

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 17ATEX0103 X** Issue Number: **2**

(4) Product: **Portable Gas Monitor Models GX-3R and GX-3R Pro**

(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/ExTR17.0063/02.

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

EN IEC 60079-0 : 2018

EN 60079-11 : 2012

EN 60079-1 : 2014

EN 50303 : 2000

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 1 G Ex da ia IIC T4 Ga or Ex ia IIC T4 Ga and
I M1 Ex da ia I Ma or Ex ia I Ma**

Date of certification: 7 July 2020

DEKRA Certification B.V.



R. Schuller
Certification Manager

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(13) **SCHEDULE**

(14) **to EU-Type Examination Certificate DEKRA 17ATEX0103 X**

Issue No. 2

(15) **Description**

The Portable Gas Monitor Models GX-3R and GX-3R Pro are designed to provide continuous exposure monitoring of combustible gases (LEL, at slot 2 – by sensor type NCR-6309 in type of protection Ex da), oxygen (O₂, at slot 3), hydrogen sulfide (H₂S, at slot 1), sulfur dioxide (SO₂, at slot 1) and carbon monoxide (CO, at slot 1) by diffusion sampling method.

The model GX-3R Pro can additionally measure (at slot 4) toxic gases including sulfur dioxide (SO₂), ammonia (NH₃) etc., and carbon dioxide (CO₂) by IR sensor.

The measurement results are displayed on the LCD while gas alarms can be issued via LED and buzzer. Measurement results can be wirelessly transmitted to a host using Bluetooth.

The enclosure of the Portable Gas Monitor provides a degree of protection of at least IP64 in accordance with EN 60529.

Marking variations

The portable gas monitor is in type of protection Ex ia and it can either be equipped with thermo catalytic gas sensor model NCR-6309 for monitoring combustible gasses (LEL) in type of protection Ex da or with a dummy sensor in type of protection Ex ia. Both options are detailed in the instruction manual.

When equipped with thermo catalytic gas sensor model NCR-6309:

II 1 G Ex da ia IIC T4 Ga

I M1 Ex da ia I Ma

Ambient temperature: -40 °C to +60 °C

When not equipped with thermo catalytic gas sensor model NCR-6309:

II 1 G Ex ia IIC T4 Ga

I M1 Ex ia I Ma

Ambient temperature: -40 °C to +60 °C

Electrical data

Charging circuit:

U_m = 6.3 V (SELV circuit)

Supply (Models GX-3R):

Non user-replaceable rechargeable Li-ion battery pack.

Supply (Models GX-3R Pro):

User-replaceable rechargeable Li-ion battery pack model BUL-3R

or

User-replaceable primary battery pack model BUD-3R including rechargeable backup Lithium battery.

Installation instructions

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

(13) **SCHEDULE**

(14) **to EU-Type Examination Certificate DEKRA 17ATEX0103 X**

Issue No. 2

(16) **Report Number**

No. NL/DEK/ExTR17.0063/02.

(17) **Specific conditions of use**

When portable gas monitor is equipped with thermo catalytic gas sensor model NCR-6309 in type of protection Ex da:

- The sensor model NCR-6309 is tested with low risk of mechanical danger for use in a Group I environment, therefore it shall be protected against high impact energy.
- The equipment shall not be exposed to oil or hydraulic fluid.

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

Covered by the standards listed at item (9).

(19) **Test documentation**

As listed in Report No. NL/DEK/ExTR17.0063/02.

(20) **Certificate history**

Issue 0 - 218850600	initial certificate
Issue 1 - 223113600	upgrade maximum operating temperature for version equipped with thermo catalytic gas sensor from 56 °C to 60 °C. minor constructional changes
Issue 2 - 224649000	evaluation per EN IEC 60079-0: 2018 minor non safety related changes