

1 **EU - TYPE EXAMINATION CERTIFICATE**

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

3 EU - Type Examination Certificate Number: **Baseefa07ATEX0091X – Issue 5**

3.1 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.

4 Product: **TR-3X / TS-3X / TR-4X LED Torches**

5 Manufacturer: **Wolf Safety Company Limited**

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

7 This re-issued certificate extends EC Type Examination Certificate No. Baseefa07ATEX0091X 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.

8 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, certifies that this product has been found to comply with the Essential Health and Safety Requirements relating to the design and construction of products intended for use in potentially explosive atmospheres given in Annex II to the Directive.

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

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


**EN 60079-0:2012+A11:2013 EN 60079-11:2012 EN 60079-28:2015**

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

10 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.

11 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.

12 The marking of the product shall include the following :

 (see schedule)

SGS Baseefa Customer Reference No. **1112**

Project File No. **16/0143**

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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 Baseefa07ATEX0091X – Issue 5

#### 15 Description of Product

##### TR-4X Models

The TR-4X (X=0 to 9) LED Torches are hand held units designed to provide illumination using 4 AA primary cells and a single high power LED.

The TR-4X comprise 4 AA primary batteries inside a cylindrical thermoplastic enclosure, and a right angled head holding a single high intensity LED and reflector assembly. Some variants also include a low battery power indicator.

The correct orientation of the batteries is clearly marked on the battery cassette.

The TR-4X (X ≤ 4) is marked:-  $\text{Ex}$  I M2/II 2GD Ex ib op is I Mb/IIC T3/T4 Gb (-20°C/-40°C ≤ T<sub>amb</sub> ≤ +40°C)  
Ex ib op is IIIB T200°C Db

The TR-4X (X ≥ 5) is marked:-  $\text{Ex}$  I M1/II 1GD Ex ia op is I Ma/IIC T3/T4 Ga (-20°C/-40°C ≤ T<sub>amb</sub> ≤ +40°C)  
Ex ia op is IIIB T200°C Da

When the torches are used with batteries of type zinc-chloride, zinc-carbon, Duracell Plus, Duracell Procell, Duracell Industrial, Energiser Ultra+ or Energiser Industrial, the Temperature Class is T4.

When using alkaline-manganese batteries of size LR6 or AA that are not specified above, the Temperature Class is T3.

The lower certification temperature is dependent on the torch body material used.

##### TR-3X & TS-3X Models

The Wolf Torches TR-3X and TS-3X LED torches 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 on to the torch body. Effective sealing is ensured by a nitrile or TPA seal fitted around the outer rim of the reflector.

The torch is available in two different body styles. The TS-3X has a straight body where the lens and reflector must be removed in order to insert and remove the batteries. The TR-3X has a right angled body where the lens is at 90° orientation to the batteries. It has a removable end cap that 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 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 or LR20 primary cells. The correct orientation of the batteries is clearly marked on the torch body. Certain models include low power indication features.

The TR-3X and TS-3X may be marked:-

Model Reference	Permitted Cell Types	Markings
TS-3X (X ≥ 5)	R20 / LR20**	$\text{Ex}$ I M1/II 1GD Ex ia op is I Ma / IIC T4 Ga (-20°C ≤ Ta ≤ +40°C) Ex ia op is IIIB T130°C Da
TR-3X (X ≥ 5)	R20 / LR20**	$\text{Ex}$ I M1/II 1GD Ex ia op is I Ma / IIC T4 Ga (-30°C ≤ Ta ≤ +40°C) Ex ia op is IIIB T130°C Da
TS-3X (X ≥ 5)	R20 / LR20*	$\text{Ex}$ I M1/II 1GD Ex ia op is I Ma / IIC T4 Ga (-20°C ≤ Ta ≤ +55°C) Ex ia op is IIIB T130°C Da
TR-3X (X ≥ 5)	R20 / LR20*	$\text{Ex}$ I M1/II 1GD Ex ia op is I Ma / IIC T4 Ga (-30°C ≤ Ta ≤ +55°C) Ex ia op is IIIB T130°C Da
TS-3X (X ≤ 4)	R20 / LR20**	$\text{Ex}$ I M2/II 2GD Ex ib op is I Mb / IIC T4 Gb (-20°C ≤ Ta ≤ +40°C) Ex ib op is IIIB T130°C Db
TR-3X (X ≤ 4)	R20 / LR20**	$\text{Ex}$ I M2/II 2GD Ex ib op is I Mb / IIC T4 Gb (-30°C ≤ Ta ≤ +40°C) Ex ib op is IIIB T130°C Db

Model Reference	Permitted Cell Types	Markings
TS-3X (X ≤ 4)	R20 / LR20*	⊕ I M2/II 2GD Ex ib op is I Mb / IIC T4 Gb (-20°C ≤ Ta ≤ +55°C) Ex ib op is IIIB T130°C Db
TR-3X (X ≤ 4)	R20 / LR20*	⊕ I M2/II 2GD Ex ib op is I Mb / IIC T4 Gb (-30°C ≤ Ta ≤ +55°C) Ex ib op is IIIB T130°C Db

The following cells are permitted:-

LR20\* - Duracell Ultra, Energizer Alkaline, Energizer Industrial, Eveready Gold. These cells may be used in ambient temperatures up to +55°C.

LR20\*\* - Varta Universal Alkaline, Varta Alkaline Value Pack, Varta Electric Power, Kodak Alkaline, Exide Alkaline, Cegassa Alkaline, Duracell Alkaline, Duracell Plus, Duracell Procell, Duracell Industrial, HiTech Alkaline Professional, RS Alkaline, Sanyo Alkaline, Duracell Ultra, Energizer Alkaline, Energiser Industrial, Eveready Gold, Rayovac Maximum, Duracell Procell, Pifco Optimax. These cells may be used in ambient temperatures up to +40°C

R20 - Any make and model of cell may be used. These cells may be used in ambient temperatures up to +55°C.

Group I marking may be omitted from Zone 1 models.

#### 16 Report Number

GB/BAS/ExTR16/0256/00

#### 17 Specific Conditions of Use

- Dust layers must be prevented from building up on the equipment.
- The equipment must not be left energised and unattended in Zone 20 areas.

#### 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
<u>TR-4X drawings</u>				
TP-740	1	6	08/09/16	Wolf Primary Cell LED Torch (TR-40/45)
<u>TR-TS-3X drawings</u>				
TP-729	1	2	08/09/16	Wolf - 2 Cell - Right Angle LED TR-30/35
TP-730	1	2	10/08/16	Wolf - 2 Cell - Straight LED (TS-30/35)
TP-735	1	2	10/08/16	Wolf - 2 Cell - Right Angle LED TR-3X
TP-736	1	2	11/08/16	Wolf - 2 Cell - Straight LED TS-3X
TP-924	1	2	10/08/16	TR/TS-30/35 - Approval Code Options.

These drawings are common to and held with IECEx BAS 06.0089X issue 5.

Current drawings which remain unaffected by this issue:

Number	Sheet	Issue	Date	Description
<u>TR-4X drawings</u>				
TP-840	1	3	15/07/15	Primary Cell LED Torch - Cassette
TP-940	1	1	13/11/06	Primary Cell LED Torch – Cassette Circuit
<u>TR-TS-3X drawings</u>				
TP-951 *	1	1	05/07/11	LED Module - Control PCB
TP-952 *	1	2	25/07/11	LED Module - Control PCB & Assembly Section

This drawing is held with IECEx BAS 06.0089 issue 0.

Note \* - These drawings are also currently associated with other certificates.

## 20 Certificate History

Certificate No.	Date	Comments
Baseefa07ATEX0091	18 April 2007	The release of the prime certificate. The associated test and assessment is documented in Test Report 06(C)0643.
Baseefa07ATEX0091/1	12 June 2008	To permit minor mechanical changes not affecting the original assessment.
Baseefa07ATEX0091 Issue 2	23 November 2009	This issue incorporates previously issued primary and supplementary certificates into one certificate, permits minor mechanical changes and confirms that the current design meets the requirements of EN 60079-0:2006, EN 60079-11:2007, EN 61241-0:2006 and EN 61241-1:2004.
Baseefa07ATEX0091 Issue 3	17 June 2011	To permit minor mechanical changes not affecting the result of the original assessment.
Baseefa07ATEX0091 Issue 4	15 July 2015	To permit: - the TR-3X & TS-3X torches that were previously listed in BAS02ATEX2220X to be incorporated into this certificate - changes to the materials used for construction - the dust certification to be defined as Group IIIB and to confirm that the current designs have been reviewed against the requirements of EN 60079-0:2012+A11:2013 and EN 60079-11:2012 in respect of any differences from EN 60079-0:2006, EN 60079-11:2007, EN 61241-0:2006 and EN 61241-1:2004 and none of the differences affect this equipment. The assessment was recorded in GB/BAS/ExTR15.0048/00 for project 14/0936
Baseefa07ATEX0091 Issue 5	2 December 2016	To permit a change of materials and to permit the addition of protection concept "op is". The associated test and assessment is documented in GB/BAS/ExTR16/0256/00 for project 16/0143.
For drawings applicable to each issue, see original of that issue.		