



# 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 07.0080** issue No.:7

Status: **Current**

Date of Issue: **2017-03-07** Page 1 of 4

Applicant: **General Monitors (Ireland) Ltd**  
Ballybrit Business Park  
Galway  
Ireland

Certificate history:  
Issue No. 7 (2017-3-7)  
Issue No. 6 (2015-3-24)  
Issue No. 5 (2013-2-7)  
Issue No. 4 (2011-12-12)  
Issue No. 3 (2010-12-2)  
Issue No. 2 (2010-3-25)  
Issue No. 1 (2009-3-3)  
Issue No. 0 (2007-12-5)

Equipment: **IR400 and IR700 Gas Detector**  
Optional accessory:


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

Marking: **Ex db IIB+H2 T5 Gb**  
**Ex tb IIIC T100°C Db**  
**(Ta -60°C to +75°C)**

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

Position: **Certification Manager**

Signature: **(for printed version)**

**pd**   
**2017-03-07**

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:

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





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Page 2 of 4

Manufacturer: **General Monitors (Ireland) Ltd**  
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/ExTR09.0178/00  
GB/SIR/ExTR10.0268/00  
GB/SIR/ExTR13.0020/00

GB/SIR/ExTR09.0179/00  
GB/SIR/ExTR10.0280/00  
GB/SIR/ExTR15.0089/00

GB/SIR/ExTR10.0061/01  
GB/SIR/ExTR11.0265/00  
GB/SIR/ExTR17.0046/00

#### Quality Assessment Report:

GB/SIR/QAR07.0014/00

US/UL/QAR10.0004/00



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Certificate No.: IECEx SIR 07.0080

Date of Issue: 2017-03-07

Issue No.: 7

Page 3 of 4

## Schedule

### EQUIPMENT:

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

The IR400, is an optical gas detector that is rated at 24 V dc maximum. The IR700 is identical in construction and only the filter medium and the firmware are different. They are manufactured from cast aluminium A356-T6 or stainless steel, are cylindrical in shape and incorporate three separate compartments: electronic, optical and detector. The electronic and optical compartments have a cylindrical joint cap and the detector compartment has a flanged lid fitted with four – M4 socket head cap screws. Both compartments are fitted with a sapphire optically clear UV window, which is held in place by a threaded locknut and is sealed with a silicone sponged 'O' ring. The electronics module tube contains the PCBs and associated electronics that perform the equipment's measuring function.

The enclosures meet IP 6X ingress protection and have been additionally tested according to the requirements of IEC 60529 to meet IP X6, hence having an overall rating of IP 66

### SPECIFIC CONDITIONS OF USE: NO



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Certificate No.: IECEx SIR 07.0080

Date of Issue: 2017-03-07

Issue No.: 7

Page 4 of 4

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

- Issue 1-4:** Refer to Issue 4 for previous changes
- Issue 5:** this Issue introduced the following changes:
1. The introduction of a firmware modification, this allows an improved detection response time.
  2. The product description was to be modified to include a statement about Ingress Protection.
- Issue 6:** this Issue introduced the following changes:
1. Minor editorial changes, the inclusion of a logo applicable to other Directives and the CSA Logo was updated, to drawings 32509 and 32703 were approved.
- Issue 7:** this Issue introduced the following changes:
1. Following appropriate assessment to demonstrate compliance with the latest technical knowledge, IEC 60079-0:2007-10, IEC 60079-1:2007-04 and IEC 60079-31:2008 were replaced by IEC 60079 0:2011, IEC 60079-1:2014 and IEC 60079-31:2013. The markings were updated accordingly to recognise the new standards. Along with the scheduled drawings rationalised to those drawings/revisions supporting continued manufacture.