

[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 63457X** **Issue 0**

[4] Product: ****D58.*C 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, EN IEC 60079-1:2014, EN ISO 80079-36:2016 & EN ISO 80079-37:2016**

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 h IIB+H2 T4 Gb Tamb -20°C to +53°C**

Date of issue:
2021-10-19



Ståle Sandstad
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 63457X

Issue 0

[15]

Description of Product

The *D-D58.DC Range of Gas Detectors are flameproof and rated at 24Vdc, 360mA. They incorporate two sensor types:

- Catalytic combustion Method
- Semi-Conductor Method

The **-D58. *C Flameproof Gas detectors consist of an aluminium body and lid, with a threaded display window, actuator case and lid, two gas sensors, holders and flame arrestors at the front of the gas detector. rear access lid, a gas sensor and guard fit to the front of the gas detector. Cable entry into the enclosure is via two cable glands at the bottom of the enclosure body.

The gas detectors have both stainless steel and hexagon socket head (ISO 4762, 6H/6g), A2-70 cap screws. The Gas Detectors have both an internal and external earth point.

There is a non-electrical pump placed inside the non-flameproof enclosure (Actuator case). Pump and coil are separated by flameproof enclosure. The pump is driven by electromagnetic force from the coil, which is placed inside the Ex-d enclosure. Actuator plate is constructed by insert moulding of sheet metal (material: SPCC) into the Pump case PPC therefore it would not be deformed. The movement of actuator plate is by the magnet which has reciprocating motion without contacting actuator case (material: ADC12) by electromagnetic force from the coil.

Type Designation:

RP-D58.DC, SD-D58.DC, SD-D58.DC.GH, GD-D58.DC & GD-D58.DC.GH

Electrical Data

24VDC, 360mA.

Routine tests

None.

[16]

Report No.: 186678

[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.
- 5) Enclosure made of aluminium – Avoid impact or friction in the equipment

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
M2-4287-01-10K	Gas Detector	2	03.09.2020
M3-4287-02-03K	Details of Internal Part 1 A-A~E-E Section	0	03.08.2014
M3-4287-01-15K	Details of Internal Part 2 F-F~I-I Section	1	07.10.2021
M2-4287-01-15K	Details of Internal Part3 K-K~L-L Section	2	13.09.2021
M3-4287-01-16K	Socket	0	03.08.2014
M4-4062-01-02K	Gas Sensor	0	06.08.2014
M4-4380-27-01K	Flow Sensor	0	03.08.2014
E3-6991-5371-10-01E	SD-D58.DC Internal wiring	0	07.08.2014
E3-6991-5371-10-02E	SD-D58.DC Residual energy Indication	0	07.08.2014
E4-6991-5051-10-01E	Gas Sensor A circuit diagram	0	27.05.2014
E4-6991-5028-50-01E	Flow Sensor Circuit diagram	0	27.05.2014
M4-4287-01-04K	Plate	0	24.09.2012
M3-4287-04-03K	Details of Internal Part 1 A-A~E-E Section	0	05.08.2014
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
E3-6991-5356-90-02K	GD-D58.DC.GH Internal wiring	0	06.06.2014
E3-6991-5356-90-03K	SD-D58.DC.GH Residual energy Indication	0	06.06.2014
M3-4181-01-03K	Details of Internal Part 1 A-A~E-E Section	0	03.08.2014
E3-6991-5358-30-01K	RP-D58.DC Internal wiring	0	06.06.2014
M4-4264-02-03K	Name plate D58 Series	0	07.09.2021

[20] **Certificate History**

Issue	Description	Issue date	Report no.
0	Original issue	2021-10-19	186678

END OF CERTIFICATE