DNV·GL

Certificate No:
**TAA000015K**

# TYPE APPROVAL CERTIFICATE

## This is to certify:

**That the Pressure Transmitter**

with type designation(s)
**ATM, ATM/Ex, ATM/N, ATM/N/Ex**

Issued to
**STS Sensor Technik Sirnach AG**
**Sirnach, Switzerland**

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.**

**Location classes:**

| | |
|---|---|
| **Temperature** | **B** |
| **Humidity** | **B** |
| **Vibration** | **A** |
| **EMC** | **A** |
| **Enclosure** | **B, C*, D*** |

***ATM/N, ATM/N/Ex**

Issued at **Hamburg** on **2017-03-30**
This Certificate is valid until **2022-03-29**.
DNV GL local station: **Augsburg**

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.


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## Product description

**ATM** : Pressure Transmitter
**ATM/Ex** : Pressure Transmitter (Ex-Type)

| | |
|---|---|
| Types ATM 1.. /-Ex 1.. | relative pressure measurement |
| Types ATM 2.. /-Ex 2.. | absolute pressure measurement |
| Measuring range ATM<br>ATM/Ex | 0...0.1 bar up to 0...1000 bar<br>0...0.2 bar up to 0...1000 bar |
| Power supply | 24 V DC |
| Output signal | 4...20 mA, 2-wire connection<br>0...10 V DC, max. 1 mA, 3 - wire connection |
| Accuracy | better than ±0.5 % FS |
| Temperature drift | ±0.06 % FS/°C |
| Electrical connection | plug according to DIN 43650 (screened cable has to be used) |
| Process connection | G 1/2", G 1/4" |
| Material | 1.4435 (housing, diaphgram), Viton (seal) |
| Degree of protection | IP65 |
| Explosion-proof | according to certificate SEV 11 ATEX 0142 X |

**ATM/N** : Submersible Pressure Transmitter
**ATM/N/Ex** : Submersible Pressure Transmitter (Ex-Type)

| | |
|---|---|
| Variants | sensor and amplifier in common housing |
| Measurement | sensor and amplifier in separate housings connected via cable |
| Measuring range | 0...1mH2O to 0...250mH2O (0...100mbar to 0...250bar) |
| Power supply | 24 V DC |
| Output signal | 4...20 mA, 2-wire connection |
| Sensor (optional) | 1x PT1000, 2-wire connection - only for separate housing variant |
| Accuracy | better than ±0.5 % FS |
| Electrical connection | fixed cable |
| Mounting | freely suspended cable (cable installation inside tank only) |
| Material | 1.4435 (housing, diaphgram), Viton (seal) |
| Degree of protection | IP68 |
| Explosion-proof | according to certificate SEV 11 ATEX 0142 X |

## Application/Limitation

ATM, ATM/Ex : screened cable has to be used
ATM/N, ATM/N/Ex : cable installation inside tank only

## 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 at least every second year and at renewal of this certificate.

END OF CERTIFICATE