



Marine &amp; Offshore

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This certificate is not valid when presented without the full attached schedule composed of 7 sections  
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Notified Body 2690 - MARINE EQUIPMENT DIRECTIVE 2014/90/EU

## EC TYPE EXAMINATION CERTIFICATE

as per Module B of Directive 2014/90/EU of the European Parliament and of the Council of 23 July 2014 as transposed in the French Regulations and Commission Implementing Regulation (EU) 2024/1975 of 19 July 2024

This certificate is issued to:

**RIKEN KEIKI Co., Ltd.**

2-7-6, Azusawa, Itabashi-ku, 174-8744, Tokyo, JAPAN

for the type of product

**PORTABLE OXYGEN ANALYSIS AND/OR GAS DETECTION EQUIPMENT - CATEGORY 2 (EXPLOSIVE GAS ATMOSPHERES)**

GX-9000 and GX-9000H

**Requirements:**

SOLAS 74 convention as amended, Regulations II-2/4, VI/3.

IMO Res. MSC.98(73) -(FSS Code)- as amended by MSC.206(81), MSC.217(82), MSC.292(87), MSC.311(88), MSC.327(90), MSC.339(91), MSC.367(93), MSC.403(96), MSC.410(97), MSC 457(101) and MSC.484(103), 15

EN 50104:2019 incl. EN 50104:2019/A1:2023

EN 60079-29-1:2016 incl. A1:2022 and A11:2022, EN 60079-0:2018, incl. AC:2020, EN 60079-1:2014, incl.AC:2018-09, EN IEC 60079-10-1:2021, EN 60079-11:2012, EN 60079-15:2019, EN 60079-26:2015

EN 60945:2002 incl. /Corr.1:2008

IEC 60092-504:2016

IEC 60533:2015

IMO MSC.1/Circ.1477 and IMO MSC.1/Circ.1581

This certificate is issued on behalf of the French Maritime Authorities to attest that Bureau Veritas Marine & Offshore did undertake the relevant type-examination procedures for the product identified above which was found to comply with the relevant requirements of the Directive 2014/90/EU of the European Parliament and of the Council of 23 July 2014 as transposed in the French Regulations.


**This certificate will expire on: 27 Sep 2029****For Bureau Veritas Marine & Offshore Notified Body 2690,**

At BV KOBE, on 27 Sep 2024,

Shinichi Takemoto

**This certificate was created electronically and is valid without signature**



**This certificate does not allow to issue the Declaration of Conformity and to affix the mark of conformity (wheelmark ) to the products corresponding to this type. To this end, the production-control phase module (D, E or F) of Annex II of the Directive is to be complied with and controlled by a written inspection agreement with a notified body.**

This certificate remains valid until the date stated above, unless cancelled or revoked, provided the conditions indicated in the subsequent page(s) are complied with and the product remains satisfactory in service. This certificate will not be valid if the applicant makes any changes or modifications to the approved product, which have not been notified to, and agreed in writing with Bureau Veritas Marine & Offshore. Should the specified regulations or standards be amended during the validity of this certificate, the product(s) is/are to be re-approved prior to it/they being placed on board vessels to which the amended regulations or standards apply. Bureau Veritas Marine & Offshore is designated by the French Maritime Authority as a "notified body" under the terms of the French Regulations Division 140 Chapter 140-2. This certificate is issued within the scope of the General Conditions of Bureau Veritas Marine & Offshore available on the internet site www.veristar.com. Any Person not a party to the contract pursuant to which this document is delivered may not assert a claim against Bureau Veritas Marine & Offshore for any liability arising out of errors or omissions which may be contained in said document, or for errors of judgement, fault or negligence committed by personnel of the Society or of its Agents in establishment or issuance of this document, and in connection with any activities for which it may provide.

## THE SCHEDULE OF APPROVAL

### 1. PRODUCT DESCRIPTION :

**GX-9000** and **GX-9000H** are portable multi-gas detectors, one unit measures up to six different gas concentrations by combine up to six sensors.

#### Main specifications:

Model	<b>GX-9000/GX-9000H</b>
Concentration display	LCD digital
Detection target gas	Combustible gas, Oxygen
Detection method	Pump suction type
Power Rating	Lithium-ion battery(3.6VDC)
IP rating	IP66/68 Li-ion battery type
Ex rating	Ex ia IIC T4 Ga (without catalytic type sensor) Ex da ia IIC T4 Ga (with catalytic type sensor)

#### Approved Sensors:

Sensor type	Detection principle	Sensor model	Measurement range
Combustible gas sensor	Non-dispersive infrared type(NDIR)	IRF-4341(CH4) IRF-4342(C3H8) IRF-4345(i-C4H10)	0-100% LEL / 100%LEL - 100% (v/v)
	New ceramic type	NCF-6322P(C3H8/H2/i-C4H10) NCF-6322P M(CH4)	0-100%LEL 0-100%LEL
	Thermal conductivity type	TEF-7520P (C3H8/H2/CH4/i-C4H10)	0 - 100% (v/v)
Oxygen sensor	Electrochemical type	ESR-X13P (O2)	0 - 25% (v/v)

### 2. DOCUMENTS AND DRAWINGS :

- Portable Gas Detector GX-9000 Series Operating Manual, No.PT0E-249X, dated 08-08-2024.
- Circuit drawing, No. E3-6991-6210-20-01K, dated 29-08-2022.
- Assembly drawings:
  - No. M3-4777-23-01K, dated 13-04-2021.
  - No. M2-4777-23-01K, dated 15-04-2021.
  - No. M2-4777-23-02K, dated 15-04-2021.
  - No. M2-4777-26-01K, dated 15-04-2021.
  - No. M4-4463-23-01K, dated 26-04-2021.
  - No. M3-4463-22-02K, dated 26-04-2021.
  - No. M4-4463-22-02K, dated 10-08-2021.

### 3. TEST REPORTS :

#### RIME:

- Test Report No. 23-323(E), dated 31-10-2023.
- Test Report No. 23-346(E), dated 14-12-2023.
- Test Report No. 23-347(E), dated 14-12-2023.
- Test Report No. 23-348(E), dated 14-12-2023.
- Test Report No. 23-349(E), dated 25-12-2023.

#### DEKRA:

- Test Report No. 41300123P, dated 28-05-2024
- Test Report No. 41300123P N1, dated 16-07-2024.
- IECEx test report No. NL/DEK/ExTR21.0038/00, dated 16-03-2022.
- IECEx test report No. NL/DEK/ExTR21.0064/00, dated 12-10-2022.
- IECEx test report No. NL/DEK/ExTR21.0064/01, dated 26-04-2024.

#### JQA:

- Test Report No. 400-210059-1R, dated 01-07-2022.
- Test Report No. 400-210058-2R, dated 01-07-2022.
- Test Report No. 382-210054-1, dated 22-12-2021.
- Test Report No. 382-210054-3, dated 22-12-2021.

#### Chemitox:

- Test Report No.231468, dated 25-10-2023.

**4. APPLICATION / LIMITATION :**

- 4.1 - As per Requirements of Rules stated on the front page of this certificate.  
4.2 - The equipment fulfils the EMC requirements for installation on the Bridge and Deck Zone.  
4.3 - EN 60079-10-1, EN60079-15 and EN 60079-26 are not applicable to the above products.  
4.4 - Ex-certification is not covered by this certificate, Applications in hazardous areas are to be approved in each case according to the Rules and Conditions for Safe Use specified in a valid Ex-Certificate issued by a Notified or Recognised Certification Body.

**5. PRODUCTION SURVEY REQUIREMENTS :**

- 5.1 - This certificate alone does not allow the applicant to issue the Declaration of Conformity and to affix the mark of conformity (wheelmark) to the products corresponding to this type. To this end, the production-control phase module D Production Quality Assurance or module E Product Quality Assurance or module F Product Verification of Annex II of the Directive is to be complied with and controlled by a written inspection agreement with a Notified Body  
5.2 - For information concerning the production phase modules, **RIKEN KEIKI Co., Ltd.** has declared the following manufacturing site(s):

**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**

- 5.3 - The following components shall comply with the requirements of MED 2014/90/EU, as amended, and be wheelmarked:  
- GX-9000 and GX-9000H

**6. MARKING OF PRODUCT :**

Reference is made to MED 2014/90/EU chapter 2.

In particular Article 10.3 specifies that the wheelmark shall be followed by the identification number of the Notified Body involved in the production control phase (module D, E or F) and by the year in which the mark is affixed (4 digits or last 2 digits).

**7. OTHERS :**

It is **RIKEN KEIKI Co., Ltd.**'s responsibility to inform shipbuilders or their sub-contractors of the proper methods of fitting, use and general maintenance of the approved equipment and the conditions of this approval.

\*\*\* END OF CERTIFICATE \*\*\*