



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

Certificate No.: **IECEX TSA 05.0017X** issue No.: **2**  
Status: **Current**  
Date of Issue: **2012-08-03** Page 1 of 4

Certificate history:  
Issue No. 2 (2012-8-3)  
Issue No. 1 (2009-12-3)  
Issue No. 0 (2005-11-18)

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

Electrical Apparatus: **Wolf Safety Torches and Handlamps**  
*Optional accessory:*

Type of Protection: **Ex e ib / Ex tD A21 / Ex ia**

Marking: Wolf Torch  
TS/TR-2X: Ex e ib I/IIC T4/T6 IP67 / Ex tD A21 T95  
H251A: Ex e ib I/IIC T4 IP65 H-4DCA: Ex e ib I/IIC T4 IP65  
Penlite: Ex e ib I/IIC T4 IP54  
TS/TR-3X: X<5: Ex ib I/IIC T3/T4 IP67 / Ex tD A21 T95  
X≥5: Ex ia I/IIC T3/T4 IP67 / Ex tD A21 T95  
IECEX TSA 05.0017X  
Serial No. \_\_\_\_\_

Approved for issue on behalf of the IECEx  
Certification Body:

Ujen Singh

Position:

Quality and Certification Manager

Signature:  
(for printed version)

Date:

03 AUGUST 2012.

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:

**TestSafe Australia**  
919 Londonderry Road  
Londonderry NSW 2753  
Australia





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

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:

<b>IEC 60079-0 : 2000</b> Edition: 3.1	Electrical apparatus for explosive gas atmospheres - Part 0: General requirements
<b>IEC 60079-11 : 1999</b> Edition: 4	Electrical apparatus for explosive gas atmospheres - Part 11: Intrinsic safety 'i'
<b>IEC 60079-7 : 2001</b> Edition: 3	Electrical apparatus for explosive gas atmospheres - Part 7: Increased safety 'e'
<b>IEC 61241-0 : 2004</b> Edition: 1	Electrical apparatus for use in the presence of combustible dust - Part 0: General requirements
<b>IEC 61241-1 : 2004</b> Edition: 1	Electrical apparatus for use in the presence of combustible dust - Part 1: Protection by enclosures "tD"

*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*

IECEX ATR:	File Reference:
AU/TSA/ExTR06.0100/00	2004/002616
AU/TSA/ExTR12.0003/00	2011/019532
QAR: GB/BAS/QAR06.0017/04	Audited by IECEx CB Baseefa



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## Schedule

### EQUIPMENT:

*Equipment and systems covered by this certificate are as follows:*

TS-2X: TS-26, TS-24, TS-24+

TR-2X: TR-26, TR-24, TR-24+

The Wolf torches TS-2X and TR-2X are portable lights with a moulded plastic case and lens ring, and a toughened glass or plastic lens. The lens and metallic reflector are held in place by the lens ring which screws onto the torch body. Effective sealing is ensured by a nitrile seal fitted round the outer rim of the reflector. The torches are powered by two LR20 or R20 batteries.

The TX-2X torch is available in two different body styles. The TS-2X has a straight body where the lens and reflector must be removed in order to insert and remove the batteries. The TR-2X has a right angle body where the lens is at 90° to the orientation of the batteries. A removable end cap is screwed onto the base of the torch body to allow insert and remove the batteries. A nitrile O-ring located in a groove in the torch body provides an effective seal.

TS-24+ and TR-24+ torches have a low battery LED indicator. The circuit contains three resistors, one IC and one LED that assembled on a printed circuit board.

The Wolfite Handlamps H-251A and H-4DCA are portable lights with a moulded carbon loaded polypropylene case and lens ring, and a toughened glass lens. The lens is sealed to the lens ring and the lens ring is sealed to the case by nitrile, neoprene or EPDM O-ring/seals. The lens ring screws onto the body and as an option may be locked in place by a socket headlock screw. The lock screw prevents switch slider mechanism operation until the lens ring is locked in place.

The nylon switch slider mechanism contains a magnet that operates an internal hermetically sealed reed switch.

H-251A is powered by a rechargeable battery pack containing two sealed lead acid cells and an active current limiting device encapsulated in a plastic case. Two metal studs passing through the wall of the enclosure allow the torch to be placed on charging apparatus with connections aligning with the two studs. The studs align internally with the battery pack connections. The studs are sealed to the wall of enclosure and maintain the ingress protection provided by it.

H-4DCA is powered by four R20/LR20 type primary cells held in a removable cassette.

The penlite PL-01 is a portable light with a metallic enclosure. The PL-01 is powered by two AAA size alkaline batteries.

### CONDITIONS OF CERTIFICATION: YES as shown below:

See Annexe for details



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

See Annexe for details



# IECEX Certificate of Conformity Annexe

<b>Annexe for Certificate No.:</b>	<b>IECEX TSA 05.0017X</b>	<b>Issue No.:</b>	<b>2</b>
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### Conditions of Certification pertaining to Issue 0 of this Certificate:

1. The following combination of the bulbs and cells should be used in TS-2X and TR-2X torches:

Bulb	Cell	Ambient Temperature	Temperature Classification
TP-402P, TP-404P, TP-406P	R20/LR20*	-20 °C – +55 °C	T4
TP-402P, TP-404P, TP-406P	R20/LR20**	-20 °C – +40 °C	T4
TP-406P	R20***	-20 °C – +40 °C	T6

R20/LR20\*: Duracell Ultra, Energizer Alkaline, Energizer Industrial, Eveready Gold.

R20/LR20\*\*: Varta Universal Alkaline, Varta Alkaline, Value Pack, Varta Electric Power, Kodak Alkaline, Exide Alkaline, Cegassa Alkaline, Duracell Alkaline, Duracell Plus, HiTech Alkaline, Professional, RS Alkaline, Sanyo Alkaline, Duracell Ultra, Energizer Alkaline, Energizer Industrial, Eveready Gold, Rayovac Maximum, Duracell Procell.

R20\*\*\*: Eveready Superplus, Phillips Longlife, Exide Super, Exide Premum, GP Greencell, GP Supercell.

2. The following listed cells can be used in H-4DCA handlamp:

Varta Universal Alkaline, Varta Alkaline, Value Pack, Varta Electric Power, Kodak Alkaline, Exide Alkaline, Cegassa Alkaline, Duracell Alkaline, Duracell Plus, HiTech Alkaline, Professional, RS Alkaline, Sanyo Alkaline, Duracell Ultra, Energizer Alkaline, Energizer Industrial, Eveready Gold, Rayovac Maximum, Duracell Procell. Eveready Superplus, Phillips Longlife, Exide Super, Exide Premum, GP Greencell, GP Supercell.

3. The following listed cells can be used in PL-01 torch:

Energizer Max EN92, Energizer Industrial E92, Duracell PC2400.

4. Only H66P battery pack can be used in H-251A handlamp and the following parameters of the charger should be taken into account:

Maximum Output Voltage $U_m$	13 V d.c.
Maximum Output Current $I_m$	0.7 A
Charger Model	C-251HV/C-251LV

Certificate issued by:

 <b>Test Safe</b> <small>A U S T R A L I A</small>	<b>TestSafe Australia</b> 919 Londonderry Road Londonderry NSW 2753 Australia
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## IECEX Certificate of Conformity Annexe

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### Drawing list pertaining to Issue 0 of this Certificate:

Document No.	Sheets	Document Title	Issue	Date (yyyy/mm/dd)
PL-01	1	Penlite PL-01 AUS IECEx	1	2005/07/25
TP-725	1	Wolf IECEx Torch AUS – 2 Cell – Straight	2	2005/03/10
TP-726	1	Wolf IECEx Torch AUS – 2 Cell – Straight	2	2005/03/10
TP-727	1	Wolf IECEx Torch AUS – 2 Cell – Right Angle	2	2005/07/22
TP-728	1	Wolf IECEx Torch AUS – 2 Cell – Right Angle	2	2005/03/10
TP-841	1	Wolf IECEx Torch AUS – LED Indicator Circuit	1	2005/03/10
TP-922	1	Wolf IECEx Torch AUS – Approval Code Options	1	2005/03/10
EW-720	1	Wolfite H-251A IECEx AUS – General Assembly	3	2005/07/22
EW-820	1	Wolfite H-251A IECEx AUS – Battery Pack	1	2005/03/09
EW-920	1	Wolfite H-251A IECEx AUS – Circuit Details	1	2005/03/08
DC-730	1	Wolfite H-4DCA IECEx AUS – General Assembly	2	2005/07/22
DC-830	1	Wolfite H-4DCA IECEx AUS – Cassete Assembly	1	2005/03/31
DC-930	1	Wolfite H-4DCA IECEx AUS – Halogen Lamp	1	2005/03/31

### Variations permitted by Issue 1 of this Certificate:

- Safety Torches TS-2X and TR-2X: A vent has been added, consisting of a hole in the pinion driving the switch contacts. The hole is covered by a ePTFE oleophobic membrane that provides IP66/IP67 ingress protection but allows venting too.
- Handlamps H-4DCA: A vent has been added, consisting of a hole in the body that is hidden under a label plate. The hole is covered by a ePTFE oleophobic membrane that provides IP65 ingress protection but allows venting too.
- The label plates for both the torches has the ATEX Ex code removed, but retains the IECEx protection code marking.

### Conditions of Certification pertaining to Issue 1 of this Certificate:

No variations. Conditions pertaining to Issue 0 still apply.

### Drawing list pertaining to Issue 1 of this Certificate:

Document No.	Sheets	Document Title	Issue	Date (yyyy/mm/dd)
TP-725	1	Wolf IECEx Torch AUS – 2 Cell – Straight	4	2009/10/23
TP-726	1	Wolf IECEx Torch AUS – 2 Cell – Straight	3	2009/09/10
TP-727	1	Wolf IECEx Torch AUS – 2 Cell – Right Angle	4	2009/10/22
TP-728	1	Wolf IECEx Torch AUS – 2 Cell – Right Angle	3	2009/09/10
TP-922	1	Wolf IECEx Torch AUS – Approval Code Options	3	2009/10/22
DC-730	1	Wolfite H-4DCA IECEx AUS – General Assembly	4	2009/10/22

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## IECEX Certificate of Conformity Annexe

Annexe for Certificate No.:	IECEX TSA 05.0017X	Issue No.:	2
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### Variations permitted by Issue 2 of this Certificate:

- To introduce variants named TS-3X / TR-3X based on LED-based bulb replacement module.
- To allow certain LED module variants to be used in Zone 0 applications.

X ≥ 5 denotes Ex ia (Category 1) models having EPLs of Ma and/or Ga.

X < 5 denotes Ex ib (Category 2) models having EPLs of Mb, Gb.

These changes were assessed in Test Report 33440 (AU/TSA/ExTR12.0003/00).

### Conditions of Certification pertaining to Issue 2 of this Certificate:

No variations. Conditions pertaining to Issue 0 still apply.

### Drawing list pertaining to Issue 2 of this Certificate:

Document No.	Sheets	Document Title	Issue	Date (yyyy-mm-dd)
TP-921	1	Wolf ATEX – Approval Code Option	6	2011-06-22
TP-951	1	LED Module – Control PCB	1	2011-07-05
TP-952AUS	1	LED Module – Control PCB & Assembly Section	1	2012-05-23
TP-721	1	Wolf ATEX Torch – 2 Cell – Straight	5	2011-07-06
TP-722	1	Wolf ATEX Torch – 2 Cell – Straight	4	2011-07-06
TP-723	1	Wolf ATEX Torch – 2 Cell – Right Angle	5	2011-07-06
TP-724	1	Wolf ATEX Torch – 2 Cell – Right Angle	5	2011-06-23

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