



# 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 DEK 24.0004X** Page 1 of 4 Certificate history:  
Status: **Current** Issue No: 2 [Issue 1 \(2024-09-20\)](#)  
[Issue 0 \(2024-02-15\)](#)  
Date of Issue: 2024-12-16  
Applicant: **RIKEN KEIKI Co., Ltd.**  
2-7-6, Azusawa, Itabashi-ku,  
Tokyo, 174-8744,  
**Japan**  
Equipment: **Gas Detector, Type SD-1RI and SD-1DRI**  
Optional accessory:  
Type of Protection: **Flameproof enclosures "d"**  
Marking: Ex db IIC T6 Gb

Approved for issue on behalf of the IECEx  
Certification Body:

**L.G. van Schie**

Position:

**Certification Manager**

Signature:  
(for printed version)

Date:  
(for printed version)

2024-12-16

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Certificate issued by:

**DEKRA Certification B.V.**  
Meander 1051  
6825 MJ Arnhem  
Netherlands





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

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](#) 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:

[NL/DEK/ExTR24.0005/01](#)

Quality Assessment Reports:

[NL/DEK/QAR23.0010/01](#)

[NL/DEK/QAR23.0011/00](#)



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## **EQUIPMENT:**

Equipment and systems covered by this Certificate are as follows:

Gas Detectors, Type SD-1RI and SD-1DRI are fixed mount, continuous monitoring gas detectors providing a 4 - 20 mA current output signal (with or without HART communication). One or two contact outputs (relays) are optionally provided.

The sensor of Type SD-1RI monitors the surrounding atmosphere and is protected by a guard. The sensor of Type SD-1DRI is protected by a cover with process connections to monitor the connected atmosphere at atmospheric pressure and a temperature not exceeding the ambient temperature range.

The examination of the gas detector does not include a judgment of the functional performance of the apparatus.

Ambient temperature range -20 °C to +60 °C.

## **Electrical data**

### Supply

- 24 Vdc, 85 mA

### Analog output

- 4 - 20 mA: 24 Vdc, max. 22 mA or
- 4 - 20 mA with HART communication: 24 Vdc, max. 22 mA

### Contact output (1 Relay)

- 30 Vdc / 250 Vac, 0.5 A

### Contact output (2 Relays)

- 30 Vdc, 1 A

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

- The equipment is submitted to tests corresponding to the low risk of mechanical danger, it shall be protected from a high risk of mechanical danger.
- Fasteners from stainless steel property class A\*-70 are used. The fasteners shall only be replaced with identical ones.
- The flameproof joints are not intended to be repaired.



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

1. Update of socket (bushing) tests.
2. Introduction of an alternative material for sensor cover, cable gland and thread adapter.