

# TYPE APPROVAL CERTIFICATE

**This is to certify:****That the Submersible Pressure Transmitter**with type designation(s)  
**8859 ...**

Issued to

**Trafag AG**  
**Bubikon ZH, 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:**

<b>Temperature</b>	<b>B</b>
<b>Humidity</b>	<b>B</b>
<b>Vibration</b>	<b>A</b>
<b>EMC</b>	<b>B</b>
<b>Enclosure</b>	<b>D</b>

Issued at **Hamburg** on **2017-03-29**for **DNV GL**This Certificate is valid until **2019-11-09**.DNV GL local station: **Augsburg**Approval Engineer: **Dariusz Lesniewski**

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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.



## Product description

Pressure type: gauge or absolute (vacuum)  
Pressure range: 0...0.1 bar up to 0...25 bar  
Power supply: 24V DC (9V DC min. ... 28V DC max.)  
Output signal: 4...20mA, 2-wire connection, loop-powered  
Accuracy: better than  $\pm 0.25\%$  FS (at 25°C)  
Total error range: better than  $\pm 1.0\%$  FS  
Electrical connection: fixed cable  
Fixing: freely suspended cable  
Material: housing, diaphragm, process connection - stainless steel or titanium  
          seals - Viton  
          cable PUR or FEP (Installation inside tank only)  
Degree of protection: IP68  
Intrinsic Safety: see certificate: SEV 12 ATEX 0164 X

## Place of manufacture

STS Sensor Technik Sirnach AG  
Rüthofstrasse 8  
8370 Sirnach, Switzerland

## Application/Limitation

Models with cable material PUR or FEP for installation inside tank only

## Type Approval documentation

Test Reports: STS No. 6.59(60).0867.A.PB/TBxx.doc  
Test Report: STS 'Trockene Wärme' 12.03.2012  
Test Reports: Mettler-Toledo No. 20091134.A02.01 and No. 20081106.A02.01  
Test Report: Montena EMC No. 15'694; Ex-Cert.: SEV 09 ATEX 0108  
Circuit Diagrams: 4.30.0129.C & 4.30.0139  
Data Sheet: H72335a  
Certificate: SEV 12 ATEX 0164 X

## Tests carried out

GL Guidelines for the Performance of Type Approvals, Chapter 2,  
Test Requirements for Electrical / Electronic Equipment and Systems (VI-7-2), Edition 2012

## 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



Job Id: **262.1-024416-1**  
Certificate No: **TAA000014B**

- 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