



Marine & Offshore

Certificate number: 21922/D0 BV

File number: AP 4012

Product code: 3704I

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

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## TYPE APPROVAL CERTIFICATE

*This certificate is issued to*

**Kongsberg Maritime AS**  
Ranheim - NORWAY

*for the type of product*

**LEVEL MONITORING / ALARM SYSTEMS**  
GL-300 Tank Monitoring

**Requirements:**

Bureau Veritas Rules for the Classification of Steel Ships.

EC Code: 31B/41B

*This certificate is issued to attest that Bureau Veritas Marine & Offshore did undertake the relevant approval procedures for the product identified above which was found to comply with the relevant requirements mentioned above.*

**This certificate will expire on: 12 May 2028**

**For Bureau Veritas Marine & Offshore,**

At BV OSLO, on 12 May 2023,

Rune MARSTEIN

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



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. This certificate is issued within the scope of the General Conditions of Bureau Veritas Marine & Offshore available on the internet site [www.veristar.com](http://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.

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BV Mod. Ad.E 530 June 2017

This certificate consists of 4 page(s)

## THE SCHEDULE OF APPROVAL

### 1. PRODUCT DESCRIPTION:

GL-300 Tank Monitoring measures the ullage/level, inert gas pressure and temperature in tanks onboard ships. It consists of:

#### - GLA-300 Radar Tank Gauge (RTG)

Ex-classification: Sira 14 ATEX 2056 X

Ex ia IIC T4

Ui=14.3 VDC, Pi= 2.1W, Ci=347nF, Li=0

-45°C =< Ta° =< 85°C

IP 66/67

#### - GLA-310 Radar Tank Gauge

Ex-classification: Sira 14 ATEX 2056 X

Ex ia IIC T4

Ui=14.3 VDC, Pi= 2.1W, Ci=347nF, Li=0

-45°C =< Ta° =< 85°C

IP 66/67

#### - GC-300/GC-306 Cargo Temperature Unit (CTU)

Ex-classification: Sira 14 ATEX 2054 X

Ex ia IIC T4

Ui=28 VDC, Pi= 0.85W, Ci=9.3nF, Li=0

-45°C =< Ta° =< 85°C

#### - GLK-300 Signal Processing Unit (SPU)

Ex-classification: Presafe 14 ATEX 5412 X

[Ex ia] IIC

Power supply: 24 VDC nom. (18 to 32 V)

Communication: Dual Ethernet

Input/output: 1 radar input, 1 HART input

Ambient temperature: -15°C to 70°C

### 2. DOCUMENTS AND DRAWINGS:

- Data Sheets, Mechanical and Electrical Drawings of GLA-300 Radar Tank Gauge, GC-300 Cargo Temperature Unit, GLK-300 Signal Processing Unit as listed in Kongsberg document Ref: TA- documentation for certificate application of GL-300 (Issue No. B) dated 30/06/09, updated/added doc. 2014-03-17.

- GL-300 Manuals and system description as listed in Kongsberg document Ref: TA- documentation for certificate application of GL-300 (Issue No. B) dated 30/06/09.

- GL-300 Software documentation as listed in Kongsberg document Ref: TA- documentation for certificate application of GL-300 (Issue No. B) dated 30/06/09.

- SW revision history for GL-300, new revision. J, dated 2018-10-25.

- Data Sheet GC-300 Cargo Temperature Unit No. P-GC300/CZ Rev.J,

**For modification D0 version:**

- Data Sheets GLA-300 Radar Tank Gauge , GLA-300/P : No. P-GLA300/CE Rev.F, GLA-300/H: No.P-GLA300H/CE Rev.F, GLA-300/HS: No.P-GLA300HS/CE Rev.E.
- Data Sheets GLA-310/5 Radar Tank Gauge , GLA-310/5: No. 383758 Rev.F, GLA-310/5-G: No. 394663 Rev.E, GLA-310/5-NH3: No. 411509 Rev.B, GLA-310/5-LH2: No. 435445 Rev.B, GLA-310/5-Dual: No. 442205 Rev.E.
- Data Sheet GLH-320 Radar Electronic Unit No. 436580 Rev.B
- Data Sheet GLK-300 Signal Processing Unit No. P-GLK300/CE Rev I, dated 2020-01-12.
- K-Gauge GL-300 based multifunction system with dual radar, No. 394855 Rev.B, dated 2020-04-24
- Data Sheet GC-306 Cargo Temperature Unit No.371645 Rev.D.

**Ex certificate:**

- Certificate No. IECEX PRE 14.0053X Issue 2, dated 2020-11-18.
- Certificate No. IECEX SIR 14.0024X Issue 3, dated 2021-12-09.
- Certificate No. IECEX SIR 14.0025X Issue 2, dated 2021-12-15.
- EU-Type Examination Certificate, Presafe 14 ATEX 5412 X Issue 3, dated 2020-11-18.
- EU-Type Examination Certificate, Sira 14 ATEX 2054 X Issue 3, dated 2020-10-23.
- EU-Type Examination Certificate, Sira 14 ATEX 2056 X Issue 3, dated 2020-10-23.

**3. TEST REPORTS:****Nemko:**

- Nemko Report No. E09680.00 dated 2009-06-24
- Nemko Pressure Test – GLA-300 declaration dated 2009-06-03
- Nemko Salt Mist Test GLA-300 & GC-300 dated 2009-06-02
- Nemko Vibration No.:E10017.00 Test GLA-300/HS dated 2010-01-19
- Test Report, No. E17118.00, dated 2017-09-22.

**For modification D0 version:****Nemko:**

- EMC Test Report No. E21214.00, dated 2021-11-01.
- Test Report No. 209536, dated 21-08-2012.
- Test Report No. E13227.00, dated 02-10-2013.

**4. APPLICATION / LIMITATION:**



- 4.1 - BV Rules for the Classification of Steel Ships.
- 4.2 - Approval also valid for ships to be granted with the notations: **AUT-UMS, AUT-CCS, AUT-PORT and AUT-IMS.**
- 4.3 - BUREAU VERITAS Environmental Category, **EC Code: 31B/41B**
- 4.4 - The equipment fulfils the EMC requirements for installation on the Bridge and Deck Zones.
- 4.5 - Satisfactory performance tests should be witnessed on each installation by the Society's Surveyor after installation on board.
- 4.6 - 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.
- 4.7 - Equipment covered by this Type Approval certificate has been tested according to requirements of IACS UR E10 rev 8.

**5. PRODUCTION SURVEY REQUIREMENTS:**

- 5.1 - The above products are to be supplied by **KONGSBERG MARITIME AS** in compliance with the type and the requirements described in this certificate.
- 5.2 - This type of product is within the category IBV of Bureau Veritas Rule Note NR320.
- 5.3 - BV product certificate is required.
- 5.4 - For information, **Kongsberg Maritime AS** has declared to Bureau Veritas the following production site(s):

**Kongsberg Maritime AS  
Skonnertvegen 1  
N-7053 Ranheim  
NORWAY**

**6. MARKING OF PRODUCT:**

- 6.1 - Maker's name or trade mark
- 6.2 - Serial number of the units
- 6.3 - Equipment type number or model identification under which it was type-tested
- 6.4 - Type of protection
- 6.5 -  or  conformity marking, as relevant.

**7. OTHERS:**

- 7.1 - It is **Kongsberg Maritime AS** '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 Type Approval Certificate No. 21922/C0 BV issued on 17 Dec 2019 by the Society.

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