



Marine & Offshore

Certificate number: 16145/D0 BV

File number: AP 3720

Product code: 3741H

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 TRANSMITTERS

Level Sensor, type GL-7B.

Requirements:

BUREAU VERITAS Rules for the Classification of Steel Ships.

EC Code: 41.

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: 11 Feb 2026

For Bureau Veritas Marine & Offshore,

At BV OSLO, on 11 Feb 2021,

Rune MARSTEIN

Rune Marstein



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. 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 3 page(s)

THE SCHEDULE OF APPROVAL

1. PRODUCT DESCRIPTION:

GL-7B is a level alarm sensor intended for high level detection in cargo tanks.

1.1 - Specifications:

Model	GL-7B
Material, Sensor body	Steel AISI316/PTFE
Connections	Twisted pair
Operating temperature range	-45°C to +85°C
Power Supply	24 VDC
Output:	4 - 20 mA
Accuracy	± 1 cm
Degree of protection	IP 66/67
Ex. certified	II 1 G Ex ia IIC T5

2. DOCUMENTS AND DRAWINGS:

KONGSBERG Document Ref.: P-GL7B/CE, dated 09.Jun.2015.

KONGSBERG Document Ref.: GL-2712, dated 2016-11-10.

KONGSBERG Document Ref.: GL-2713, dated 2016-11-10.

3. TEST REPORTS:

- Nemko test report No.E16236.00, dated 2016-11-14.

- TUV NORD CERT GmbH certificate No. IECExTUN 13.0030X issue 4 dated 2017-09-21

4. APPLICATION / LIMITATION:

4.1 - The electrical safety type equipment may be used in areas considered as dangerous due to presence of flammable or explosive gases or vapours corresponding to the group IIC and to the temperature class T5 depending of ambient temperature as defined in IEC Classification.

4.2 - Approval also valid for ships to be granted with the notations: **AUT-UMS, AUT-CCS, AUT-PORT, AUT-IMS.**

4.3 - The equipment fulfils the EMC requirements for installation on the Bridge and Deck Zone.

4.4 - The above sensor shall be connected to an approved alarm system through appropriate intrinsically safety barrier.

4.5 - The fitting aboard is to be the same as used for the tests. in particular, sensor is covered by steel pipe (GL-10).

4.6 - BUREAU VERITAS Environmental Category, **EC Code: 41.**

5. PRODUCTION SURVEY REQUIREMENTS:

5.1 - The above products are to be supplied by **KONGSBERG MARITIME AS** in compliance with the type described in this certificate.

5.2 - This type of product is within the category HBV of Bureau Veritas Rule Note NR320 and as such does not require a BV product certificate.

5.3 - **KONGSBERG MARITIME AS** has to make the necessary arrangements to have its works recognised by Bureau Veritas in compliance with the requirements of NR320 for HBV products.

5.4 - For information, **KONGSBERG MARITIME AS** has declared to Bureau Veritas the following production sites :

KONGSBERG MARITIME AS	Kongsberg Maritime China Jiangsu Ltd.
Skonnertvegen 1	No. 711 Changjiang Road,
N-7053 Ranheim	Zhenjiang, Jiangsu Province
NORWAY	212002 Zhenjiang
	CHINA

6. MARKING OF PRODUCT:

6.1 - Trade name

6.2 - Date of manufacture and serial number

6.3 - Ex marking, as relevant

6.4 - Equipment type number or model identification under which it was type-tested.

7. OTHERS:

7.1 - It is **KONGSBERG MARITIME AS** 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 N° 16145/C1 BV issued on 23 May 2016. by the Society.

*** END OF CERTIFICATE ***