

# TYPE APPROVAL CERTIFICATE

## This is to certify:

**That the Miscellaneous Transmitter**

with type designation(s)  
**FA MCR-(Ex-)D-TUI-UI-2REL-UP**

Issued to

**Phoenix Contact Electronics GmbH**  
**Bad Pyrmont, Niedersachsen, 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:

|                    |                             |
|--------------------|-----------------------------|
| <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>B (front) / A (rear)</b> |

Issued at **Hamburg** on **2019-05-08**

This Certificate is valid until **2024-05-07**.

DNV GL local station: **Essen**

for **DNV GL**

Approval Engineer: **Heinz Scheffler**

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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

Panel meter powers the transmitter and processes analog signals from transmitters. These signals are monitored, evaluated, calculated, saved, separated, linked, converted and displayed.

FA MCR-(EX-)D-TUI-UI-2REL-UP (2907064):

- NonEx-Version
- Power supply: 24V DC and 230V AC
- Input: One universal input (measured variable: current, voltage, resistance, resistance thermometer, thermocouples)
- Output: One analog output, galvanically isolated. Connected sensors can be powered by the integrated transmitter power supply system
- Display: LC-display with 5-digit (display range -99999 to +99999)
- Housing: plastic PC-GF10
- Mounting: Panel-mount
- Degree of protection: Front IP65, IP20 at rear
- Ex-protection according to Certificate of Compliance No. 2879105
- Firmware version: 01.03.xx

## 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 classification of ships Pt.4 Ch.9 Control and monitoring systems.

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

**Test Reports:** FA\_MCR-D-TUI-TR-List\_01, dated 2019-05-27

**Documents:** Installation notes FA MCR-D-TUI-UI-2REL-UP (MNR 9071712, 2016-01-13); Installation notes FA MCR-Ex-D-TUI-UI-2REL-UP (MNR 9071714, 2016-07-19); TAA000029G-overview-docs\_2019-05-21

## 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 after 2 years and after 3.5 years. A renewal assessment will be performed at renewal of the certificate.

END OF CERTIFICATE