

EU RO MUTUAL RECOGNITION TYPE APPROVAL CERTIFICATE

This Certificate is issued to

Trafag AG
Bubikon, ZH, Switzerland

for
Pressure Gauges/Transmitters

with type designation(s)
EPN 8288 Marine pressure transmitter

The product is found to comply with
EU RO Mutual Recognition Technical Requirements for Pressure Gauges – Transmitters

Intended service
Pressure transmitters for use in control, alarm, monitoring and instrumentation systems subject to classification.

Applicable for a ship as defined in Mutual Recognition Provisions Article 10 Regulation on Common Rules and Standards For Ship Inspection and Survey Organizations.

See product description on page 2 for further details.

Temperature [°C]: -40°C and 125°C
Vibration: ±1.6 mm / 4.0 g
EMC: General power distribution zone
IP Code: IP65

This Certificate is valid until **2023-06-24**.

Issued at **Høvik** on **2018-06-25**

DNV GL local station: **Augsburg**

Approval Engineer: **Ståle Sneen**

for **DNV GL**

Odd Magne Nesvåg
Head of Section



Product description

EPN 8288 series marine pressure transmitter.

Ordering information / type code: 8288.aa bb cc dd ff

- aa – Measuring range: Different ranges in bar, from 0...2.5 to 0...600
 Different ranges in psi, from 0...30 to 0...7500
- bb – Sensor: 23 = Accuracy 0.3%, Material press. conn. and housing 1.4542 (AISI630)
 25 = Accuracy 0.5%, Material press. conn. and housing 1.4542 (AISI630)
 33 = Accuracy 0.3%, Material press. conn. and housing 1.4404 (AISI316L)
 35 = Accuracy 0.5%, Material press. conn. and housing 1.4404 (AISI316L)
- cc – Pressure connection: 17 = G1/4" male
 30 = 1/4" NPT male
 19 = R1/4" male DIN3858
 51 = 1/2" NPT male
 31 = M14x1.5 male DIN6149-2
 11 = G1/2" male (Manometer)
- dd – Electrical connection: 05 = Male electrical plug EN 175301-803-A
- ee – Output signal: 19 = 4...20 mA
 17 = 0...10 VDC
- ff – Accessories: Different seals, pressure peak damping elements and electric connections.

Technical specifications

Materials Diaphragm 1.4542 (AISI630)
 Sealing FPM/EPDM/NBR

Accuracy (typical)	Class 0.5%	Class 0.3%
Total Error Band @ -25°C...+85°C	±1.75% FS	±0.5% FS
Accuracy @ +25°C	±0.5% FS	±0.3% FS
Non-linearity and hysteresis @ +25°C (best straight line)	±0.2% FS	±0.1% FS
Temperature coefficient zero point and span	±0.03% FS/K	±0.005% FS/K
Long term stability 1 year @ +25°C	±0.1% FS	±0.1% FS

Manufactured by

Trafag AG,
 Industriestrasse 11,
 CH-8608 Bubikon,
 Switzerland

Application/Limitation

Applicable for a ship as defined in Mutual Recognition Provisions Article 10 Regulation on Common Rules and standards For Ship Inspection and Survey Organizations.

The pressure transmitter shall be powered by an approved instrument power supply.

Type Approval documentation

Name	Number	Rev. / Date
EPN 8288 marine pressure transmitter – data sheet	H72318	B / 2017-02
PCB TX2 current D21.6 – design documentation	B55000	E
EPX-TX 8283/8287/8288 – drawing	B55220	E / 2016-12-02
Cable socket DIN 43650-A (EN 175301-803) drawing	E01830	A / 2012-08-23
Test report (Conducted LFI)	V-14037	2014-07-09
Test report (environmental)	V-16102	2017-02-20
Test report (power, vibration, shock)	V-17108	2017-11-29

Job Id: **262.4-000084-2**
Certificate No: **MRA000001U**

Test report (salt mist)	20061027.A05.01	2006-04-10
Test report (enclosure IP65)	20181012.A02.01	2018-01-29
Test report (EMC immunity)	EMCKP2868	A / 2016-04-14
Test report (EMC emission, ESD)	EMCKP3182	A / 2017-01-30
EU RO MR TA PQA Scheme periodical assessment checklist	-	2017-11-29

Marking of product

The products to be marked with:

- manufacturer name
- model name
- serial number
- power supply ratings

Other conditions

The pressure transmitters have been verified for compliance with EU Mutual Recognition Technical Requirements for Pressure gauges – transmitters version 0.0, dated 2016-07-01.

Environmental test parameters	DNV GL location classes
Temperature: -40°C ~ +125°C	D
Vibration: ±1.6 mm / 4.0 g	B
Humidity: 95%RH @ 55°C, damp heat cyclic	B
EMC: General power distribution zone	A
Enclosure: IP65 (IP-ratings according to IEC 60529)	B

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 will be performed annually and at renewal of the certificate.

END OF CERTIFICATE