DNV·GL

Certificate No:
TAA000013K

TYPE APPROVAL CERTIFICATE

This is to certify:

That the Level Indicating System

with type designation(s)
TN 3801 Electro Pneumatic Level Measuring Unit

Issued to
HONEYWELL MARINE
BOURGES, France

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	**Required protection according to the Rules shall be provided upon installation on board**

Issued at **Høvik** on **2017-12-04**
This Certificate is valid until **2019-12-03**.
DNV GL local station: **Le Havre**

Approval Engineer: **Jens Erling Bråten**

for **DNV GL**

Odd 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
Tank Net 3801 Electro Pneumatic Level Measuring Unit.

Centralized level measuring unit containing following main components:
- Pneumatic regulators, model no. 34844, one for each channel
- Electronic board(s) including differential pressure sensors, modelno.34858 with 2 bars sensor, model no. 35079 with 4 bars sensor
- Power supply type PS 24V DC / 2A

Option:
- Processing and display panel TA3840R

Electronic board firmware version: V1.09
Processing and display panel software version: 1025 – V1.1 (090327).

Place of manufacture
Honeywell(Tianjin)Ltd
No. 158, Nan Hai Road TEDA, Tianjin,300457 P.R. (China)

Application/Limitation
The following documentation of the actual application is to be submitted for approval in each case:

- Reference to this Type Approval Certificate
- System block diagram
- Power supply arrangement (may be part of the System block diagram)

The Type Approval covers hardware and software listed under Product description.

As long as the units are covered by the Type Approval, a product certificate according to Pt.4 Ch.9 will not be required. Correct configuration and set up for each delivery to be tested during commissioning after installation.

Clause for application software control
All changes in software are to be recorded as long as the system is in use on board. The records of all changes are to be forwarded to DNV GL for evaluation and approval.
Major changes in the software are to be approved before being installed in the computer.
A Certification of Application Functions may be required for the particular vessel.

Type Approval documentation

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

Marking of product
The products to be marked with:
- manufacturer name
- model name
- serial number
- power supply ratings

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

A renewal assessment will be performed at renewal of the certificate.

END OF CERTIFICATE