IECEx Certificate of Conformity

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 10.0121	Issue No.:1	Certificate history: Issue No. 1 (2011-1-25) Issue No. 0 (2010-8-12)
Status:	**Current**		
Date of Issue:	**2011-01-25**	Page 1 of 4	

Applicant: **The Wolf Safety Lamp Co. Limited**
Saxon Road Works
Sheffield S8 0YA
United Kingdom

Electrical Apparatus: **Wolf Fluorescent Leadlamp**
Optional accessory:

Type of Protection: **Increased Safety Encapsulation and Dust**

Marking: **Ex emb IIC T* Gb (-**°C to +**°C)**
Ex embd IIC T* Gb (-°C to +**°C)**
Ex tD A21 IP 66/IP 67/IP 68 T**°C**
(Refer to Certificate Annexe for markings applicable to particular models)

Approved for Issue on behalf of the IECEx Certification Body: C Ellaby

Position: Certification Officer

Signature:
(for printed version)

Date: 2011-01-25

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

sira CERTIFICATION

IECEx Certificate of Conformity

Certificate No.: IECEx SIR 10.0121

Date of Issue: 2011-01-25 Issue No.: 1

Manufacturer: **The Wolf Safety Lamp Co. Limited**
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 Edition: 5	Explosive atmospheres - Part 0:Equipment - General requirements
IEC 60079-18 : 2009 Edition: 3	Explosive atmospheres Part 18: Equipment protection by encapsulation "m"
IEC 60079-7 : 2006-07 Edition: 4	Explosive atmospheres - Part 7: Equipment protection by increased safety "e"
IEC 61241-0 : 2004 Edition: 1	Electrical apparatus for use in the presence of combustible dust - Part 0: General requirements
IEC 61241-1 : 2004 Edition: 1	Electrical apparatus for use in the presence of combustible dust - Part 1: Protection by 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/ExTR10.0197/00
GB/SIR/ExTR11.0012/00

Quality Assessment Report:

GB/BAS/QAR06.0017/02

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Schedule

EQUIPMENT:
Equipment and systems covered by this certificate are as follows:

These Fluorescent Luminaires are suitable for portable lighting or for use in fixed installations; they are available as either a standard version or an emergency version incorporating an integral battery. The luminaires comprise a clear, circular, polycarbonate lamp envelope with two aluminium end caps. The lamp envelope will have a clear anti static coating to safely dissipate any static electricity. The end caps are secured to the tube via the internal gear tray/reflector, which is fabricated from steel or aluminium, two M6 screws and dowty washers are used to secure each end cap. A silicone gasket is fitted within a groove on each end cap, thus maintaining the IP66/67/68 (3 m for 30 minutes) ratings; note that when sockets are fitted, only IP66 is applicable.

Refer to the annexe for full description and information regarding variants.

CONDITIONS OF CERTIFICATION: NO

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

Issue 1 – this Issue introduced the following changes:	
1	A full list of certified drawings was recognised that allow the Wolf Safety Lamp Company Limited to manufacture the products in their own right.
2	Following appropriate re-assessment to demonstrate compliance, the originally listed standards IEC 60079-0:2004:Ed 4 and IEC 60079-18:2004:Ed 2 were replaced by IEC 60079-0:2007:Ed 5 and IEC 60079-18:2009:Ed 3 respectively, the marking was changed accordingly and the conditions of certification were modified to reflect these changes.
3	The reference the 'LL-500' was removed from the product name.
4	The voltage range of the 24 Vdc encapsulated voltage booster was increased to 24-28 Vdc.
5	The option to fit a clear cover over the approval label was recognised.
6	Internal branding labels were allowed to be fitted.

Annexe: IECEx SIR 10.0121 Annexe Issue 1.pdf

The Full description is repeated for completeness.

These Fluorescent Luminaires are suitable for portable lighting or for use in fixed installations; they are available as either a standard version or an emergency version incorporating an integral battery. The luminaires comprise a clear, circular, polycarbonate lamp envelope with two aluminium end caps. The lamp envelope will have a clear anti static coating to safely dissipate any static electricity. The end caps are secured to the tube via the internal gear tray/reflector, which is fabricated from steel or aluminium, two M6 screws and dowty washers are used to secure each end cap. A silicone gasket is fitted within a groove on each end cap, thus maintaining the IP66/67/68 (3 m for 30 minutes) ratings; note that when sockets are fitted, only IP66 is applicable.

2xCFL Variants – These are suitable for use with 2 x 18, 36 or 55 W compact fluorescent lamps with 2G11 base, the gear tray/reflector contains one encapsulated ballast assembly complete with associated terminal blocks on one side and lamp supports on the other, this distributes light through 180°.

4xCFL Variants - These are suitable for use with 4 x 18, 36 or 55 W compact fluorescent lamps with 2G11 base, each side of the gear tray/reflector contains one encapsulated ballast assembly complete with associated terminal blocks and lamp supports, this distributes light through 360°.

2xT8 Variants – These are suitable for use with 2 x 18, 36 or 58 W T8 fluorescent lamps, either bi pin (G13 cap) or single pin (Fa6 cap), the gear tray/reflector contains one encapsulated ballast assembly complete with associated terminal blocks on one side and bi pin or single pin lampholders on the other side, this distributes light through 180°. On emergency versions, an encapsulated inverter, fuse and Ex e battery are also present alongside the ballast.

The ballast incorporates circuit design with lamp end of life detection, which complies with the requirements of IEC 60079-7 Edition 4, Annex H. Cable entry holes for suitably ATEX or IECEx certified cable glands are provided in the end caps to facilitate through wiring of the luminaires. The supply terminal block is either a Wago 262 series terminal block, Wago 264 series terminal block, a Weidmüller Type BK4 terminal block or a Weidmüller Type MK6 terminal block, certified under IECEx PTB 04.0004U, IECEx PTB 04.0003U, IECEx SIR 05.0035U and IECEx SIR 05.0037U respectively; all terminal blocks are coded Ex e II.

The standard and emergency luminaires are designed for use with an electrical supply of either 110 V to 254 V a.c. 50/60 Hz, 110 V to 130 V a.c, 50/60 Hz or 220 to 254 V 50/60 Hz a.c. 50/60 Hz. The standard luminaire is also suitable for use with 24 or 42 Volts d.c.

The Wolf Fluorescent Leadlamp is supplied with an alternative polyurethane end cap, which is longer and is ridged thereby minimising the risk of static electric charge when cleaning.
Luminaires can be supplied with sockets fitted to the end caps with bolts, nuts and sealing washers and/or various lengths of cable with plugs fitted. The following optional certified plugs and sockets may be fitted:

Manufacturer	Type Ref.	Coded	Certificate Number
Cooper Crouse-Hinds GmbH	Type GHG 51. ....R....	Ex ed [ia] IIC T6 or T5	IECEx BKI 04.0002
Cooper Crouse-Hinds GmbH	Type GHG 57. ....R....	Ex de IIC T6 Ex tD A21 IP66 T52°C	IECEx BKI 06.0005X
R. Stahl	Type 8591/...-..-....	Ex de IIC T6 Ex ia/ib IIC T6 Ex tD A21 IP66 T52°C	IECEx BKI 07.0001X
ATX	Type PCX	Ex ed IIC T6 or T5 Ex tD A21 IP66 T68°C	IECEx LCI 04.0014
R. Stahl	Type 8570/...-..-....	Ex de IIC T6 Ex de [ia] IIC T6 Ex tD A21 IP66 80°C	IECEx PTB 05.0023

Sira Certification Service
Rake Lane, Eccleston, Chester, CH4 9JN, England
Tel: +44 (0) 1244 670900
Fax: +44 (0) 1244 681330
Email: info@siracertification.com
Web: www.siracertification.com

Options

i. The Portable versions of the luminaires may be transported whilst energised.

- 4 or 2 x 18 W Compact Fluorescent Lamps
- 4 or 2 x 36 W Compact Fluorescent Lamps
- 4 or 2 x 55 W Compact Fluorescent Lamps

ii. Fixed installation luminaires, lamps ratings:

- 4 or 2 x 18 W Compact Fluorescent Lamps
- 4 or 2 x 36 W Compact Fluorescent Lamps
- 4 or 2 x 55 W Compact Fluorescent Lamps
- 2 x 18 W T8 Lamps Standard & Emergency Units
- 2 x 36 W T8 Lamps Standard & Emergency Units
- 2 x 58 W T8 Lamps Standard & Emergency Units

iii. The T8 lamp variants may be used as an emergency luminaires when fitted with a battery pack.

iv. The luminaires may be mounted in any attitude and are suitable for use with Unistrut or equivalent accessories, magnets may also be used to mount the luminaire Alternatively, when used as a portable luminaire, a carrying strap can be fitted.

v. The luminaires are suitable for use with either T8 bi-pin or single pin lamps or compact fluorescent lamps.

vi. The luminaire may be fitted with certified plugs and sockets to the end caps.

Full list of product markings applicable to particular models (including those introduced by variations)

4 x 55 W, 36 W & 18 W CFL Standard Units:
Ex emb IIC T3 Gb (Ta = -20°C to +35°C)
Ex embd IIC T3 Gb (Ta = -20°C to +35°C), with plugs & sockets
Ex tD A21 IP 66/IP 67/IP 68 (3 m for 30 minutes) T100°C

2 x 55 W, 36 W and 18 W CFL Standard Units:
Ex emb IIC T3 Gb (Ta = -20°C to +44°C)
Ex embd IIC T3 Gb (Ta = -20°C to +44°C) – with plugs & sockets
Ex tD A21 IP 66/IP 67/IP 68 (3 m for 30 minutes) T100°C

2 x 58 W, 2 x 36 W & 2 x 18 W T8 Standard Units:
Ex emb IIC T4 Gb (Ta = -20°C to +53°C)
Ex embd IIC T4 Gb (Ta = -20°C to +53°C), with plugs & sockets
Ex tD A21 IP 66/IP 67/IP 68 (3 m for 30 minutes) T100°C

2 x 58 W, 2 x 36 W & 2 x 18 W T8 Emergency Units:
Ex emb IIC T4 Gb (Ta = -15°C to +53°C)
Ex embd IIC T4 Gb (Ta = -15°C to +53°C) – with plugs & sockets
Ex tD A21 IP 66/IP 67/IP 68 (3 m for 30 minutes) T100°C

2 x 36 W and 2 x 18 W CFL Standard Units fitted with Voltage Booster:
Ex emb IIC T3 Gb (Ta = -20°C to +44°C)
Ex embd IIC T3 Gb (Ta = -20°C to +44°C) – with plugs & sockets
Ex tD A21 IP 66/IP 67/IP 68 (3 m for 30 minutes) T100°C

2 x 36 W and 2 x 18 W T8 Standard Units fitted with Voltage Booster:
Ex emb IIC T3 Gb (Ta = -20°C to +44°C)
Ex embd IIC T3 Gb (Ta = -20°C to +44°C) – with plugs & sockets
Ex tD A21 IP 66/IP 67/IP 68 (3 m for 30 minutes) T100°C

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4 x 36 W and 4 x 18 W CFL Units fitted with Voltage Booster:
Ex emb IIC T3 Gb (Ta = -20°C to +35°C)
Ex embd IIC T3 Gb (Ta = -20°C to +35°C) – with plugs & sockets
Ex tD A21 IP 66/IP 67/IP 68 (3 m for 30 minutes) T100°C

2 x 55 W, 36 W & 18 W CFL 360° Units:
Ex emb IIC T3 Gb (Ta = -20°C to +44°C)
Ex embd IIC T3 Gb (Ta = -20°C to +44°C) – with plugs & sockets
Ex tD A21 IP 66/IP 67/IP 68 (3 m for 30 minutes) T100°C

2 x 36 W and 2 x 18 W CFL 360° Units fitted with Voltage Booster:
Ex emb IIC T3 Gb (Ta = -20°C to +44°C)
Ex embd IIC T3 Gb (Ta = -20°C to +44°C) – with plugs & sockets
Ex tD A21 IP 66/IP 67/IP 68 (3 m for 30 minutes) T100°C

2 x 36 W and 2 x 18 W Emergency CFL Units:
Ex emb IIC T3 Gb (Ta = -15°C to +53°C)
Ex embd IIC T3 Gb (Ta = -15°C to +53°C) – with plugs & sockets
Ex tD A21 IP 66/IP 67/IP 68 (3 m for 30 minutes) T102°C

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