

TYPE APPROVAL CERTIFICATE

This is to certify:**That the Peripheral Equipment**

with type designation(s)
PSI-devices, PSM-devices, PSI-MOS devices, FL devices

Issued to

Phoenix Contact GmbH & Co. KG
Blomberg, Germany

is found to comply with
DNV GL rules for classification – Ships, offshore units, and high speed and light craft

Application :**Location classes:**

Product(s) approved by this certificate is/are accepted for installation on all vessels classed by DNV GL.

Temperature B

Humidity A

Vibration A

EMC B

Enclosure Required protection according to the Rules shall be provided upon installation on board.

Issued at **Hamburg** on **2018-01-15**

This Certificate is valid until **2023-01-14**.

for **DNV GL**

DNV GL local station: **Magdeburg**

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

Mat.-Nr.	Material	Function
2313999	PSI-MOS-DNET/FO 850 E	Media converter
2313986	PSI-MOS-DNET/FO 850 T	Media converter
2313423	PSI-REP-DNET CAN	Copper Device
2313449	PSI-SC-DNET CAN	Copper Device
2313533	PSI-BRIDGE-DNET CAN	Copper Device
2744416	PSM-ME 232/485 (Redesign)	Copper Device
2744458	PSM-ME-RS232/TTY-P	Copper Device
2744429	PSM-ME 485/485 (Redesign)	Copper Device
2744461	PSM-ME-RS232/RS232-P	Copper Device
2708698	PSM-ME-REP-PROFIB	Copper Device
2708290	PSI-MOS-PROFIB/FO 660 E	Media converter
2708287	PSI-MOS-PROFIB/FO 660 T	Media converter
2708274	PSI-MOS-PROFIB/FO 850 E	Media converter
2708711	PSI-MOS-PROFIB/FO 850 E-SO	Media converter
2708261	PSI-MOS-PROFIB/FO 850 T	Media converter
2708614	PSI-MOS-PROFIB/FO 850 T-SO	Media converter
2708313	PSI-MOS-RS485W2/FO 660 E	Media converter
2708300	PSI-MOS-RS485W2/FO 660 T	Media converter
2708339	PSI-MOS-RS485W2/FO 850 E	Media converter
2708326	PSI-MOS-RS485W2/FO 850 T	Media converter
2708368	PSI-MOS-RS232/FO 660 E	Media converter
2708371	PSI-MOS-RS232/FO 850 E	Media converter
2708575	PSI-MOS-RS422/FO 1300 E	Media converter
2708342	PSI-MOS-RS422/FO 660 E	Media converter
2708355	PSI-MOS-RS422/FO 850 E	Media converter
2902853	FL MC EF 1300 MM SC	Media converter
2902854	FL MC EF 1300 MM ST	Media converter
2902856	FL MC EF 1300 SM SC	Media converter
2902658	FL MC EF WDM-A SC	Media converter
2902659	FL MC EF WDM-B SC	Media converter
2902660	FL MC EF WDM-SET SC	Media converter
2744610	FL CAT5 TERMINAL BOX	Patchpanel
2901642	FL-PP-RJ45-SCC	Patchpanel
2901643	FL-PP-RJ45-SC	Patchpanel
2901645	FL-PP-RJ45-LSA	Patchpanel
2901646	FL-PP-RJ45/RJ45	Patchpanel
2313928	FL ISOLATOR 100-RJ/SC	Isolator
2313931	FL ISOLATOR 100-RJ/RJ	Isolator
2313915	FL ISOLATOR 1000-RJ/SC	Isolator

Application/Limitation

The Type Approval covers hardware listed under Product description. When the hardware is used in applications to be classed by DNVGL, 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.

Job Id: **262.1-004888-4**
Certificate No: **TAA00001KR**

Type Approval documentation

Test Reports: 2002-3229 Rev. 02; E131006E3 dtd 2013-06-25; E132179E1 dtd 2013-08-06;
U132179E1 dtd 2013-08-14

Documents: Documents overview_172175_2018-04-16; HW-SW overview_172175_2018-02-07

Tests carried out

Applicable tests according to class guideline DNVGL-CG-0339, November 2016.

Marking of product

The products to be marked with:

- Model name
- Manufacturer 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
- 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