



# 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 SIR 09.0115X** issue No.:4

Status: **Current**

Date of Issue: **2017-03-31** Page 1 of 4

Certificate history:  
Issue No. 4 (2017-3-31)  
Issue No. 3 (2015-11-9)  
Issue No. 2 (2013-9-23)  
Issue No. 1 (2010-12-2)  
Issue No. 0 (2010-2-9)

Applicant: **General Monitors Ireland Limited**  
General Monitors Ireland  
Ballybrit Business Park  
Galway  
Ireland

Equipment: **FL4000H Flame Detector**  
Optional accessory:

Type of Protection: **Flameproof and Dust by Enclosure**

Marking: Ex db IIC T5 Gb  
Ex tb IIIC T100°C Db  
(Ta = -40°C to +80°C)

Approved for issue on behalf of the IECEx Certification Body: N Jones

Position: *18* *R.A.CRAIG*  
Certification Manager

Signature: *[Signature]*  
(for printed version)

Date: 2017-03-31

- 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:  
**SIRA Certification Service**  
CSA Group  
Unit 6, Hawarden Industrial Park  
Hawarden, Deeside, CH5 3US  
United Kingdom





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Manufacturer: **General Monitors Ireland Limited**  
General Monitors Ireland  
Ballybrit Business Park  
Galway  
Ireland

Additional Manufacturing location(s):

**General Monitors Inc.**  
26776 Simpatica Circle  
Lake Forest  
California 92630  
United States of America

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:

<b>IEC 60079-0 : 2011</b> Edition: 6.0	Explosive atmospheres - Part 0: General requirements
<b>IEC 60079-1 : 2014-06</b> Edition: 7.0	Explosive atmospheres - Part 1: Equipment protection by flameproof enclosures "d"
<b>IEC 60079-31 : 2013</b> Edition: 2	Explosive atmospheres - Part 31: Equipment dust ignition protection by enclosure "t"

*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/SIR/ExTR10.0021/00  
GB/SIR/ExTR15.0299/00

GB/SIR/ExTR10.0268/00  
GB/SIR/ExTR17.0048/00

GB/SIR/ExTR13.0252/00

#### Quality Assessment Report:

GB/SIR/QAR07.0014/01

US/UL/QAR10.0004/00



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## Schedule

### EQUIPMENT:

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

The FL4000H Flame Detector is an infrared device that is rated at 4.4 W maximum. It is manufactured from stainless steel, is cylindrical in shape and comprises a base and cover secured by five, M6, grade A4-70-316, hexagon socket-head cap screws. The base contains a stainless steel mounting pin and two, 3/4"-14 NPT, cable entry that accommodate suitable cable entry devices or stopping plugs. The cover contains a sapphire window and houses the PCBs and associated electronics that perform the equipment's measuring function.

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

The user/installer shall comply with the following:

1. An End-Of-Line (EOL) resistor with a maximum power dissipation of up to 0.6 W may be fitted in the circuit inside the enclosure; however, it must be installed by the user/installer in accordance with the relevant instructions that are stipulated in the manufacturer's product manual.
2. Caution – Use Fasteners with yield stress  $\geq 450\text{MPa}$ .
3. The FL4000H Flame Detector flanged joint, between the window cover and main body, may be sited to within a distance no less than 9.62 mm of any adjacent surface, or its sun shield when fitted.



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

### Issue 1 to Issue 3 – for changes refer to Issue 3

#### Issue 4 – this Issue introduced the following changes:

1. A replacement rain guard was introduced.
2. To permit the use of an optional (sun shade) accessory, resulting in the introduction of a Specific Condition of Use.
3. To recognise the replacement of the five A2-70 304 special fasteners securing the window cover assembly with A4-70 316 stainless steel special fasteners, resulting in the introduction of a Specific Condition of Use. The description was amended accordingly.
4. Removal of the following previous scheduled certification drawings their sheets and revisions that are no longer required to support production and are only retained for reference:

Drawing	Title
71272	FL4000H Design Approval Specification
712006	Rain Guard Kit
712004	Rain Guard
71297	FL4000H Nameplate

5. Typographical correction to the material of manufacturer reference for the, Housing and base material to read from SS 316 cast to CF8M cast stainless steel annealed per ASTM A351. Reference drawing number 71272.
6. Recognition that the equipment is no longer supplied with suitably certified cable glands
7. The removal of the 'Condition of Manufacture' relating to the applicable O-ring seals materials, whilst recognising the use of a new O-ring material used within the equipment housing providing only additional weather protection, and no longer relied upon for explosion protection safety.
8. Following appropriate assessment to demonstrate compliance with the latest technical knowledge, the documents previously listed, IEC 60079-1:2007 Ed 6 and IEC 60079-31:2008 Ed 1, were replaced by IEC 60079-1:2014 Ed 7 and IEC 60079-31:2013 Ed 2, the product markings were updated accordingly.
9. The manufacturing location at Lake Forest was inadvertently removed from the Additional Manufacturing location(s) at Issue 3, this has been re-introduced. This amendment is of an administrative nature only, it is not associated with an ExTR.