



# IECEX Certificate of Conformity

## INTERNATIONAL ELECTROTECHNICAL COMMISSION IEC Certification Scheme for Explosive Atmospheres

for rules and details of the IECEx Scheme visit [www.iecex.com](http://www.iecex.com)

Certificate No.:  issue No.:

Status:

Date of Issue: **2013-02-15** Page 1 of 3

Applicant: **KONGSBERG MARITIME AS**  
HAAKON VII's GATE 4  
NO-7041 TRONDHEIM  
Norway

Electrical Apparatus: **LEVEL GAUGING SENSOR**  
Optional accessory:

Type of Protection: **INTRINSIC SAFETY**

Marking: **Ex ia IIC T4 Tamb=-40°C to +85°C**

Approved for issue on behalf of the IECEx Certification Body: **Asle Kaastad**

Position: **Certification Manager, Ex Products**

Signature:  
(for printed version)

Asle Kaastad

Date:

2013-02-15

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 the Official IECEx Website.

Certificate issued by:

**NEMKO**  
Gautadelleen 30  
Oslo N-0314  
Norway





# IECEx Certificate of Conformity

Certificate No.: IECEx NEM 12.0017X

Date of Issue: 2013-02-15

Issue No.: 0

Page 2 of 3

Manufacturer: **KONGSBERG MARITIME AS**  
HAAKON VII's GATE 4  
NO-7041 TRONDHEIM  
Norway

Additional Manufacturing location  
(s):

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 electrical apparatus 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 : 2007-10** Explosive atmospheres - Part 0: Equipment - General requirements  
Edition: 5

**IEC 60079-11 : 2006** Explosive atmospheres - Part 11: Equipment protection by intrinsic safety "i"  
Edition: 5

*This Certificate **does not** indicate compliance with electrical 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 Report:  
NO/NEM/ExTR12.0018/00

Quality Assessment Report:  
DE/TUN/QAR12.0010/00



# IECEx Certificate of Conformity

Certificate No.: IECEx NEM 12.0017X

Date of Issue: 2013-02-15

Issue No.: 0

Page 3 of 3

## Schedule

### EQUIPMENT:

*Equipment and systems covered by this certificate are as follows:*

#### **Product description:**

The Level Gauging Sensor model GLA-100/3 comprises an electronic circuit board with item name GLB-91 and antenna unit enclosed in a Stainless Steel AISI 316. The supply cable is connected in a separate connection compartment of the enclosure which also contains intrinsically safe circuits for external transmitters. GLA-100/3 is intended for ships.

#### **Type Designation:**

GLA-100/3

#### **Safety Parameters:**

Signal, terminals 1 and 2

Maximum input voltage:  $U_i=15,6\text{VDC}$

Maximum input current:  $I_i=397\text{mA}$

Maximum input power:  $P_i=2,47\text{W}$

Maximum internal capacitance:  $C_i=421\text{nF}$

Maximum internal inductance:  $L_i=11\mu\text{H}$

Signal, terminals 3,4,5,6

Maximum input voltage:  $U_i=15,6\text{VDC}$

Maximum input current:  $I_i=10\text{mA}$

Maximum internal capacitance:  $C_i=10\text{nF}$

Maximum internal inductance:  $L_i=0\mu\text{H}$

The input lines shall be protected with the intrinsically safe outputs circuits with data corresponding to the listed input data of GLA-100. The GLA-100 is intended for connection to the interface unit GLK-100, certificate number IECEx NEM 12.0011X.

Terminal 9 to 16 are intended for termination for external intrinsically safe pressure and temperature sensors. The maximum voltage of these circuits is 21V. The output circuits for connection to terminals 9 to 16 are part of the Interface unit GLK-100.

### CONDITIONS OF CERTIFICATION: YES as shown below:

The intrinsically safe electrical circuit of the GLA-100 is connected to the earthed metal enclosure and do not comply with clause 6.3.12 and 10.3 of IEC 60079-11. Special precautions shall be taken to avoid the possibility of different earth potential at the sensor location and the earth connection of the supply barrier.