DNV·GL

Certificate No:
TAA000015N

TYPE APPROVAL CERTIFICATE

This is to certify:

That the Monitoring System

with type designation(s)
Salinometer series SL80xx

Issued to
Daniamant Electronics A/S
Slangerup, Denmark

is found to comply with
DNV GL rules for classification – Ships, offshore units, and high speed and light craft

Application :

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

Location classes:

Temperature	**B**
Humidity	**B**
Vibration	**A**
EMC	**B**
Enclosure	**B / IP65 (main unit),** **D / IP68 10 bar (electrode unit)**

Issued at **Høvik** on **2017-03-28**
This Certificate is valid until **2022-06-30**.
DNV GL local station: **Copenhagen**

Approval Engineer: **Ståle Sneen**

for **DNV GL**

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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Product description

Salinometer series SL80xx for measuring and supervision of salinity in fresh water, comprising:

- Salinometer main unit SL80xx
- Electrode unit 80xx

The cable for the electrode unit is to be of marine approved type.

The salinometer can be delivered in a flame retardant polycarbonate enclosure (IP65), or without enclosure for installation in an existing cabinet/panel.

Salinometer SL80xx key specifications/options:

- Accuracy: ±10% on displayed value
- Self test function
- 3-digit 7-segment LED display for salinity level readout
- 3-digit 7-segment LED display for alarm setpoint (adjustable)
- Up to two alarm relays
- One 4-20 mA salinity level output

Place of manufacture

Selektro A/S
Erhvervsvej 29-35
DK-9632 Mølderup
Denmark

Application/Limitation

The Type Approval covers hardware listed under Product description. When the hardware is used in applications to be classed by DNV GL, 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 GL rules for classification of ships Pt.4 Ch.9 Control and monitoring systems.

Type Approval documentation

Tests carried out

Applicable tests according to Standard for Certification No. 2.4, April 2006.

Marking of product

Manufacturer: Daniamant Electronics A/S
Model name: Salinometer SL80xx
Unique serial No.
Power supply: 85-265VAC, 50-60Hz (main unit only)

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 after 2 years and after 3.5 years. A renewal assessment will be performed at renewal of the certificate.

END OF CERTIFICATE