

TYPE APPROVAL CERTIFICATE

Certificate No:
TAA00000G8
Revision No:
2

This is to certify:

That the Pressure Transmitter

with type designation(s)
P120, P130, P121, P131, P133, P940

Issued to
Nöding Messtechnik GmbH
Hamburg, Germany

is found to comply with
DNV 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.

Type	Temperature	Humidity	Vibration	EMC	Enclosure
P120	B	B	B	B	B
P130	B	B	B	B	B
P121	B	B	A	B	C
P131	B	B	A	B	C
P133	B	B	B	B	D
P940	B	B	B	B	*) IP00

***) Required protection according to relevant rules shall be provided upon installation on board**

Issued at **Hamburg** on **2022-04-21**

for **DNV**

This Certificate is valid until **2027-04-04**.

DNV local station: **Hamburg**

Approval Engineer: **Jens Dietrich**

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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.

LEGAL DISCLAIMER: Unless otherwise stated in the applicable contract with the holder of this document, or following from mandatory law, the liability of DNV AS, its parent companies and their subsidiaries as well as their officers, directors and employees ("DNV") arising from or in connection with the services rendered for the purpose of the issuance of this document or reliance thereon, whether in contract or in tort (including negligence), shall be limited to direct losses and under any circumstance be limited to 300,000 USD.



Product description

Type	Design	Degree of protection
P120	Sensor at the front of the housing	IP65
P130	Sensor flush mounted	IP65
P121	Sensor at the front of the housing	IP65 / IP67 with cable
P131	Sensor flush mounted	IP65 / IP67 with cable
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...40 mbar – 0...60 bar (P120, P130, P131, P133, P940)
0...40 mbar – 0...250 bar (P121)

Measuring principle: Capacitive

Membrane: Aluminium oxide ceramic

Material of the process connection: 1.4404 / 1.4571 / PP / PVDF

Output signal: 0...10V 3-wire or 4...20mA 2-wire

Supply voltage: 24 VDC

EX-proof protection*: P121, P131, P133 only

*Reference is made to separate EU-Type Examination Certificate number BVS 03 ATEX E 222 X with supplement 2

Application/Limitation

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 classification of ships Pt.4 Ch.9 Control and monitoring systems.

Sensor types delivered with cable: Only the variants marked with "DNV" in the type key are covered by this certificate.

Type Approval documentation

Test Reports: MAZ: 96/756-1-1, 96/756-1-2, 96/756-2-1; RMS: 3-02/96

Test Reports: HanseControl: 06-L-00237-01, 06-L-00238-01;

Test Report: Nöding: Conducted Low Frequency Interferences, 01.03.96

Drawings: CAD Nr. P120-4 of 22.03.96 & CAD Nr. P901 of 22.03.96

Data sheets: P133 (12/2021A), P121 (12/2021A), P131 (12/2021A), P120 (12/2021A), P130 (11.11), P940 (2.10)

Ex-Proof Certificate: BVS 03 ATEX E 222.

Additional test reports 2021: MTN 072975.187.21 V1.0, dated 2021-09-09;

MTN 072975.188.21 V1.0, dated 2021-09-09; MTN 072975.186.21 V1.0, dated 2021-09-07;

MTN 073063.220.21 V1.0, dated 2021-10-21; PAConsult No.21DE-00693, dated 2021-10-26.

TA assessment report issued by DNV Hamburg, dated 2022-04-05.

Tests carried out

Applicable tests according to class guideline DNVGL-CG-0339, August 2021.

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



Job Id: **262.1-022147-3**
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END of CERTIFICATE