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EU-TYPE EXAMINATION CERTIFICATE

2 Equipment intended for use in Potentially Explosive Atmospheres Directive 2014/34/EU

3 Certificate Number: Sira 15ATEX3317X Issue: 1

4 Equipment: Wolf ATEX LED Inspection Leadlamp
5 Applicant: Wolf Safety Lamp Company Limited

6 Address: Saxon Road Works

Sheffield S8 0YA United Kingdom

- 7 This equipment and any acceptable variation thereto is specified in the schedule to this certificate and the documents therein referred to.
- Sira Certification Service, notified body number 0518 in accordance with Articles 17 and 21 of Directive 2014/34/EU of the European Parliament and of the Council, dated 26 February 2014, 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 60079-0:2012 A11:2013 EN 60079-7:2015

EN 60079-28:2015 EN 60079-31:2014

The above list of documents may detail standards that do not appear on the UKAS Scope of Accreditation, but have been added through Sira's flexible scope of accreditation, which is available on request.

- If the sign 'X' is placed after the certificate number, it indicates that the equipment is subject to Specific Conditions of Use identified in the schedule to this certificate.
- 11 This EU-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:

 $\langle \epsilon_{x} \rangle$

I M2

Ex eb mb op is I Mb Ta = -30°C to +55°C ·X/ II 2 G

Page 1 of 4

Ex eb mb op is IIC T4 Gb

Ta = -30°C to +55°C

II 2 D

Ex mb op is tb IIIC T95°C Db

Ta = -30°C to +55°C

EN 60079-18:2015

Project Number 70078360

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N Jones

Certification Manager

Sira Certification Service

Unit 6, Hawarden Industrial Park, Hawarden, CH5 3US, United Kingdom





SCHEDULE

EU-TYPE EXAMINATION CERTIFICATE

Sira 15ATEX3317X Issue 1

13 **DESCRIPTION OF EQUIPMENT**

The Wolf ATEX LED Inspection Leadlamp is a portable, handheld, LED lamp. The enclosure consists of an elliptical, aluminium enclosure with a clear, polycarbonate, domed lens at the front and an aluminium cover at the back. The lens and the back cover are sealed to the main body of the enclosure using a black or yellow gasket and four fasteners on each of the front and back faces. Underneath the clear lens, there is a clear/diffused inner dome which contains LEDs and an encapsulating compound. The main body of the enclosure contains two compartments; a smaller, terminal room compartment for connection of the power supply to the driver and a larger, encapsulated compartment housing the LED driver. The main enclosure, at the terminal room, has an M20 entry for connection of a suitably certified cable gland.

The aluminium enclosure is housed in a plastic handle which leaves only the clear polycarbonate domed lens exposed. The cable passes through the bottom of the handle to the cable gland. Although the handle provides mechanical protection, it does not form the explosion protection enclosure.

The equipment is certified for three rating options, as defined in the table below:

Model no.	Voltage rating / V (ac or dc)	Current / mA
SP-600Hxxx	0 to 264	80
SP-600Lxxx	0 to 54	600
SP-600ELxxx	0 to 16	800

The equipment may be marked with other voltage ratings within this range.

The handle has various fitting options, such as a clamp, hook, magnet, blanking plug and cage which may be used with the equipment. The equipment also has the option of being used with a plastic protective bag in accordance with the manufacturer's certification specifications.

In addition to the IP requirements of the applied standards, the equipment has been additionally tested to IP67 in accordance with EN 60529.

Variation 1 - This variation introduced the following changes:

- i. Thermal fuse rating revised to permit temperature rating of ≤130°C.
- ii. To permit the use of a wire link to allow the relocation of capacitor 'C5'.
- iii. Following appropriate assessment to demonstrate compliance, EN 60079-28:2015 was added to the list of standards, the marking was amended accordingly.

14 **DESCRIPTIVE DOCUMENTS**

14.1 Drawings

Refer to Certificate Annexe.

14.2 Associated Sira Reports and Certificate History

Issue	Date	Report number	Comment
0	22 February 2016	R70005165A	The release of the prime certificate.

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Sira 15ATEX3317X Issue 1

Issue	Date	Report number	Comment
1	14 July 2016	R70078360A	 This Issue covers the following changes: EC Type-Examination Certificate in accordance with 94/9/EC updated to EU Type-Examination Certificate in accordance with Directive 2014/34/EU. (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. Variations to such EC Type-Examination Certificates may continue to bear the original certificate number issued prior to 20 April 2016.) The introduction of Variation 1.

- 15 **SPECIFIC CONDITIONS OF USE** (denoted by X after the certificate number)
- 15.1 This equipment shall not be used in mining locations where oils, greases or hydraulic liquids may be present.
- 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.

17 **CONDITIONS OF MANUFACTURE**

- 17.1 The use of this certificate is subject to the Regulations Applicable to Holders of Sira Certificates.
- 17.2 Holders of EU-Type Examination Certificates are required to comply with the conformity to type requirements defined in Article 13 of Directive 2014/34/EU.
- 17.3 The following routine tests shall be performed on each product manufactured:
 - The encapsulated parts of the apparatus shall be subjected to a visual inspection. No visible damage of the compound shall be evident, such as cracks, exposure of the encapsulated parts, flaking, impermissible shrinkage, discoloration, swelling decomposition or softening, as required by EN 60079-18:2015 Clause 9.1.
 - For equipment which uses the High Voltage driver (model SP-600Hxxx), a dielectric strength test of 1528 V ac, shall be applied between circuit and casing for at least 1 minute, as required by EN 60079-7:2007, Clause 6.1. No breakdown shall occur. As an alternative to the ac test voltage, a test voltage of 2139 V dc may be applied.

For equipment which uses the Low Voltage driver (model SP-600Lxxx) or the Extra Low Voltage driver (model SP-600ELxxx), a dielectric strength test of 500 V r.m.s. shall be applied between the circuit and the casing for at least 1 minute, as required by EN 60079-7:2007, Clause 6.1. No breakdown shall occur. As an alternative to the ac test voltage, a test voltage of 700 V dc may be applied.

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SCHEDULE

EU-TYPE EXAMINATION CERTIFICATE

Sira 15ATEX3317X Issue 1

As an alternative to the specified test voltages, the test voltages may also be increased by a factor of 1.2 and applied for at least 100 ms.

17.4 The products covered by this certificate incorporate previously certified devices, it is therefore the responsibility of the manufacturer to continually monitor the status of the certification associated with these devices, and the manufacturer shall inform Sira of any modifications of the devices that may impinge upon the explosion safety design of their products.

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Certificate Annexe

Certificate Number: Sira 15ATEX3317X

Equipment: Wolf ATEX LED Inspection Leadlamp
Applicant: Wolf Safety Lamp Company Limited



Issue 0

Drawing	Sheets	Rev	Date (Sira stamp)	Title
SP-701	1 of 1	1	20 Jan 16	General Arrangement of LED Leadlamp
SP-711	1 of 1	1	20 Jan 16	Marking and fastening arrangements
SP-810	1 of 1	1	20 Jan 16	LED Assembly
SP-812	1 of 1	1	15 Feb 16	ELV Driver Potted Assembly
SP-824	1 of 1	1	15 Feb 16	LV Driver Potted Assembly
SP-840	1 of 1	1	15 Feb 16	HV Driver Potted Assembly 7 W
SP-912	1 of 1	1	20 Jan 16	ELV Driver Schematic
SP-924	1 of 1	1	20 Jan 16	LV Driver Schematic
SP-940	1 of 1	1	20 Jan 16	HV Driver Schematic

Issue 1

Drawing	Sheets	Rev.	Date(Sira stamp)	Title
SP-701	1 of 1	2	06 Jul 16	ATEX LED Inspection Leadlamp
SP-711	1 of 1	2	24 Jun 16	Marking
SP-812	1 of 1	2	24 Jun 16	Potted Assembly SP-600EL
SP-824	1 of 1	2	24 Jun 16	Potted Assembly SP-600L
SP-840	1 of 1	2	24 Jun 16	Potted Assembly SP-600H
SP-912	1 of 1	2	24 Jun 16	Schematic SP-600EL
SP-924	1 of 1	2	24 Jun 16	Schematic SP-600L
SP-940	1 of 1	2	24 Jun 16	Schematic SP-600H

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