



IECEX Certificate of Conformity

INTERNATIONAL ELECTROTECHNICAL COMMISSION IEC Certification System for Explosive Atmospheres

for rules and details of the IECEx Scheme visit www.iecex.com

Certificate No.:	IECEX SIR 14.0025X	Page 1 of 4	<u>Certificate history:</u>
Status:	Current	Issue No: 4	Issue 3 (2024-10-01)
Date of Issue:	2025-03-21		Issue 2 (2021-12-15)
Applicant:	Kongsberg Maritime AS Trondheim Skonnertvegen 1 NO-7053 Ranheim Norway		Issue 1 (2019-07-05)
Equipment:	Radar Tank Gauge GLA-300 and Radar Tank Gauge GLA-310.		Issue 0 (2014-12-17)
Optional accessory:			
Type of Protection:	Intrinsic Safety "ia"		
Marking:	Ex ia IIC T4 Ga Ta = -45°C to +80°C/70°C* *Ambient temperature 80°C when single radar and 70°C when dual radar.		

Approved for issue on behalf of the IECEx
Certification Body:

Michelle Halliwell

Position:

Senior Director of Operations

Signature:
(for printed version)

Date:
(for printed version)

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2. This certificate is not transferable and remains the property of the issuing body.
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Certificate issued by:

CSA Group Testing UK Ltd
Unit 6, Hawarden Industrial Park
Hawarden, Deeside CH5 3US
United Kingdom





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Manufacturer: **Kongsberg Maritime AS**
Trondheim
Skonnertvegen 1
NO-7053 Ranheim
Norway

Manufacturing locations: **Kongsberg Maritime AS**
Trondheim
Skonnertvegen 1
NO-7053 Ranheim
Norway

This certificate is issued as verification that a sample(s), representative of production, was assessed and tested and found to comply with the IEC Standard list below and that the manufacturer's quality system, relating to the Ex products covered by this certificate, was assessed and found to comply with the IECEX Quality system requirements. This certificate is granted subject to the conditions as set out in IECEX Scheme Rules, IECEX 02 and Operational Documents as amended

STANDARDS :

The equipment and any acceptable variations to it specified in the schedule of this certificate and the identified documents, was found to comply with the following standards

[IEC 60079-0:2017](#) Explosive atmospheres - Part 0: Equipment - General requirements
Edition:7.0

[IEC 60079-11:2011](#) Explosive atmospheres - Part 11: Equipment protection by intrinsic safety "i"
Edition:6.0

This Certificate **does not** indicate compliance with safety and performance requirements other than those expressly included in the Standards listed above.

TEST & ASSESSMENT REPORTS:

A sample(s) of the equipment listed has successfully met the examination and test requirements as recorded in:

Test Reports:

[GB/CSAE/ExTR21.0184/00](#)
[GB/SIR/ExTR24.0110/00](#)

[GB/SIR/ExTR14.0298/00](#)
[GB/SIR/ExTR25.0031/00](#)

[GB/SIR/ExTR19.0183/00](#)

Quality Assessment Report:

[NO/PRE/QAR18.0016/05](#)



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EQUIPMENT:

Equipment and systems covered by this Certificate are as follows:

The GLA-300 and GLA-310 Radar Tank Gauges are intrinsically safe level gauging sensors comprising an integral inert pressure transmitter, enclosed in a stainless steel housing. They have digital communication (RS-485 and HART) to processing equipment in the non-hazardous area.

The pressure transmitter electronics is completely separated from the level gauging sensor electronics.

The GLA-310 Radar Tank Gauge is identical to the GLA-300 unit, except that it does not include the pressure transmitter or the HART output. A dual option is available where, for redundancy a second Radar Tank Gauge electronic unit is paired with its dedicated signal processing unit.

The GLA-300 and GLA-310 can be supplied with a variety of different stainless steel enclosures. The GLA-300 and GLA-310 can be fitted with one of the following antenna arrangements: parabola antenna, horn antenna open measurement, horn antenna standpipe measurement or planar antenna.

Refer to the Annexe for additional information.

SPECIFIC CONDITIONS OF USE: YES as shown below:

1. Under certain extreme circumstances, the non-metallic parts incorporated in the enclosure of this equipment may generate an ignition-capable level of electrostatic charge. Therefore the equipment shall not be installed in a location where the external conditions are conducive to the build-up of electrostatic charge on such surfaces. This is particularly important if the equipment is installed in a zone 0 location. In addition, the equipment shall only be cleaned with a damp cloth.
2. The circuit ground is connected to the enclosure of the equipment, so the equipment does not meet the 500 Vac circuit-to-enclosure isolation requirements. This shall be considered during installation. Refer to instructions in the safety manual.
3. The Radar Tank Gauge GLA-300 and Radar Tank Gauge GLA-310 shall only be connected to associated apparatus that has a trapezoidal output characteristic.
4. The GLH-320 through HART connectors X2 to X4 provide interconnection facilities for intrinsically safe circuits and devices, at the Entity parameters listed in the Certification documents.



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DETAILS OF CERTIFICATE CHANGES (for issues 1 and above)

This issue, 4, recognises the following change; refer to the certificate annex to view a comprehensive history:

1. Introduction of a new variant GLA-310 with up to four GLH-320 modules, to create a "Double-dual" with associated drawing changes.
2. Revised template for mechanical drawings, and updated PTFE material specification.

Annex:

[IECEX SIR 14.0025X Issue 4 Annexe_1.pdf](#)



The equipment has the following entity parameters:

X1 from associated apparatus (typically GLK-300) (per unit)			X3, X4 (GLH-320) to cargo temperature unit (typically GC-300)/Pressure and 2)
POWER (GLH-320 – X1 Pins 3 and 4)	HART (GLH-320 – X2 Pins 1 and 2)	RS-485 (GLH-320 – X1 Pins 1 and 2)	
Ui = 14.3 V Ii = 360 mA Pi = 2.1 W Ci = 75 nF Li = Negligible	Ui = 28 V Ii = 160 mA Pi = 850 mW Ci = Negligible Li = Negligible	Ui = 7.0 V Ii = 100 mA Pi = 120 mW Ci = 1.1 nF Li = Negligible	Uo = 28 V Io = 160 mA Po = 850 mW Ci = 0 Co = Negligible Li = Negligible Lo = 1388 µH

The GLA-300 and GLA-310 is designed for use in the GL-300 Tank Monitoring system, but the list of safety parameters allows connection to other equipment.

The maximum ambient temperature for the GLA-300 and GLA-310 incorporating GLH-320 modules is 80 °C.

Full certificate change history

Issue 1 – this Issue introduced the following changes:

- i. Introduction of a new alternative type GLH-320 Module in the Radar Tank Gauges GLA-300 and GLA-310 the description was modified accordingly. As a result, Specific Conditions of Use were added. The ambient temperature was amended when the GLH – 320 is fitted.
- ii. Change of manufacturer’s address.

From	To
Haakon VIIIs gt. 4 N-7005 Trondheim Norway	Trondheim Skonnertvegen 1 NO-7053 Ranheim Norway

- iii. Removal of IEC 60079-26 from the list of standards.

Issue 2 – this Issue introduced the following changes:

- i. Following appropriate assessment to the latest technical knowledge, IEC 60079-0:2011 was replaced by IEC 60079-0:2017.
- ii. Minor drawing updates.
- iii. Removal of GLB-300/GLH-300, GLB-310/GLH-310 and GT450. As a result, the product description and the marking information changed.

Issue 3 – this Issue introduced the following changes:

- i. Introduction of a new variant GLA-310 with up to two GLH-320 modules with associated drawing changes including updated marking and product description.

Issue 4 – this Issue introduced the following changes:

- i. Introduction of a new variant GLA-310 with up to four GLH-320 modules, to create a “Double-dual” with associated drawing changes.
- ii. Revised template for mechanical drawings, and updated PTFE material specification.