



UNITED KINGDOM CONFORMITY ASSESSMENT

1 **UKCA UK TYPE EXAMINATION CERTIFICATE**

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

3 Certificate Number: **CSAE 21UKEX2553X** Issue: **0**

4 Product: **IS-mA1 Sounder, IS-mB1 Beacon, IS-mC1 Combined Sounder/Beacon,
IS-mA2 Sounder, IS-mA3 Sounder and IS-mA1M Sounder**

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 Section 14.2.

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

EN IEC 60079-0:2018 EN 60079-11:2012

Except in respect of those requirements listed at Section 16 of the schedule to this certificate. The above standards may not appear on the UKAS Scope of Accreditation, but have been added through flexible scope of accreditation, which is available on request.

10 If the sign 'X' is placed after the certificate number, it indicates that the product is subject to Specific Conditions of Use identified in the schedule to this certificate.

11 This UK TYPE EXAMINATION CERTIFICATE relates only to the design and construction 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 this product shall be in accordance with Regulation 41 and include the following:

IS-mA1 Sounder, IS-mB1 Beacon, IS-mC1 Combined Sounder/Beacon, IS-mA2 Sounder and IS-mA3 Sounder



II 1 G
Ex ia IIC T4 Ga (-40°C ≤ Ta ≤ +60°C)

IS-mA1M Sounder



I M1
Ex ia I Ma (-40°C ≤ Ta ≤ +60°C)

Name: Michelle Halliwell

Title: Director of Operations



Certificate No. CSAE 21UKEX2553X
CSA Group Testing UK Ltd., Unit 6 Hawarden Industrial Park, Hawarden, CH5 3US, UK
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13 DESCRIPTION OF PRODUCT

The **IS-mA1 Sounder** is designed to provide an audible warning when activated. It consists of the following mounted in an IP 65, flame retardant, ABS enclosure:

- Sounder printed circuit board assembly
- Inductive sounder transducer

External connections are made to terminals mounted on the sounder printed circuit board via cable entry devices mounted in the wall of the enclosure. The parameters for the IS-mA1 Sounder are as follows:

Terminals	Parameters				
	Ui	Ii	Pi	Ci	Li
Terminal + w.r.t. Terminal -	28 V	93 mA	660 mW	0	0
Terminals S2 and S3 w.r.t. Terminal -	28 V	0	-	-	-

The **IS-mB1 Beacon** is designed to provide a flashing warning when activated. It consists the following mounted inside an IP 65, flame retardant, ABS enclosure that is fitted with a transparent polycarbonate 'lens':

- Beacon main printed circuit board assembly
- Beacon LED printed circuit board assembly

External connections are made to terminals mounted on the beacon main printed circuit board via cable entry devices mounted in the walls of the enclosure. The parameters for the IS-mB1 Beacon are as follows:

Terminals	Parameters				
	Ui	Ii	Pi	Ci	Li
Terminal + w.r.t. Terminal -	28 V	660 mA	1.2 W	0	0

The **IS-mC1 Combined Sounder/Beacon** is designed to provide an audible and a flashing warning when activated. It consists of the following mounted inside an IP 65, flame retardant, ABS enclosure that is fitted with a transparent polycarbonate 'lens':

- Sounder printed circuit board assembly
- Inductive sounder transducer
- Beacon main printed circuit board assembly
- Beacon LED printed circuit board assembly

External connections are made to terminals mounted on the sounder printed circuit board assembly and the beacon main printed circuit board assembly via cable entry devices mounted in the walls of the enclosure. The IS-mC1 Combined Sounder/Beacon may be supplied with internal wiring connections between Sounder Terminals + / - and Beacon Terminals + / -, alternatively these connections may be fitted by the user/installer. The parameters for the IS-mC1 Combined Sounder/Beacon are as follows:

	Terminals	Parameters				
		Ui	Ii	Pi	Ci	Li
Without internal connections:	Sounder Terminals + w.r.t. Sounder Terminals -	28 V	93 mA	660 mW	0	0
	Sounder Terminals S2 & S3 w.r.t. Sounder Terminals -	28 V	0	-	-	-
	Beacon Terminal + w.r.t. Beacon Terminal -	28V	660 mA	1.2 W	0	0
With internal connections	Sounder Terminal + w.r.t. Sounder Terminal -	28 V	93 mA	660 mW	0	0
	Sounder Terminals S2 & S3 w.r.t. Sounder Terminals -	28 V	0	-	-	-

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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.

Variation 1 - This variation introduced the following change:

- i. The introduction of two new types of sounder; these are designated the **IS-mA2 Sounder** and the **IS-mA3 Sounder**.

The **IS-mA2 Sounder** is similar to the original IS-mA1 Sounder, the differences being that it has a new printed circuit board layout and a new 'low profile' enclosure base. Cable entry is via a 'knockout' in the bottom of the enclosure base, this enclosure base, and thus the sounder, being designed for attachment to other equipment.

The parameters of the **IS-mA2 Sounder** are as follows:

Terminals	Parameters				
	Ui	Ii	Pi	Ci	Li
Terminal + w.r.t. Terminal -	28 V	93 mA	660 mW	0	0
Terminals S2 and S3 w.r.t. Terminal -	28 V	0	-	-	-

The **IS-mA3 Sounder** is similar to the original IS-mA1 Sounder, the differences being the addition of several components to the circuit, a different connection arrangement, a new printed circuit board layout and a new 'low profile' enclosure base. Cable entry is via a 'knockout' in the bottom of the enclosure base, this enclosure base, and thus the sounder, being designed for attachment to other equipment.

The parameters of the **IS-mA3 Sounder** are as follows:

Terminals	Parameters				
	Ui	Ii	Pi	Ci	Li
Terminal + w.r.t. Terminals S2 and S3	28 V	93 mA	660 mW	0	0

Variation 2 - This variation introduced the following change:

- i. The introduction of a group I, category M1 version of the **IS-mA1M Sounder**, this version is known as the **IS-mA1M Sounder** and is marked as detailed in section 12, the parameters are as follows:

Terminals	Parameters				
	Ui	Ii	Pi	Ci	Li
Terminal + w.r.t. Terminals S2 and S3	28 V	93 mA	660 mW	0	0
Terminals S2 & S3 w.r.t. Terminal -	28 V	-	-	-	0

Variation 3 - This variation introduced the following change:

- i. The review and upgrade of the certificates listed to the latest standards: EN 60079-0:2006, EN 60079-11:2007, EN 60079-26:2007, IEC 60079-0:2007 Ed 5, IEC 60079-11:2006 Ed 5 and IEC 60079-26:2006.

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Variation 4 - This variation introduced the following change:

- i. Following appropriate assessment to demonstrate compliance with the latest technical knowledge, the documents previously listed, EN 60079-0:2006, EN 60079-11:2007 and 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 change:

- i. Following appropriate assessment to demonstrate compliance with the latest technical knowledge, EN 60079-0:2012 was replaced by EN IEC 60079-0:2018.

14 DESCRIPTIVE DOCUMENTS

14.1 Drawings

Refer to Certificate Annexe.

14.2 Associated Reports and Certificate History

Issue	Date	Report number	Comment
0	27 June 2022	R80072291C	The release of the prime certificate.

15 SPECIFIC CONDITIONS OF USE (denoted by X after the certificate number)

15.1 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.

15.2 The equipment has an ingress protection rating of IP65. 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 'Knockout' shall be left intact or fitted with a blanking device that ensures ingress protection appropriate to the environment in which it is installed i.e. IP20 or better.

These special conditions for use are applicable to the IS-mA1, IS-mA2, IS-mA3, IS-mA1M sounder, IS-mC1 Combined sounder/Beacon

15.3 The total capacitance connected to Terminals +wrt – (i.e. the capacitance of the cable plus any other capacitance) shall not exceed 83 nF.

15.4 The equipment shall only be supplied via Terminals +w.r.t. Terminals -from a barrier having a maximum open circuit voltage U_0 that is $\leq 28V$ and a maximum short circuit current I_0 that is $\leq 93mA$, where I_0 is resistively limited. The barrier shall be ATEX certified by a notified body.

These special conditions for use are applicable to the IS-mC1 Combined sounder/Beacon

15.5 If not already fitted, optional internal wiring connections between Sounder Terminals +/- and Beacon Terminals +/- may be fitted by the user. The wiring used for such connections shall have a minimum radial thickness of insulation of 0.5mm.



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16 ESSENTIAL HEALTH AND SAFETY REQUIREMENTS (REGULATIONS SCHEDULE 1)

In addition to the Essential Health and Safety Requirements covered by the standards listed in Section 9, all other requirements are demonstrated in the relevant reports.

17 PRODUCTION CONTROL

17.1 Holders of this certificate are required to comply with production control requirements defined in Schedule 3A, as applicable, and CSA Group Testing UK Regulations for Certificate Holders



**UK UK
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Certificate Annexe

Certificate Number: CSAE 21UKEX2553X

Product: IS-mA1 Sounder, IS-mB1 Beacon, IS-mC1 Combined Sounder/Beacon, IS-mA2 Sounder, IS-mA3 Sounder and IS-mA1M Sounder

Manufacturer: European Safety System Limited

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Drawing	Sheets	Rev.	Date (Stamp)	Title
D 5021	1 of 1	A	24 Jun 05	PCB Assembly - Sounder
PL 5021	1 of 1	A	03 Jun 05	Parts List - Sounder PCB
D 5017	1 of 1	A	01 Aug 05	General Assembly - Sounder
CD 5011	1 of 1	A	09 May 05	Circuit Diagram - Sounder Board
PL 5042	1 of 1	A	02 Aug 06	Parts List IS-mA3 Sounder
D 5042	1 of 1	A	02 Aug 06	General Assembly - IS-mA2 and IS-mA3 Sounders
PL 5041	1 of 1	A	02 Aug 06	Parts List - IS-mA2 Sounder
D 5041	1 of 1	A	17-Oct-06	PCB Assembly - IS-mA2 and IS-mA3 Sounders
CD 5041	1 of 1	A	17-Oct-06	Circuit Diagram - IS-mA2 and IS-mA3 Sounders
PL 5022	1 of 1	A	03 Jun 05	Parts List – Beacon PCB
D 5022	1 of 1	A	24 Jun 05	PCB Assembly - Beacon
D 5019	1 of 1	A	01 Aug 05	General Assembly - Combined Sounder / Beacon
D 5018	1 of 1	A	03 Jun 05	General Assembly - Beacon
CD 5012	1 of 1	A	09 May 05	Circuit Diagram - Beacon Board
D5032-SC-UK	1 of 1	A	04 May 22	IS-mA1 Sounder Label (UKEx)
D5033- SC-UK	1 of 1	A	04 May 22	IS-mB1 Beacon Label (UKEx)
D5034- SC-UK	1 of 1	A	04 May 22	IS-mC1 Combined Label (UKEx)
D5043-SC-UK	1 of 1	A	04 May 22	IS-mA2 Sounder Label (UKEx)
D5044-SC-UK	1 of 1	A	04 May 22	IS-mA3 Sounder Label (UKEx)
D5051-SC-UK	1 of 1	A	04 May 22	IS-mA1M Sounder Label (UKEx)



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