



1 **EC TYPE-EXAMINATION CERTIFICATE**

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

3 Certificate Number: **Sira 12ATEX3177X** Issue: **1**

4 Equipment: **LX-XXX LinkEx LED Luminaires**

5 Applicant: **Wolf Safety Lamp Company Limited**

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 60079-0:2009      EN 60079-7:2007      EN 60079-18:2009      EN 60079-31:2009

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.

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 mb IIC T3 Gb  
Ex t IIIC T170°C Db IP 6X  
(-20°C to +40°C)

**When fitted with Stahl Type 8575 or Type 8591 Sockets**



II 2 G  
Ex e mb IIC T3 Gb  
(-20°C to +40°C)

Project Number 28442

C Ellaby  
Deputy Certification Manager

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**SCHEDULE**

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**13 DESCRIPTION OF EQUIPMENT**

The LX-XXX LinkEx LED Luminaires are suitable for temporary lighting installations. The luminaires comprise a clear, tubular, polycarbonate lamp envelope with two polycarbonate end mouldings. The lamp envelope is all treated with a clear anti static coating to safely dissipate any static electricity. The end mouldings are secured to the tube via the internal gear tray, which is fabricated from steel or aluminium, two M5 and two M6 screws and bonded seals are used to secure each end cap. A silicone gasket is fitted within a groove on each end cap, thus maintaining the IP54/IP64 (as applicable) ratings. The luminaires have additionally been independently tested according to the requirements of EN/IEC 60529 to meet IP 67, with no sockets fitted, IP 66 when sockets are fitted and IP54 for Stahl Type 8575 or 8591 sockets.

The luminaires' are fitted with replaceable bump ring clamped between the seal ring and end plate, giving additional protection to the luminaire.

180° variant – These comprise a main gear tray, with the driver and terminal connection blocks on the underside with two LED strips fitted to the upper, distributing the light through 180°.

360° variant – These comprise two gear trays and two narrow channels, with the driver and terminal connection blocks fitted along with two LED strips, one fitted to each side, distributing the light through 360°.

The following optional supply terminal blocks may be fitted:

Manufacturer	Type Ref.	Coded	Certificate no.
Weidmüller	Type BK	Ex e II	Sira 01ATEX3247U
Weidmüller	Type MK6	Ex e II	Sira 01ATEX3249U
Phoenix Contact GmbH & Co. KG	Type G5/...-EX	Ex e II	PTB 06ATEX1034U

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 sockets may be fitted to the linkable versions only:

Manufacturer	Type Ref.	Coded	Certificate no.
Cooper Crouse-Hinds GmbH	Type GHG 51. ....R....	Ex de IIC T6 or T5 Ex tD A21 IP66 T80°C	PTB 99ATEX1040U
R. Stahl	Type 8591/...-...-....	Ex de IIC T6	PTB 03 ATEX1097X
ATX	Type PCX	Ex de IIC T6 or T5 Ex tD A21 IP66 T68°C	LCIE 02 ATEX 0001U
Marechal	Type DXN1	Ex de IIC T* Ex tD A21 IP66/67 T*	LCIE 99ATEX6027X
Stahl	Type 8570	Ex de IIC T6 Ex tD A21 IP 66 T80°C	PTB 03 ATEX 1227
Stahl	Type 8575	Ex ed IIC IP54	PTB 01 ATEX 1045U



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The luminaires are designed for use with an electrical supply of either 85Vac to 264Vac, 50/60Hz or 19Vdc/ac, rms to 28Vdc/ac, rms.

The luminaires may be mounted in any attitude and are suitable for use with accessories.

The coding is applicable, as follows:

Ex emb IIC T3 Gb (-20°C to +40°C)  
Ex t IIIC T170°C Db IP 64

Coding when fitted with Stahl Type 8575 sockets:

Ex emb IIC T3 Gb (-20°C to +40°C)

**Variation 1** - This variation introduced the following changes:

- i. The luminaires were re-designated as 'temporary lighting', the Description of Equipment was therefore amended accordingly, as a consequence, the warning label, 'Do not move when energised', is no longer required.
- ii. The specified marking information was clarified to recognise that dust marking is not applicable to luminaires that are fitted with either a Stahl Type 8575 Socket or Type 8591 Socket.
- iii. The anti-static coating on the end caps and bump rings was removed; in addition, optional ribs were added to the end cap.
- iv. A statement about independent Ingress Protection testing was introduced into the Description of Equipment.
- v. The fuse rating on drawing LX-924 was corrected and is now defined as 5 A, 125 V.
- vi. An optional 'ferrite' was added to the 24 V driver.
- vii. Minor changes to the gear tray were recognised.
- viii. Plastic wire supports were added to the encapsulated LED assemblies.
- ix. Alternative protective ring materials were introduced.
- x. An alternative potted fuse construction was recognised.
- xi. The introduction of alternative driver box grommets.
- xii. The type reference name of the silicone gasket was changed.
- xiii. An alternative, external, non-metallic label may was allowed to be fitted.
- xiv. The certificate reference for the Type GHG 51 sockets was changed from PTB 99ATEX1039 to PTB 99ATEX1040U.
- xv. The use of additional thermal protective fuses was permitted.
- xvi. Drawing number LX-710 was removed since the information it detailed that is relevant to explosion safety has now been included on other drawings.
- xvii. Addition of clamp/magnet accessory.
- xviii. Removal of ATX socket certificate numbers; IECEx LCI 04.0014 LCIE 02ATEX6068 and replacement with LCIE 02 ATEX 0001U and IECEx LCI 07.0012U, which are the flange mounted versions.



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**14 DESCRIPTIVE DOCUMENTS**

**14.1 Drawings**

Refer to Certificate Annexe.

**14.2 Associated Sira Reports and Certificate History**

Issue	Date	Report no.	Comment
0	29 May 2012	R25444A/00	The release of the prime certificate.
1	2 November 2012	R28442A/00	The introduction of Variation 1.

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

15.1 The user/installer shall ensure that, when the luminaire is fitted with a previously certified plug that has associated special conditions for safe use, they shall take into account any restrictions or conditions for safe use that are applicable to these devices.

**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 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 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 60079-18:2009 Clause 9.1.
- An electric strength test of  $2U + 1000$  V (where U is the supply voltage) with a minimum of 1500 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.

Alternatively a test at 1.2 times the test voltage may be 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.

17.5 When the luminaire is fitted with a socket that has associated special conditions for safe use, the manufacturer shall take all reasonable steps to ensure that the user/installer complies with these conditions.

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# Certificate Annexe

Certificate Number: Sira 12ATEX3177X  
Equipment: LX-XXX LinkEx LED Luminaires  
Applicant: Wolf Safety Lamp Company Limited



## Issue 0

Drawing	Sheets	Rev.	Date (Sira Stamp)	Title
LX-701	1 of 1	1	29 May 12	LinkEx Compact GA
LX-710	1 of 1	1	29 May 12	LinkEx Compact 360 Assembly
LX-711	1 of 1	1	29 May 12	LinkEx Compact 180 Assembly
LX-802	1 to 2	1	29 May 12	HV Driver Potted Assembly
LX-804	1 of 1	1	29 May 12	LED Heatsink Assembly
LX-824	1 of 1	1	29 May 12	24V Driver Potted Assembly
LX-902	1 of 1	1	29 May 12	Schematic (HV)
LX-920	1 of 1	1	29 May 12	Potted Fuses
LX-924	1 of 1	1	29 May 12	Schematic 24V

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Drawing	Sheets	Rev.	Date (Sira stamp)	Title
LX-701	1 of 1	2	27 Nov 12	LinkEx Compact GA
LX-711	1 of 1	2	27 Nov 12	LinkEx Compact 180 Assembly
LX-802	1 to 2	2	26 Oct 12	HV Driver Potted Assembly
LX-804	1 of 1	2	26 Oct 12	LED Heatsink Assembly
LX-824	1 of 1	2	26 Oct 12	24V Driver Potted Assembly
LX-920	1 of 1	2	26 Oct 12	Potted Fuses
LX-924	1 of 1	2	26 Oct 12	Schematic 24V
LX-720	1 of 1	1	28 Nov 12	LED LinkEx – Accessory Clamp

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