



Marine & 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) 2023/1667 of 8 Aug. 2023

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)

Portable Gas Monitor

Model: GX-8000

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 60945:2002 incl. /Corr.1:2008

EN 50104:2010,

EN 60079-29-1:2016, EN IEC 60079-0:2018, EN 60079-1:2014, EN 60079-10-1:2015, EN 60079-11:2012, EN 60079-15:2010,

EN 60079-26:2015

IEC 60092-504:2016 and 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: 25 Aug 2024**For Bureau Veritas Marine & Offshore Notified Body 2690,**

At BV KOBE, on 02 Jul 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:

- Product model or type designation :
Model: **GX-8000**
- Product description:
Portable Multi Gas Monitor

1.1 - Main Characteristics of GX-8000 Gas Detector:

Detection Gas	HC and CH4	Oxygen
Detection principle:	Catalytic Combustion (% LEL) Thermal Conductivity (% vol)	Galvanic Cell
Measuring Range:	0-100 % LEL and / or 0-100 % vol (Depending on model)	0-40 % vol (Oxygen depletion or enrichment)
Display:	Digital LCD with auto backlight (Gas concentration value + Bargraph)	
Alarms:	Gas Alarms (2 Levels) & Failure Alarms (LEDs and Buzzer)	
Sampling Method:	Internal sample pump, flow rate 0.75 l/min.	
Power Source:	AA alkaline battery x 3 (Oxygen only) Direct charging Li-ion Battery Pack	
Protection Index:	IP67	
Ex Protection:	II 1G Ex ia IIC/IIB T4 Ga	
Software Version:	03756 dated 2010.8.11	

2.2 - Other Characteristics:

GX-8000 is declared by manufacturer as capable of detecting and measuring CO, H2S (not covered by MED).

2. DOCUMENTS AND DRAWINGS:

Riken Keiki:

Brochure / Software:

- Portable Multi Gas Monitor: Model GX-8000, Ref. C0E-0700
- Software Configuration and Control Management No. H262-10020 dated Oct.29.2010.

Drawings:

- Drawings List (2 pages) for Model GX-8000, Ref. 2010.04.20 Rev.2.
- Drawings according to drawings List.

Nb: This above list can be revised to show changes to drawing issue status. Before changes can be implemented, new drawings must be provided to Bureau Veritas for review and acceptance. The new drawing list will be stamped and endorsed accordingly. Manual(s) for installation, use and maintenance:

- Model GX-8000 Operating Manual.

Nb: To be stamped by a Society's Surveyor and to be available in one of the IMO languages, in addition to the ship's flag language.

- Manufacturing documentation: To be approved by Bureau Veritas e.g. Manufacturing, test and inspection plan.
- GX-8000 Software Functional Statement Ref.: 320-10093T(Rev.6.00), dated Aug 10, 2010
- Ex Conformity No. 320CE24099, dated Jun 12, 2024

3. TEST REPORTS:

Riken-Keiki:

- Test Report No. 570H10029 as per MED A.1/3.30 and testing standards EN 60079-29-1:2007 and EN50104:2002 dated September 10.2010 / October 29.2010 and witnessed by BV 's Surveyor
- Test Report No. 570H10030 as per MED A.1/3.30 and testing standard EN 60945:2002 dated October 13.2010 / October 29.2010 and witnessed by BV 's Surveyor.
- GX-8000 Test report according to EN 50104 (2010), dated Nov 4, 2015
- Gap analysis _IEC60533:2015, dated Jan 2016
- Manufacture's Statement Ref.: CDE 19043, dated May 28, 2019

UL Japan:

- EMC Test Report 30HE0099-SH dated September 22, 2010.

JQA:

- IP - Test Certificate No. 382-100006-3 dated May 19, 2010.
- Test Report for GX-8000(BUL), No. 400-180138-1, dated 13-05-2019.
- Test Report for GX-8000(BUD), No. 400-180138-2, dated 13-05-2019.

DEKRA:

- Test report PFG-no. 41500319P, dated 07-05-2019.

- EC-Type Examination Certificate No. KEMA 10ATEX0085 Issue No.6, dated 24-04-2024.

4. APPLICATION / LIMITATION:

- 4.1 - As per Requirements of Regulations stated on the front page of this certificate.
- 4.2 - The equipment fulfils the EMC requirements for installation in General Power Distribution Zone and / or Deck Zone.
- 4.3 - Only Hardware and Software successfully tested together in compliance with the regulations as referred to in page one, according to the declaration of the manufacturer are covered by this certificate.
- 4.4 - Not to be used for measurement of Oxygen on Nitrogen or Flue Gas based Inert Gas Systems.
- 4.5 - 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.
- 4.6 - EN 60079-1:2014, EN 60079-10-1, EN 60079-15 : 2010 and EN 60079-26 :2015 are not applicable to the above products.
- 4.7 - The following component(s) shall comply with the requirements of MED2014/90/EU, as amended, and be wheelmarked:
 - GX-8000

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,
344-0057 SAITAMA
JAPAN

RIKEN KEIKI NARA MFG. Co., Ltd.
49-1 Abe, Sakurai-shi
633-0054 NARA
JAPAN

6. MARKING OF PRODUCT:

- According to IEC 60079-29-1 and EN 50104
- Ex marking as relevant.
- 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:

- 7.1 - 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.
- 7.2 - This certificate supersedes the EC Type Examination Certificate No. 23502/D0 MED issued on 15 Jul 2021 by the Society.

*** END OF CERTIFICATE ***