



# IECEX Certificate of Conformity

## INTERNATIONAL ELECTROTECHNICAL COMMISSION IEC Certification Scheme for Explosive Atmospheres

for rules and details of the IECEx Scheme visit [www.iecex.com](http://www.iecex.com)

Certificate No.: IECEx EMT 17.0003X

Issue No: 1

Certificate history:

Status: **Current**

Issue No. 1 (2017-06-23)

Issue No. 0 (2017-05-08)

Page 1 of 4

Date of Issue: **2017-06-23**

Applicant: **Moflash Signalling Limited**  
11 Upper Conybere Street,  
Highgate,  
Birmingham,  
B12 0EB  
**United Kingdom**

Equipment: **Alarm beacon IS-B-02-XX**

*Optional accessory:*

Type of Protection: **Intrinsic Safety**

Marking:

Ex ia I Ma                       $-40\text{ °C} \leq Ta \leq +55\text{ °C}$

Ex ia IIC T5 Ga                 $-40\text{ °C} \leq Ta \leq +55\text{ °C}$

Ex ia IIIC T100°C Da

*Approved for issue on behalf of the IECEx  
Certification Body:*

Stephen Winsor

*Position:*

Certification Manager

*Signature:  
(for printed version)*

*Date:*

1. This certificate and schedule may only be reproduced in full.
2. This certificate is not transferable and remains the property of the issuing body.
3. The Status and authenticity of this certificate may be verified by visiting the [Official IECEx Website](http://www.iecex.com).

Certificate issued by:

**Element Materials Technology**  
Unit 1 Pendle Place  
Skelmersdale  
West Lancashire  
United Kingdom





# IECEX Certificate of Conformity

Certificate No: IECEx EMT 17.0003X Issue No: 1

Date of Issue: **2017-06-23** Page 2 of 4

Manufacturer: **Moflash Signalling Limited**  
11 Upper Conybere Street, Highgate,  
Birmingham,  
B12 0EB  
**United Kingdom**

Additional Manufacturing location(s):

This certificate is issued as verification that a sample(s), representative of production, was assessed and tested and found to comply with the IEC Standard list below and that the manufacturer's quality system, relating to the Ex products covered by this certificate, was assessed and found to comply with the IECEx Quality system requirements. This certificate is granted subject to the conditions as set out in IECEx Scheme Rules, IECEx 02 and Operational Documents as amended.

## STANDARDS:

The electrical apparatus and any acceptable variations to it specified in the schedule of this certificate and the identified documents, was found to comply with the following standards:

**IEC 60079-0 : 2011** Explosive atmospheres - Part 0: General requirements  
Edition:6.0

**IEC 60079-11 : 2011** Explosive atmospheres - Part 11: Equipment protection by intrinsic safety "i"  
Edition:6.0

*This Certificate **does not** indicate compliance with electrical safety and performance requirements other than those expressly included in the Standards listed above.*

## TEST & ASSESSMENT REPORTS:

*A sample(s) of the equipment listed has successfully met the examination and test requirements as recorded in*

Test Report:

[GB/EMT/ExTR17.0002/00](#) [GB/EMT/ExTR17.0002/01](#)

Quality Assessment Report:

[GB/EMT/QAR17.0001/00](#)



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Certificate No: IECEx EMT 17.0003X

Issue No: 1

Date of Issue: 2017-06-23

Page 3 of 4

## Schedule

### EQUIPMENT:

*Equipment and systems covered by this certificate are as follows:*

The Moflash IS-B-02-XX 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 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 the certificate based on Exception 1 to the scope of IEC 60079-28:2015.

### SPECIFIC CONDITIONS OF USE: YES as shown below:

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 (Cc) or distributed inductance (Lc) due to cable length.



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Certificate No: IECEx EMT 17.0003X

Issue No: 1

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Page 4 of 4

**DETAILS OF CERTIFICATE CHANGES (for issues 1 and above):**

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

**Annex:**

[Annex to IECEx EMT 17.0003X is 1.pdf](#)



Element Materials Technology,  
Unit 1, Pendle Place,  
Skelmersdale,  
West Lancashire, WN8 9PN,  
United Kingdom

Annex to IECEx Certificate of Conformity

IECEx EMT 17.0003X issue No.:1

**Table of Entity Parameters:**

Table of entity parameters	
Parameter	Barrier supply
U <sub>i</sub>	28 V
I <sub>i</sub>	93 mA
P <sub>i</sub>	660 mW
L <sub>i</sub>	0
C <sub>i</sub>	0



**Annex to IECEx Certificate of Conformity**

**IECEx EMT 17.0003X issue No.1**

**Manufacturer's 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