



DET NORSKE VERITAS

TYPE APPROVAL CERTIFICATE

CERTIFICATE NO. **A-13182**

This is to certify that the
Pressure Transmitter

with type designation(s)
522 and 527

Manufactured by
Huba Control AG
Würenlos, Switzerland

is found to comply with
Det Norske Veritas' Rules for Classification of Ships, High Speed & Light Craft and Det Norske Veritas' Offshore Standards

Application
Location classes:

Temperature	D
Humidity	B
Vibration	B
EMC	B
Enclosure	B / IP65

This Certificate is valid until **2016-06-30**.

Issued at **Høvik** on **2013-07-05**

DNV local station: **Essen CMC Southern Germany**

Approval Engineer: **Ståle Sneen**



for **Det Norske Veritas AS**
Digitally Signed By: Nesvåg, Odd Magne

Location: DNV Høvik, Norway

Signing Date: 2013-07-12

Odd Magne Nesvåg
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.

If any person suffers loss or damage which is proved to have been caused by any negligent act or omission of Det Norske Veritas, then Det Norske Veritas shall pay compensation to such person for his proved direct loss or damage. However, the compensation shall not exceed an amount equal to ten times the fee charged for the service in question, provided that the maximum compensation shall never exceed USD 2 million. In this provision "Det Norske Veritas" shall mean the Foundation Det Norske Veritas as well as all its subsidiaries, directors, officers, employees, agents and any other acting on behalf of Det Norske Veritas.

Product description

Huba 522 and 527 pressure transmitter series for measuring absolute and gauge pressure.

Model name	Order No.	Max. measuring range	Accuracy	Enclosure
Huba 522	522.9xxxxxxxxx	0 – 600 bar relative pressure	0.5 % FS	IP65
Huba 527	527.xxxxxxxxxx	0 – 60 bar rel., 0 – 16 bar abs.	0.5 % FS	IP65

The transmitters may be delivered with cable in length 2m.

Cable type (unbraided): E140367 - cURus AWM STYLE 2517 3x0,50 mm² 105°C 300 V VW-1 – I/II A/B FT1 - CE - 109285

Cable type (braided): DESCAFLEX PE-HD C-300 3x0,25 mm²

Place of manufacture

Huba Control AG
Industriestrasse 17
CH-5436 Würenlos
Switzerland

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 Ships Pt.4 Ch.9 Control and Monitoring Systems.

The transmitters are to be powered with a galvanically isolated instrument power supply of approved type.

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.

Type Approval documentation

Siemens Test Report No. A5E03643148A (GL_P2XY_1) dated 2011-06-17 (Vibrations)
Siemens Test Report No. A5E03643148B (GL_P2XY_2) dated 2011-06-28 (Damp heat)
Siemens Test Report No. A5E03643148C (GL_P2XY_3) dated 2011-06-28 (Dry heat)
Siemens Test Report No. A5E03643148D (GL_P2XY_4) dated 2011-06-29 (Cold, high voltage)
Siemens Test Report No. K004150_01_2012_E_B01 dated 2012-02-28 (Radiated emission)
Siemens Test Report No. K004150_01_2012_E_C01 dated 2012-02-29 (Radiated emission, conducted emission)
SGS Test Report No. E0UG0001 dated 2011-06-29 (Salt mist)
EMC Test reports (ESD / Burst / Surge / Conducted HF / Radiated emission 30MHz-1GHz / Radiated HF) (262.1-011597 [I-5])
Test Report No. 40048-3954-001/151466 (FG43-1-151466) dated 2011-06-28 (Conducted LFI)
Huba Control type 522 Technical data sheet edition 03/2013
Huba Control type 527 Technical data sheet edition 03/2013
Huba Control type 522 Operating instructions edition 03/2013
Huba Control type 527 Operating instructions edition 03/2013
Connector drawings: 304553 rev.d, 304789 rev.b, 304865 rev.-
Cable data sheets: 302354 rev.c, 303405 rev.a

Tests carried out

Applicable tests according to Standard for Certification No. 2.4, April 2006.

Marking of product

Huba Control AG
Model name as listed under Product description
Order No. as listed under Product description
Measuring range
Serial No. ("Date of manufacture YY-MM" or "Date of manufacture with addition consecutive numbering YY-MM-xxx")

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