

### INTERNATIONAL ELECTROTECHNICAL COMMISSION IEC Certification Scheme for Explosive Atmospheres

for rules and details of the IECEx Scheme visit www.iecex.com

Certificate No.:

IECEx SIR 10.0016X

issue No.:2

Status:

Current

Date of Issue:

2012-03-27

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Certificate history: Issue No. 2 (2012-3-27) Issue No. 1 (2010-10-27)

Issue No. 0 (2010-4-26)

Applicant:

Wolf Safety Lamp Co. Ltd

Saxon Road Works

Sheffield S8 0YA UK

**United Kingdom** 

Electrical Apparatus:

Wolf LED Floodlite WF-3XX

Optional accessory:

Type of Protection:

Increased Safety, Encapsulation and Dust

Marking:

Ex emb IIC T4 Gb Ta = -20°C to +50°C

Ex t IIIC T103°C Db IP66/IP67

Approved for issue on behalf of the IECEx

Certification Body:

D R Stubbings BA MIET

Position:

Certification Manager

Signature:

(for printed version)

Date:

2012-03-27

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.

Certificate issued by:

SIRA Certification Service Rake Lane Eccleston Chester CH4 9JN United Kingdom





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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:

IEC 60079-0: 2007-10

Explosive atmospheres - Part 0:Equipment - General requirements

Edition: 5

IEC 60079-18: 2009

Explosive atmospheres Part 18: Equipment protection by encapsulation "m"

Edition: 3

IEC 60079-7: 2006-07

Explosive atmospheres - Part 7: Equipment protection by increased safety "e"

Edition: 4

IEC 61241-1: 2004

Electrical apparatus for use in the presence of combustible dust - Part 1: Protection by

Edition: 1

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

Test Report:

GB/SIR/ExTR10.0078/00

GB/SIR/ExTR10.0255/00

GB/SIR/ExTR12.0053/00

Quality Assessment Report:

GB/BAS/QAR06.0017/02

GB/BAS/QAR06.0017/03



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Schedule

### **EQUIPMENT:**

Equipment and systems covered by this certificate are as follows:

The Wolf LED Floodlite WF-3XX comprises an aluminium or stainless steel rectangular base with clear or translucent polycarbonate cover. The cover is secured to the base by four M6 x 16mm screws. The module is intended for use in temporary fixed installations and is provided with appropriate mounting brackets for this purpose.

The base of the enclosure houses an encapsulated power supply and control board. An LED assembly is mounted to the base of the enclosure and sits above the encapsulated power supply and control board, but behind the outer polycarbonate cover. The LED assembly comprises two compartments, each with integral polycarbonate cover, which are effectively encapsulated onto an aluminium base plate. Each compartment is fitted with 24 LEDs; the LEDs can be white, infra red, coloured or a combination.

Refer to EQUIPMENT (continued) for additional Description

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

- The Wolf LED Floodlite WF-3XX shall not be moved while connected to an electrical supply. When in use, the equipment shall be supported and mounted in a fixed and stable arrangement.
- Except for internal wiring, not more than one single or multiple strand lead shall be connected into either side of any terminal, unless multiple conductors have been joined in a suitable manner, e.g. two conductors into a single insulated crimped boot lace ferrule.
- 3. Leads connected to the terminals shall be insulated for the appropriate voltage and this insulation shall extend to within 1 mm of the metal of the terminal throat.
- When terminals in accordance with certificate IECEx SIR 05.0035U are used, all terminal screws, used and unused, shall be tightened down to between 0.5 Nm and 0.7 Nm.
- 5. When terminals in accordance with certificate IECEx SIR 05.0037U are used, all terminal screws, used and unused, shall be tightened down to between 1.2 Nm and 2 Nm.

See EQUIPMENT (continued) for additional conditions



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### EQUIPMENT(continued):

The base of the enclosure is also fitted with Exe certified terminals which provide connection facilities for incoming cables and between the control board and LED assembly. The interior of the enclosure may also be fitted with an encapsulated fuse assembly. Internal and external earthing facilities are provided.

Up to 8 cable entry holes may be provided depending on customer requirements.

The units are designed for use on an electrical supply of 100-240V 50/60Hz or alternatively 24V ac/dc.

An optional photocell may be supplied, which is located in an appropriate cable entry hole and provided with a steel or stainless steel shroud.

Up to 6 modules may be interlinked to provide overall higher output assemblies.

### Additional CONDITIONS OF CERTIFICATION

- 6. When terminals in accordance with certificates IECEx SIR 05.0035U and IECEx SIR 05.0037U are used, they shall only be installed and wired with cable within a temperature range of -10°C to 80°C.
- When cross-connecting combs are used on terminals to certificates IECEX SIR 05.0035U and IECEX SIR 05.0037U, the relevant conditions of certification associated with those certificates shall be applied.
- Cable entry holes shall be fitted with either an appropriately certified cable gland or appropriately certified blanking element. These shall provide and maintain a minimum enclosure ingress protection of IP66 or IP67 as appropriate.
- 9. The LED assembly shall be replaced following the failure of no more than 8 individual LEDs.
- 10. When the optional fuse is not fitted, the supply circuit must be protected by a fuse capable of withstanding a prospective short circuit current of 1500A.

The Manufacturer shall comply with the following condition of manufacture:

- Every unit, including fuse assembly when fitted, shall be subjected to a routine dielectric strength test of at least 1508 V r.m.s. a.c. applied for at least 1 s, or at least 1810 V r.m.s. a.c. applied for at least 100 ms, between all terminals and the equipment enclosure, in accordance with Clause 9.2 of IEC 60079-18:2009.
- 2. Every unit shall be subjected to a visual inspection in accordance with Clause 9.1 of IEC 60079-18:2009.



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

Issue 1 – this Issue introduced the following changes:	
1	The Wolf LED Floodlite WF-3XX has now been assessed and approved for use with a stand as a portable product, without the need for condition of certification 1 from the original certification.
2	The optional application of a removable plastic film to the exterior of the polycarbonate cover is approved.
3	The recognition of a modification of Condition of Certification 9 from the original certification. The Condition of Certification is modified to state: "The LED assembly shall be replaced following the failure of no more than 8 individual LEDs.
4	The optional addition of a coloured glass plate to the inside of the LED assembly housing was endorsed.
Issue 2 - this Issue introduced the following changes:	
1	The inclusion of two alternative encapsulated power supply and control board assemblies was approved.
2	The optional addition of an aluminium battery housing to the rear of the unit, to allow battery operation was endorsed.