IECEx Certificate of Conformity

INTERNATIONAL ELECTROTECHNICAL COMMISSION
IEC Certification System for Explosive Atmospheres

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

Certificate No.: **IECEx SIR 08.0003**

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Status: **Current**

Issue No: 10

Date of Issue: 2022-03-14

Applicant: **Gastron Co. Limited**
23, Gunpocheomdansaneop 1-ro
Gunpo-Si
Gyeonggi-Do 15881
Korea, Republic of

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

Optional accessory:

Type of Protection: **Flameproof**

Marking: **GTD-2000Ex** **GTD-2000Tx and GIR-3000**
Ex db IIC Gb T Ex db IIC Gb T
Refer to the Annexe for the relevant T Class

Certificate history:

Issue 9 (2019-04-04)
Issue 8 (2018-05-04)
Issue 7 (2015-07-02)
Issue 6 (2014-03-31)
Issue 5 (2014-03-20)
Issue 4 (2014-01-22)
Issue 3 (2013-04-17)
Issue 2 (2010-07-15)
Issue 1 (2009-02-05)
Issue 0 (2008-11-18)

Approved for issue on behalf of the IECEx Certification Body: **Michelle Halliwell**

Position: **Director Operations, UK & Industrial Europe**

Signature:
(for printed version)

Date:
(for printed version)

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 www.iecex.com or use of this QR Code.

Certificate issued by:

CSA Group Testing UK Ltd
Unit 6, Hawarden Industrial Park
Hawarden, Deeside CH5 3US
United Kingdom

IECEx Certificate of Conformity

Certificate No.: **IECEx SIR 08.0003**

Date of issue: 2022-03-14 Issue No: 10

Manufacturer: **Gastron Co. Limited**
23, Gunpocheomdansaneop 1-ro
Gunpo-Si
Gyeonggi-Do 15881
Korea, Republic of

Additional manufacturing locations:

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 equipment 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 60079-0:2017 Edition:7.0	Explosive atmospheres - Part 0: Equipment - General requirements
IEC 60079-1:2014-06 Edition:7.0	Explosive atmospheres - Part 1: Equipment protection by flameproof enclosures "d"
IEC 60079-29-1:2016-07 Edition:2.0	Explosive atmospheres – Part 29-1: Gas detectors – Performance requirements of detectors for flammable gases

This Certificate **does not** indicate compliance with 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 Reports:

GB/CSAE/ExTR22.0027/00
GB/SIR/ExTR08.0141/00
GB/SIR/ExTR09.0011/00
GB/SIR/ExTR10.0171/00
GB/SIR/ExTR13.0065/00
GB/SIR/ExTR14.0010/00
GB/SIR/ExTR14.0069/00
GB/SIR/ExTR14.0079/00
GB/SIR/ExTR15.0180/00
GB/SIR/ExTR18.0026/00
GB/SIR/ExTR19.0077/00

Quality Assessment Report:

NL/DEK/QAR19.0002/02

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Date of issue: 2022-03-14 Issue No: 10

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), fitted with a Type GSA860Ex gas sensor (IECEx SIR 08.0111U). 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), fitted with a Type GSA860Tx gas sensor (IECEx SIR 08.0111U). 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.

SPECIFIC CONDITIONS OF USE: NO

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DETAILS OF CERTIFICATE CHANGES (for issues 1 and above)
This issue, Issue 10, recognises the following change; refer to the certificate annex to view a comprehensive history:

1. Following appropriate assessment to demonstrate compliance with the latest technical knowledge, IEC 60079-0 Ed. 6 and IEC 60079-29-1 Ed. 1 were replaced by IEC 60079-0 Ed. 7 and IEC 60079-29-1 Ed. 2

Annex:

IECEx SIR 08.0003 Issue 10 Annexe.pdf

Annexe to: **IECEx SIR 08.0003 Issue 10**

Applicant: **Gastron Co Ltd**

Apparatus: **Types GTD-2000Ex, GTD-2000Tx and GIR-3000 gas detectors**

Full Marking

GTD-2000Ex		**GTD-2000Tx and GIR-3000**	
Ex db IIC Gb T (see below)		Ex db IIC Gb T (see below)	
T Class	Ambient temperature	T Class	Ambient temperature
T6	Ta = -40°C to +60°C	T6	Ta = -40°C to +60°C
T5	Ta = -40°C to +60°C		
T4	Ta = -40°C to +80°C	T4	Ta = -40°C to +80°C

Full certificate change history

Issue 1 – this Issue introduced the following change:

1. The addition of the GIR 3000 Gas Detector consisting an enclosure, Type GDH-2000 (IECEx 08.0112U), fitted with a Type GSA920 Infra Red Combustible Gas Sensor (IECEx SIR 08.0111U). 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.

Issue 2 – this Issue introduced the following change:

1. It was recorded that performance testing has been successfully carried out on the GTD-2000Ex and GIR-3000 Gas Detectors, as a consequence the list of standards was updated to include EN 61779-1:1998 Ed. 1 and EN 61779-4:1998 Ed. 1.

Issue 3 – this Issue introduced the following changes:

1. It was recognised that these Gas Detectors are now available as a stainless steel option; this is due to the fact that the component approved enclosures used in their construction can now be made from this material.
2. The change associated with Issue 2 was editorially amended to clarify those Gas Detectors that have been subjected to performance testing.

Issue 4 – this Issue introduced the following changes:

1. 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

2. 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.

Issue 5 – this Issue introduced the following change:

1. 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

Issue 6 – this Issue introduced the following change:

1. Following appropriate assessment to demonstrate compliance with the requirements of the IEC 60079 series of standards, the documents previously listed in Issue 5 of the certificate, IEC 61779-1:1998 and IEC 61779-4:1998 were replaced by IEC 60079-29-1:2007.

CSA Group Testing UK Ltd.
Unit 6 Hawarden Industrial Park,
Hawarden Deeside CH5 3US, UK.

Issue 7 – this Issue introduced the following changes:

1 The use of alternative metric threaded apertures, size M20x1.5 or M25x1.5, used in conjunction with the suitably certified cable entry devices, on model: GTD-2000Ex and GTD-2000Tx and GIR-3000 gas sensors were approved.

2 The recognition of minor drawing modifications; these amendments are administrative to align with the Component enclosure, and type GSA920 Gas sensor forming part of the equipment, certified on certificate numbers IECEx SIR 08.0112U and, IECEx SIR 08.0111U respectively, and do not affect the aspects of the product that are relevant to explosion safety:

Issue 8 – this Issue introduced the following changes:

1 Rationalisation of scheduled drawings to remove those that have been replaced, and/or are no longer used to support manufacturing.

2 Removal of the option to fit Type GDH-1000 enclosure assessed on certificate number Sira 08ATEX1305U, and Type GSA860Ex gas sensor assessed on certificate number Sira 08ATEX1304U.

3 Following appropriate assessment to demonstrate compliance with the latest technical knowledge, IEC 60079-0:2007 Ed 5 and IEC 60079-1:2007 Ed 6, were replaced by IEC 60079-0:2011 Ed 6 and IEC 60079-1:2014 Ed 7, the markings were updated accordingly.

Issue 9 – this Issue introduced the following change:

1. The company address was changed:

From	To
18-8,Dogeumdanji 1-Gil	23, Gunpocheomdansaneop 1-ro
Palgogi-Dong	Gunpo-Si
Sangrok-Gu	Gyeonggi-Do 15881
Ansan-Si,Gyeonggi-Do	South Korea
Korea	

Issue 10 – this Issue introduced the following change:

1 Following appropriate assessment to demonstrate compliance with the latest technical knowledge, IEC 60079-0 Ed. 6 and IEC 60079-29-1 Ed. 1 were replaced by IEC 60079-0 Ed. 7 and IEC 60079-29-1 Ed. 2

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