



# 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 PRE 20.0069X** Page 1 of 4 [Certificate history:](#)  
Status: **Current** Issue No: 0  
Date of Issue: 2020-10-20  
Applicant: **RIKEN KEIKI Co., Ltd.**  
2-7-6, Azusawa, Itabashi-ku,  
Tokyo, 174-8744,  
**Japan**  
Equipment: **SD-1RI and SD-1DRI Gas Detectors**  
Optional accessory:  
Type of Protection: **Flameproof Equipment 'Ex d'**  
Marking: Ex db IIC T6 Gb  
Ta= -20°C to +60°C.

Approved for issue on behalf of the IECEx  
Certification Body:

**Bjørn Spongsveen**

Position:

**Certification Manager**

Signature:  
(for printed version)

Date:

2020-10-20

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 GL Presafe AS**  
**Veritasveien 3**  
**1363 Høvik**  
**Norway**





# IECEx Certificate of Conformity

Certificate No.: **IECEx PRE 20.0069X**

Page 2 of 4

Date of issue: 2020-10-20

Issue No: 0

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

Additional manufacturing locations: **RIKEN KEIKI Co., Ltd.**  
2-3, Minamisakae-cho,  
Kasukabe-shi,  
Saitama, 344-0057,  
**Japan**

**RIKEN KEIKI NARA MFG. Co., Ltd.**  
49-1, Abe, Sakurai-shi,  
Nara, 633-0054,  
**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/ExTR20.0071/00](#)

Quality Assessment Report:

[NO/PRE/QAR19.0018/02](#)



# IECEx Certificate of Conformity

Certificate No.: **IECEx PRE 20.0069X**

Page 3 of 4

Date of issue: 2020-10-20

Issue No: 0

## **EQUIPMENT:**

Equipment and systems covered by this Certificate are as follows:

### **Description of Product**

The SD-1RI and SD-1DRI Gas Detectors are flameproof and rated at 24Vdc, 85mA. They are a range of gas detector sensors, which incorporate an infrared gas sensor. The SD-1RI and SD-1DRI Flameproof Gas detectors consist of an aluminum body and flanged lid, with a display window, a gas sensor, flame arrester and guard at the bottom of the gas detector. Cable entry into the enclosure is via an integrated cable gland at the bottom of the enclosure body.

Special fasteners are Stainless steel A2-70 or A4-70 screws.

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

### **Type designation**

SD-1RI & SD-1DRI

### **Electrical Data**

Supply Voltage 24Vdc,

Supply current 85mA

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

1. Fasteners used for enclosure are from stainless steel property class A2-70 or A4-70
2. Cable gland may not provide sufficient clamping. User shall provide additional clamping against the cable pulling and twisting.
3. The flameproof joints not intended to be repaired.



# IECEx Certificate of Conformity

Certificate No.: **IECEx PRE 20.0069X**

Page 4 of 4

Date of issue: 2020-10-20

Issue No: 0

## Additional information: DRAWINGS AND DOCUMENTS

Number	Title	Rev.	Date
M3-4288-11-05K	Gas Detector	5	11/08/2020
M3-4288-11-04K	Details of Internal Part A-A~D-D Section (SD-1RI)	3	11/08/2020
M3-4288-11-06K	Cable Entry	4	12/09/2016
M3-4288-11-03K	Socket	1	28/08/2020
M4-4288-11-05K	Name Plate SD-1RI	0	25/06/2020
M4-4630-11-02K	Gas Sensor – Infrared Method	1	22/01/2015
E4-6991-5327-90-01E	Energy measurement SD-1RI/ SD-1DRI	0	26/08/2014
E4-6991-5327-90-02E	Energy measurement SD-1RI(HART) / SD- 1DRI(HART)	0	26/08/2014
E3-6991-5328-60-03E	Final Version of Diagram SD-1RI/ SD-1DRI	0	09/04/2014
E3-6991-5328-60-04E	Final Version of Diagram SD-1RI(HART) / SD-1DRI(HART)	0	09/04/2014
E4-6991-5321-50-01E	Internal Wiring SD-1RI/SD-1DRI	0	09/04/2014
E4-6991-5321-50-02E	Internal Wiring SD-1RI(HART) / SD- 1DRI(HART)	0	09/04/2014
E3-6991-5328-60-01E	Electrical Diagram SD-1RI/ SD-1DRI	0	09/04/2014
E3-6991-5328-60-02E	Electrical Diagram SD-1RI(HART) / SD- 1DRI(HART)	0	09/04/2014
M4-4287-35-12K	PCB Holder	0	29/08/2014
M4-4287-4392-02K	Support Plate	0	29/08/2014
M4-4287-35-13K	Packing	0	29/08/2014
M4-4287-35-14K	Ring	0	29/08/2014
M3-4288-12-03K	Gas Sensor	3	12/09/2016
M3-4288-12-02K	Details of Internal Part A-A~E-E Section (SD-1DRI)	2	12/05/2016
M4-4288-12-05K	Name Plate SD-1DRI	0	25/06/2020