DNV·GL

Certificate No:
TAA000002Z

TYPE APPROVAL CERTIFICATE

This is to certify:

That the Level Switches

with type designation(s)
UTS - Liquid Level Switch, TLA - Tank Level Alarm Switch

Issued to
API Marine ApS
AALBORG ØST, Denmark

is found to comply with
Det Norske Veritas' Rules for Classification of Ships, High Speed & Light Craft and Det Norske Veritas' Offshore Standards

Application :

Product(s) approved by this certificate is/are accepted for installation on all vessels classed by DNV GL.

Location classes:

Type	Temperature	Humidity	Vibration	EMC	Enclosure
UTS - Liquid Level Switch	D	B	A	A	C*
TLA - Tank Level Alarm Switch	D	B	A	B	C*

*** The M20 cable inlet option is not IP-classed. See Application/Limitation on page 2.**

This Certificate is valid until **2019-08-13**.

Issued at **Høvik** on **2015-08-14**

for **DNV GL**

DNV GL local station: **Aalborg**

Approval Engineer: **Ståle Sneen**

Odd Magne Nesvåg
Head of Section

This Certificate is subject to terms and conditions overleaf. Any significant change in design or construction may render this Certificate invalid.
The validity date relates to the Type Approval Certificate and not to the approval of equipment/systems installed.

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Job Id: **262.1-002319-3**
Certificate No: **TAA000002Z**

Product description

UTS and TLA are designed for marine application in systems with automatic liquid level control. The sensors are based on remote measuring of damping of metallic resonator, placed on the end of the the waveguide rod.
UTS (single probe) is designed to be used as sensor in alarm systems, in which a definite level is to be controlled.
TLA (double probe) is intended for measuring high level (95%) and maximum level (98%) of liquid products during tank filling and giving alarms to the operator.
Both UTS and TLA sensors consists of stainless steel housing including Ultrasonic sensors.

The Type Approval covers the following model configurations:

Model	Control Point	Housing	Rod Ext.	Output Sign.	Mounting	Cable Input	Test Buttons	Rod ext.	Temp. range	IS	Option	Certification	Length L1	Length L2
UTS	S	A	1, 2, 9	A, C	02, 03, 04, 07, 08, 09, 74, 76, 78, 98, 99	1, 3, 5	0, 1	0, 2	0	0, 1	00	A		
TLA	D	A	9	A, C	70, 74, 76, 78, 99	1, 3, 5	0, 1, 2	0-4	0	0, 1	00	A		-

Power supply voltage is 24VDC for both models.

Approval conditions

The Type Approval covers hardware listed under Product description. When the hardware is used in applications to be classed by DNV, documentation for the actual application is to be submitted for approval by the manufacturer of the application system in each case. Reference is made to DNV Rules for Ships Pt.4 Ch.9 Control and Monitoring Systems.

Application/Limitation

Cable input option #5, M20, is not IP classed. IP-class is dependent on fitted cable gland. Required protection according to the Rules is to be provided upon installation on board.

Maximum rod length covered by this Type Approval is 600 mm.

Ex installations to be approved in each case according to the Rules and Ex-Certification**/** Special Condition for Safe Use listed in valid Ex-certificate issued by a notified/recognized Certification Body.

Ex-certification is not covered by this certificate and the following paragraph, which is for information only, is based on information received from the manufacturer, but not verified by DNV GL.

Equipment	Certified	Certificate No.
Level sensors UTS and TLA families	Ⓔx II 1 G Ex ia IIC T6 Ga Ⓔx II 1 G Ex ia IIC T5 Ga	DEMKO 06 ATEX 139909X Rev. 1 IECEx ULD 12.0007X Issue No. 1

Type Approval documentation

Tests carried out

Applicable tests according to Standard for Certification No. 2.4, April 2006.
Salt mist test according to IEC 60068-2-52.

Periodical assessment

The scope of the periodical assessment is to verify that the conditions stipulated for the type are complied with, and that no alterations are made to the product design or choice of systems, software versions, components and/or materials.

The main elements of the assessment are:

- Ensure that type approved documentation is available
- Inspection of factory samples, selected at random from the production line (where practicable)
- Review of production and inspection routines, including test records from product sample tests and control routines
- Ensuring that systems, software versions, components and/or materials used comply with type approved documents and/or referenced system, software, component and material specifications
- Review of possible changes in design of systems, software versions, components, materials and/or performance, and make sure that such changes do not affect the type approval given
- Ensuring traceability between manufacturer's product type marking and the type approval certificate

Periodical assessment is to be performed at least every second year and at renewal of this certificate.

END OF CERTIFICATE