



Maritime &
Coastguard
Agency

UK Approved Body Authorised
by the MCA

Certificate number: 77760/A0 UK

File number: MPA2401661

Item number: UK/3.30b

*This certificate is not valid when
presented without the full attached
schedule composed of 7 sections*

Approved Body 8517 - UNITED KINGDOM MARINE EQUIPMENT APPROVAL

UK TYPE-EXAMINATION (MODULE B) CERTIFICATE

This is to certify that Bureau Veritas SA UK Branch Office did undertake the relevant type approval procedures for the type of equipment identified below which was found to be in compliance with the requirements of the Merchant Shipping (Marine Equipment) Regulations 2016, as amended, subject to any conditions in the schedule attached hereto.

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 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) and MSC.457(101), 15

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

EN 50104:2019,

EN 60079-29-1:2016, EN 60079-0:2018 incl. AC:2020, EN 60079-1:2014 incl.AC:2018-09, EN 60079-10-1:2021, EN

60079-11:2012, EN 60079-15:2019, EN 60079-26:2015

IEC 60092-504:2016 and IEC 60533:2015

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

The attached (schedule of approval) forms part of this certificate.

This certificate remains valid unless suspended, expired or withdrawn, provided the conditions in the attached schedule are complied with.

This certificate will expire on: 02 Oct 2029

Issued by Bureau Veritas SA UK Branch Office

(Approved Body 8517)

At BV KOBE, on 02 Oct 2024,

Shinichi Takemoto

This certificate was created electronically and is valid without signature



Note 1: This certificate will not be valid if the manufacturer makes any changes or modifications to the approved type of equipment, which have not been notified to, and agreed with the approved body named on this certificate.

Note 2: During the period of validity of this certificate the applicable regulations (international conventions and the relevant resolutions and circulars of the IMO) and testing standards may change, therefore the product conformity may need to be re-assessed by the Approved Body.

Note 3: "The Mark of Conformity may only be affixed to the above type approved equipment and a Manufacturer's Declaration of Conformity issued when the production-control phase module (D, E or F) of Schedule 2 of the Merchant Shipping (Marine Equipment) Regulations 2016, as amended is fully complied with and controlled by a written inspection agreement with an approved body."

Note 4: In case limitations of use apply, these should be indicated in the Annex.

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 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 | GX-9000/GX-9000H |
| 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) | 0-100% LEL / 100%LEL - 100% (v/v) |
| | | IRF-4342(C3H8) | |
| | | IRF-4345(i-C4H10) | |
| | New ceramic type | NCF-6322P(C3H8/H2/i-C4H10) | 0-100%LEL |
| | | NCF-6322P M(CH4) | 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 and Regulations 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 UK Declaration of Conformity and to affix the mark of conformity (United Kingdom conformity mark) 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 Schedule 2 of the Merchant Shipping (Marine Equipment) Regulations 2016, as amended, is to be complied with and controlled by a written inspection agreement with an Approved 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 component(s) shall comply with the requirements of Merchant Shipping (Marine Equipment) Regulations 2016, as amended, and be marked with the United Kingdom Conformity Mark:
- GX-9000 and GX-9000H

6. MARKING OF PRODUCT :

Reference is made to the Merchant Shipping (Marine Equipment) Regulations 2016, as amended, Part3:
In particular Article 15.3 specifies that the United Kingdom conformity mark shall be followed by the identification number of the Approved 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 ***