.02	-40°C to +55°C	T4 & T80°C
LBX1/110	88 -140	50 - 60	0.2	-50°C to +65°C	T4 & T80°C
LBX1E/110	100-140	50 - 60	0.25	-40°C to +55°C	T4 & T80°C
LBX1/230	180 - 277	50 - 60	0.1	-50°C to +65°C	T4 & T80°C
LBX1E/230	180 - 277	50 - 60	0.12	-40°C to +55°C	T4 & T80°C
LBX2/110	88 -140	50 - 60	0.35	-50°C to +50°C	T4 & T80°C
LBX2E/110	100 -140	50 - 60	0.4	-40°C to +50°C	T4 & T80°C
LBX2/230	180 - 277	50 - 60	0.15	-50°C to +50°C	T4 & T80°C
LBX2E/230	200 - 277	50 - 60	0.17	-40°C to +50°C	T4 & T80°C

Routine Tests:

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

- 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.
- The equipment shall be subjected to an electric strength test in accordance with EN 60079-7 Clause 6.1 using a test voltage of:
 - For models LBX*/230, LBX*/E/230 and LBXNE/230, 1554Vac applied between supply connections and frame, for a period of 60 secs
 - For models LBX*/110, LBX*/E/110 and LBXNE/110, 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.

Manufacturer's Documents

Title:	Drawing No.:	Rev. Level:	Date:
LBX Lid Assembly	LD-0141	08	28/07/2021
LBX General Assembly	LD-0142	07	28/07/2021
LBX Wiring and Layout	LD-0144	08	28/07/2021
LBX Bulkhead Technical Manual (15 pages)	LD-0148	03	06/09/2021
LBX Enclosure Construction	LD-0151	08	28/07/2021
LBX Cert Label Drawing (2 pages)	LD-0159	07	19/07/2021