



1 **EC TYPE-EXAMINATION CERTIFICATE**

2 Equipment intended for use in Potentially Explosive Atmospheres Directive 94/9/EC

3 Certificate Number: **Sira 08ATEX1003** Issue: **5**

4 Equipment: **Type GTD-2000Ex, GTD-2000Tx and GIR-3000 Gas Detectors**

5 Applicant: **Gastron Co. Limited**

6 Address: **18-8,Dogeumdanji 1-Gil
Palgogi-Dong
Sangrok-Gu
Ansan-Si,Gyeonggi-Do
Korea**

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

8 Sira Certification Service, notified body number 0518 in accordance with Article 9 of Directive 94/9/EC of 23 March 1994, 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 IEC 60079-0:2007 Ed 5 (Used for marking guidance) EN 60079-1:2007
EN 60079-29-1:2007

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.

10 If the sign 'X' is placed after the certificate number, it indicates that the equipment is subject to special conditions for safe use specified in the schedule to this certificate.

11 This EC 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:

GTD-2000Ex



II 2G

Ex d IIC Gb T (see below)

T Class Ambient temperature

T6 Ta = -40°C to +60°C

T5 Ta = -40°C to +60°C

T4 Ta = -40°C to +80°C

GTD-2000Tx and GIR-3000



II 2G

Ex d IIC Gb T (see below)

T Class Ambient temperature

T6 Ta = -40°C to +60°C

T4 Ta = -40°C to +80°C

Project Number 33064

C Ellaby
Deputy Certification Manager

This certificate and its schedules may only be reproduced in its entirety and without change.



SCHEDULE

EC TYPE-EXAMINATION CERTIFICATE

Sira 08ATEX1003
Issue 5

13 DESCRIPTION OF EQUIPMENT

The GTD-2000Ex Combustible Gas Detector consists of an enclosure, Type GDH-1000 (Sira 08ATEX1305U), fitted with a Type GSA860Ex gas sensor (Sira 08ATEX1304U). The enclosure is also fitted with associated circuitry, termination facilities and a display visible through the GDH-1000 window. Cable entry is by means of the suitably certified cable entry device fitted into the GDH-1000 threaded aperture. The device is rated up to 24 V and 200 mA.

The GTD-2000Tx Toxic Gas Detector consists of an enclosure, Type GDH-1000 (Sira 08ATEX1305U), fitted with a Type GSA860Tx gas sensor (Sira 08ATEX1304U). The enclosure is also fitted with associated circuitry, termination facilities and a display visible through the GDH-1000 window. Cable entry is by means of the suitably certified cable entry device fitted into the GDH-1000 threaded aperture. The device is rated up to 24 V and 150 mA.

Variation 1 - This variation introduced the following changes:

- i. The introduction of the GIR-3000 Gas Detector that comprises an enclosure, Type GDH-2000 (Sira 08ATEX1305U), fitted with a Type GSA920 Infra Red Combustible Gas Sensor (Sira 08ATEX1304U). The enclosure is also fitted with associated circuitry, termination facilities and a display visible through the GDH-2000 window. Cable entry is by means of the suitably certified cable entry device fitted into the GDH-2000 threaded aperture. The device is rated up to 400 mA @ 24 Vdc.

Variation 2 - This variation introduced the following changes:

- i. The Type GTD-2000Ex, GTD-2000Tx and GIR-3000 Gas Detectors utilise either the component approved Type GDH-1000 or GDH-2000 Enclosures, this variation recognises the introduction to use the optional material of construction (Stainless Steel) for these enclosures.

Variation 3 - This variation introduced the following changes:

- i. Following appropriate assessment the Type GTD 2000Ex Gas Detector was approved for use in the following ambient temperature ranges with temperature classes as specified below:

Temperature Class	Ambient temperature
T6	Ta = -40°C to +60°C
T5	Ta = -40°C to +60°C
T4	Ta = -40°C to +80°C

- ii. The applicants address was changed from 75-10 Palgok 2-Dong, Sangrok-Gu, Ansan City, Kyunggi-Do to 18-8,Dogeumdanji 1-Gil, Palgogi-Dong, Sangrok-Gu, Ansan-Si,Gyeonggi-Do.

Variation 4 - This variation introduced the following changes:

- i. Following appropriate assessment, the Type GTD-2000Tx and GIR-3000 Gas Detectors were approved for use in the following ambient temperature ranges with temperature classes as specified below: The marking was amended accordingly.

Temperature Class	Associated ambient temperature (°C)
T6	Ta = -40°C to +60°C
T4	Ta = -40°C to +80°C

This certificate and its schedules may only be reproduced in its entirety and without change.

Sira Certification Service

Rake Lane, Eccleston, Chester, CH4 9JN, England

Tel: +44 (0) 1244 670900
Fax: +44 (0) 1244 681330
Email: info@siracertification.com
Web: www.siracertification.com



SCHEDULE

EC TYPE-EXAMINATION CERTIFICATE

Sira 08ATEX1003
Issue 5

Variation 5 - This variation introduced the following changes:

- i. Following appropriate assessment to demonstrate compliance with the requirements of the EN 60079 series of standards, the documents previously listed in section 9 of the certificate, EN 61779-1:2000 and EN 61779-4:2000, were replaced by EN 60079-29-1:2007.

14 DESCRIPTIVE DOCUMENTS

14.1 Drawings

Refer to Certificate Annexe.

14.2 Associated Sira Reports and Certificate History

Issue	Date	Report no.	Comment
0	6 November 2008	R51A16417C	The release of the prime certificate.
1	20 January 2009	R51L19237A	The introduction of Variation 1.
2	14 March 2013	R30238A/00	The introduction of Variation 2.
3	20 January 2014	R29972A/00	The introduction of Variation 3.
4	17 March 2014	R29972B/00	The introduction of Variation 4.
5	31 March 2014	R33064A/00	The introduction of Variation 5.

15 SPECIAL CONDITIONS FOR SAFE USE (denoted by X after the certificate number)

None

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 CERTIFICATION

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

17.2 Holders of EC type-examination certificates are required to comply with the production control requirements defined in Article 8 of directive 94/9/EC.

Certificate Annexe

Certificate Number: Sira 08ATEX1003
Equipment: Type GTD-2000Ex, GTD-2000Tx
and GIR-3000 Gas Detectors
Applicant: Gastron Co Limited



Issue 0

Number	Sheet	Rev.	Date	Description
G-Ex0046	1 of 1	2	04 Nov 08	GTD-2000Ex General assembly
G-Ex0047	1 of 1	0	29 Oct 08	GTD-2000Ex Marking details
G-Ex0048	1 of 1	2	29 Oct 08	GTD-2000Ex Certification label
G-Ex0049	1 of 1	2	04 Nov 08	GTD-2000Tx General assembly
G-Ex0050	1 of 1	0	29 Oct 08	GTD-2000Tx Marking details
G-Ex0051	1 of 1	1	29 Oct 08	GTD-2000Tx Certification label

Issue 1

Number	Sheets	Rev.	Date (Sira stamp)	Description
G-Ex0052	1 of 1	2	4 Feb 09	GIR-3000 General assembly
G-Ex0053	1 of 1	0	4 Feb 09	GIR-3000 Marking details
G-Ex0054	1 of 1	2	4 Feb 09	GIR-3000 Certification label

Issue 2 –no drawing changes were introduced.

Issue 3

Drawing	Sheets	Rev.	Date (Sira stamp)	Title
G-Ex0048	1 of 1	3	16 Jan 14	GTD-2000Ex Certification Label

Issue 4

Drawing	Sheets	Rev.	Date (Sira stamp)	Title
G-Ex0051	1 of 1	2	14 Mar 14	GTD - 2000Tx Certification label
G-Ex0054	1 of 1	3	14 Mar 14	GIR – 3000 Certification Label

Issue 5

Drawing	Sheets	Rev.	Date (Sira stamp)	Title
G-Ex0048	1 of 1	4	25 Mar 14	GTD-2000Ex Certification Label
G-Ex0054	1 of 1	4	25 Mar 14	GIR-3000 Certification Label

This certificate and its schedules may only be reproduced in its entirety and without change.