DNV·GL

Certificate No:
TAA00002A5

TYPE APPROVAL CERTIFICATE

This is to certify:

That the Level Transmitter

with type designation(s)
NRGT 26-1S, NRS 2-51, NRR 2-50

Issued to
Gestra AG
Bremen, Germany

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:

Type	Temperature	Humidity	Vibration	EMC	Enclosure
NRGT 26-1S	B	B	A	B	C
NRS 2-51, NRR 2-50	B	B	A	B	A

Issued at **Hamburg** on **2019-08-15**
This Certificate is valid until **2024-08-14**.
DNV GL local station: **Hamburg**

Approval Engineer: **Dariusz Lesniewski**

for **DNV GL**

Joannis Papanuskas
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.

© DNV GL 2014. DNV GL and the Horizon Graphic are trademarks of DNV GL AS.

Product description

NRGT 26-1S
Level transmitter for indicating liquid levels
Power supply: 115/230V 50/60Hz, 24V 50/60Hz, 24V DC
Signal output: 4-20mA, proportional to the level
Capacitive measurement, range of measuring: 257-2275 mm
Max. allowable working pressure: 32 bar at saturated steam temp. 238°C
Degree of protection: IP 65
NRS 2-51
On/off level controller with MIN / MAX alarm and
Outputs: 2 x potential-free c/o contacts for MIN / MAX alarm (de-energizing delay 3s)
1 x potential-free n/o or n/c contact for e. g. feed pump control (on/off - configurable)
HMI: 1 x seven-segment LED display, four digits, green
2 x red LEDs for MIN / MAX alarm, error alarm
1 x amber LED (feed pump on)
1 x rotary button for simulating of MIN / MAX alarm and setting the parameter
NRR 2-50
3-position stepping PI controller with MIN or MAX alarm
Outputs:1 x potential-free c/o contact for MIN / MAX alarm (de-energizing delay 3s)
2 x potential-free n/o contacts for activating of the control valve
HMI: 1 x seven-segment LED display, four digits, green
2 x red LEDs for MIN / MAX alarm, error alarm
2 x amber LEDs (control valve opens/closes)
1 x rotary button for simulating MIN / MAX alarm and setting the parameter
NRS 2-51 / NRR 2-50
Power supply: 24V DC
Input: 1 x analogue 4-20mA of the NRGT 26-1S, connected via screened cable
Signal output: 1 x analogue 4-20mA
Mounting: clipped onto the support rail type TH 35, EN 60715
Degree of protection: IP 40

Approval conditions

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 class guideline DNVGL-CG-0339, November 2016.

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

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