

Translation

# EU-Type Examination Certificate

Directive 2014/34/EU of the European Parliament and of the Council of 26 February 2014

EU-Type Examination Certificate Number: **BVS 23 ATEX G 002 X** Issue: **01**

Equipment: **GX-9000 and GX-9000 H**

Manufacturer: **RIKEN KEIKI Co., Ltd.**

Address: **2-7-6, Azusawa, Itabashi-ku, Tokyo, 174-8744, Japan**

This product and any acceptable variations thereto are specified in the appendix to this certificate and the documents referred to therein.

DEKRA Testing and Certification GmbH, Notified Body number 0158, 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 the confidential reports PFG-no. 41300123P and PFG-no. 41300123P NII.

This issue of the EU-Type Examination Certificate replaces the previous issue of the EU-Type Examination Certificate BVS 23 ATEX G 002 XU issue 00.

Compliance with the Essential Health and Safety Requirements with respect to the measuring function for explosion protection has been assured by compliance with:

**EN 60079-29-1:2016+A1:2022+A11:2022  
EN 50271:2018**

Where additional criteria beyond those given here have been used, they are listed at item 18 in the Schedule.

If the sign "X" is placed after the certificate number, it indicates that the product is subject to the "Specific Conditions of Use" listed under item 17 of this certificate.

This EU-Type Examination Certificate relates only to the technical design of the specified product in accordance to the Directive 2014/34/EU. Further requirements of the Directive apply to the manufacturing process and supply of this product. These are not covered by this certificate.

The marking of the product shall include the following:

**see DEKRA 21 ATEX 0089 X**

DEKRA Testing and Certification GmbH  
Bochum, 2025-10-27

Signed: Oliver Brumm

Managing Director

13 **Appendix**

14 **EU-Type Examination Certificate**

**BVS 23 ATEX G 002 X issue 01**

15 **Product description**

15.1 **Subject and type**

Gas detection apparatus types GX-9000 and GX-9000 H

15.2 **Description**

The gas detection apparatus types GX-9000 and GX-9000 H are portable equipment for the measurement of flammable gases and vapours mixed with air, of oxygen (measurement of oxygen deficiency and enrichment) and of toxic gases. The apparatus can be equipped with a catalytic sensor (type NCF-6322P, and NCF-6322P M, respectively), an infrared absorption sensor (type IRF-4341, IRF-4342, and IRF-4345, respectively), and a thermal conductivity sensor (type TEF-7520P) for the measurement of flammable gases and vapours, an electrochemical sensor for the measurement of oxygen, and two electrochemical sensors for the measurement of toxic gases. A photo ionization sensor for the measurement of volatile organic compounds (VOC) can also be installed.

It is not necessary that all sensors are equipped. Unused sensor slots must be sealed with dummy sensors. A rechargeable Li-Ion-battery serves as power supply.

**Reason for this issue**

Changes to the software (main board).

15.3 **Parameters**

see EU-type examination certificate DEKRA 21 ATEX 0089 X

15.4 **Measuring function for explosion protection**

This EU-type examination certificate covers:

- apparatus types GX-9000 and GX-9000 H with software versions 06914 V 03.000 or 08365 V 05.000 (main board) and 06915 V 01.000 (sensor board)
- measurement of methane mixed with air with the catalytic sensor type NCF-6322P M (software version 07455 V 02.000, hardware version 01.000) in the measuring range 0 % LEL to 100 % LEL
- measurement of propane, i-butane, and hydrogen mixed with air with the catalytic sensor type NCF-6322P (software version 07455 V 02.000, hardware version 01.000) in the measuring range 0 % LEL to 100 % LEL
- measurement of methane, propane, i-butane, and hydrogen mixed with air with the thermal conductivity sensor type TEF-7520P (software version 06629 V 01.000, hardware version 01.000) in the measuring range 0 % (v/v) to 100 % (v/v)
- measurement of methane mixed with air with the infrared absorption sensor type IRF-4341 (software version 06283 V 01.000, hardware version 01.000) in the measuring ranges 0 % LEL to 100 % LEL and 100 % LEL to 100 % (v/v)
- measurement of propane mixed with air with the infrared absorption sensor type IRF-4342 (software version 06283 V 01.000, hardware version 01.000) in the measuring ranges 0 % LEL to 100 % LEL and 100 % LEL to 100 % (v/v)
- measurement of i-butane mixed with air with the infrared absorption sensor type IRF-4345 (software version 06283 V 01.000, hardware version 01.000) in the measuring ranges 0 % LEL to 100 % LEL and 100 % LEL to 100 % (v/v)

- use of the following outputs for safety relevant purposes:
  - display
  - visual and audible indicators
- use of the following accessories:
  - rechargeable battery pack BUL-9000 (part-no. 4777 9604 30)
  - dummy sensor for F-sensors (part-no. 4254 4019 00)
  - dummy sensor for R-sensors (part-no. 4777 4186 60)
  - Flow indicator (part-no. 4777 9576 80)
  - gas sampling rod (part-no. 0904 0275 00)
    - with gas sampling tube (part-no. 0914 0135 30)
  - gas sampling tube with float (8 m) (part-no. 4384 0430 60)
  - gas sampling tube with float (30 m) (part-no. 4775 9678 80)
  - gas sampling tube with float (45 m) (part-no. 4777 9567 60)
  - gas sampling tube with weight (30 m) (part-no. 4775 9679 50)
  - gas sampling tube with weight (45 m) (part-no. 4777 9465 80)

The EU-type examination includes the following deviations from the operating conditions required by EN 60079-29-1:

- Extended range of temperature at operation: -20 °C to +50 °C
- Extended range of pressure at operation: 80 kPa to 120 kPa
- Extended range of humidity of the measured gas (continuous use): 10 % RH to 90 % RH

## 16 Report

PFG-no. 41300123P NII as of 2025-10-27

## 17 Specific Conditions of Use

- See EU-type examination certificate DEKRA 21 ATEX 0089 X
- Do not set the parameter "ALARM ON" to "OFF".
- Set the parameter "Setting the Buzzer" to "ALL ON" or to "BUTTON TONE OFF".
- Set the parameter "Confirmation beep operation" to "LED+BUZZER" and its interval to 60 s or below.
- Perform a "fresh Air adjustment" prior to any "span adjustment".
- Check the calibration of the catalytic sensor and the correct function of the apparatus after the apparatus has been subjected to physical shock.
- Enable the User password.
- When measuring hydrogen with catalytic sensors, an external flow indicator (part-no. 4777 9576 80) shall be used.

## 18 Essential Health and Safety Requirements

Met with respect to the measuring function for explosion protection by compliance with the requirements mentioned in item 9.

## 19 Remarks and additional information

Drawings and documents are listed in the confidential report.

We confirm the correctness of the translation from the German original.  
In the case of arbitration only the German wording shall be valid and binding.

DEKRA Testing and Certification GmbH  
Bochum, 2025-10-27



Managing Director

Translation  
**1<sup>st</sup> Supplement**  
to the Type Examination Certificate  
- Gas detectors -  
**PFG 23 G 003 X**

**Equipment:** GX-9000 and GX-9000 H

**Manufacturer:** RIKEN KEIKI Co., Ltd.

**Address:** 2-7-6, Azusawa, Itabashi-ku, Tokyo, 174-8744, Japan

The certification body of DEKRA Testing and Certification GmbH certifies that this equipment has been found to comply with the requirements of the standards

EN 50104:2019 + A1:2023  
EN 50271:2018

with regard to the measuring function for

- oxygen (measurement of oxygen deficiency and enrichment) in the measuring range 0 - 25 % (v/v)

On the basis of DIN EN ISO/IEC 17065, this certification includes a type examination. The examination and test results and the design of the equipment are recorded in the test report PFG-Nr. 41300123P NII.

If the sign "X" is placed after the certificate number, it indicates that the equipment is subject to special conditions for safe use specified in the annex to this certificate.

The manufacturer declares the conformity of the manufactured products with the certified design by marking them with the number of this type examination certificate.

**DEKRA Testing and Certification GmbH**

Bochum, dated 2025-10-27

Signed: Brumm

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Managing Director

# 1<sup>st</sup> Supplement to the Type Examination Certificate

## PFG 23 G 003 X

### Description of the gas detector

The gas detection apparatus types GX-9000 and GX-9000 H are portable equipment for the measurement of flammable gases and vapours mixed with air, of oxygen (measurement of oxygen deficiency and enrichment) and of toxic gases. The apparatus can be equipped with a catalytic sensor (type NCF-6322P, and NCF-6322P M, respectively), an infrared absorption sensor (type IRF-4341, IRF-4342, and IRF-4345, respectively), and a thermal conductivity sensor (type TEF-7520P) for the measurement of flammable gases and vapours, an electrochemical sensor for the measurement of oxygen, and two electrochemical sensors for the measurement of toxic gases. A photo ionization sensor for the measurement of volatile organic compounds (VOC) can also be installed.

It is not necessary that all sensors are equipped. Unused sensor slots must be sealed with dummy sensors. A rechargeable Li-Ion-battery serves as power supply.

Reason for the supplement:

Changes to the software (main board)

### Type of protection

**see DEKRA 21 ATEX 0089 X**

### Special conditions for use

- Do not set the parameter "ALARM ON" to "OFF".
- Set the parameter "Setting the Buzzer" to "ALL ON" or to "BUTTON TONE OFF".
- Set the parameter "Confirmation beep operation" to "LED+BUZZER" and its interval to 60 s or below.
- Enable the User password.

### Additional Information

- The measuring function of the apparatus for flammable gases according to directive 2014/34/EU is subject of the EU-type examination certificate BVS 23 ATEX G 002 X.
- This type examination certificate covers:
  - Apparatus types GX-9000 and GX-9000 H with software versions 06914 V 03.000 or 08365 V 05.000 (Main board) and 06915 V 01.000 (Sensor board)
  - the measurement of oxygen (measurement of oxygen deficiency and enrichment) in the measuring range 0 - 25 %(v/v) with the electrochemical sensor ESR-X13P
  - use of the following outputs for safety relevant purposes:
    - display
    - visual and audible indicators

- use of the following accessories:
  - rechargeable battery pack BUL-9000 (Part-no. 4777 9604 30)
  - Dummy sensor for F sensors (Part-no. 4254 4019 00)
  - Dummy sensor for R sensors (Part-no. 4777 4186 60)
  - Flow indicator (Part-no. 4777 9576 80)
  - Gas sampling rod (Part-no. 0904 0275 00)  
with Gas sampling tube (Part-no. 0914 0135 30)
  - Gas sampling tube with float (8 m) (Part-no. 4384 0430 60)
  - Gas sampling tube with float (30 m) (Part-no. 4775 9678 80)
  - Gas sampling tube with float (45 m) (Part-no. 4777 9567 60)
  - Gas sampling tube with weight (30 m) (Part-no. 4775 9679 50)
  - Gas sampling tube with weight (45 m) (Part-no. 4777 9465 80)
  
- The type examination includes the following deviations from the operating conditions required by EN 50104:
  - extended range of temperature at operation: -20 °C to +50 °C
  - extended range of humidity of the measured gas (continuous use): 10 % RH to 90 % RH

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We confirm the correctness of the translation from the German original.  
In the case of arbitration only the German wording shall be valid and binding.

DEKRA Testing and Certification GmbH  
Bochum, 2025-10-27

A handwritten signature in blue ink, appearing to read 'Q. Baum', is written over a horizontal line.

Managing Director