



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

Certificate No.: **IECEX KEM 10.0036X**

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Certificate history:

Status: **Current**

Issue No: 8

Issue 7 (2024-04-26)

Issue 6 (2020-07-07)

Issue 5 (2017-04-25)

Issue 4 (2016-05-12)

Issue 3 (2015-04-21)

Issue 2 (2012-06-12)

Issue 1 (2011-05-23)

Issue 0 (2010-12-03)

Date of Issue: 2024-12-09

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

Equipment: **Gas Detector, Type SD-1, SD-1D, SD-1GH and SD-1DGH**

Optional accessory:

Type of Protection: **Ex db**

Marking: Ex db IIC T5 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)

2024-12-09

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 or use of this QR Code.



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/KEM/ExTR10.0031/08](#)

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-1, SD-1D, SD-1GH and SD-1DGH are fixed mount, continuous monitoring detectors and provide a 4 to 20 mA output signal (with or without HART communication). One or two contact outputs (relays) are provided for alarm assignment.

The sensor of Type SD-1 and Type SD-1GH monitors the surrounding atmosphere and is protected by a guard. The sensor of Type SD-1D and Type SD-1DGH 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 judgement of the functional performance of the apparatus.

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

Electrical data:

Supply SD-1 and SD-1D: 24 Vdc, max. 125 mA (HART)

Supply SD-1GH and SD-1DGH: 24 Vdc, max. 130 mA (HART)

Analogue output

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

Contact output

- with 1 contact output: max. 30 Vdc / 250 Vac, 0.5 A
- with 2 contact outputs: max. 30 Vdc, 1 A per contact

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. Introduction of an alternative material for the thread adapter.
2. Constructional changes.