



TYPE APPROVAL CERTIFICATE

Certificate No:
TAE0000196
Revision No:
4

This is to certify:

That the Contactor Relay

with type designation(s)
PLC-Interface Relay

Issued to

Phoenix Contact GmbH & Co. KG
Blomberg, Nordrhein-Westfalen, 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 D*

Humidity A

Vibration B/C*

EMC B

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

*** see Application/Limitation**

Issued at **Hamburg** on **2021-08-17**

for **DNV**

This Certificate is valid until **2026-08-16**.

DNV local station: **Magdeburg**

Approval Engineer: **Heinz Scheffler**

.....
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.

LEGAL DISCLAIMER: Unless otherwise stated in the applicable contract with the holder of this document, or following from mandatory law, the liability of DNV AS, its parent companies and their subsidiaries as well as their officers, directors and employees ("DNV") arising from or in connection with the services rendered for the purpose of the issuance of this document or reliance thereon, whether in contract or in tort (including negligence), shall be limited to direct losses and under any circumstance be limited to 300,000 USD.



Form code: TA 251

Revision: 2021-03

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PLC-INTERFACE Electromechanical Relay

Nomenclature

PLC	I	II	III	IV	V	VI	VII
I	Component: R = equipped with electromechanical relay B = base terminal block without relay						
II	Connection method: SC = Screw connection terminals PT = Push-In connection terminals						
III	Nominal input voltage: 5 – 230 followed by UC, AC or DC						
IV	Contact configuration: 1 or 1X1 = Normally open contact 2 or 1X2 = Normally closed contact 21 or 1X21 = SPDT 1-1 or 2X1 = 2x Normally open contacts 2-2 or 2X1 = 2x Normally closed contacts 21-21 or 2X21 = DPDT						
V	Contact Type: Blank = Standard AU = Gold plated HC = High current IC = Inrush current ICT = Inrush current tungsten FG = Force guided						
VI	Function: Blank = Universal MS = Manual switch ACT = PLC Interface actuator series for output functions SEN = PLC Interface sensor series for input functions MS/ACT = Manual switch + actuator series for output functions MS/SEN = Manual switch + sensor series for input functions RW = Railway applications EX = Ex-applications						
VII	Special function Blank = No special function SO46 = Resistant against interference voltages and leakage currents SO46/HI = Resistant against high interference voltages and leakage currents						

PLC-INTERFACE Solid State Relay

Nomenclature

PLC I II III IV V VI

- I** Component:
 O = equipped with solid state relay
- II** Connection method:
 SC = Screw connection terminals
 PT = Push-In connection terminals
- III** Nominal input voltage:
 5 – 230 followed by UC, AC or DC
- IV** Output voltage range:
 5 – 300 followed by UC, AC or DC
- V** Continuous output current:
 100 = 100 mA input solid state relay
 1 = 0,75A power solid state relay / 1A power Solid-State-Relay
 2 = 3 A power solid state relay
 5 = 5 A power solid state relay
 10 = 10 A power solid state relay
- VI** Function:
 Blank = Universal
 ACT = PLC Interface actuator series for output functions
 SEN = PLC Interface sensor series for input functions
 RW or 3RW = Railway applications
 EX = Ex-applications
 R = Feedback contact

Auxiliary devices: PLC-ESK; PLC-V8..; PLC-VT..

Application/Limitation

Location class Temperature D: Derating curve is to be observed, see Interface Technology and Switching Devices 2017 / 2018 Page 368 - 425.

Location class Vibration C: Auxiliary devices PLC-V8

Location class Humidity A: Special precautions must be taken for installation in the control cabinet to avoid condensation.

Type Approval documentation

Test report: E 20031; S 20031; E081686E; U103729E1; U114171D1; 25701 Rev 00; Assessment EMC requirements DNVGL-CG-0339:2019 Section 3: Radiated electromagnetic field immunity test 14.8 and Radiated emission test 14.11, dated 29.07.2021

Documents: Document List 2021-05-18-TAE0000196_PLC-REL-overview;

Interface Technology and Switching Devices 2017/2018, Highly compact relay modules - PLC-INTERFACE, page 368 - 425

Tests carried out

Applicable tests according to Class Guideline DNVGL-CG-0339, Edition December 2019.

Marking of product

- 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