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EU-TYPE EXAMINATION CERTIFICATE

2 Equipm Equipment intended for use in Potentially Explosive Atmospheres Directive 2014/34/EU

3 Certificate Number: Sira 02ATEX1283X Issue: 3

4 Equipment: 96 HD Gas Sensor

5 Applicant: Crowcon Detection Instruments Limited

6 Address: 172 Brook Drive

Milton Park Abingdon Oxfordshire OX14 4SD

- 7 This equipment and any acceptable variation thereto is specified in the schedule to this certificate and the documents therein referred to.
- Sira Certification Service, notified body number 0518 in accordance with Articles 17 and 21 of Directive 2014/34/EU of the European Parliament and of the Council, dated 26 February 2014, 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 Annex II to the Directive.

The examination and test results are recorded in the confidential reports listed in Section 14.2.

9 Compliance with the Essential Health and Safety Requirements, with the exception of those listed in the schedule to this certificate, has been assured by compliance with the following documents:

IEC 60079-0: 2017 Ed.7 EN 60079-1: 2014

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.

- 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.
- This EU-Type Examination Certificate relates only to the design and construction of the specified equipment. If applicable, further requirements of this Directive apply to the manufacture and supply of this equipment.
- 12 The marking of the equipment shall include the following:



II 2G Ex db IIC T6 Gb T_{amb} = -40°C to +55°C

Project Number 70176802

C Ellaby
Deputy Certification Manager



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13 DESCRIPTION OF EQUIPMENT

The 96 HD Gas Sensor is manufactured from stainless steel, is cylindrical in shape and is intended to detect the presence of flammable gases in air. It is of two-part construction with both halves being secured together via four M4 x 12 socket head bolts spaced 90° apart and their heads protected by counter-bores. One half of the main body contains a sintered disc that permits the surrounding atmosphere to penetrate its interior thereby allowing either a pellistor or an electro-chemical sensor to detect the relevant gas. Both the pellistor and the electro-chemical sensor have a maximum power dissipation of 1.1 W. The sintered disc is cemented to the main body and is additionally retained by a threaded end cap. The other half of the main body has an M20 male thread to allow the 96 HD Gas Sensor to be fitted to an associated enclosure and contains a setting compound through which the wiring for connection to external circuits passes.

Variation 1 - This variation introduced the following changes:

i. The length of the mounting thread was increased by 5 mm.

Variation 2 - This variation introduced the following changes:

- i. The reference to UL listing information was removed from the marking, in consequence, drawing 96HD-2492-A3 was replaced by drawing 2492-CERT.
- ii. Following appropriate re-assessment to demonstrate compliance with the requirements of the EN 60079 series of standards, the documents originally listed in section 9, EN 50014:1997 Amendments A1 & A2 and EN 50018:2000 Amendment A1, were replaced by EN 60079-0:2006 and EN 60079-1:2007, the markings in section 12 were updated accordingly.

Variation 3 - This variation introduced the following changes:

- i. A Specific Condition of Use was modified to amend the reference from Directive 94/9/EC to Directive 2014/34/EU.
- ii. Following appropriate assessment to demonstrate compliance with the latest technical knowledge, EN 60079-0:2006 and EN 60079-1:2007 were replaced by IEC 60079-0:2017 Ed.7 and EN 60079-1:2014, the markings were updated accordingly to recognise the new standards.
- iii. It was recognised that the applicants address has changed from Crowcon Detection Instruments Limited, 2 Blacklands Way, Abington, Oxfordshire, OX14 1DY, UK to Crowcon Detection Instruments Limited, 172 Brook Drive, Milton Park, Abingdon, Oxfordshire, OX14 4SD, UK.

14 DESCRIPTIVE DOCUMENTS

14.1 Drawings

Refer to Certificate Annexe.

14.2 Associated Sira Reports and Certificate History

Issue	Date	Report number	Comment
0	11 July 2003	R51A9189A	The release of the prime certificate.
1	8 December 2003	51V11039	The introduction of Variation 1.



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Issue	Date	Report number	Comment
2	30 April 2008	R51A18196A	 This Issue covers the following changes: All previously issued certification was rationalised into a single certificate, Issue 2, Issues 0 and 1 referenced above are only intended to reflect the history of the previous certification and have not been issued as documents in this format. The introduction of Variation 2.
3	Inserted when issued	R70176802A	 This Issue covers the following changes: EC Type-Examination Certificate in accordance with 94/9/EC updated to EU Type-Examination Certificate in accordance with Directive 2014/34/EU. (In accordance with Article 41 of Directive 2014/34/EU, EC Type-Examination Certificates referring to 94/9/EC that were in existence prior to the date of application of 2014/34/EU (20 April 2016) may be referenced as if they were issued in accordance with Directive 2014/34/EU. Variations to such EC Type-Examination Certificates may continue to bear the original certificate number issued prior to 20 April 2016.) The introduction of Variation 3.

- 15 SPECIFIC CONDITIONS OF USE (denoted by X after the certificate number)
- 15.1 The 96 HD Gas Sensor shall not be used as a Safety Related Device in accordance with Directive 2014/34/EU.
- 15.2 The 96 HD Gas Sensor shall be used in conjunction with a suitably certified enclosure that gives both mechanical and explosion protection to the wiring for connection to external circuits. The enclosure shall also provide suitable earthing facilities.
- 16 ESSENTIAL HEALTH AND SAFETY REQUIREMENTS OF ANNEX II (EHSRs)

The relevant EHSRs that are not addressed by the standards listed in this certificate have been identified and individually assessed in the reports listed in Section 14.2.

- 17 CONDITIONS OF MANUFACTURE
- 17.1 The use of this certificate is subject to the Regulations Applicable to Holders of Sira Certificates.
- 17.2 Holders of EU-Type Examination Certificates are required to comply with the conformity to type requirements defined in Article 13 of Directive 2014/34/EU.

Certificate Annexe

Certificate Number: Sira 02ATEX1283X Equipment: 96 HD Gas Sensor

Applicant: Crowcon Detection Instruments Limited

Issue 0

Number	Sheet	Rev.	Date	Description
96HD-2490-A2	1 of 1	7	Oct 02	96 HD Flameproof Gas Detector Certification Drawing
96HD-2492-A3	1 of 1	4	Oct 02	96 HD Detector Head Etching Details

Note - Drawing 96HD-2492-A3 was replaced by drawing 2492-CERT.

Issue 1

Number	Sheet	Rev.	Date	Description
96HD-2490-A2	1 of 1	8	Nov 03	96 HD Flameproof Gas Detector Certification Drawing

Issue 2

Number	Sheet	Rev.	Date	Description
2492-CERT	1 of 1	6	Apr 08	96HD detector head ATEX certified etching details

Issue 3

Drawing	Sheets	Rev.	Date (Sira stamp)	Title
96HD-2490-A2	1 of 1	10	14 May 18	96 HD Flameproof Gas Detector Certification Drawing
2492-CERT	1 of 1	7	13 Apr 18	96HD detector head ATEX certified etching details