1 **UNITED KINGDOM CONFORMITY CERTIFICATE**

UK TYPE EXAMINATION CERTIFICATE

2 **Equipment or Protective Systems Intended for use in Potentially Explosive Atmospheres UKSI 2016:1107 (as amended) – Schedule 3A, Part 1**

3 Certificate Number: **CSAE 21UKEX2552X** Issue: **1**

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 Testing UK Limited, Approved Body number 0518, in accordance with Regulation 42 of the Equipment and Protective Systems Intended for Use in Potentially Explosive Atmospheres Regulations 2016, UKSI 2016:1107 (as amended), 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 Schedule 1 of the Regulations.

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 UK TYPE EXAMINATION CERTIFICATE relates only to the technical design of the specified product. Further requirements of the Regulations 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: M Halliwell
Title: Senior Director of Operations
Date: 02 March 2026

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13 # SCHEDULE

14 **UK Type Examination Certificate Number:** **CSAE 21UKEX2552X** Issue: **1**

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.	Ui = 28 V
Terminal:	Ii = 660 mA
	Pi = 1.2 W
	Ci = 0
	Li = 0
Terminal S+ w.r.t.	Uo = 16.8 V
Terminal S:	Io = 660 mA
	Pi = 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 –.

Terminal Ac.Sw:	Uo = 16.8 V
	Io = 3.61 mA
	Pi = 15.2mW

Incorporated amendments

The product description includes the following applicable amendments from the previous supporting assessments. The amendments are numbered to include a reference to the variation at which these were introduced.

Amendment 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.

Amendment 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.

Amendment 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:

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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		Ui = 28 V
Ii = 93 mA		Ii = 93 mA
Pi = 660 mW		Pi = 660 mW
Ci = 0		Ci = 0
Li = 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:		The output parameters at Terminal S+ w.r.t. Terminal S- are:
Ui = 28 V Ii = 0		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:
		Io = 3.61 mA
		Uo = 16.8 V
		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		Ui = 28 V
Ii = 93 mA		Ii = 660 mA
Pi = 660 mW		Pi = 1.2 W
Ci = 0		Ci = 0
Li = 0		Li = 0

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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

Amendment 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.

Amendment 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 1 - 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	27 June 2022	R80072291B	The release of the prime certificate.
1	02 March 2026	R80272781A	The introduction of Variation 1.

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.

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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.

18 **Essential health and safety requirements** (Regulations Schedule 1):

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 Testing UK 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 **Production control:**

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

Documents Introduced or Revised

Drawing	Sheets	Rev.	Date (Stamp)	Title
PL4521	1 of 1	A	02 Nov 04	IS-A105N Sounder – parts list
D4525	1 of 1	A	01 Nov 04	IS-A105N Sounder – assembly
D4524	1 of 1	A	25 Oct 04	IS-A105N Sounder – artwork
CD4521	1 of 1	A	02 Nov 04	IS-A105N Sounder – circuit diagram
D 4623	1 of 1	B	11 Nov 09	Printed Circuit Board
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
D187-99-201-SC-UK	1 of 1	A	27 Apr 22	IS-DL105 Sounder Beacon Product label, UKex Scheduled drawing
D187-00-201-IS-SC-UK	1 to 3	1	27 Apr 22	IS-DL105 Sounder/Beacon Instruction Manual
D 4622-SC-UK	1 of 1	A	27 Apr 22	IS-L101L Beacon Label

Issue - 1

Documents Introduced or Revised

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

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