

1 **EU - TYPE EXAMINATION CERTIFICATE**

2 **Equipment or Protective System Intended for use in Potentially Explosive Atmospheres
Directive 2014/34/EU**

3 EU - Type Examination Certificate Number: **SGS23ATEX0114X**

4 Product: **IR Plus Gas Detector**

5 Manufacturer: **Crowcon Detection Instruments Limited**

6 Address: **172 Brook Drive, Milton Park, Abingdon, Oxfordshire, OX14 4SD United Kingdom**

7 This product and any acceptable variation thereto is specified in the schedule to this certificate and the documents therein referred to.

8 SGS Fimko Oy, Notified Body number 0598, in accordance with Article 17 of Directive 2014/34/EU of the European Parliament and of the Council, dated 26 February 2014, certifies that this product has been found to comply with the Essential Health and Safety Requirements relating to the design and construction of products intended for use in potentially explosive atmospheres given in Annex II to the Directive.

The examination and test results are recorded in confidential Report No. **GB/BAS/ExTR23.0070/00**

9 Compliance with the Essential Health and Safety Requirements has been assured by compliance with:

EN IEC 60079-0: 2018 EN 60079-1: 2014 EN 60079-31: 2014

except in respect of those requirements listed at item 18 of the Schedule.

10 If the sign "X" is placed after the certificate number, it indicates that the product is subject to the Specific Conditions of Use specified in the schedule to this certificate.

11 This EU - TYPE EXAMINATION CERTIFICATE relates only to the design and construction of the specified product. Further requirements of the Directive apply to the manufacturing process and supply of this product. These are not covered by this certificate.

12 The marking of the product shall include the following :

**⊕ II 2 GD Ex db IIC T4 Gb (Tamb = -40°C to +70°C)
Ex db IIC T6 Gb (Tamb = -40°C to +60°C)
Ex tb IIIC T135°C Db (Tamb = -40°C to +70°C)**

SGS Fimko Oy Customer Reference No. **0249**

Project File No. **21/0702**

This document is issued by the Company subject to their General Conditions for Certification Services accessible at <http://www.sgs.com/en/Terms-and-Conditions.aspx> . Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained herein reflects the Company's findings at the time of their intervention only and within the limits of Client's instructions, if any. It does not necessarily indicate that the equipment may be used in particular industries or circumstances. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, schedule included, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law.

SGS Fimko Oy

Takomotie 8
FI-00380 Helsinki, Finland
Telephone +358 (0)9 696 361
e-mail sgs.fimko@sgs.com
web site www.sgs.fi

Business ID 0978538-5 Member of the SGS Group (SGA SA)



Mikko Välimäki
SGS Fimko Oy

13 **Schedule**

14 **Certificate Number SGS23ATEX0114X**

15 **Description of Product**

The IR Plus Gas Detector comprises a stainless-steel enclosure incorporating a main optical housing and a front mirror housing connected by an internal cable way. A detector window constructed from Quartz or Sapphire is clamped within the main optical housing. A glass mirror is retained inside the front mirror housing, and both housings may be fitted with anti-condensation heaters. The front of the enclosure is protected by a plastic weather cover, which may be fitted with an optional gassing cover. Alternatively, a plastic flow adaptor moulding may replace the weather cover.

The main housing contains optics and a stacked PCB assembly. The internal circuits of the IR Plus Gas Detector circuits are rated up to a maximum of 32V and 5.6W.

The main enclosure is sealed with a M50 threaded stainless-steel endplate and secured using two M5x10 cap head stainless-steel screws. The mirror housing is sealed with a M56 threaded stainless-steel endplate, secured using M3 socket set screws.

Two cable entry holes are provided for the accommodation of flameproof cable entry devices, with or without the interposition of a flameproof thread adapter. The cable entries may be Metric (M20 or M25) or NPT (1/2" or 3/4"). The cable entry thread form and size for each cable entry is identified on the body of the IR Gas Detector by etched markings.

The cable entry devices shall be suitable for the equipment, the cable and the conditions of use and shall be certified as Equipment (not a Component).

Any unused cable entry holes must be fitted with a suitable flameproof stopping plug certified as Equipment (not a Component).

When used in a dust atmosphere, the IP6X rating must be maintained by the use of suitably rated cable entry devices.

16 **Report Number**

SGS Baseefa report GB/BAS/ExTR23.0070/00

17 **Specific Conditions of Use**

1. The equipment must be earthed using the cable gland and steel armoured cable.
2. The flamepaths are not to be repaired.
3. The Gas Detector can only be mounted Horizontal +/- 15°.

18 **Essential Health and Safety Requirements**

In addition to the Essential Health and Safety Requirements (EHSRs) covered by the standards listed at item 9, the following are considered relevant to this product, and conformity is demonstrated in the report:

Clause	Subject
1.2.7	LVD type requirements
1.2.8	Overloading of equipment (protection relays, etc.)
1.4.1	External effects
1.4.2	Aggressive substances, etc.

The performance of the gas sensor has not been assessed. The gas sensor must not be used in a safety system without further assessment.

19 Drawings and Documents

Number	Sheet	Issue	Date	Description
MCAD-004103	1 to 2	1	2024-06-11	* IR PLUS IIC Certification GA – Metric
MCAD-004108	1 to 2	1	2024-06-11	* IR PLUS IIC Certification GA – ¾” NPT
MCAD-004247	1 to 2	1	2024-06-11	* IR PLUS IIC Certification GA – ½” NPT
MCAD-004331	1 of 1	1	2024-03-28	* IR PLUS optics body
MCAD-004332	1 of 1	1	2024-03-28	* IR PLUS End Cover Plate
MCAD-004333	1 of 1	1	2024-03-28	* IR PLUS Mirror retainer plate
MCAD-004334	1 of 1	1	2024-03-28	* IR PLUS cast body – M20
MCAD-004335	1 of 1	1	2024-03-28	* IR PLUS Cast Body – ¾” NPT
MCAD-004336	1 of 1	1	2024-03-28	* IR PLUS Cast Body – ½” NPT
MCAD-004366	1 of 1	1	2024-06-06	* IR PLUS O-ring Schedule
5957	1 of 1	04	07/10/2010	* Window Clamp
5988	1 of 1	05	19/07/2024	* Coated Detector Window
6650	1 of 1	05	07/10/2010	^ End Plate
6652	1 of 1	04	04/10/2017	^ Securing Endplate
MCAD-004117	1 of 1	02	2024-06-05	^ IR PLUS certification label (EU / SIL)
MCAD-004118	1 of 1	02	2024-06-05	^ IR PLUS certification label (EU)

* These drawings are common to IECEx SGS 23.0057X and SGS23ATEX0114X (Standard version), and IECEx SGS 23.0058X and SGS23ATEX0115X (display version)

^ These drawings are common to IECEx SGS 23.0057X and SGS23ATEX0114X (Standard version)