1 **CONFORMITÉ EUROPÉENE**

# EU - TYPE EXAMINATION CERTIFICATE

2 **Product or Protective System Intended for use in Potentially Explosive Atmospheres Directive 2014/34/EU – Annex III**

3 EU - Type Examination Certificate No.: **EMT17ATEX0012X (incorporating variations V1 to V6)**

4 Product: **Alarm Sounder and Beacon Range IS-SB-02-XXXX, IS-B-02-XX, IS-S-02-XX**

5 Manufacturer: **Moflash Signalling Limited**

6 Address: **11 Upper Conybere Street, Highgate, Birmingham, B12 0EB United Kingdom**

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

8 Element Materials Technology, Notified Body number 2812, in accordance with Article 17 of 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

**TRA-026803-33-00A, TRA-036546-33-00A, TRA-043502-33-00A,**
**TRA-026799-33-00A, TRA-036546-33-02A, TRA-043502-33-02A,**
**TRA-026802-33-00A, TRA-036546-33-01A, TRA-043502-33-01A,**
**TRA-054461-33-00A and TRA-064378-33-00A**

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 18 of the schedule.

10 If the sign “X” is placed after the certificate number, it indicates that the product is subject to specific conditions of use specified in the schedule to this certificate.

11 This EU - TYPE EXAMINATION CERTIFICATE relates only to the design and construction of the specified product. 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 this product shall include the following:

| | | |
|---|---|---|
| Ex **I M1** | **Ex ia I Ma** | **-40 °C ≤ Ta ≤ +60 °C** |
| Ex **II 1 G D** | **Ex ia IIC T* Ga** | **-40 °C ≤ Ta ≤ +60 °C** |
| | **Ex ia IIIC T*°C Da** | **T* See section 15** |

This certificate and its schedules may only be reproduced in its entirety and without change. This certificate is issued in accordance with the Element Materials Technology Ex Certification Scheme.

S P Winsor, Certification Manager

Issue date: 2025-01-09



Element Materials Technology Rotterdam BV
Zekeringstraat 33, 1014 BV, Amsterdam, Netherlands
Registered in the Netherlands. Registered Office: PO Box 6854, 4802 HW, Breda, Netherlands
Company Reg. No. 24170257

**13 SCHEDULE TO EU - TYPE EXAMINATION CERTIFICATE**

**14 CERTIFICATE NUMBER EMT17ATEX0012X (incorporating variations V1 to V6)**

**15 Description of Product**

The Moflash IS-SB-02-XXXX, IS-B-02-XX and IS-S-02-XX sounder and beacon are a range of intrinsically safe 'ia' units designed to give visual and / or audible warning signals when activated. The devices either operate as a beacon (IS-B) , sounder (IS-S) or combined sounder beacon (IS-SB). The beacon and sounder beacon models contain divergent LEDs to provide a visual warning, the sounder and sounder beacon models contain a transducer to provide an audio warning.

All models are designed for use in hazardous gas environments (Zone 0), dust environments (Zone 20) and mining environments (Group 1 equipment).

Power is supplied by IECEx / ATEX approved barriers only. All enclosures are completely non-metallic and have an IP 66 rating. The enclosure can be of various colours such as red, amber, white or clear. The units are fixed installations.

The optical radiation output of the apparatus with respect to explosion protection is covered in this certificate based on exception 1 to the scope of IEC 60079-28:2015.

| Ex Marking | |
|---|---|
| IS-SB-02-XXXX or IS-B-02-XX | IS-S-02-XX |
| Ex I M1<br>Ex II 1 G D<br>Ex ia I Ma<br>Ex ia IIC T5 Ga<br>Ex ia IIIC $T_{200}$ 85°C Da<br><br>-40 °C ≤ Ta ≤ +60 °C | Ex I M1<br>Ex II 1 G D<br>Ex ia I Ma<br>Ex ia IIC T6 Ga<br>Ex ia IIIC $T_{200}$ 85°C Da<br><br>-40 °C ≤ Ta ≤ +60 °C |

| **Table of maximum entity parameters** | |
|---|---|
| Parameter | Barrier supply |
| Ui | 28 V |
| Ii | 93 mA |
| Pi | 660 mW |
| Ci | 0 µF |
| Li | 0 µH |

**16 Test Report No. (as added for this issue of the certificate):** TRA-064378-33-00A.

## 17 Specific Conditions of Use:

1. Clean equipment regularly to prevent dust build-up with a damp or anti-static cloth only.
2. Equipment only suitable for fixed installation.
3. Installation shall be carried out in accordance with the relevant, local code of practice for Ex equipment, e.g. EN & IEC 60079-14, EN 50628 and IEC 60079-25 and that capacitance and inductance limits are not exceeded by distributed capacitance (Cc) or distributed inductance (Lc) due to cable length.

Attention is drawn to the operating and installation instructions which may contain useful information in relation to conditions of use.

## 18 Essential Health and Safety Requirements (Directive Annex II)

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

## 19 Drawings and Documents

The list of controlled technical documentation is given in Appendix A to this schedule.

## 20 Routine Tests

None.

## 21 Photographs



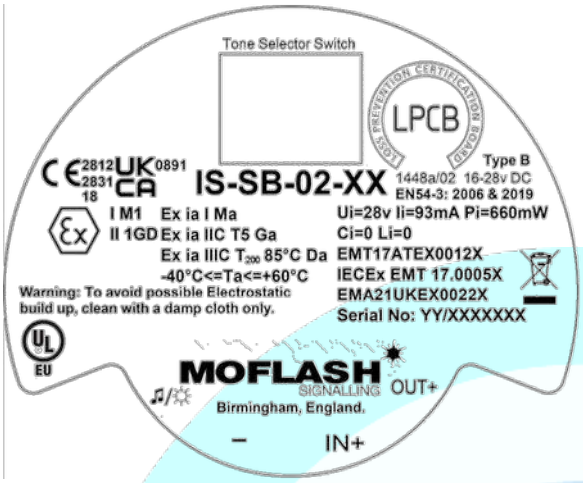
**Sounder Beacon or Beacon**



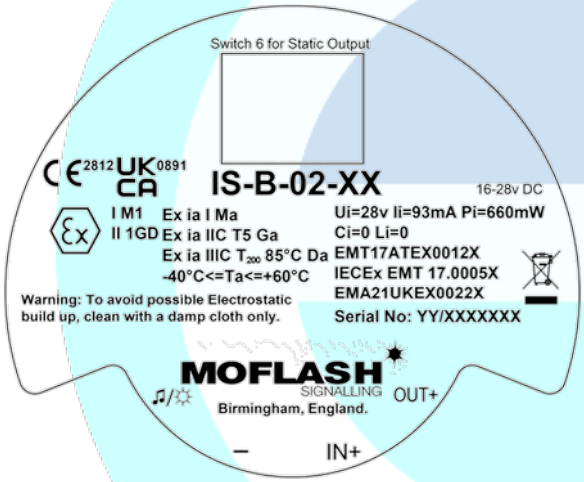
**Sounder**

## 22 Details of Markings

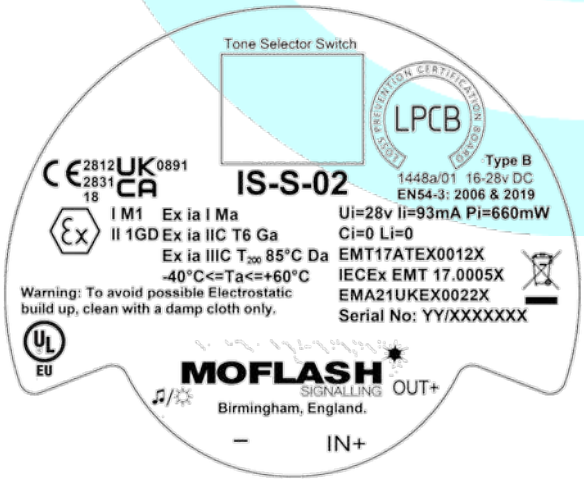
IS-SB-02-XXXX




IS-B-02-XX




IS-S-02-XX



## 23 Certificate History

| | | |
|---|---|---|
| Original certificate | 2017-05-08 | First issue. |
| Variation V1 | 2017-06-23 | Entity parameters changed: Pi of equipment was 571 mW, now increased to 660 mW. Ui increased from 24.8 V to 28 V. |
| Variation V2 | 2019-02-05 | Changes to transducer mounting PCB, marking and instruction update. |
| Variation V3 | 2019-11-01 | This certificate was originally issued by Notified Body number 0891, under Directive 2014/34/EU. The technical file has been transferred to Element Notified Body 2812 without further assessment or evaluation. |
| Variation V4 | 2021-12-17 | Changes to marking labels and installation manuals to consolidate all equipment models IS-SB-02-XXXX, IS-S-02-XX & IS-B-02-XX. |
| Variation V5 | 2023-02-13 | Administrative change only. |
| Variation V6 | 2025-01-09 | Modification to dust temperature coding and ambient range. |

This certificate is a consolidated certificate and reflects the latest status of the certification, including all variations and amendments.

## 24 Notes to CE marking

In respect of CE Marking, Element Materials Technology accepts no responsibility for the compliance of the product against all applicable Directives in all applications.

## 25 Notes to this certificate

Element Materials Technology certification reference: ERO041508P74 (GU-MOFQ-0014).

Throughout this certificate, the date format yyyy-mm-dd (year-month-day) is used.

Notified Body number 2812 is the designation for Element Materials Technology Rotterdam BV.

This certificate consolidates the following:

EMT17ATEX0013X V3 – IS-B-02-XX

EMT17ATEX0011X V3 – IS-S-02-XX

TA1 TRA-060191-00

## 26 Conditions for the validity of this certificate

This certificate remains valid for so long as:

(i) The equipment listed in section 4 is manufactured in accordance with the documents listed in Appendix A of this certificate.

(ii) The standards listed in section 9 of this certificate continue to satisfy the Essential Health and Safety Requirements of Annex II of Directive 2014/34/EU and the generally acknowledged state of the art (e.g. as determined by the publishers of those standards).

**SCHEDULE TO EU - TYPE EXAMINATION CERTIFICATE**

**CERTIFICATE NUMBER EMT17ATEX0012X (incorporating variations V1 to V6)**

**APPENDIX A - TECHNICAL DOCUMENTS**

| Title: | Drawing No.: | Rev. Level: | Date: |
|---|---|---|---|
| **Drawings common to all models:** | | | |
| Sounder and Sounder Beacon General Assembly (2 sheets – Page 1) | IS-GA001 | 6 | 2018-12-17 |
| Circuit Board Potting | XS0200-xxP | 3 | 2017-02-27 |
| Conformal Coating Application | XS0200-xxPC | 4 | 2018-12-05 |
| Critical Spacing | E00607 | 8 | 2018-12-05 |
| Intrinsically Safe Potting Jig | M00131 | A | 2017-01-12 |
| IS O Ring | M00133 | 1 | 2017-03-06 |
| Intrinsically Safe Circuit Sounder Beacon | MOF152 | 9 | 2018-11-29 |
| Intrinsically Safe Project – BOM | MOF152BOM | 9 | 2018-12-17 |
| 92 x 1.8 O-Ring NBR70 | 18-185852 | 01 | 2013-04-16 |
| Wiper Contact | 18-185906 | 01 | 2013-02-06 |
| Sonos Hole Bung | 18-185907 | 01 | 2012-11-15 |
| Sonos PCB Holder with Cutout (3 sheets) | 18-185959 | 03 | 2015-10-19 |
| Sonos Red Deep Base MkII 4 Pin | HSG6890 | 01 | 2015-10-23 |
| **Drawings specific to IS-SB-02-XXXX and IS-S-02-XX:** | | | |
| Transducer to Cavity Gasket | M00130 | 2 | 2017-02-27 |
| IS Inner Cavity to Cover Gasket | M00132 | 1 | 2017-03-06 |
| Intrinsically Safe Transducer Holder | M00134 | A | 2018-02-21 |
| Transducer | M00427 | 4 | 2017-02-27 |
| Sonos Outer Cover (2 sheets) | 18-185802 | 03 | 2013-01-23 |
| Sonos Inner Cavity | 18-185983 | 02B | 2013-01-23 |
| **Drawings specific to IS-SB-02-XXXX only:** | | | |
| Sounder Beacon Product Label | S00153 | 13 | 2024-11-28 |
| Moflash Intrinsically Safe Sounder-Beacon Range Installation Booklet (9 pages) | S00605 | 10 | 2024-11-26 |
| **Drawings specific to IS-S-02-XX only:** | | | |
| Sounder Product Label | S00151 | 14 | 2024-11-28 |
| Moflash Intrinsically Safe Sounder Range Installation Booklet (9 pages) | S00608 | 10 | 2024-11-26 |
| **Drawings specific to IS-B-02-XX only:** | | | |
| Beacon Product Label | S00155 | 10 | 2024-11-28 |
| Sonos Beacon Only Cover (2 pages) | 18-186418 | 03 | 2014-11-19 |
| Moflash Intrinsically Safe Beacon Range Installation Booklet (6 pages) | S00609 | 8 | 2024-11-26 |