

[1]

EU-TYPE EXAMINATION CERTIFICATE

- [2] Product Intended for use in Potentially Explosive Atmospheres Directive 2014/34/EU
- [3] EU-Type Examination Certificate Number: **DNV 21 ATEX 64381X** **Issue 0**
- [4] Product: **GD-A80*** Range of Gas detectors**
- [5] Manufacturer: **RIKEN KEIKI Co., Ltd.**
- [6] Address: **2-7-6, Azusawa, Itabashi-ku,
Tokyo, 174-8744, Japan**

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

[8] DNV Product Assurance AS, notified body number 2460, in accordance with Article 17 and Article 21 of Directive 2014/34/EU of the European Parliament and of the Council, dated 26 February 2014, certifies that this product has been found to comply with the Essential Health and Safety Requirements relating to the design and construction of products intended for use in potentially explosive atmospheres, given in Annex II to the Directive.

The examination and test results are recorded in confidential reports listed in item 16.


[9] Compliance with the Essential Health and Safety Requirements has been assured by compliance with: **EN IEC 60079-0:2018 and EN 60079-1:2014**

Where additional criteria beyond those given here have been used, they are listed at item 18 in the Schedule.

[10] If the sign "X" is placed after the certificate number, it indicates that the product is subject to the Specific Conditions of Use specified in the schedule to this certificate.

[11] This EU-TYPE EXAMINATION CERTIFICATE relates only to the design and construction of the specified product in accordance to the Directive 2014/34/EU. Further requirements of the Directive apply to the manufacturing process and supply of this product. These are not covered by this certificate.

[12] The marking of the product shall include the following:

 **II 2 G**
Ex db IIC T4 Gb Tamb -40°C to +70°C
(GD-A80*70)
Ex db IIC T4 Gb Tamb -40°C to +53°C
(GD-A80*, GD-A80*V, GD-A80*N, GD-A80*S)



Date of issue:
2021-10-12



Kenneth Narvestad
For DNV Product Assurance AS
The Certificate has been digitally signed.
See www.dnv.com/digitalsignatures for info

[13] **Schedule**

 [14] **EU-Type Examination Certificate No:** DNV 21 ATEX 64381X Issue 0

 [15] **Description of Product**

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:

GD	-	A	80	*	*	-	*
1		2	3	4	5		6

Model description:

Ref.	Prefix	Description details
1	GD	Gas detector
2	A	Diffusion type
3	80	Constant number
4	Suction chamber	
	D	With suction chamber
	Blank	Without suction chamber
5	Sensor Type	
	Blank	Catalytic Combustion Method
	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

Electrical Data

Sensor Type	Electrical ratings
Catalytic combustion Method (GD-A80*)	3 Vdc / 430mA or 5 Vdc / 200mA
Semi-Conductor Method (GD-A80*V)	6.5 Vdc / 205mA or 3.5 Vdc / 350mA
Thermal Conductivity Method (GD-A80*N)	3.3 Vdc / 170mA or 1 Vdc / 220mA
Hot Wire type Semi-conductor Method (GD-A80*S)	3 Vdc / 500mA or 5 Vdc / 200mA
Ambient Temperature: -40 °C to +53 °C	

Sensor Type	Electrical ratings
Catalytic Combustion Method (GD-A80*-70)	3 Vdc / 430 mA or 5 Vdc / 200 mA
Ambient Temperature: -40 °C to +70 °C	

Routine tests

None.

[16] **Report No.:** 186558

[17] Specific Conditions of Use

- 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 EU-type 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.

[18] Essential Health and Safety Requirements

Met by compliance with the requirements mentioned in item 9.

[19] Drawings and documents

Number	Title	Rev	Date
M3-4261-80-05K	Gas Detector	1	11/08/2020
M3-4261-80-08K	Details of Internal Part A-A~E-E Section	0	09/09/2014
M3-4261-80-10K	Cable Entry 1	1	11/03/2015
M4-4261-80-05K	Terminal	0	08/12/2014
M3-4261-80-41K	Name Plate GD-A80	0	03/09/2021
M4-4062-01-02K	Gas Sensor – Catalytic Combustion Method	0	06/08/2014
E4-6991-5051-10-01E	Gas Sensor A – Circuit Diagram	0	27/05/2014
M4-4085-01-02K	Gas Sensor – Semi-Conductor Method	0	05/08/2014
E4-6991-5212-00-01E	Semi-Conductor Sensor – Circuit Diagram	0	06/06/2014
M4-4086-00-02K	Gas Sensor – Hot Wire Type Semi- Conductor Method	0	08/12/2014
E4-6991-5290-80-01E	HW Semi-Conductor Sensor – Circuit Diagram	0	10/09/2014
M4-4075-00-02K	Gas Sensor – Thermal Conductivity Method	0	08/12/2014
E4-6991-5291-50-01E	TH Conductivity Sensor – Circuit Diagram	0	10/09/2014
M3-4261-91-01K	Gas Detector	1	11/08/2014
M3-4261-91-05K	Details of Internal Part A-A~E-E Section	0	06/10/2014

[20] **Certificate History**

Issue	Description	Issue date	Report no.
0	Original issue	2021-10-12	186558

END OF CERTIFICATE

