

# IECEx Certificate of Conformity

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## 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 19.0005X Issue No: 0 Certificate history:

Issue No. 0 (2019-02-14)

Status: Current

Date of Issue: 2019-02-14

Applicant: Wolf Safety Lamp Company

Saxon Road Works

Sheffield S8 0YA

**United Kingdom** 

Equipment: SP-600 LED Inspection Lamp

Optional accessory:

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

Marking:

Ex eb mb op is I Mb

Ex eb mb op is IIC T4 Gb

Ex mb op is tb IIIC T95°C Db

-30°C≤Ta≤+55°C

Approved for issue on behalf of the IECEx

Certification Body:

Position: Certificate Manager

Signature:

(for printed version)

Date: February 14, 2019

- 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: Wolf Safety Lamp Company

Saxon Road Works

Sheffield S8 0YA

**United Kingdom** 

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 Explosive atmospheres - Part 0: Equipment - General requirements

Edition:7.0

IEC 60079-18: 2014 Explosive atmospheres – Part 18: Equipment protection by encapsulation "m"

Edition:4.0

IEC 60079-28 : 2015 Explosive atmospheres - Part 28: Protection of equipment and transmission systems using optical radiation

Edition:2

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

Edition:2

IEC 60079-7: 2015 Explosive atmospheres – Part 7: Equipment protection by increased safety "e"

Edition:5.0

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/ExTR19.0004/00

**Quality Assessment Report:** 

GB/BAS/QAR06.0017/08



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Schedule

#### **EQUIPMENT:**

Equipment and systems covered by this certificate are as follows:

The SP-600 Handheld inspection lamp is a portable, handheld, LED lamp. The enclosure consists of an elliptical, aluminium enclosure with a clear, polycarbonate, domed lens at the front and an aluminium cover at the back. The lens and the back cover are sealed to the main body of the enclosure using a black or yellow gasket and four fasteners on each of the front and back faces.

Underneath the clear lens, there is a yellow dome which contains LEDs and an encapsulating compound. The main body of the enclosure contains two compartments; a smaller, terminal chamber for connection of the power supply to the driver and a larger, encapsulated compartment housing the LED driver. The main enclosure, at the terminal chamber, has an M20 entry for connection of a suitably certified cable gland.

See Annex for full destription and Conditions of Manufacture

SPECIFIC CONDITIONS OF USE: YES as shown below:

See Annex for full Specific Conditions of Use

Annex:

IECEx 19.0005X Annex Issue 0.pdf

Annexe to: IECEx CML 19.0005X Issue 0

Applicant: Wolf Safety Lamp Company Ltd.

Apparatus: SP-600 Handheld inspection lamp



### **Product description**

The SP-600 Handheld inspection lamp is a portable, handheld, LED lamp. The enclosure consists of an elliptical, aluminium enclosure with a clear, polycarbonate, domed lens at the front and an aluminium cover at the back. The lens and the back cover are sealed to the main body of the enclosure using a black or yellow gasket and four fasteners on each of the front and back faces. Underneath the clear lens, there is a yellow dome which contains LEDs and an encapsulating compound. The main body of the enclosure contains two compartments; a smaller, terminal chamber for connection of the power supply to the driver and a larger, encapsulated compartment housing the LED driver. The main enclosure, at the terminal chamber, has an M20 entry for connection of a suitably certified cable gland.

The aluminium enclosure is housed in a plastic handle which leaves only the clear polycarbonate domed lens exposed. The cable passes through the bottom of the handle to the cable gland. Although the handle provides mechanical protection, it does not form the explosion protection enclosure.

The equipment is certified for three rating options, as defined in the table below:

Model no.	Voltage rating (Vac or Vdc)	Current (mA)
SP-600Hxxx	0 to 264	80
SP-600Lxxx	0 to 54	600
SP-600ELxxx	0 to 16	800

The equipment may be marked with other voltage ratings within this range.

The handle has various fitting options, such as a clamp, hook, magnet, blanking plug and cage which may be used with the equipment. The equipment also has the option of being used with a plastic, static dissipative, protective bag in accordance with the manufacturer's certification specifications.

In addition to the IP requirements of the applied standards, the equipment has been additionally tested to IP67 in accordance with IEC/EN 60529.



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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 IEC 60079-18:2014 and EN 60079-18:2015 Clause 9.1.
- For equipment which uses the High Voltage driver (model SP-600Hxxx), a dielectric strength test of 1528 V ac, shall be applied between circuit and casing for at least 1 minute, as required by EN 60079-7:2007, Clause 6.1. No breakdown shall occur. As an alternative to the ac test voltage, a test voltage of 2139 V dc may be applied.

For equipment which uses the Low Voltage driver (model SP-600Lxxx) or the Extra Low Voltage driver (model SP-600ELxxx), a dielectric 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 60079-7:2007, Clause 6.1. No breakdown shall occur. As an alternative to the ac test voltage, a test voltage of 700 V dc may be applied.

As an alternative to the specified test voltages, the test voltages may also be increased by a factor of 1.2 and applied for at least 100 ms.

### **Conditions of Certification**

This equipment shall not be used in mining locations where oils, greases or hydraulic liquids may be present.