



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 PRE 14.0053X** Page 1 of 4 Certificate history:
Status: **Current** Issue No: 2 [Issue 1 \(2017-08-29\)](#)
[Issue 0 \(2014-11-27\)](#)
Date of Issue: 2020-11-18
Applicant: **KONGSBERG MARTIME AS**
Skonnertvegen 1
7053 Ranheim
Norway
Equipment: **Associated power and signal unit for level gauging radar sensor**
Optional accessory:
Type of Protection: **Intrinsic Safety (Ex i)**
Marking: [Ex ia Ga] IIC Ta: -15°C to +70°C

Approved for issue on behalf of the IECEx
Certification Body:

Asle Kaastad

Position:

Certification Manager

Signature:
(for printed version)

Date:

2020-11-18

1. This certificate and schedule may only be reproduced in full.
2. This certificate is not transferable and remains the property of the issuing body.
3. The Status and authenticity of this certificate may be verified by visiting www.iecex.com or use of this QR Code.



Certificate issued by:

DNV GL Presafe AS
Veritasveien 3
1363 Høvik
Norway





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Manufacturer: **KONGSBERG MARITIME AS**
Skonnertvegen 1
7053 Ranheim
Norway

Additional
manufacturing
locations:

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:

[NO/PRE/ExTR14.0049/00](#)

[NO/PRE/ExTR14.0049/01](#)

[NO/PRE/ExTR14.0049/02](#)

Quality Assessment Report:

[NO/PRE/QAR18.0016/02](#)



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EQUIPMENT:

Equipment and systems covered by this Certificate are as follows:

GLK-300 is an associated apparatus for power supply and communication for level gauging radar sensors and auxiliary pressure and temperature transmitters. The power and RS-485 are for connection to the level gauging radar sensors. HART circuit for pressure and temperature transmitters. More than one transmitter may be connected to the HART circuit so far as the sum of capacitance and inductance of the transmitters and cables are less or equal to the Co and Lo for GLK-300.

Safety parameters:

Maximum safe voltage Um: 250V AC

Power supply, terminals X2 & X3: p4 - X1& X4: p4

IIB

IIC

Maximum output voltage.	Uo:	14.3VDC	14.3VDC
Maximum output current.	Io:	360mA	360mA
Maximum output power.	Po:	2.1W	2.1W
Maximum external capacitance.	Co:	4.28µF	680nF
Maximum external inductance.	Lo:	168µH	42µH
Maximum ratio	Lo/Ro	68µH/Ω	17µH/Ω

X1 & X4: p5-p6 (HART)

IIB

IIC

Maximum output voltage.	Uo:	25.8VDC	25.8VDC
Maximum output current.	Io:	115mA	115mA
Maximum output power.	Po:	0.74W	0.74W
Maximum external capacitance.	Co:	780nF	100nF
Maximum external inductance.	Lo:	9mH	1.6mH

X2 & X3: p5- p6 (RS-485)-X1&X4: p4 (0V-ref.)

IIB

IIC

Maximum output voltage.	Uo:	7VDC	7VDC
Maximum output current.	Io:	70mA	70mA
Maximum output power.	Po:	88mW	88mW
Maximum external capacitance.	Co:	300µF	15.7µF
Maximum external inductance.	Lo:	25mH	7mH

X1, X2, X3 &X4: p1-p3 (0V/ GND)

SPECIFIC CONDITIONS OF USE: YES as shown below:

1. The separation distance of minimum 50mm between intrinsically and non-intrinsically safe circuits has to be observed for the final installation in a cabinet.
2. The GLK-300 has to be installed in a cabinet with a degree of protection of at least IP20
3. The ambient temperature range for the GLK-300 is $-15^{\circ}\text{C} \leq T_a \leq +70^{\circ}\text{C}$
4. The power output circuit has a resistive trapezoidal output characteristic with a maximum U1 voltage 23.5V.
5. The RS-485 circuit has a safety open voltage Uo: 7V with a maximum voltage 5V for load and thermal assessments.



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DETAILS OF CERTIFICATE CHANGES (for issues 1 and above)

Update to new standard IEC 60079-0:2017, Notified Body number updated on marking label drawing, Bill of material for GLK-300 Main Board upgraded for component replacement items U559 og U560, non-safety critical component. GLK-300 Main Board and Piggyback Board, PCB Layout Drawings are unchanged content.