



NIPPON KAIJI KYOKAI

**TYPE APPROVAL CERTIFICATE
FOR LIQUID LEVEL GAUGE / HIGH LEVEL ALARM**

Certificate No. TA25226M

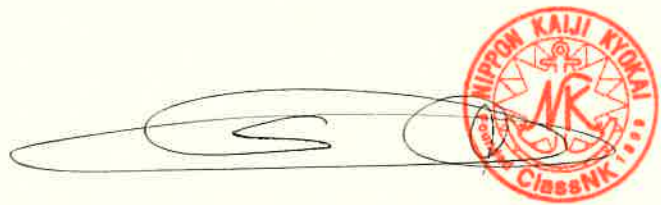
This is to certify that the undernoted product(s) has/have been approved in accordance with the requirements specified in the Chapter 7, Part 6 and Chapter 4, Part 7 of “Guidance for the Approval and Type Approval of Materials and Equipment for Marine Use” and the relevant Society's Rules.

This certificate is issued to

Manufacturer:	KONGSBERG MARITIME AS
Place of Manufacturing:	Skonnertvegen 1, NO-7005 Trondheim, Norway
Product description:	Tank Monitoring Equipment
Model:	GL-300
Approval No.:	09LG003
Valid until:	5 October 2029

The details are described in the attached sheet(s).

Issued at Tokyo on 25 March 2025.



S. Oishi
S. Oishi
General Manager
Machinery Department

Note: (1) This certificate has been issued due to addition of new system components.
(2) The manufacturer, if desired, is requested to apply to the Society for renewal prior to the expiration date.

Specification & documents:

1. Ratings: Power supply: DC 24 V

2. Components and reference drawings:

Components		Documents	Ex-Type
Radar Tank Gauge	GLA-300	P-GLA300/CE P-GLA300H/CE P-GLA300HS/CE GLA-300 dimensions GLA-300 Assembly GLB-300 house GLB-300 PCB top GLB-300 PCB bottom	Ex ia IIC T4
Radar Tank Gauge Electronic Unit (Equipped in GLA-300)	GLH-310 GLH-320	364982B Datasheet GLH-310 GL-2575 Assembly Drawing 436580B Datasheet GLH-320 GL-2736 Assembly Drawing	Ex ia IIC T4
Cargo Temperature Unit	GC-300	P-GC300/CE GC-225B	Ex ia IIC T4
Inert Pressure Sensor	GT406	P-GT406/CE	Ex ia IIC T5
Signal Processing Unit	GLK-300	P-GLK300/CE GLK-300 dimensions GLK-Main PCB-top GLK-Main PCB-bottom GLK-Piggy PCB-top GLK-Piggy PCB-bottom	[Ex ia]IIC
	HCM-300 RCM-300 TCU-300	P-HCM300/CE GL-2753A System Drawing P-RCM300/CE GL-2752A System Drawing P-TCU300/CE	

3. Documentation and Test Reports:

- NEMKO Test report No. E09680.00
- NEMKO Test report No. E10017.00
- NEMKO Test report No. 209536 for GCB-303 and GCB-306
- NEMKO Test report No. E17118 for GLH-320 and GT406
- IECEX_SIR_14.0025X, NEMKO 02ATEX119X
- Flame retardant material declaration
- NEMKO Test Report No. E21214.00 for GLK-300 (2021-11-01)
- NEMKO Test Report No. REP007416 for TCU-300, RCM-300, HCM-300 (2024-09-02)

4. Software (typical example as operating system):

- Document for software verification
- SW revision history for GL-300 (Document No. 386310/K)

- To be continued -

Test items & approval conditions:

1. Test items:

(Applied testing items are marked with X.)

ENVIRONMENTAL TESTS (IACS E10 Rev.9 basis)		Mark
External examination		X
Operation test and performance test		X
Electric power supply failure test		X
Power supply fluctuation test	Electric	X
	Pneumatic and Hydraulic	--
Insulation resistance test		X
High voltage test		X
Pressure test (Pneumatic and Hydraulic)		X
Dry heat test (85°Cx 16 hours)		X
Damp heat test		X
Vibration test		X
Inclination test		X
Cold test		X
Salt mist test (except Signal Processing Unit)		X
Electrostatic discharge immunity test		X
Radiated radio frequency immunity test		X
Conducted low frequency immunity test		X
Conducted high frequency immunity test		X
Burst / Fast transient immunity test		X
Surge immunity test		X
Radiated emission test		X
Conducted emission test		X
Test for intrinsically safe type		X
Flame retardant test		--

2. Approval condition:

The following tests for individual products are to be carried out at the manufacturing plant.

(1) Visual Inspection (2) Performance Test

- The End -