TYPE APPROVAL CERTIFICATE

Certificate no.:
TAA00002VW
Revision No:
2

This is to certify:

that the Pressure Transmitter

with type designation(s)
PTM.MT/N/Ex

issued to
STS Sensor Technik Sirnach AG
Sirnach, TG, Switzerland

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.

Location classes:

Temperature	**D**
Humidity	**B**
Vibration	**B**
EMC	**B**
Enclosure	**D**

Issued at **Hamburg** on **2025-04-08**

This Certificate is valid until **2030-04-07**.
DNV local unit: **Augsburg**

Approval Engineer: **Heinz Scheffler**

for **DNV**
Digitally signed by: Dariusz Lesniewski
Location: DNV SE, Germany

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 USD 300 000.

Product description

Submersible Level Transmitter for Maritime Applications:

- Housing: TitaniumSealing: Viton
- Pressure measuring ranges:
  - 0…400mbar
  - 0…1000mbar
  - 0…2500mbar
  - 0…4000mbar
  - 0…6000mbar.
- Temperature range: -20…+100°C
- Resolution: 0.025% FS
- Adjustable output: 4…20mA
- Modbus communication for scaling and calibration
- Power supply 12…30VDC
- PT100 (optional)
- Fixed cable connection (FEP cable)
- Degree of protection: IP68 (60m, 24h)
- Ex-Certificates (for reference only): SEV 20 ATEX 0418 X, IECEx SEV 20.0018 X.

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.

Ex-certification is not covered by this certificate. Application in hazardous area to be approved in each case according to the Rules and Ex-Certification/ Special Condition for Safe Use listed in valid Ex-certificate issued by a notified / recognized Certification Body

For the use of the optionally integrated PT100 sensor self-heating is to be considered.
Measurements cannot be taken of the analogue output during communication.

Type Approval documentation

Test Reports

- PRO-19-0020 Energieversorgungsausfall, V2.0, 2020-09-21
- PRO-19-0020 Energieversorgungsschwankungen, V1.0, 2020-09-17
- PRO-19-0020 Dichtigkeitsmessung V1.0, 2020-04-12
- Report UB14860, rev.0, issued 2020-07-07
- Report 20CH-00795.E01, issued 2020-07-15
- PRO-19-0020 V1.0, dated 2020-04-12
- PRO-19-0020 V1.0, dated 2021-02-08

Data sheet

- 10.80.0577.B, 2020.11
- 4.01.9026, rev.A, dated 2021-01-06
- 6.10.1405, rev.G, dated 2021-01-18
- 2PL746, Issue 6, 2018-11-22
- 705080.J0119005, vers.1, dated 2020-10-28

Drawings:

- 6.10.1466, rev.A, dated 2020-09-22
- 9.99.0161.rev.B, dated 2021-01-21.

User Manual:

- 10.00.0579.A, dated 2020-09-25

Statement:

- PRO-19-0020, ver. 1.0, dated 2021

Tests carried out

Applicable tests according to DNV CG-0339, August 2021.

Marking of product

The products to be 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.

END OF CERTIFICATE