



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 04.0039X issue No.:1

Status: **Current**

Certificate history:
Issue No. 1 (2009-11-26)
Issue No. 0 (2006-4-24)

Date of Issue: **2009-11-26** Page 1 of 4

Applicant: **European Safety Systems Ltd**
Impress House
Mansell Road
Acton
London W3 7QH
United Kingdom

Electrical Apparatus: **IS - L101L Beacon**
Optional accessory:

Type of Protection: **Intrinsic safety**

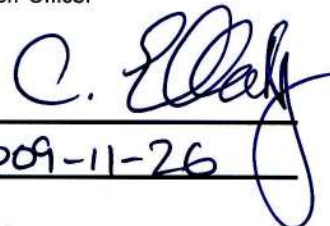
Marking: **Ex ia IIC T4 Ga (-40°C ≤ Ta ≤ +60°C)**
Note: IEC 60079-0:2007 Edition 5 was used for guidance in respect of marking.

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

Position: Certification Officer

Signature:
(for printed version)

Date:


2009-11-26

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



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Manufacturer: **European Safety Systems Ltd**
Impress House
Mansell Road
Acton
London W3 7QH
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 : 2004 Edition: 4.0	Electrical apparatus for explosive gas atmospheres - Part 0: General requirements
IEC 60079-11 : 2006 Edition: 5	Explosive atmospheres - Part 11: Equipment protection by intrinsic safety "i"
IEC 60079-26 : 2006 Edition: 2	Explosive atmospheres - Part 26: Equipment with equipment protection level (EPL) Ga

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/ExTR06.0038/00
GB/SIR/ExTR09.0189/00

Quality Assessment Report:

GB/SIR/QAR06.0020/00
GB/SIR/QAR06.0020/01



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Schedule

EQUIPMENT:

Equipment and systems covered by this certificate are as follows:

The IS-L101L Beacon is designed to provide a flashing warning when activated. It consists of two printed circuit board assemblies, one containing the main circuit and the other several LEDs, both mounted in an IP 66, flame retardant, ABS enclosure that is fitted with a transparent polycarbonate 'lens'. One of two alternative LED boards may be fitted, each having different types of LED mounted. External connections are made to terminals mounted on the main printed circuit board via cable entry devices mounted in the walls of the enclosure. The equipment has the following parameters:

Terminal "+" w.r.t. Terminal "-"

$U_i = 28 \text{ V}$

$I_i = 660 \text{ mA}$

$P_i = 1.2 \text{ W}$

$C_i = 0$

$L_i = 0$

Terminal "S+" w.r.t. Terminal "S-"

$U_o = 16.8 \text{ V}$

$I_o = 660 \text{ mA}$

$P_o = 1.2 \text{ W}$

The parameters above are based on Terminal + being considered internally electrically connected to Terminal S+ via internal voltage clamping zener diodes of maximum voltage 16.8 V and Terminal - being considered internally electrically connected to Terminal S-.

Terminals "Ac.Sw"

$U_o = 16.8 \text{ V}$

$I_o = 3.61 \text{ mA}$

$P_o = 15.2 \text{ mW}$

CONDITIONS OF CERTIFICATION: YES as shown below:

1. The equipment has an ingress protection rating of IP66; however, if it has been supplied without cable entry devices, then the user shall ensure that the devices that are fitted will provide an ingress protection that is appropriate to the environment in which it is installed i.e. IP20 or better. If only one of the two cable entries are used, then the unused entry shall be fitted with a blanking device that ensures ingress protection appropriate to the environment in which it is installed i.e. IP20 or better.
2. The enclosure is non-conducting and may generate an ignition-capable level of electrostatic charges under certain extreme conditions. The user should ensure that the equipment is not installed in a location where it may be subjected to external conditions that might cause a build-up of electrostatic charges on non-conducting surfaces, additionally, cleaning of the equipment should be done only with a damp cloth.



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

Issue 1 – this Issue introduced the following changes:	
1	Following appropriate re-assessment to demonstrate compliance with the requirements of the latest standards, the documents originally listed in section 9, IEC 60079-0:2000 Edition 3.1 and IEC 60079-11:1999 Edition 4, were replaced by those currently listed, the markings were updated accordingly.
2	The IS-L101L Beacon was changed to modify the PCB track and component layout.