

TYPE APPROVAL CERTIFICATE

This is to certify:

That the Peripheral Equipment

with type designation(s)
Process display FA MCR

Issued to

Phoenix Contact GmbH & Co. KG
Blomberg, Germany

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:

Temperature B

Humidity B

Vibration A

EMC B

Enclosure - (panel housing IP65 at front, IP20 at rear, Field housing IP67)

Issued at **Hamburg** on **2017-05-08**

This Certificate is valid until **2018-09-01**.

DNV GL local station: **Augsburg**

for **DNV GL**

Approval Engineer: **Klaus-Peter Schröder**

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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

Process display unit for universal use to display 4 to 20mA / HART signals – certified types:

2908781: FA MCR-DS-I-I-OLP

2908800: FA MCR-EX-DS-I-I-OLP

2908782: FA MCR-FDS-I-I-OLP

2908801: FA MCR-EX-FDS-I-I-OLP

Power supply	4-20mA loop-powered
Input	4 to 20mA signal or HART signal
Display	LC-display with 5-digit scalable for measured value
Mounting	Panel-mount
Fieldhousing	Without mounting kit for wall/pipe mounting
Housing material	Aluminium
Rear panel	Polycarbonate PC
Field housing with cable entries	2 x M16

Firmware version: 01.04.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 RU SHIP Pt.4 Ch.9 Sec. 1.

Use shielded wires for permanent HART-communication only.

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-Certificates issued by a notified/recognized Certification Body.

Type Approval documentation

Tests carried out

Applicable tests according to 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
- device 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: **262.1-024548-1**
Certificate No: **TAA000013C**

- 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