



1 **EU-TYPE EXAMINATION CERTIFICATE**

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

3 Certificate Number: **Sira 08ATEX2223X** Issue: **4**

4 Equipment: **ShipSurveyor / SS xxx & Gasurveyor / GS 6xx**

5 Applicant: **Gas Measurement Instruments Ltd**

6 Address: Inchinnan Business Park
Renfrew
PA4 9RG
UK

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

8 CSA Group Netherlands B.V., notified body number 2813 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:

EN 60079-0:2006

EN 60079-11:2007

10 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.

11 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 d ia IIB T3 Gb (-20°C ≤ Ta ≤ +50°C)

(Intrinsic safety, 'ia', is the dominant protection concept governing the operation of these devices, however, these gas monitors also bear the marking 'd' to show that flameproof sensors may be used in their construction)

Project Number 0965

Signed:

Title: Director of Operations

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CSA Group Netherlands B.V.
Utrechtseweg 310,
6812 AR, Arnhem,
Netherlands



SCHEDULE

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13 DESCRIPTION OF EQUIPMENT

The ShipSurveyor / SS xxx & Gasurveyor / GS 6xx is designed to monitor a number of gases and provide a visual display of the results. The equipment consists of a plastic enclosure containing two separate compartments. The first contains a battery compartment and the other contains the sensor block assembly, a pump assembly, a control printed circuit board with a liquid crystal display, which may be viewed from a clear plastic window in the enclosure. The equipment is controlled by pushbuttons on the front and may be interrogated via an infrared link.

The pump assembly draws the test gas, which may contain a number of different gases, via a hydrophobic filter, into the sensor block assembly. This gas is then passed around the different sensors that may be fitted, which are mounted on a Sensor PCB, all housed in the Sensor Block Assembly. The Control PCB containing the LCD is attached to the front cover.

The following sensors may be fitted:

Manufacturer	Sensor	Gas
City Technology	4CF CiTicel	Carbon Monoxide
City Technology	4COSH CiTicel	Carbon Monoxide (Hydrogen Sulphide)
City Technology	4H CiTicel	Hydrogen Sulphide
City Technology	4OX(2) CiTicel	Oxygen
AlphaSense	CO-AF	Carbon Monoxide
AlphaSense	H2S-A1	Hydrogen Sulphide
AlphaSense	O2-A2	Oxygen
Dynamant	MSH ***	Hydrocarbon (Carbon Dioxide)
City Technology	IRcel ***	Hydrocarbon (Carbon Dioxide)
E2V Technologies	IR1xxx Series 2	Hydrocarbon
GMI Ltd	Shock Resistant Flammable Sensor	Hydrocarbon
Figaro	TGS2610	LPG (e.g. propane, butane etc)

This equipment is not designed for use in oxygen-enriched atmospheres i.e. greater than 21% oxygen.

Variation 1 – This variation introduced the following change:

- i. The use of an alternative fuse type (Littelfuse, type 466) to be fitted to the 'Battery PCB Assembly' and 'Control PCB Assembly'. Additionally the new fuse type (Littelfuse, type 466) will be encapsulated by GMI Ltd.

Variation 2 - This variation introduced the following change:

- i. The recognition of a distributor's label.

Variation 3 - This variation introduced the following change:

- i. To permit the use of an alternative conformal coating material on the battery printed circuit board.



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14 DESCRIPTIVE DOCUMENTS

14.1 Drawings

Refer to Certificate Annexe.

14.2 Associated Sira Reports and Certificate History

Issue	Date	Report number	Comment
0	23 December 2008	R52L16229A	The release of the prime certificate.
1	07 October 2011	R25087A/00	The introduction of Variation 1.
2	19 March 2014	R33538A/00	The introduction of Variation 2.
3	31 March 2017	R70080596A	This Issue covers the following changes: <ul style="list-style-type: none">• EC Type-Examination Certificate in accordance with 94/9/EC updated to EU Type-Examination Certificate in accordance with Directive 2014/34/EU. <i>(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.)</i>• The introduction of Variation 3.
4	15th October 2019	0965	<ul style="list-style-type: none">• Transfer of certificate Sira 08ATEX2223X from Sira Certification Service to CSA Group Netherlands B.V..

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

15.1 Only two of the following batteries may be fitted:

- Duracell/Procell Alkaline Manganese, LR20 'D' Size
- Duracell Plus, Alkaline Manganese, LR20, 'D' Size
- Energizer Ultra, Alkaline Manganese, LR20, 'D' Size
- Energizer Industrial, Alkaline Manganese, LR20, 'D' Size
- UniRoss, rechargeable 2600mH, NiMH, HR20, 'D' Size

15.2 This equipment is not designed for use in oxygen-enriched atmospheres i.e. greater than 21% oxygen.

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.

Certificate Annexe



Certificate Number: Sira 08ATEX2223X

Equipment: ShipSurveyor / SS xxx & Gasurveyor / GS 6xx

Applicant: Gas Measurement Instruments Ltd

Issue 0

Drawing	Sheets	Rev.	Date (Sira stamp)	Description
48200A-SIRA	1 of 1	1	10 Dec 08	Instrument Assembly
48282-Cert	1 of 1	1	10 Dec 08	Battery PCB Schematic
48256A-SIRA	1 of 1	1	10 Dec 08	Battery PCB Assembly
48282i1-CertGerbers	1 to 5	1	10 Dec 08	Battery PCB Gerbers
48280-Cert	1 & 2	1	10 Dec 08	Control PCB Schematic
48255A-SIRA	1 of 1	1	10 Dec 08	Control PCB Assembly
48280i1-CertGerber	1 to 7	1	10 Dec 08	Control PCB Gerbers
48281-Cert	1 to 3	1	10 Dec 08	Sensor PCB Schematic
48205A-SIRA	1 of 1	1	10 Dec 08	Sensor Block PCB
48251A-SIRA	1 of 1	1	10 Dec 08	Sensor PCB Assembly
48281i1-CertGerbers	1 to 7	1	10 Dec 08	Sensor PCB Gerbers
48207A-SIRA	1 of 1	1	10 Dec 08	Pump Assembly
48226A-SIRA	1 of 1	1	10 Dec 08	Buzzer Assembly
48209A-SIRA	1 of 1	1	10 Dec 08	Main Cable Assembly
48210A-SIRA	1 of 1	1	10 Dec 08	Sensor Block Cable Assembly
48379-SIRA	1 of 1	1	10 Dec 08	LCD
48289-Cert	1 of 1	1	10 Dec 08	Sensor list
48341A-SIRA	1 of 1	1	10 Dec 08	Certification Label

Issue 1

Drawing	Sheets	Rev.	Date (Sira stamp)	Description
48255A_SIRA	1 of 1	4	29 Sept 11	Control P.C.B. Potted Assembly
48256A_SIRA	1 of 1	4	29 Sept 11	Battery P.C.B. Assembly
48280-Cert	1 to 2	2	29 Sept 11	Control PCB Schematic
48282-Cert	1 of 1	2	29 Sept 11	Battery PCB Schematic

Issue 2

Drawing	Sheets	Rev.	Date (Sira stamp)	Description
48341M Sira	1 of 1	B	20 Mar 14	Certification Label

Issue 3

Drawing	Sheets	Rev.	Date(Sira stamp)	Title
48256A_SIRA	1 of 1	5	07 Mar 17	Battery PCB Assembly

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