IECEx Certificate of Conformity

INTERNATIONAL ELECTROTECHNICAL COMMISSION
IEC Certification System for Explosive Atmospheres

for rules and details of the IECEx Scheme visit www.iecex.com

Certificate No.:	**IECEx CML 23.0018X**	Page 1 of 4	Certificate history:
Status:	**Current**	Issue No: 0	
Date of Issue:	2023-06-26		
Applicant:	**General Monitors Inc** 16782 Von Karman Ave. Unit 14 Irvine, CA 92606 **United States of America**		
Equipment:	**IR400 and IR700 Gas detectors**		
Optional accessory:			
Type of Protection:	**Flameproof "db", Dust Ignition (by Enclosure) "tb"**		
Marking:	Ex db IIB+H2 T5 Gb Ex tb IIIC T100°C Db IP66 Ta = -60°C to +75°C		

Approved for issue on behalf of the IECEx Certification Body:	**S. Roumbedakis**
Position:	**Technical Manager**
Signature: (for printed version)	
Date: (for printed version)	2023-06-26

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 www.iecex.com or use of this QR Code.

Certificate issued by:

Eurofins E&E CML Limited
Unit 1, Newport Business Park
New Port Road
Ellesmere Port, CH65 4LZ
United Kingdom

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Certificate No.: **IECEx CML 23.0018X**

Date of issue: 2023-06-26 Issue No: 0

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

Manufacturing locations:

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 equipment 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 60079-0:2017 Explosive atmospheres - Part 0: Equipment - General requirements
Edition:7.0

IEC 60079-1:2014-06 Explosive atmospheres - Part 1: Equipment protection by flameproof enclosures "d"
Edition:7.0

IEC 60079-31:2013 Explosive atmospheres - Part 31: Equipment dust ignition protection by enclosure "t"
Edition:2

This Certificate **does not** indicate compliance with 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/CML/ExTR23.0037/00

Quality Assessment Report:

GB/CML/QAR22.0009/00

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EQUIPMENT:
Equipment and systems covered by this Certificate are as follows:

IR400 & IR700 Gas detectors

SPECIFIC CONDITIONS OF USE: YES as shown below:
Refer to Certificate Annex.

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Equipment (continued):

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.

Refer to Certificate Annex for full Product Description and Conditions of Manufacture.

Annex:

Certificate Annex IECEx CML 23.0018X Issue 0.pdf

Annexe to:	**IECEx CML 23.0018X Issue 0**
Applicant:	**General Monitors Inc.**
Apparatus:	**IR400 & IR700 Gas detectors**

Description

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 EN 60529 to meet IP X6, hence having an overall rating of IP 66.

Notes:

- IECEx SIR 07.0080, Issue 8 is superseded by the following certificate, IECEx CML 23.0018X.
- The product covered by Issue 0 of this certificate remains identical to that previously covered by IECEx SIR 07.0080, Issue 8.
- Where IECEx SIR 07.0080, Issue 8 is specified in other product certification, or other technical specifications, this certificate reference for the product shall be used in its place; updating of the other product certificate or technical specification is not required.

Conditions of Manufacture

The following are conditions of manufacture:

i. Where the product incorporates certified parts or safety critical components, the manufacturer of the product defined on this certificate shall continually monitor these parts/components for any modifications introduced by the manufacturer(s) of these constituent parts. If the manufacturer of any constituent part introduces any changes which affect the compliance of the certified product that is the subject of this certificate, the manufacturer is required to have this certificate updated.

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Specific Conditions of Use

The following conditions relate to the safe installation and/or use of the products:

i. Guidance for Installation of fixed gas detection systems are set out in EN 60079-29-2.

ii. Guidance for functional safety of fixed gas detection systems are set out in EN 60079-29-3 which has not been covered in the scope of this assessment.

iii. The IR400 gas performance range covers 0-100% LFL methane only in a performance ambient temperature of -40°C to +75°C. The current firmware is version J.