



IECEx Certificate of Conformity

INTERNATIONAL ELECTROTECHNICAL COMMISSION IEC Certification Scheme for Explosive Atmospheres

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

Certificate No.: issue No.: Certificate history:

Status:

Date of Issue: Page 1 of 5

Applicant: **Wolf Safety Lamp Company Ltd**
Saxon Road Works
Sheffield
S8 0YA
United Kingdom

Electrical Apparatus: **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: R. Sinclair

Position: Technical Manager

Signature:
(for printed version)

Date:

30 NOVEMBER 2015

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](http://www.iecex.com).

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 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 electrical 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 : 2011 Edition: 6.0	Explosive atmospheres - Part 0: General requirements
IEC 60079-11 : 2011 Edition: 6.0	Explosive atmospheres - Part 11: Equipment protection by intrinsic safety "i"
IEC 60079-31 : 2013 Edition: 2	Explosive atmospheres - Part 31: Equipment dust ignition protection by enclosure "t"
IEC 60079-7 : 2015 Edition: 5.0	Explosive atmospheres – Part 7: Equipment protection by increased safety "e"

*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/BAS/ExTR15.0047/00](#)

Quality Assessment Report:

[GB/BAS/QAR06.0017/05](#)



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Schedule

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.

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CONDITIONS OF CERTIFICATION: 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 Group II markings may be present:-

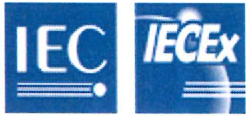
Model Reference	Permitted Cell Types	Group II Markings
TS-2XX	R20 / LR20 (note**)	Ex eb ib IIB T4 Gb Ex tb IIIC T95°C Db -10°C ≤ Ta ≤ +40°C
TR-2XX		Ex eb ib IIB T4 Gb Ex tb IIIC T95°C Db -20°C ≤ Ta ≤ +40°C
TS-2XX	R20 / LR20 (note*)	Ex eb ib IIB T4 Gb Ex tb IIIC T95°C Db -10°C ≤ Ta ≤ +55°C
TR-2XX		Ex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

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, Duracell Industrial, HiTech Alkaline Professional, RS Alkaline, Sanyo Alkaline, Duracell Ultra, Energizer Alkaline, Energiser Industrial, Eveready Gold, Rayovac Maximum, Duracell Procell, Pifco Optimax.

R20*** - Eveready Superplus, Philips Longlife, Exide Super, Exide Premium, GP Greencell, GP Supercell.



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Additional information:

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

Bulb / LED			Maximum Upper Ambient Temperature	T class	Torch Models
Type	Min Voltage	Max current			
xenon krypton vacuum	2.4	0.93	+55°C	T4	TS/TR-24X
	2.2	0.85			
LED module	n/a	n/a			
xenon krypton vacuum	2.4	0.93	+40°C	T4	TS/TR-24X
	2.2	0.85			
LED	n/a	n/a			
vacuum	2.4	0.5	+40°C	T6	TS/TR-26X