

TYPE APPROVAL CERTIFICATE

This is to certify:**That the Pressure Transmitter**

with type designation(s)

P120, P130, P133, P940

Issued to

**Nöding Messtechnik GmbH
Hamburg, Germany**

is found to comply with

DNV GL rules for classification – Ships**Application :****Product(s) approved by this certificate is/are accepted for installation on all vessels classed by DNV GL.**

Type	Temperature	Humidity	Vibration	EMC	Enclosure
P120	B	B	B	B	B (*)
P130	B	B	B	B	B (*)
P133	B	B	B	B	D (*)
P940	B	B	B	B	- (*)

(*) see product description on page 2This Certificate is valid until **2021-05-31**.Issued at **Hamburg** on **2016-06-01**DNV GL local station: **Hamburg**Approval Engineer: **Dariusz Lesniewski**for **DNV GL**

**Duy Nam Le
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.

Product description

Type	Design	Degree of protection (enclosure*)
P120	Sensor at the front of the housing	IP65
P130	Sensor flat at the front of the housing	IP65
P133	Submerged	IP68
P940	DIN-rail-version for air purge systems with electronic and/or pneumatic output, mounted in cabinets or consoles	IP00

Measuring range: 0..20 mbar - 0..60 bar
Measuring principle: Capacitive
Membrane: Aluminium oxide ceramic
Material of the process connection: 1.4571
Output current: 4..20 mA, connection via unshielded two wire cable
Supply voltage: 24 VDC

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 class guideline DNVGL-CG-0339, November 2015.

Marking of product

Components are marked with manufacturer name, model name, serial number.

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 once in the period of validity and at renewal of this certificate.

END of CERTIFICATE