



IECEx Certificate of Conformity

INTERNATIONAL ELECTROTECHNICAL COMMISSION IEC Certification System for Explosive Atmospheres

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

Certificate No.: **IECEx SIR 12.0026** Page 1 of 5 Certificate history:
Status: **Current** Issue No: 5 Issue 4 (2015-02-06)
Date of Issue: 2016-02-29 Issue 3 (2013-05-21)
Applicant: **Orga B.V.** Issue 2 (2013-05-15)
Strickledeweg 13 Issue 1 (2013-05-07)
3125 AT Schiedam Issue 0 (2012-06-13)
Netherlands
Equipment: **L85EX-x-xx-xx Range of LED Lighting Fixtures**
Optional accessory:
Type of Protection: **Increased Safety and Encapsulation**
Marking: Ex e mb IIC T4 Gb
(Ta = -40 °C to +55 °C or +60 °C) - See **DETAILS OF CERTIFICATE CHANGES** for Issues 4 and 5

Approved for issue on behalf of the IECEx
Certification Body:

C Ellaby

Position:

Deputy Certification Manager

Signature:
(for printed version)

Date:

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 www.iecex.com or use of this QR Code.



Certificate issued by:

SIRA Certification Service
CSA Group
Unit 6, Hawarden Industrial Park
Hawarden
Deeside
CH5 3US
United Kingdom





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Date of issue: 2016-02-29

Issue No: 5

Manufacturer: **Orga B.V.**
Strickledeweg 13
3125 AT Schiedam
Netherlands

Additional manufacturing locations:

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 equipment 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 60079-0:2011 Explosive atmospheres - Part 0: General requirements
Edition:6.0

IEC 60079-18:2014 Explosive atmospheres – Part 18: Equipment protection by encapsulation "m"
Edition:4.0

IEC 60079-7:2006-07 Explosive atmospheres - Part 7: Equipment protection by increased safety "e"
Edition:4

This Certificate **does not** indicate compliance with 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 Reports:

[GB/SIR/ExTR12.0135/00](#)
[GB/SIR/ExTR13.0142/00](#)

[GB/SIR/ExTR13.0103/00](#)
[GB/SIR/ExTR15.0033/00](#)

[GB/SIR/ExTR13.0131/00](#)
[GB/SIR/ExTR15.0349/00](#)

Quality Assessment Report:

[NL/DEK/QAR11.0038/05](#)



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EQUIPMENT:

Equipment and systems covered by this Certificate are as follows:

The Lighting Fixture range L85EX-x-xx-xx is designed as a range of warning and signal beacons. The construction of the L85EX consists of a rectangular stainless steel body with non-metallic dome and clamping ring. Four mounting feet are formed as part of the base for floor mounting. The L85EX consists of an encapsulated power supply mounted within the metallic body with increased safety terminals and an increased safety LED light engine. The cover of the main body is secured with four screws and the clamping ring is retained with a further four screws. External connection to the device is through two off cable entries located in the base which may be M16, M20, M25, ½" NPT or 3/8" NPT

Electrical data - Power supply to L85EX: 100-254 V a.c. 50-60Hz

Temperature ranges - The L85EX have the following temperature ranges:

Arrangement	Temp. range	Arrangement	Temp. range
Red LEDs up to 260 mA	-50°C to +45°C	Blue LEDs up to 140 mA	-50°C to +45°C
Red LEDs up to 385 mA	-50°C to +40°C	White LEDs up to 140 mA	-50°C to +45°C
Green LEDs up to 140 mA	-50°C to +45°C	Yellow LEDs up to 260 mA	-50°C to +45°C
200 cd setup	-50°C to +40°C		

This description must be read in conjunction with the **DETAILS OF CERTIFICATE CHANGES** section that is detailed below

SPECIFIC CONDITIONS OF USE: NO



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Equipment (continued):

Conditions of manufacture

The Manufacturer shall comply with the following:

1. A visual inspection of the encapsulation is to be completed; no damage such as cracks, exposure of encapsulated parts, flaking, inadmissible shrinkage, swelling, decomposition failure of adhesion or softening shall be evident.
2. The dielectric strength test according to IEC 60079-18:2009 clause 8.2.4 shall be applied to the AC power supply for at least 1 second, the test voltage shall be at least 1620 V d.c.. Alternatively, 1.2 x test voltage may be applied and maintained for at least 100ms.
3. The dielectric strength test according to IEC 60079-18:2009 clause 8.2.4 shall be applied to the DC power supply for at least 1 second, the test voltage shall be at least 500 V d.c.. Alternatively, 1.2 x test voltage may be applied and maintained for at least 100ms.
4. The dielectric strength test according to IEC 60079-7:2006 clause 6.1 shall be applied to the light engine for at least 60 seconds, the test voltage shall be at least 500 V d.c.. Alternatively, 1.2 x test voltage may be applied and maintained for at least 100 ms.
5. The L85EX-x-xx-xx Range of LED Lighting Fixtures incorporates 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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DETAILS OF CERTIFICATE CHANGES (for issues 1 and above)

Issue 1 – this Issue introduced the following changes:

1. The addition of a recessed cover for the L85EX-x-xx-xx range of LED lighting fixtures that introduces component certified swivel adaptors and a new Condition of Manufacture.
2. As a result of the assessment, the Condition of Certification was no longer required and therefore the 'X' suffix was removed from the certificate number.

Issue 2 – this Issue introduced the following changes:

1. The introduction of an optional DC input power supply with an input supply voltage range of 20-30 V d.c. The Conditions of Manufacture were amended accordingly.

Issue 3 – this Issue introduced the following changes:

1. The introduction of the Type 200cd model; this has the same construction as the existing models but uses an alternative LED light engine and includes Lens covers for the LEDs.
2. The component certified swivel adaptor range introduced previously for the recessed version was extended to all the LED Lighting Fixtures, a Condition of Manufacture was revised accordingly.

Issue 4 – this Issue introduced the following changes:

1. The Lighting Fixtures were allowed to be used with an alternative type of LED; the ambient temperature ranges associated with this new arrangement is detailed below as it differs from that originally specified which is unaltered, the marking section was amended accordingly.

Arrangement	Temp. range	Arrangement	Temp. range
Red LEDs up to 260 mA	-40°C to +60°C	Blue LEDs up to 140 mA	-40°C to +60°C
Red LEDs up to 385 mA	-40°C to +55°C	White LEDs up to 140 mA	-40°C to +60°C
Green LEDs up to 140 mA	-40°C to +60°C	Yellow LEDs up to 260 mA	-40°C to +60°C
200 cd setup	-40°C to +55°C		

2. Issue 3 of the certificate introduced the Type 200cd setup, which is now included in original temperature range table.
3. It was recognised that these devices can have up to two M16, M20, M25, 1/2" NPT or 3/8" NPT cable entries located in the underside of the Lighting Fixture base.
4. The introduction of alternative methods of securing the dome lens in the Lighting Fixture for the original and recessed versions was recognised.
5. IEC 60079-0:2007 Ed 5 was replaced by IEC 60079-0:2011 Ed6.

Issue 5 – this Issue introduced the following changes:

1. Typographical errors on previously drawings were corrected by changing the specification of the original sealing ring material.
2. The use of alternative, silicone rubber sealing rings was recognised.
3. The manufacturer requested that -50°C, +40°C and +45°C ambient temperature options should be removed from the marking section as they are no longer required, however, they have been left in the Description of Equipment to maintain the history of the product.
4. IEC 60079-18:2009 Ed 3 was replaced by IEC 60079-18:2014 Ed 4.