

TYPE APPROVAL CERTIFICATE

This is to certify:**That the Monitoring System**

with type designation(s)

T-Series (probes) & TX-Series (basic modules)

Issued to

eddylab GmbH
Otterfing, Bayern, Germany

is found to comply with

DNV GL 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 GL.****Location classes:****Temperature C (Probes); B (Basic modules)****Humidity B****Vibration B (Probes); A (Basic modules)****EMC A****Enclosure D (Probes); * (Basic modules)***** Required protection according to DNVGL Rules shall be provided upon installation on board**Issued at **Hamburg** on **2019-12-10**This Certificate is valid until **2024-12-09**.for **DNV GL**DNV GL local station: **Augsburg**Approval Engineer: **Holger Jansen**

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.



Job Id: **262.1-030564-1**
Certificate No: **TAA00002JK**

Product description

TX Series – Eddy current probes

Basic modules	TX1	TX2
Supply Voltage	24Vdc	
Channels	1 x BNC female connection	2 x BNC female connection
Output signal	0 .. 10V / 0 .. 5V / $\pm 5V$ / 0..20mA / 4..20mA	

Probe	T05	T2	T3	T4	T5	T10
Range	0..0.5 mm	0..2 mm	0..3 mm	0..4 mm	0..5 mm	0..10 mm
Sensor head	Ø5 mm	Ø8 mm	Ø12 mm	Ø14 mm	Ø18 mm	Ø30 mm
Connector	BNC/SMB					
Cable length	Standard 3m/6m/9m/12m/15m, customised up to 20m					

Application/Limitation

The Type Approval covers hardware listed under Product description. When the hardware is used in applications to be classed by DNV GL, 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 GL Rules for Ships Pt.4 Ch.9 Control and Monitoring Systems.

The type of cable shall be fire resistant in accordance with IEC 60332-1.

Max. size of probe housing: length = 112mm, Ø 56mm

Type Approval documentation

Tests carried out

Applicable tests according to DNV GL Class Guideline CG0339, November 2016.

Marking of product

The products to be marked with:

- Eddylab
- Model name (basic / probe)
- 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