

1 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.: **EMT17ATEX0013X (incorporating Variation V1)**

4 Product: **Alarm Beacon- IS-B-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 0891, 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 report **TRA-026799-33-00A & TRA-036546-33-02A**

9 Compliance with the Essential Health and Safety Requirements has been assured by compliance with:
EN 60079-0:2012/A11:2013 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:

 **I M1 Ex ia I Ma -40 °C ≤ Ta ≤ +55°C**

 **II 1 G D Ex ia IIC T5 Ga -40 °C ≤ Ta ≤ +55°C
Ex ia IIC T100°C Da**

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

S P Winsor, Certification Manager

Issue date: 2017-06-23

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CSF355 4.0

13 SCHEDULE TO EU - TYPE EXAMINATION CERTIFICATE

14 EMT17ATEX0013X (incorporating Variation V1)

15 Description of Product

The Moflash IS-B-02-xxxx beacon is an intrinsically safe 'ia' equipment designed to give a visual warning signal when activated. The equipment contains one main PCB that has LEDs to provide visual warning and a control circuit.

The power is supplied by IECEx/ATEX approved barriers only. The enclosure is completely non-metallic and has an IP66 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 EN 60079-28:2015.

Table of entity parameters	
Parameter	Barrier supply
U _i	28 V
I _i	93 mA
P _i	660 mW
L _i	0
C _i	0

16 Test report No. (associated with this certificate issue): TRA-036546-33-02A.

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. It must be ensured that the equipment is installed in accordance with IEC 60079-14 and IEC 60079-25 and that capacitance and inductance limits are not exceeded by distributed capacitance (C_c) or distributed inductance (L_c) due to cable length.

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, the following are considered relevant to this product, and conformity is demonstrated in the report:

<u>Clause</u>	<u>Subject</u>
None	None

19 Drawings and Documents

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

20 Routine Tests

None.

21 Specific Conditions for Manufacture

None.

22 Photographs



23 Details of Markings

IS-B-02-XX **CE** 0891

	I M1 Ex Ia I Ma	UI=28v II=93mA PI=660mW CI=0 LI=0
	II 1GD Ex Ia IIC T5 Ga	EMT17ATEX0013X
	Ex Ia IIIC T100°C Da	IECEX EMT 17.0003X

-40°C<=Ta<=+55°C

Warning: To avoid possible Electrostatic build up, clean with a damp cloth only. **Serial No: YY/000000**

Moflash Signalling Ltd
Birmingham, England.

CONTINUATION OF SCHEDULE TO CERTIFICATE EMT17ATEX0013X V1

24 Details of Variations to this Certificate

This certificate is a consolidated certificate and reflects the latest status of the certification, including the following variations:

- Variation V1 -- Entity parameters changed: Pi of equipment was 571 mW, now increased to 660 mW. Ui increased from 24.8 V to 28 V.

25 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.

26 Notes to this certificate

Element Materials Technology certification reference: TRA-036546-32-02.

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

Notified Body 0891 is the designation for Element Materials Technology Warwick Ltd (formerly known as TRaC Global Ltd).

27 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).

CONTINUATION OF SCHEDULE TO CERTIFICATE EMT17ATEX0013X V1

APPENDIX A - TECHNICAL DOCUMENTS

Title:	Drawing No.:	Rev. Level:	Date:
Beacon General Assembly (Sheet 2)	IS-GA001	4	2017-02-27
Circuit Board Potting	XS0200-xxP	3	2017-02-27
Conformal Coating Application	XS0200-xxPC	2	2017-03-20
Critical Spacing	E00607	4	2017-02-27
Intrinsically Safe Potting Jig	M00131	A	2017-01-12
IS O Ring	M00133	1	2017-03-06
*Intrinsically safe circuit sounder beacon	MOF152	5.0	2017-06-16
Intrinsically Safe Project - BOM	MOF152BOM	4	2017-03-16
Beacon Product Label	S00155	6	2017-06-16
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	18-185959	03	2014-01-03
Sonos Beacon Only Cover (2 pages)	18-186418	03	2014-11-19
Sonos Red Deep Base MkII 4 Pin	HSG6890	01	2015-10-23
Moflash Intrinsically Safe Beacon Range Installation Booklet (Controlled pages 1, 2, 3, 7 and 8)	S00609	4	2017-06-16