



1 **EC TYPE-EXAMINATION CERTIFICATE**

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

3 Certificate Number: **Sira 08ATEX1003** Issue: **1**

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

5 Applicant: **Gastron Co. Limited**

6 Address: 75-10 Palgok 2-Dong
Sangrok-Gu
Ansan City
Kyunggi-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

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 T5
(Ta = -20°C to + 60°C)

GTD-2000Tx and GIR-3000

 II 2G
Ex d IIC Gb T6
(Ta = -20°C to + 60°C)

Project Number 51L19237
C. Index 13

C Ellaby
Certification Officer

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SCHEDULE

EC TYPE-EXAMINATION CERTIFICATE

**Sira 08ATEX1003
Issue 1**

13 DESCRIPTION OF EQUIPMENT

The GTD-2000Ex Combustible Gas Detector consists of an enclosure, Type GDH-1000 (IECEX SIR 08.0112U and Sira 08ATEX1305U), fitted with a Type GSA860Ex gas sensor (IECEX SIR 08.0111U and 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 (IECEX 08.0112U and Sira 08ATEX1305U), fitted with a Type GSA860Tx gas sensor (IECEX SIR 08.0111U and 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 (IECEX 08.0112U and Sira 08ATEX1305U), fitted with a Type GSA920 Infra Red Combustible Gas Sensor (IECEX SIR 08.0111U and 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.

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.

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.

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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	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

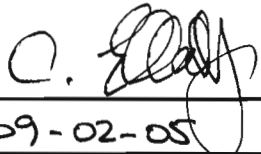
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IECEX Certificate of Conformity

INTERNATIONAL ELECTROTECHNICAL COMMISSION IEC Certification Scheme for Explosive Atmospheres

for rules and details of the IECEx Scheme visit www.iecex.com

Certificate No.:	IECEX SIR 08.0003	issue No.:	1	Certificate history: Issue No. 1 (2009-2-5) Issue No. 0 (2008-11-18)
Status:	Current			
Date of Issue:	2009-02-05	Page 1 of 4		
Applicant:	Gastron Co. Limited 75-10 Paigok 2-Dong Sangrok-Gu Ansan City Kyunggi-Do Korea, Republic of			
Electrical Apparatus: Optional accessory:	Type GTD-2000Ex, GTD-2000Tx & GIR-3000 Gas Detectors			
Type of Protection:	Flameproof			
Marking:	GTD-2000Ex: Ex d IIC Gb T5 (Ta = -20°C to +60°C) GTD-2000Tx & GIR-3000 Ex d IIC Gb T6 (Ta = -20°C to +60°C)			
Approved for issue on behalf of the IECEx Certification Body:	C Ellaby			
Position:	Certification Officer			
Signature: (for printed version)				
Date:	2009-02-05			

1. This certificate and schedule may only be reproduced in full.
2. This certificate is not transferable and remains the property of the issuing body.
3. The Status and authenticity of this certificate may be verified by visiting the [Official IECEx Website](http://www.iecex.com).

Certificate issued by:

SIRA Certification Service
Rake Lane
Eccleston
Chester
CH4 9JN
United Kingdom

sira
CERTIFICATION



IECEX Certificate of Conformity

Certificate No.: IECEX SIR 08.0003

Date of Issue: 2009-02-05

Issue No.: 1

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Manufacturer: **Gastron Co. Limited**
75-10 Palgok 2-Dong
Sangrok-Gu
Ansan City
Kyunggi-Do
Korea, Republic of

Manufacturing location(s):

This certificate is issued as verification that a sample(s), representative of production, was assessed and tested and found to comply with the IEC Standard list below and that the manufacturer's quality system, relating to the Ex products covered by this certificate, was assessed and found to comply with the IECEx Quality system requirements. This certificate is granted subject to the conditions as set out in IECEx Scheme Rules, IECEx 02 and Operational Documents as amended.

STANDARDS:

The electrical apparatus and any acceptable variations to it specified in the schedule of this certificate and the identified documents, was found to comply with the following standards:

IEC 60079-0 : 2007-10 Explosive atmospheres - Part 0: Equipment - General requirements
Edition: 5

IEC 60079-1 : 2007-04 Explosive atmospheres - Part 1: Equipment protection by flameproof enclosures "d"
Edition: 6

*This Certificate **does not** indicate compliance with electrical safety and performance requirements other than those expressly included in the Standards listed above.*

TEST & ASSESSMENT REPORTS:

A sample(s) of the equipment listed has successfully met the examination and test requirements as recorded in

Test Report:

GB/SIR/ExTR08.0141/00
GB/SIR/ExTR09.0011/00

Quality Assessment Report:
GB/SIR/QAR08.0021/00



IECEX Certificate of Conformity

Certificate No.: IECEx SIR 08.0003

Date of Issue: 2009-02-05

Issue No.: 1

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Schedule

EQUIPMENT:

Equipment and systems covered by this certificate are as follows:

The GTD-2000Ex Combustible Gas Detector consists of an enclosure, Type GDH-1000 (IECEX SIR 08.0112U and Sira 08ATEX1305U), fitted with a Type GSA860Ex gas sensor (IECEX SIR 08.0111U and Sira 08ATEX1304U). The enclosure is 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 (IECEX 08.0112U and Sira 08ATEX1305U), fitted with a Type GSA860Tx gas sensor (IECEX SIR 08.0111U and Sira 08ATEX1304U). The enclosure is 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.

CONDITIONS OF CERTIFICATION: NO

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IECEx Certificate of Conformity

Certificate No.: IECEx SIR 08.0003

Date of Issue: 2009-02-05

Issue No.: 1

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DETAILS OF CERTIFICATE CHANGES (for issues 1 and above):

Issue 1 – this Issue introduced the following changes:	
1	The addition of the GIR-3000 Gas Detector consisting an enclosure, Type GDH-2000 (IECEx 08.0112U and Sira 08ATEX1305U), fitted with a Type GSA920 Infra Red Combustible Gas Sensor (IECEx SIR 08.0111U and Sira 08ATEX1304U). The enclosure is 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.