

UK Type Examination Certificate CML 23UKEX1046X Issue 0**United Kingdom Conformity Assessment**

- 1 Product or Protective System Intended for use in Potentially Explosive Atmospheres UKSI 2016:1107 (as amended) – Schedule 3A, Part 1
- 2 Equipment **IR400 and IR700 Gas Detector**
- 3 Manufacturer **General Monitors (Ireland) Limited**
- 4 Address Ballybrit Business Park
Galway
Ireland

5 The equipment is specified in the description of this certificate and the documents to which it refers.

6 Eurofins E&E CML Limited, Newport Business Park, New Port Road, Ellesmere Port, CH65 4LZ, United Kingdom, Approved Body Number 2503, in accordance with Regulation 42 of the Equipment and Protective Systems Intended for Use in Potentially Explosive Atmospheres Regulations 2016, UKSI 2016:1107 (as amended), certifies that this equipment has been found to comply with the Essential Health and Safety Requirements relating to the design and construction of equipment intended for use in potentially explosive atmospheres given in Schedule 1 of the Regulations.

The examination and test results are recorded in the confidential reports listed in Section 12.

7 If an 'X' suffix appears after the certificate number, it indicates that the equipment is subject to specific conditions of use (affecting correct installation or safe use). These are specified in Section 14.

8 This UK Type Examination certificate relates only to the design and construction of the specified equipment. Further requirements of the Regulations apply to the manufacturing process and supply of the product. These are not covered by this certificate.

9 Compliance with the Essential Health and Safety Requirements, with the exception of those listed in the confidential report, has been demonstrated through compliance with the following documents:

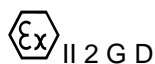
EN IEC 60079-0:2018

EN 60079-1:2014

EN 60079-31:2014

EN 60079-29-1:2016 (IR400 only)

10 The equipment shall be marked with the following:



Ex db IIB+H₂ T5 Gb

Ex tb IIIC T100°C Db IP66

EN 60079-29-1 (Applies to Model IR400 only)

Ta = -60°C to +75°C

Ta = -40°C to +75°C (EN 60079-29-1 for model IR400)





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11 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:

- CSAE 21UKEX1269X, Issue 1 is superseded by CML 23UKEX1046X.
- The product covered by Issue 0 of this certificate remains identical to that previously covered by CSAE 21UKEX1269X, Issue 1.
- Where CSAE 21UKEX1269X, Issue 1 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.

12 Certificate history and evaluation reports

Issue	Date	Associated report	Notes
0	26 Jun 2023	R16134F/00	Issue of Prime Certificate

Note: Drawings that describe the equipment are listed in the Annex.

13 Conditions of Manufacture

The following conditions are required of the manufacturing process for compliance with the certification.

- 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.

14 Specific Conditions of Use

The following conditions relate to safe installation and/or use of the equipment.

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

Certificate Annex

Certificate Number CML 23UKEX1046X
Equipment IR400 & IR700 Gas detectors
Manufacturer General Monitors (Ireland) Limited



The following documents describe the equipment defined in this certificate:

Issue 0

Drawing No	Sheets	Rev	Approved date	Title
32508	1 to 3	D	26 Jun 2023	Drawing IR400 Approval
32509	1 of 1	R	26 Jun 2023	Nameplate IR400
32703	1 of 1	D	26 Jun 2023	Nameplate IR700
M22374	1 of 1	J	26 Jun 2023	Potting procedure