



# 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](http://www.iecex.com)

Certificate No.: **IECEX DNV 21.0052X** Page 1 of 5 [Certificate history:](#)  
Issue 0 (2021-10-12)

Status: **Current** Issue No: 1

Date of Issue: 2022-03-22

Applicant: **RIKEN KEIKI Co., Ltd.**  
2-7-6, Azusawa, Itabashi-ku,  
Tokyo, 174-8744,  
**Japan**

Equipment: **GD-A80\*\*\* Range of Gas detectors**

Optional accessory:

Type of Protection: **Flameproof Enclosure "Ex db"**

Marking: Ex db IIC T4 Gb.  
Ta = -40°C to + 53°C  
(GD-A80\*, GD-A80\*V. GD-A80\*N and GD-A80\*S)

Ex db IIC T4 Gb.  
Ta = -40°C to +70°C.  
(GD-A80\*-70)

Approved for issue on behalf of the IECEx  
Certification Body:

**Asle Kaastad**

Position:

**Certification Manager**

Signature:  
(for printed version)

Date:  
(for printed version)

2022-03-22

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](http://www.iecex.com) or use of this QR Code.



Certificate issued by:

**DNV Product Assurance AS**  
**Veritasveien 3**  
**1363 Hovik .**  
**Norway**





# IECEX Certificate of Conformity

Certificate No.: **IECEX DNV 21.0052X**

Page 2 of 5

Date of issue: 2022-03-22

Issue No: 1

Manufacturer: **RIKEN KEIKI Co., Ltd.**  
2-7-6, Azusawa, Itabashi-ku,  
Tokyo, 174-8744,  
**Japan**

Manufacturing locations: **RIKEN KEIKI NARA MFG. Co., Ltd.** **RIKEN KEIKI Co., Ltd.**  
49-1, Abe, Sakurai-shi, 2-3, Minamisakae-cho,  
Nara, 633-0054, Kasukabe-shi,  
**Japan** Saitama, 344-0057,  
**Japan**

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](#) Explosive atmospheres - Part 0: Equipment - General requirements  
Edition:7.0

[IEC 60079-1:2014-06](#) Explosive atmospheres - Part 1: Equipment protection by flameproof enclosures "d"  
Edition:7.0

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 Report:

[NO/PRE/ExTR20.0067/01](#)

Quality Assessment Report:

[NO/PRE/QAR19.0018/04](#)



# IECEX Certificate of Conformity

Certificate No.: **IECEX DNV 21.0052X**

Page 3 of 5

Date of issue: 2022-03-22

Issue No: 1

## EQUIPMENT:

Equipment and systems covered by this Certificate are as follows:

The GD-A80\*\* Range of Gas Detectors are flameproof are a range of gas detector sensors, which incorporate 4 sensor types:

- Catalytic combustion Method
- Thermal Conductivity Method
- Hot wire Type Semi-Conductor Method
- Semi-Conductor method

The GD-A80 and GD-A80D Flameproof Gas detectors consist of an aluminium body and rear access lid, a gas sensor and guard fit to the front of the gas detector and entry into the enclosure is via an integral cable gland arrangement, which may include an adaptor. The lid and sensor guard are secured via M5 x 20mm – 6H/6g Stainless steel hexagon socket head A2-70 cap screws.

The Gas Detectors have both an internal and external earth point.

## Model Nomenclature:

<b>GD</b>	<b>A</b>	<b>80</b>	<b>*</b>	<b>*</b>	<b>*</b>		
1	-	2	3	4	5	-	6

## Model description:

Ref.	Prefix	Description details
1	GD	Gas detector
2	A	Diffusion type
3	80	Constant number
	Suction chamber	
4	D	With suction chamber
	Blank	Without suction chamber
	Sensor Type	
	Blank	Catalytic Combustion Method
5	V	Semi-Conductor Method
	N	Thermal Conductivity Method
	S	Hot Wire type Semi-conductor Method
6	Blank	Ambient Temperature -40 °C to + 53 °C
	70	Ambient Temperature -40 °C to + 70 °C

## SPECIFIC CONDITIONS OF USE: YES as shown below:

1. Fasteners used for enclosure are from stainless steel property class A2-70
2. Cable gland may not provide sufficient clamping. User shall provide additional clamping against the cable pulling and twisting.
3. Regarding ATEX specification, the measuring function according to Annex II paragraph 1.5.5 of the Directive is not covered by this EUtype examination. It shall comply with the requirements from the relevant European harmonized standards which provide guidance on the performance of gas detection equipment and safety devices.
4. The flameproof joints not intended to be repaired.

## Notes for manufacture, installation and operation:

The following conditions are required of the manufacturing process for compliance with the certification.

Where the product incorporates certified parts or safely critical components the manufacturer shall ensure that any changes to those parts or components do not affect the compliance of the certified products that's is the subject of this certificate.



# IECEX Certificate of Conformity

Certificate No.: **IECEX DNV 21.0052X**

Page 4 of 5

Date of issue: 2022-03-22

Issue No: 1

## Equipment (continued):

### Electrical Data

#### Sensor Type

Catalytic combustion Method (GD-A80\*)

Semi-Conductor Method (GD-A80\*V)

Thermal Conductivity Method (GD-A80\*N)

Hot Wire type Semi-conductor Method (GD-A80\*S)

Ambient Temperature: -40 °C to +53 °C

#### Sensor Type

Catalytic Combustion Method (GD-A80\*-70)

Ambient Temperature: -40 °C to +70 °C

#### Electrical ratings

3 Vdc / 430mA or 5 Vdc / 200mA

6.5 Vdc / 205mA or 3.5 Vdc / 350mA

3.3 Vdc / 170mA or 1 Vdc / 220mA

3 Vdc / 500mA or 5 Vdc / 200mA

#### Electrical ratings

3 Vdc / 430 mA or 5 Vdc / 200 mA



# IECEX Certificate of Conformity

Certificate No.: **IECEX DNV 21.0052X**

Page 5 of 5

Date of issue: 2022-03-22

Issue No: 1

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

Adding two manufacturing locations.