

CERTIFICATE

(1) EU-Type Examination

(2) **Equipment or protective systems intended for use in potentially explosive atmospheres - Directive 2014/34/EU**

(3) EU-Type Examination Certificate Number: **DEKRA 13ATEX0035X** Issue Number: 9

(4) Product: **Gas Detector, Type SD-1EC, SD-1DEC, SD-10X and SD-1DOX**

(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) DEKRA Certification B.V., Notified Body number 0344 in accordance with Article 17 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 test report number NL/DEK/ExTR13.0003/08.

(9) Compliance with the Essential Health and Safety Requirements has been assured by compliance with:

EN IEC 60079-0 : 2018

EN 60079-1 : 2014

except in respect of those requirements listed at item 18 of 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. 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 T6 Gb

Date of certification: 5 December 2024

DEKRA Certification B.V.

L.G. van Schie
Certification Manager



(13) **SCHEDULE**

(14) **to EU-Type Examination Certificate DEKRA 13ATEX0035X**

Issue No. **9**

(15) **Description**

Gas Detectors, Type SD-1EC, SD-1DEC, SD-1OX and SD-1DOX are fixed mount, continuous monitoring gas detectors providing a 4 to 20 mA output signal. One or two contact outputs (relays) are provided for alarm assignment.

The detector consists of an aluminium enclosure with integral cable gland, a plastic window and a screwed-on aluminium or stainless steel sensor.

The sensor of Types SD-1EC and Type SD-1OX monitors the surrounding atmosphere and is protected by a guard.

The sensor of Type SD-1DEC and Type SD1-DOX 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: 24 Vdc, max. 45 mA

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

Installation instructions

The instructions provided with the product shall be followed in detail to assure safe operation.

(16) **Report Number**

NL/DEK/ExTR13.0003/08.

(17) **Specific conditions of use**

- 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.

(18) **Essential Health and Safety Requirements**

Covered by the standards listed at item (9).

(13) **SCHEDULE**

(14) **to EU-Type Examination Certificate DEKRA 13ATEX0035X**

Issue No. **9**

(19) **Test documentation**

As listed in Report No. NL/DEK/ExTR13.0003/08.

(20) **Certificate history**

Issue 1	215992900	Initial certificate
Issue 2	215992900	Type SD-1OX and SD-1DOX are added; For Type SD-1EC and SD-1DEC the temperature class is changed from T5 into T6; For Type SD-1EC and SD-1DEC the gap of the cylindrical joint in the sensor is reduced.
Issue 3	510001500	Assessment of minor constructional changes.
Issue 4	219252700-2	Assessment of minor constructional changes.
Issue 5	510013200	Assessment according to latest edition of EN 60079-1; Assessment of minor constructional changes.
Issue 6	224649000	Assessment per EN IEC 60079-0 : 2018
Issue 7	510071000	Introduction of an alternative sensor for Type SD1OX and SD-1DOX
Issue 8	228482000-10	Minor change on the label drawings and instructions
Issue 9	227745400-2	Assessment of constructional changes; Introduction of an alternative material for the thread adapter.