1 # EU-TYPE EXAMINATION CERTIFICATE

2 Directive 2014/34/EU of the European Parliament and of the Council of 26 February 2014

3 EU-Type Examination Certificate Number: **Sira 04ATEX2302X** Issue: **9**

4 Equipment: **IS-L101L Beacon and IS-DL105 Sounder/Beacon**

5 Manufacturer: **European Safety System Limited**

6 Address: Impress House
Mansell Road
Acton
London W3 7QH
UK

7 This product and any acceptable variation thereto, is specified in the schedule to this certificate and the documents therein referred to.

8 CSA Group Netherlands B.V., Notified Body No. 2813 in accordance with Article 17 of the Directive 2014/34/EU of the European Parliament and of the Council, dated 26 February 2014, certifies that this product has been found to comply with the Essential Health and Safety Requirements relating to the design and construction of products 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 item 16.2.

9 Compliance with the Essential Health and Safety Requirements has been assured by compliance with:

EN IEC 60079-0:2018 EN 60079-11:2012 (IEC 60079-11:2023 Edition 7.0)

Where additional criteria beyond those given here have been used, they are listed in item 18 in the Schedule.

10 If the sign "X" is placed after the certificate number, it indicates that the product is subject to the "Specific Conditions of Use" listed in item 17 of this certificate.

11 This EU-Type Examination Certificate relates only to the technical design of the specified product in accordance with the Directive 2014/34/EU. Further requirements of the Directive apply to the manufacturing process and supply of this product, these are not covered by this certificate.

12 The marking of the product shall include the following (additional marking is provided in the Schedule as a part of item 15, if applicable):

For IS-L101L Beacon

II 1 G
I M1
Ex ia IIC T4 Ga
Ex ia I Ma
-40°C ≤ Ta ≤ +60°C

For IS-DL105 Sounder/Beacon

II 1 G

Ex ia IIC T4 Ga
-40°C ≤ Ta ≤ +60°C

Signed: Michelle Halliwell
Title: Senior Director of Operations
Date: 02 March 2026

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13 # SCHEDULE

14 **EU-Type Examination Certificate Number:** **Sira 04ATEX2302X** Issue: **9**

15 **Description:**

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. These are mounted inside an IP 66, flame retardant, ABS enclosure that is fitted with a transparent polycarbonate 'lens'. Two, alternative LED boards may be fitted, each being fitted with different types of LED.

External connections are made to terminals mounted on the main printed circuit board via cable entry devices mounted in the walls of the enclosure.

Terminal + w.r.t. Terminal:	Ui = 28 V Ii = 660 mA Pi = 1.2 W Ci = 0 Li = 0
Terminal S+ w.r.t. Terminal S:	Uo = 16.8 V Io = 660 mA Po = 1.2 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 16.8V and Terminal - being considered internally electrically connected to Terminal S –.

Terminals Ac.Sw:	Uo = 16.8V Io = 3.61 mA Po = 15.2 mW

Variation 1 - This variation introduced the following changes:

i. Following appropriate re-assessment to demonstrate compliance with the requirements of the latest standards, the documents originally listed in section 9, EN 50014: 1997 + A1 and A2, EN 50020: 2002 and EN 50284: 1999, were replaced by those currently listed, the markings in section 12 were updated accordingly.
ii. The IS-L101L Beacon was changed to modify the PCB track and component layout.

Variation 2 - This variation introduced the following change:

i. The use of a cast aluminium enclosure material as an alternative to the existing plastic material was approved. The Special conditions for Safe Use were amended to reflect this change.

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Variation 3 - This variation introduced the following change:

i. It was clarified that the cast aluminium enclosure versions that were first recognised in Issue 4 of this certificate are in fact the model IS-DL105 Combined Sounder/Beacon; to account for the new model, the Special Conditions for Safe Use and associated drawings were reviewed and revised accordingly. The IS-DL105 is described below:
The IS-DL105 Sounder/Beacon is designed to provide an audible and flashing warning when activated. It consists of three printed circuit board assemblies, one for the sounder, connected to an inductive sounder transducer; and two printed circuit board assemblies for the beacon, one containing the main circuit and the other several LEDs.
These are mounted in an IP 66, cast aluminium enclosure with a borosilicate glass dome. External connections are made to terminals mounted on the printed circuit board via a cable entry device mounted in the wall of the enclosure.
Two alternative LED boards may be fitted, each being fitted with different types of LED. External connections are made to terminals mounted on the main printed circuit board via cable entry devices mounted in the walls of the enclosure.

Sounder and Beacon powered through a single barrier		
The barrier may be connected either to the Sounder or to the Beacon, as shown below:		
Sounder PCBA	**OR**	Beacon PCBA
Input to Terminals + w.r.t. Terminal:		Input to Terminals + w.r.t. Terminals -:
Ui = 28 V Ii = 93 mA Pi = 660 mW Ci = 0 Li = 0		Ui = 28 V Ii = 93 mA Pi = 660 mW Ci = 0 Li = 0
In addition, a diode return barrier or isolator may be connected to Terminal S2 w.r.t. Terminal – and Terminal S3 w.r.t. Terminal – with the following parameters: Ui = 28 V Ii = 0		The output parameters at Terminal S+ w.r.t. Terminal S- are: Uo = 16.8 V Io = 93 mA Po = 660m W These are based on Terminal + being considered internally electrically connected to Terminal S+ via internal voltage clamping zener diodes of maximum voltage 16.8V and Terminal - being considered internally electrically connected to Terminal S -.
		The output parameters at Terminals Ac.Sw are: Uo = 16.8 V Io = 3.61 mA Po = 15.2 mW

Sounder and Beacon powered through two separate barriers		
One barrier may be connected to the Sounder and a second to the Beacon, as shown below. The Sounder and Beacon shall be regarded as separate intrinsically safe circuits and shall not be electrically connected to each other.		
Sounder PCBA	**AND**	Beacon PCBA
Input to Terminals + w.r.t. Terminal -:		Input to Terminals + w.r.t. Terminals -:
Ui = 28 V Ii = 93 mA Pi = 660 mW Ci = 0 Li = 0		Ui = 28 V Ii = 660 mA Pi = 1.2 W Ci = 0 Li = 0
In addition, a diode return barrier or isolator may be connected to Terminal S2 w.r.t. Terminal – and Terminal S3 w.r.t. Terminal – with the following parameters: Ui = 28 V Ii = 0		The output parameters at Terminal S+ w.r.t. Terminal S- are: Uo = 16.8 V Io = 660 mA Po = 1.2 W These are based on Terminal + being considered internally electrically connected to Terminal S+ via internal voltage clamping zener diodes of maximum voltage 16.8V and Terminal - being considered internally electrically connected to Terminal S -.
		The output parameters at Terminals Ac.Sw are: Uo = 16.8 V Io = 3.61 mA Po = 15.2 mW

Variation 4 - This variation introduced the following changes:

i. Following appropriate assessment to demonstrate compliance with the latest technical knowledge, the documents previously listed, EN 60079-0:2006, EN 60079-11:2007and EN 60079-26:2007 were replaced by EN 60079-0:2012, EN 60079-11:2012 and IEC 60079-26:2014 Ed 3.0.

Variation 5 - This variation introduced the following changes:

i. Following appropriate assessment to demonstrate compliance with the latest technical knowledge, the document previously listed, EN 60079-0:2012 was replaced by EN IEC 60079-0:2018.
ii. IEC 60079-26:2014 Ed 3.0 was removed as IEC 60079-26 is not applicable to Ex ia Ga equipment.

Variation 6 - This variation introduced the following changes:

i. Upgrade to the latest standard: EN 60079-11:2012 (IEC 60079-11:2023 Edition 7.0).
ii. Addition of EPL Ma, M1 assessment for the Model IS-L101L.

16 Drawings and documents:

16.1 Technical documents:

Refer to Certificate Annex.

16.2 Associated reports and certificate history:

Issue	Date	Report number	Comment
0	24 November 2004	R52A12120A	The release of the prime certificate.

Issue	Date	Report number	Comment
1	14 October 2005	R52A14095A	Issued to introduce the changes described in report number R52A14095A.
2	18 August 2006	R52A15304A	Issued to introduce the changes described in report number R52A15304A
3	23 November 2009	R20910A	This Issue covers the following changes: • All previously issued certification was rationalised into a single certificate, Issue 3, Issues 0 to 2 referenced above are only intended to reflect the history of the previous certification and have not been issued as documents in this format. • The introduction of Variation 1.
4	08 August 2013	R28860A/00	The introduction of Variation 2.
5	31 October 2013	R31828A/00	The introduction of Variation 3.
6	23 February 2015	R70006449B	The introduction of Variation 4.
7	05 September 2019	R80009717A	This Issue covers the following changes: • EC Type-Examination Certificate in accordance with 94/9/EC updated to EU Type-Examination Certificate in accordance with Directive 2014/34/EU. *(In accordance with Article 41 of Directive 2014/34/EU, EC Type-Examination Certificates referring to 94/9/EC that were in existence prior to the date of application of 2014/34/EU (20 April 2016) may be referenced as if they were issued in accordance with Directive 2014/34/EU. Variations to such EC Type-Examination Certificates may continue to bear the original certificate number issued prior to 20 April 2016.)* • The introduction of Variation 5.
8	15 October 2019	1698	Transfer of certificate Sira 04ATEX2302X from Sira Certification Service to CSA Group Netherlands B.V..
9	02 March 2026	R80272781A	The introduction of Variation 6.

17 **Specific conditions of use** (denoted by "X" after the certificate number):

17.1 The enclosure of the IS-L101L Beacon 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.

17.2 The equipment has an ingress protection rating of IP 66. 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.

17.3 The enclosure of the IS-DL105 Sounder/Beacon is manufactured from cast aluminium. In rare cases, ignition sources due to impact and friction sparks could occur. This shall be considered during installation, particularly if the equipment is installed in an area requiring Equipment Protection Level Ga.

17.4 When the IS-DL105 Sounder/Beacon is powered via two separate barriers, they shall be installed as separate intrinsically safe circuits; the Sounder shall not be electrically connected to the Beacon and they shall not share a common return line.

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18 **Essential health and safety requirements of Annex II** (EHSRs):

The relevant EHSRs that are not addressed by the standards listed in item 9 of this certificate have been identified and conformity of the product demonstrated in the reports listed in item 16.2.

19 **Remarks and additional information:**

The use of this certificate is subject to the regulations applicable to holders of CSA Group Netherlands B.V. certificates.

Compliance of the product with the applicable safety requirements of the relevant industrial standards has not been verified and is not covered by this certificate.

19.1 **Conditions of manufacture:**

19.1.1 Verification of conformal coating around capacitor C1 area, specified in a drawing number D4524 shall be conducted. There shall be no evident damage on the conformal coating, this includes but is not limited to;

- Cracks;
- non-homogeneous covering of the encapsulated or coated parts;
- inadmissible shrinkage;
- swelling;
- decomposition;
- failure of adhesion (separation of any adhered parts) or flaking; and
- softening.

Alternative procedure:
Routine verification may be replaced by batch verification where there is confidence in the manufacturing process, in which case the following criteria based on ISO 2859-1 shall apply:

- For a production batch up to 100, a sampling of 8 shall be inspected with no failures
- For a production batch from 101 to 1 000, a sampling of 32 shall be inspected with no failure
- For a production batch from 1 001 up to 10 000, a sampling of 80 shall be inspected with no failures
- Batches above 10 000 shall be subdivided into smaller batches

If there are any non-compliant inspection results, 100 % of all remaining samples in the batch shall be inspected. Future batches shall be routinely inspected until confidence is established to reconsider batch verification.

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Certificate Annexe

Document History

Issue - 0 to 2 (The drawings listed with these Issues were rationalised and superseded by those detailed in Issue 2)

Issue - 2

Documents Introduced or Revised

Drawing No.	Sheets	Rev.	Date	Title
CD 4621	1 of 1	A	03 Dec 04	Circuit Diagram
PL 4621	1 of 1	A	03 Dec 04	Parts List
D 4621	1 of 1	A	03 Dec 04	General Arrangement
D 4622	1 of 1	C	02 May 06	Certification Label - ATEX
D 4623	1 of 1	A	07 Dec 04	Printed Circuit Board
D 4628	1 of 1	C	17 Feb 06	Certification Label ATEX/IECEx/FM

Issue - 3

Documents Introduced or Revised

Drawing No.	Sheets	Rev.	Date (Sira stamp)	Title
D 4628	1 of 1	D	11 Nov 09	IS-L101L Beacon Label (ATEX, IECEx, FM)
D 4623	1 of 1	B	11 Nov 09	Printed Circuit Board

Issue - 4

Documents Introduced or Revised

Drawing no.	Sheets	Rev.	Date (Sira stamp)	Title
D187-00-201-SC	1 of 1	A	08 May 13	IS-DL105 Sounder Beacon GA

Drawing D187-00-001-SC was previously listed in error and was removed.

Issue - 5

Documents Introduced or Revised

Drawing no.	Sheets	Rev.	Date	Title
CD4521	1 of 1	A	02 Nov 04	IS-A105N Sounder – circuit diagram
D187-99-201-SC	1 of 1	B	24 Oct 13*	IS-DL105 Sounder/Beacon - label
D4524	1 of 1	A	25 Oct 04	IS-A105N Sounder - artwork
D4525	1 of 1	A	01 Nov 04	IS-A105N Sounder – assembly
PL4521	1 of 1	A	02 Nov 04	IS-A105N Sounder – parts list

* This is the date that the drawing was stamped by Sira.

Issue - 6 - No new drawings were introduced.

Issue - 7 - No new drawings were introduced.

Issue - 8 - No new drawings were introduced.

Issue - 9

Documents Introduced or Revised

Drawing	Sheets	Rev.	Date (Stamp)	Title
D187-99-201-SC	1 of 1	D	11 Feb 26	IS-DL105 SOUNDER BEACON PRODUCT LABEL, IECEx SCHEDULED DRAWING
D4622	1 of 1	D	22 Dec 25	IS-L101L BEACON LABEL (ATEX / IECEx / FM)
D187-00-201-IS-SC	1 to 3	4	11 Feb 26	INSTRUCTION MANUAL (IS-DL105 Sounder/Beacon) [IECE/ATEX]
IS4601-SC	1 to 2	3	19 Jan 26	INSTRUCTION MANUAL (IS-L101L Beacon) [IECE/ATEX]
D4524	1 of 1	B	11 Feb 26	IS-A105N SOUNDER PCB TRACK AND COMPONENT LAYOUT

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