



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 4 [Certificate history:](#)
Issue 0 (2021-09-13)

Status: **Current** Issue No: 1

Date of Issue: 2023-01-06

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:
(for printed version)

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2. This certificate is not transferable and remains the property of the issuing body.
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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**

Page 2 of 4

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

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

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 Reports:

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

[GB/EXV/ExTR22.0113/00](#)

Quality Assessment Report:

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



IECEX Certificate of Conformity

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

Page 3 of 4

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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 or M25 x 1.5 threaded gland entries, two at either end, and a cover with a sealed glass window with option of illuminated signage. 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 LBXS versions contain only LED drivers, the LBXE versions contains an Intelligent Emergency Driver and battery pack and is maintained equipment. The LBXN versions are non-maintained equipment which contain an Intelligent Emergency Driver configured for that use type.

See Annex for all model types covered under this certification.

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 end user must ensure that no hazardous atmosphere is present before replacing the battery pack. Only the specific replacement battery packs that are listed in the instruction manual may be fitted. The manufacturer shall specify only suitably temperature rated battery packs as compatible. When transporting the battery pack through a potentially hazardous atmosphere the bare ends of the flying leads must be protected to IP30.



IECEX Certificate of Conformity

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

Page 4 of 4

Date of issue: 2023-01-06

Issue No: 1

DETAILS OF CERTIFICATE CHANGES (for issues 1 and above)

Addition of the 'intelligent' emergency driver the LDXIE series drivers (IECEX EXV 18.0027U)

Annex:

[IECEX EXV 19.0002X Iss 1 Annex.pdf](#)

Description Continued:**Model types covered under this certification**

Type	Voltage	Frequency	Current	Ambient Temperature Limits	Gas Temperature Class	Dust Surface Temperature	Driver
LBXS-L-65-110	88 - 140 V	50 - 60 Hz	0.2 A	-50 °C to 65 °C	T4	T80 °C	LDX1L-110
LBXS-L-50-110	88 - 140 V	50 - 60 Hz	0.35 A	-50 °C to 50 °C	T4	T80 °C	LDX1H-110
LBXS-L-65-110	88 - 140 V	50 - 60 Hz	0.2 A	-50 °C to 65 °C	T4	T80 °C	LDX1L-HT-110
LBXS-L-59-110	88 - 140 V	50 - 60 Hz	0.35 A	-50 °C to 59 °C	T4	T80 °C	LDX1H-HT-110
LBXS-L-65-230	180 - 277 V	50 - 60 Hz	0.1 A	-50 °C to 65 °C	T4	T80 °C	LDX1L-230
LBXS-L-50-230	180 - 277 V	50 - 60 Hz	0.15 A	-50 °C to 50 °C	T4	T80 °C	LDX1H-230
LBXS-L-65-230	180 - 277 V	50 - 60 Hz	0.1 A	-50 °C to 65 °C	T4	T80 °C	LDX1L-HT-230
LBXS-L-59-230	180 - 277 V	50 - 60 Hz	0.15 A	-50 °C to 59 °C	T4	T80 °C	LDX1H-HT-230
LBXE-L-59-110	100 - 140 V	50 - 60 Hz	0.26 A	-40 °C to 59 °C	T4	T80 °C	LDXIE-L-110
LBXE-L-59-110	100 - 140 V	50 - 60 Hz	0.41 A	-40 °C to 59 °C	T4	T80 °C	LDXIE-H-110
LBXE-L-59-230	200 - 277 V	50 - 60 Hz	0.14 A	-40 °C to 59 °C	T4	T80 °C	LDXIE-L-230
LBXE-L-59-230	200 - 277 V	50 - 60 Hz	0.19 A	-40 °C to 59 °C	T4	T80 °C	LDXIE-H-230
LBXN-L-59-110	100 - 140 V	50 - 60 Hz	0.26 A	-40 °C to 59 °C	T4	T80 °C	LDXIE-L-110
LBXN-L-59-110	100 - 140 V	50 - 60 Hz	0.41 A	-40 °C to 59 °C	T4	T80 °C	LDXIE-H-110
LBXN-L-59-230	200 - 277 V	50 - 60 Hz	0.14 A	-40 °C to 59 °C	T4	T80 °C	LDXIE-L-230
LBXN-L-59-230	200 - 277 V	50 - 60 Hz	0.19 A	-40 °C to 59 °C	T4	T80 °C	LDXIE-H-230

Routine Tests:

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

1. 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.
2. 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.

Technical Documents			
Title:	Drawing No.:	Rev. Level:	Date:
*LBX Bulkhead Standard Lid Assembly	LD-0141	09	28/10/2022
*LBX Bulkhead Standard General Assembly	LD-0142	08	28/10/2022
*LBX Wiring and Layout	LD-0144	09	23/09/2022
*LBX Bulkhead Technical Manual (15 pages)	LD-0148	04	06/12/2022
*LBX Bulkhead Enclosure Construction	LD-0151	09	23/09/2022
*LBX Bulkhead Certification Label (2 pages)	LD-0159	08	28/10/2022
*LBX Bulkhead Emergency Lid Assembly	LD-0342	01	28/10/2022
*LBX Bulkhead Emergency General Assembly	LD-0343	01	23/09/2022
*LBX Bulkhead Emergency Electronics and Wiring	LD-0344	01	28/10/2022

*.Note: An * is included before the title of documents that are new or revised for issue 1*