



# 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 17.0050X** Page 1 of 5 Certificate history:  
Status: **Current** Issue No: 2 Issue 1 (2018-12-05)  
Date of Issue: 2020-07-07 Issue 0 (2018-07-06)  
Applicant: **RIKEN KEIKI Co., Ltd.**  
2-7-6, Azusawa,  
Itabashi-ku,  
Tokyo, 174-8744,  
**Japan**  
Equipment: **Portable Gas Monitors models GX-3R and GX-3R Pro**  
Optional accessory:  
Type of Protection: **Ex da ia**  
Marking: Ex da ia IIC T4 Ga or Ex ia IIC T4 Ga and  
Ex da ia I Ma or Ex ia I Ma

Approved for issue on behalf of the IECEx  
Certification Body:

**R. Schuller**

Position:

**Certification Manager**

Signature:  
(for printed version)

Date:

2020-07-07

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**Netherlands**





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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

**IEC 60079-11:2011** Explosive atmospheres - Part 11: Equipment protection by intrinsic safety "i"  
Edition:6.0

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 Reports:

[NL/DEK/ExTR12.0033/02](#)  
[NL/KEM/ExTR07.0057/04](#)

[NL/DEK/ExTR17.0047/02](#)

[NL/DEK/ExTR17.0063/02](#)

Quality Assessment Report:

[NO/PRE/QAR19.0018/01](#)



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## **EQUIPMENT:**

Equipment and systems covered by this Certificate are as follows:

### **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 (O<sub>2</sub>, at slot 3), hydrogen sulfide (H<sub>2</sub>S, at slot 1), sulfur dioxide (SO<sub>2</sub>, 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 (SO<sub>2</sub>), ammonia (NH<sub>3</sub>) etc., and carbon dioxide (CO<sub>2</sub>) 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 IEC 60529.

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

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.



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## Equipment (continued):

### 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:

Ex da ia IIC T4 Ga

Ex da ia I Ma

Ambient temperature: -40 °C to +60 °C

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

Ex ia IIC T4 Ga

Ex ia I Ma

Ambient temperature: -40 °C to +60 °C

### Electrical data

Charging circuit:

$U_m = 6.3 \text{ V}$  (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.



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

- addition of the manufacturing location
- minor non safety related changes
- evaluation per IEC 60079-0: 2017 (ed.7.0)