

### INTERNATIONAL ELECTROTECHNICAL COMMISSION IEC Certification System for Explosive Atmospheres

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

Certificate No.:

**IECEX BAS 15.0033X** 

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Certificate history:

Issue No: 2

Issue 1 (2018-02-13) Issue 0 (2015-11-27)

Date of Issue:

2020-01-09

Current

Applicant:

Status:

Wolf Safety Lamp Company Ltd

Saxon Road Works

Sheffield S8 0YA

**United Kingdom** 

Equipment:

Wolf Torch TS-2XX & TR-2XX

Optional accessory:

Type of Protection:

Increased Safety, Intrinsic Safety, Dust protection by Enclosure

Marking:

See schedule.

Approved for issue on behalf of the IECEx

Certification Body:

Position:

Signature:

(for printed version)

Date:

R. Sinclair

**Technical Manager** 

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:

SGS Baseefa Limited Rockhead Business Park Staden Lane Buxton, Derbyshire, SK17 9RZ United Kingdom





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Manufacturer:

Wolf Safety Lamp Company Ltd

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 60079-0:2011

Explosive atmospheres - Part 0: General requirements

Edition:6.0

Edition:6.0

IEC 60079-11:2011 Explosive atmospheres - Part 11: Equipment protection by intrinsic safety "i"

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

Edition:2

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

IEC 60079-7:2015

Edition:5.0

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/BAS/ExTR15.0047/00

GB/BAS/ExTR18.0006/00

GB/BAS/ExTR19.0343/00

Quality Assessment Report:

GB/BAS/QAR06.0017/08



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#### **EQUIPMENT:**

Equipment and systems covered by this Certificate are as follows:

The Wolf Torches TS-2XX & TR-2XX are portable lights with a moulded plastic case and lens ring, and a toughened glass or plastic lens. The lens and metallised plastic reflector are held in place by the lens ring which screws onto the torch body. Effective sealing is ensured by a seal fitted around the outer rim of the reflector.

The torch is available in two different body styles. The TS-2XX has a straight body where the lens and reflector must be removed in order to insert and remove the batteries. The TR-2XX has a right angled body where the lens is at 90° orientation to the batteries. A removable end cap is screwed onto the base of the torch body to allow insertion and removal of batteries. A nitrile "O" ring located in a groove in the torch body provides an effective seal. The impact resistant enclosure provides ingress protection equivalent to IP67. The switch slider mechanism causes a rotating pinion passing through the torch body to force two metal contacts together.

Power is provided by means of two R20, LR20, IEC 60086 primary cells. The correct orientation of the batteries is clearly marked on the torch body.

An optional low power indicator may be fitted, illuminating an LED when the battery voltage falls below a pre-determined threshold. An optional LED module may be fitted instead of the filament bulb.

The following Group II markings may be present:-

Model Reference	Permitted Cell Types	Group II Markings
TS-2XX	R20 / LR20	Ex eb ib IIB T4 Gb Ex tb III C T95°C Db -10°C ≤ Ta ≤ +40°C
TR-2XX	(note**)	Ex eb ib IIB T4 Gb Ex tb III C T95°C Db -20°C ≤ Ta ≤ +40°C
TS-2XX	R20 / LR20	Ex eb ib IIB T4 Gb Ex tb III C T95°C Db -10°C ≤ Ta ≤ +55°C
TR-2XX	(note*)	Ex eb ib IIB T4 Gb Ex tb III C T95°C Db -20°C ≤ Ta ≤ +55°C
TS-2XX	R20	Ex eb ib IIB T6 Gb Ex tb III C T65°C Db -10°C ≤ Ta ≤ +40°C
TR-2XX	(note***)	Ex eb ib IIB T6 Gb Ex tb III C T65°C Db -20°C ≤ Ta ≤ +40°C

#### SPECIFIC CONDITIONS OF USE: YES as shown below:

1 - Only the cell types listed in the certificate schedule may be used.



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#### Equipment (continued):

The following cells are permitted for gas and dust applications.

LR20\* - Duracell Ultra, Energizer Alkaline, Energizer Industrial, Eveready Gold.

LR20\*\* - Varta Universal Alkaline, Varta Alkaline Value Pack, Varta Electric Power, Kodak Alkaline, Exide Alkaline, Cegassa Alkaline, Duracell Alkaline, Duracell Plus, Industrial by Duracell, HiTech Alkaline Professional, RS Alkaline, Sanyo Alkaline, Duracell Ultra, Energizer Alkaline, Energiser Industrial, Eveready Gold, Rayovac Maximum, Duracell Procell, Pifco Optimax.

R20\*\*\* - Philips Longlife, GP Greencell.

The following bulb and LED combinations may be used for the temperature classifications and maximum ambient temperatures indicated:-

Bulb / LED			Maximum Upper	T class	Torch Models
Туре	Min Voltage	Max current	Ambient Temperature	1 Class	Torch Models
xenon krypton	pton 2.4 0.93				
vacuum	2.2	0.85	+55°C	Т4	TS/TR-24X
LED module	n/a	n/a			
xenon krypton vacuum	2.4	0.93		T4	TS/TR-24X
	2.2	0.85	+40°C		
LED	n/a	n/a			
vacuum	2.4	0.5	+40°C	Т6	TS/TR-26X



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### DETAILS OF CERTIFICATE CHANGES (for issues 1 and above)

To permit an alternative 2<sup>nd</sup> shot material.

EXTR: GB/BAS/EXTR19.0343/00 File Reference: 19/0615