PRODUCT CONFORMITY CERTIFICATE

Sira 19PC059X
Issue 3

SCHEDULE

1 **PRODUCT CONFORMITY CERTIFICATE**

2 Certificate Number: **Sira 19PC059X** Issue: **3**

3 Product: **Crowcon XgardIQ Fixed Point Gas Detector**

4 Applicant: **Crowcon Detection Instruments Ltd.**

5 Address: 172 Brook Drive,
Milton Park,
Abingdon,
Oxfordshire,
OX14 4SD

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

7 Sira Certification Service, being accredited by the United Kingdom Accreditation Service (UKAS), certifies that, with the exception of the deviations listed in the schedule to this certificate, this product has been found to comply with the following Standards:

EN 50271:2018 EN 50104:2010, section 5.4 EN 45544-1:2015 EN 45544-2:2015

The above list of documents may detail standards that do not appear on the UKAS Scope of Accreditation, but have been added through Sira's flexible scope of accreditation, which is available on request.

This certificate refers to the performance of the test sample(s) when tested against the agreed programme. It does not imply that any other samples or products necessarily comply with the requirements of the test programme.

The examination and test results are recorded in the confidential reports listed in Section 10.2.

8 If the sign 'X' is placed after the certificate number, it indicates that the equipment is subject to Specific Conditions of Use identified in the schedule to this certificate.

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Director of Operations

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9 DESCRIPTION OF EQUIPMENT

The XgardIQ is a gas detector designed to signal gas concentration by the current in a 4-20mA loop. Optional relays may be fitted to signal gas concentrations that exceed alarm levels.

The unit comprises a transmitter unit and a sensor that may be removed and replaced while the unit is powered and in a hazardous environment.

The following variants of the sensor module can be fitted to the transmitter:

- Electrochemical oxygen sensor
- Electrochemical toxic gas sensor (various gasses)
- Catalytic bead (pellistor) flammable gas sensor
- Infra-red flammable or carbon dioxide sensor

Note. Of the above sensor modules both the oxygen sensor and H_2S sensor are supported by this certificate.

This certificate is applicable to modules with the installed software shown below:

Module	Software Version/s	Checksum	Related Hardware Drawings
IQ-Main	V1 i1.08 (for 256A3U microprocessor)	0x7e16	ECAD-000028-CD Rev 12 ECAD-000028-PL Rev 12
	V2 i1.09 (alternative for 192D3-MH microprocessor)	0x2004	ECAD-000240-CD Rev 2 ECAD-000240-PL Rev 2
IQ-Sensor (with Toxic sensor)	V1 i1.07 (for 64A4U microprocessor)	0x593e	ECAD-000076-CD Rev 11 ECAD-000076-PL Rev 11
	V2 i1.08 (alternative for 192D3-MH microprocessor	0x9347	ECAD-000236-CD Rev1 ECAD-000236-PL Rev 1
IQ-Sensor (with Oxygen sensor)	V1 i1.07 (for 64A4U microprocessor)	0x593e	ECAD-000064-CD Rev 6 ECAD-000064-PL Rev 6
IQ-Display	V1 i1.05 (for 64A4U microprocessor)	0x8a13	ECAD-000098-CD Rev 13 ECAD-000098-PL Rev 14
	V2 i1.06 (alternative for 192D3-MH microprocessor)	0x9ec5	ECAD-000241-CD Rev 2 ECAD-000241-CD Rev 2

10 DESCRIPTIVE DOCUMENTS

10.1 DRAWINGS

Not applicable – For the hardware drawings related to the EN50271:2018 Software assessments. - see the table in section 9 above.
For the configurations relating to gas performance testing, see the reports shown in 10.2 below.

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10.2 **ASSOCIATED CSA/SIRA REPORTS AND CERTIFICATE HISTORY**

Issue	Date	Report no.	Comment
0	24 February 2019	R70116946C	Functional safety assessment report for the software lifecycle against EN 50271:2010.
		N70063398	Performance tests of EN 50104:2010
1	03 May 2019	N70063398A	H_2S test report against the requirements of EN 455441-1:2015 and EN 45544-2:205.
2	04 Nov 2021	R80086540	Functional safety assessment report for software modifications relating to Crowcon changes ECN-145 and ECN -180. Firmware versions added in section 9.
3	26 May 2023	80124597 LoA	Letter of attestation regarding H2S testing to EN 45544-1:2015 and EN 45544-2:2015 with updated hardware.
		R80124592 v 1.2	Functional safety assessment report for software modifications relating to Crowcon changes ECN-41 (IQ-Main), ECN-48 (IQ-Sensor with Toxic Sensor), ECN-49 (IQ-Sensor with IR Sensor), ECN-50 (IQ-Sensor with Pellistor Sensor), ECN-59 (IQ-Sensor with Oxygen Sensor) and ECN-64 (IQ-Display)

11 **NOTES OF DEVIATION**

11.1 The following clauses of EN 50271:2010 are excluded from the assessment as requested by Crowcon and therefor the XgardIQ Fixed Point Gas Detector cannot be considered a safety-related device:
4.4 Hardware
4.8 Additional requirements for compliance with SIL 1

12 **SPECIFIC CONDITIONS OF USE** (denoted by X after the certificate number)

12.1 None

13 **CONDITIONS OF MANUFACTURE**

13.1 The use of this certificate is subject to the Regulations Applicable to Holders of Sira Certificates.

13.2 This certificate relates only to the product specified herein as executed in any samples supplied for evaluation; the Applicant attests on its own responsibility that the product conforms to the documents listed herein.

13.3 If the marked apparatus is found not to comply, Sira Certification Service should be immediately notified at its office at Unit 6 Hawarden Industrial Estate, Hawarden, CH5 3US

13.4 Sira Certification Service reserves the right to audit the Applicant's quality management system controlling the production of the component covered by this certificate.

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