

[1] EU-TYPE EXAMINATION CERTIFICATE

[2] Equipment or Protected System Intended for use
in Potentially explosive atmospheres
Directive 2014/34/EU

[3] EU-Type Examination Certificate Number: **Nemko 05ATEX1010** Issue 5

[4] Product: **Water Ingress Sensor**

[5] Manufacturer: **Kongsberg Maritime AS**

[6] Address: **Skonnertvegen 1
Trondheim, Norway**

[7] This product and any acceptable variation thereto is specified in the schedule to this certificate and the documents therein referred to.

[8] Nemko AS, notified body number 0470, in accordance with Article 17 of Directive 2014/34/EU of the European Parliament and of the Council, dated 26 February 2014, certifies that this product has been found to comply with the Essential Health and Safety Requirements relating to the design and construction of products intended for use in potentially explosive atmospheres given in Annex II to the Directive.

The examination and test results are recorded in confidential report no. D0001824 rev.1

[9] Compliance with the Essential Health and Safety Requirements has been assured by compliance with:

EN 60079-0:2012/A11:2013 and EN 60079-11:2012

[10] If the sign "X" is placed after the certificate number, it indicates that the product is subject to the Specific Conditions of Use specified in the schedule to this certificate.

[11] This EU - TYPE EXAMINATION CERTIFICATE relates only to the design and construction of the specified product. Further requirements of the Directive apply to the manufacturing process and supply of this product. These are not covered by this certificate

[12] The marking of the product shall include the following:



II 1 G

Ex ia IIC T5 Ga, Ta : -25°C to +85°C

Oslo, 2017-10-02

Asle Kaastad
Certification Manager

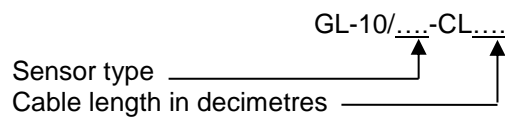
[13] Schedule

[14] **EU-TYPE EXAMINATION CERTIFICATE No** **Nemko 05ATEX1010** **Issue 5**

[15] **Description of Product**

The equipment is a water ingress sensor intended for water level detection on cargo holds, ballast tanks and dry spaces of bulk carriers. The sensor is completely encapsulated and installed in a steel tube.

Type Designations



Electrical Safety Parameters

- Ui: 25,5 V
- Ii: 122 mA
- Pi: 0,78W
- Ci: 73nF
- Li: Negligible

Power-supply and signal connection in separate circuits and by separate diode safety barriers with output characteristics corresponding to the above listed parameters.

The stated input values are Ui, Ii, and Pi are to regard as separate maximum values. It is a precondition that the supply barriers have linear resistive output characteristic.

Ambient temperature:

-25°C to +85°C

[16] **Report No. D0001824 rev.1**

Descriptive Documents

Number	Title	Rev	Date
E-2639	Label for water ingress sensor GL-10	H	2017-04-25
GL-2172	Safety Control Drawing GL-10	C	2012-12-20
GL-2173	GL-10 Assembly drawing	D	2012-11-28
7212-410.901	PCB antenna BOM	A	2012-09-04
7212-411.901	PCB Main BOM	A	2012-09-04
GL-2562	Schematic dwg Antenna	B	2011-10-27
GL-2561	Schematic dwg Main board	B	2011-10-27
7212-410.000	PCB layout dwg Antenna	A	2011-10-21
7212-411.000	PCB layout dwg Main board	A	2011-10-21
7212-411.900	PCB spec Main board	B	2012-11-08
7212-410.900	PCB spec Antenna	B	2012-09-05



Certificate History and Associated Nemko Reports

Issue	Date	Report	Description
0	2005-04-26	29881	Prime Certificate released
1	2011-03-21	133785	Various technical changes and changes of documentation.
2	2011-11-28	179881	Update to latest harmonized std. EN 60079-0:2009 and EN60079-11:2007
3	2013-02-06	220023	Various technical changes and changes of documentation.
4	2015-05-13	D0001824 rev.0	Update to latest harmonized std. EN 60079-0:2012 and EN60079-11:2012
5	2017-10-02	D0001824 rev.1	Change of manufacturer address.

[17] Specific Conditions of Use
None

[18] Essential Health and Safety Requirements
Essential Health and Safety Requirements (EHSRs) are covered by the standards listed at item 9