



1 **EC TYPE-EXAMINATION CERTIFICATE**

2 Equipment intended for use in Potentially Explosive Atmospheres Directive 94/9/EC

3 Certificate Number: **Sira 07ATEX3027** Issue: **0**

4 Equipment: **Wolf ATEX Worklite Type WL-****

5 Applicant: **Wolf Safety Lamp Company**

6 Address: Saxon Road Works
Sheffield
S8 0YA
England

7 This equipment and any acceptable variation thereto is specified in the schedule to this certificate and the documents therein referred to.

8 Sira Certification Service, notified body number 0518 in accordance with Article 9 of Directive 94/9/EC of 23 March 1994, certifies that this equipment has been found to comply with the Essential Health and Safety Requirements relating to the design and construction of equipment intended for use in potentially explosive atmospheres given in Annex II to the Directive.

The examination and test results are recorded in the confidential reports listed in Section 14.2.

9 Compliance with the Essential Health and Safety Requirements, with the exception of those listed in the schedule to this certificate, has been assured by compliance with the following documents:

EN 60079-0:2004
EN 50020:2002

EN 60079-7:2003
EN 61241-0:2004

EN 60079-18:2004
EN 61241-1:2004

10 If the sign 'X' is placed after the certificate number, it indicates that the equipment is subject to special conditions for safe use specified in the schedule to this certificate.

11 This EC type-examination certificate relates only to the design and construction of the specified equipment. If applicable, further requirements of this Directive apply to the manufacture and supply of this equipment.

12 The marking of the equipment shall include the following:



II 2 G D
Ex e ib mb IIC T4 (Tamb = -20°C to +40°C)
Ex tD A21 IP65 T135°C

Project Number 52A14837
C. Index 05

This certificate and its schedules may only be reproduced in its entirety and without change.

C. Ellaby
Certification Officer

Sira Certification Service

Rake Lane, Eccleston, Chester, CH4 9JN, England



SCHEDULE

EC TYPE-EXAMINATION CERTIFICATE

**Sira 07ATEX3027
Issue 0**

13 DESCRIPTION OF EQUIPMENT

Wolf ATEX Worklite Type WL-** is a portable battery powered luminaire for use in the hazardous area. It comprises a 12 V, sealed lead acid battery and encapsulated electronics, these are housed inside a rugged, stainless steel enclosure that provides an ingress protection to at least IP65. The enclosure has a welded frame, which secures a lamp head containing an array of LEDs that provide the light. The lamp housing can be swivelled to point the light in the desired direction. Also attached to the welded frame above the lamp housing is a carry handle made from stainless steel or plastic.

There are four version of the Worklite:

- A Worklite with a 12 LED lamp head powered from a 12 V, 35 Ah.
- A Worklite with a 12 LED lamp head powered from a 12 V, 18 Ah.
- A Worklite with a 6 LED lamp head powered from a 12 V, 35 Ah.
- A Worklite with a 6 LED lamp head powered from a 12 V, 18 Ah.

The battery and the encapsulated electronic block, inside the steel housing, are held in place using plastic packing material. The battery is fitted with vents to allow gases generated by the cells to escape outside the battery housing.

The lamp comprises a panel of high output LEDs (either an array of 6 or 12) and a terminal block, both mounted behind a 6 mm toughened glass window and inside an extruded aluminium heat sink, which forms part of the lamp housing. Connections between the lamp and the encapsulated electronics are made via a braided, multi-core cable through Ex e approved glands at each end.

The encapsulated control electronics ensure a constant current supply to the lamp LEDs giving maximum light output. Fitted to the battery enclosure lid is an intrinsically safe push-button, which controls the output in high power or low power mode, offering extended battery life on the low power setting. Also fitted to the lid is an intrinsically safe indication LED, which indicates the state of charge for the battery. The control circuit uses a microcontroller to monitor the battery voltage and cut off the connection to the battery to prevent deep discharge. The battery is recharged in the safe area and the charging socket is fitted with a blanking cover.

14 DESCRIPTIVE DOCUMENTS

14.1 Drawings

Refer to Certificate Annexe.

14.2 Associated Sira Reports and Certificate History

Issue	Date	Report number	Comment
0	8 May 2007	R52A14837A	The release of prime certificate.

15 SPECIAL CONDITIONS FOR SAFE USE (denoted by X after the certificate number)

None

16 ESSENTIAL HEALTH AND SAFETY REQUIREMENTS OF ANNEX II (EHSRs)

The relevant EHSRs that are not addressed by the standards listed in this certificate have been identified and individually assessed in the reports listed in Section 14.2.

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Sira Certification Service

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SCHEDULE

EC TYPE-EXAMINATION CERTIFICATE

**Sira 07ATEX3027
Issue 0**

17 CONDITIONS OF CERTIFICATION

- 17.1 The use of this certificate is subject to the Regulations Applicable to Holders of Sira Certificates.
- 17.2 Holders of EC type-examination certificates are required to comply with the production control requirements defined in Article 8 of directive 94/9/EC.
- 17.3 Each item of encapsulated electronics shall be inspected and no damage shall be evident, such as cracks in the compound, exposure of the encapsulated parts, flaking, inadmissible shrinkage, swelling, decomposition, failure of adhesion or softening.
- 17.4 Each Worklite manufactured shall be subjected to a dielectric strength test at 500 V r.m.s. for at least 1s, between the circuit and the external surface of the encapsulated assembly without a breakdown occurring.



1 **EC TYPE-EXAMINATION CERTIFICATE**

2 Equipment intended for use in Potentially Explosive Atmospheres Directive 94/9/EC

3 Certificate Number: **Sira 07ATEX3027** Issue: **1**

4 Equipment: **Wolf ATEX Worklite Type WL-****

5 Applicant: **Wolf Safety Lamp Company**

6 Address: **Saxon Road Works
Sheffield
S8 0YA
England**

7 This equipment and any acceptable variation thereto is specified in the schedule to this certificate and the documents therein referred to.

8 Sira Certification Service, notified body number 0518 in accordance with Article 9 of Directive 94/9/EC of 23 March 1994, certifies that this equipment has been found to comply with the Essential Health and Safety Requirements relating to the design and construction of equipment intended for use in potentially explosive atmospheres given in Annex II to the Directive.

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II 2 G D
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Ex tD A21 IP65 T135°C

D R Stubbings BA MIET
Certification Manager

Project Number 52A16775
C. Index 05

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Sira Certification Service

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SCHEDULE

EC TYPE-EXAMINATION CERTIFICATE

Sira 07ATEX3027

Issue 1

13 DESCRIPTION OF EQUIPMENT

Wolf ATEX Worklite Type WL-** is a portable battery powered luminaire for use in the hazardous area. It comprises a 12 V, sealed lead acid battery and encapsulated electronics, these are housed inside a rugged, stainless steel enclosure that provides an ingress protection to at least IP65. The enclosure has a welded frame, which secures a lamp head containing an array of LEDs that provide the light. The lamp housing can be swivelled to point the light in the desired direction. Also attached to the welded frame above the lamp housing is a carry handle made from stainless steel or plastic.

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Variation 1

This variation introduced the following changes:

- A change in the value of resistor R37 to 33K Ω and the addition of zener diode ZD1 connected in series.
- The modification of the existing stock of print circuit boards by retrofitting ZD1.
- The modification of the pcb track layout to incorporate the ZD1.
- An alternative internal wiring scheme using a 6-way terminal block in place of the existing 8-way terminal block.
- Minor modifications to the screw fixing and production notes.

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SCHEDULE

EC TYPE-EXAMINATION CERTIFICATE

**Sira 07ATEX3027
Issue 1**

14 DESCRIPTIVE DOCUMENTS

14.1 Drawings

Refer to Certificate Annexe.

14.2 Associated Sira Reports and Certificate History

Issue	Date	Report number	Comment
0	8 May 2007	R52A14837A	The release of prime certificate.
1	22 June 2007	R52A16775A	The introduction of Variation 1.

15 SPECIAL CONDITIONS FOR SAFE USE (denoted by X after the certificate number)

None

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