

**EU - TYPE EXAMINATION CERTIFICATE**

**Equipment or Protective System Intended for use in Potentially Explosive Atmospheres  
Directive 2014/34/EU**

EU - Type Examination Certificate Number: **BAS02ATEX2220X – Issue 6**

In accordance with Article 41 of Directive 2014/34/EU, EC-Type Examination Certificates referring to 94/9/EC that were in existence prior to the date of application of 2014/34/EU (20 April 2016) may be referenced as if they were issued in accordance with Directive 2014/34/EU. Supplementary Certificates to such EC-Type Examination Certificates, and new issues of such certificates, may continue to bear the original certificate number issued prior to 20 April 2016.

Product: **WOLF TORCH TS-2XX / TR-2XX**

Manufacturer: **Wolf Safety Lamp Co Ltd**

Address: **Saxon Road Works, Sheffield, S8 0YA**

This re-issued certificate extends EC - Type Examination Certificate No. BAS02ATEX2220X to apply to product designed and constructed in accordance with the specification set out in the Schedule of the said certificate but having any variations specified in the Schedule attached to this certificate and the documents therein referred to

The original certificate was issued by The Electrical Equipment Certification Service, Notified Body Number 0600, which retains responsibility for its original documentation. SGS Baseefa, Notified Body Number 1180, in accordance with Article 17 of Directive 2014/34/EU of the European Parliament and of the Council, dated 26 February 2014, is responsible only for the additional work relating to this re-issued certificate and any other supplementary certificate it has issued.

The examination and test results are recorded in confidential Report No. **See Certificate History**

Compliance with the Essential Health and Safety Requirements has been assured by compliance with:

**EN 60079-0:2012 + A11:2013 EN 60079-7:2015 EN 60079-11:2012 EN 60079-31:2014**

except in respect of those requirements listed at item 18 of the Schedule.

If the sign “X” is placed after the certificate number, it indicates that the product is subject to the Specific Conditions of Use specified in the schedule to this certificate.

This EU - TYPE EXAMINATION CERTIFICATE relates only to the design and construction of the specified product. Further requirements of the Directive apply to the manufacturing process and supply of this product. These are not covered by this certificate.

The marking of the product shall include the following :

 (see schedule)

SGS Baseefa Customer Reference No. **1112**

Project File No. **17/0817**

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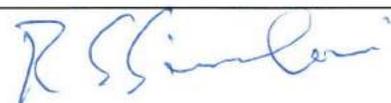
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**R S SINCLAIR**  
TECHNICAL MANAGER  
On behalf of SGS Baseefa Limited

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## Schedule

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### Certificate Number BAS02ATEX2220X – Issue 6

#### 15 Description of Product

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<br>(note**) | Ⓢ II 2G Ex eb ib IIB T4 Gb<br>Ⓢ II 2D Ex tb IIIC T95°C Db<br>-10°C ≤ Ta ≤ +40°C |
| TR-2XX          |                        | Ⓢ II 2G Ex eb ib IIB T4 Gb<br>Ⓢ II 2D Ex tb IIIC T95°C Db<br>-20°C ≤ Ta ≤ +40°C |
| TS-2XX          | R20 / LR20<br>(note*)  | Ⓢ II 2G Ex eb ib IIB T4 Gb<br>Ⓢ II 2D Ex tb IIIC T95°C Db<br>-10°C ≤ Ta ≤ +55°C |
| TR-2XX          |                        | Ⓢ II 2G Ex eb ib IIB T4 Gb<br>Ⓢ II 2D Ex tb IIIC T95°C Db<br>-20°C ≤ Ta ≤ +55°C |
| TS-2XX          | R20<br>(note***)       | Ⓢ II 2G Ex eb ib IIB T6 Gb<br>Ⓢ II 2D Ex tb IIIC T65°C Db<br>-10°C ≤ Ta ≤ +40°C |
| TR-2XX          |                        | Ⓢ II 2G Ex eb ib IIB T6 Gb<br>Ⓢ II 2D Ex tb IIIC T65°C Db<br>-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, 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 Ambient Temperature | T class | Torch Models |
|----------------------------|-------------|-------------|-----------------------------------|---------|--------------|
| Type                       | Min Voltage | Max current |                                   |         |              |
| xenon<br>krypton<br>vacuum | 2.4         | 0.93        | +55°C                             | T4      | TS/TR-24X    |
|                            | 2.2         | 0.85        |                                   |         |              |
| LED module                 | n/a         | n/a         |                                   |         |              |
| xenon<br>krypton<br>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    |

#### 16 Report Number

GB/BAS/ExTR18.0006/00 (Held with IECEX Certificate No. IECEX BAS 15.0033X)

#### 17 Specific Conditions of Use

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

#### 18 Essential Health and Safety Requirements

In addition to the Essential Health and Safety Requirements (EHSRs) covered by the standards listed at item 9, the following are considered relevant to this product, and conformity is demonstrated in the report:

| Clause | Subject                     |
|--------|-----------------------------|
| 1.4.1  | External effects            |
| 1.4.2  | Aggressive substances, etc. |

#### 19 Drawings and Documents

New drawings submitted for this issue of certificate:

| Number | Sheet | Issue | Date     | Description                         |
|--------|-------|-------|----------|-------------------------------------|
| TP-921 | 1     | 8     | 27/11/17 | ATEX Torch – Approval Code Options. |

The above drawing is associated and held with IECEX BAS 15.0033X Iss. 1

Current drawings which remain unaffected by this issue:

| Number | Sheet | Issue | Date     | Description                                 |
|--------|-------|-------|----------|---|
| TP-721 | 1     | 6     | 06/11/15 | Wolf ATEX Torch - 2 Cell - Straight         |
| TP-722 | 1     | 6     | 02/10/15 | Wolf ATEX Torch - 2 Cell - Straight         |
| TP-723 | 1     | 6     | 04/11/15 | Wolf ATEX Torch - 2 Cell - Right Angle      |
| TP-724 | 1     | 7     | 03/11/15 | Wolf ATEX Torch - 2 Cell - Right Angle      |
| TP-821 | 1     | 2     | 27/03/03 | Wolf ATEX Torch - LED Indicator Circuit     |
| TP-951 | 1     | 2     | 27/04/15 | LED Module - Control PCB                    |
| TP-953 | 1     | 1     | 03/11/15 | LED Module - Control PCB & Assembly Section |

All drawings are associated and held with IECEX BAS 15.0033X.

20 Certificate History

| Certificate No.  | Date             | Comments   |
|--|------------------|--|
| BAS02ATEX2220X   | 9 August 2002    | The release of the prime certificate. The associated test and assessment is documented in Test Reports 02(C)0011.  |
| BAS02ATEX2220X/1   | 20 May 2003      | To permit:-<br>i. Optional use of a spacer washer in the reflector assembly.<br>ii. Addition of a rib on the inside of the end cap.<br>iii. Inclusion of Pifco Optimax alkaline manganese LR20 batteries for T4 in 40°C ambient.<br>iv. A correction to the circuit diagram and addition of varying contact form.  |
| BAS02ATEX2220X/2   | 10 April 2006    | To permit:-<br>i. Minor drawing modifications to the end cap o-ring.<br>ii. The use of an alternative lens material.<br>The assessment was recorded in 06(C)0175   |
| BAS02ATEX2220X Issue 3   | 23 November 2009 | To permit mechanical changes. This issue incorporates previously issued primary and supplementary certificates into one certificate and confirms that the current design meets the requirements of EN 60079-0:2006, EN 60079-7:2007, EN 60079-11:2007, EN 61241-0:2006 and EN 61241-1:2004. In addition the marking is considered to meet the requirements of EN 60079-0:2009. The assessment was recorded in GB/BAS/ExTR09.0196/00. |
| BAS02ATEX2220X Issue 4   | 7 September 2011 | To permit:-<br>i. The addition of an LED based bulb replacement module.<br>ii. The addition of Group I certification for LED module variants.<br>iii. The addition of Category 1 variants.<br>The assessment was recorded in 10(C)0684.  |
| BAS02ATEX2220X Issue 5   | 27 November 2015 | To permit:-<br>i. The removal of the TS-3X and TR-3X LED based torches. These units are now covered by Baseefa07ATEX0091X issue 4 (and IECEx BAS 06.0089X issue 4)<br>ii. To permit minor mechanical changes.<br>iii. To permit the addition of Duracell Industrial cells.<br>iv. To rationalise the equipment marking options.<br>The assessment was recorded in GB/BAS/ExTR15.0047/00  |
| BAS02ATEX2220X Issue 6   | 13 February 2018 | To permit:-<br>i. Removal of some R20 cells from the permitted list for Zone 1, T6, 40°C marking.<br>ii. The cell type previously listed as 'Duracell Industrial' is changed to 'Industrial by Duracell'.<br><br>Report Number GB/BAS/ExTR18.0006/00 (held with IECEx BAS 15.0033X), Project File 17/0817.   |
| For drawings applicable to each issue, see original of that issue. |                  |  |