

TYPE APPROVAL CERTIFICATE

This is to certify:**That the Terminal Block**

with type designation(s)

Push-in installation terminal blocks, types PTI and PTN

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.

This Certificate is valid until **2021-08-25**.

Issued at **Hamburg** on **2016-08-26**

DNV GL local station: **Magdeburg**

for **DNV GL**

Approval Engineer: **Heinz Scheffler**

.....
Duy Nam Le
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

Type designation	Rated cross section	Rated insulation voltage	Nominal current
PTI 2,5	2,5mm ²	800V	24A
PTI 2,5 BU	2,5mm ²	800V	24A
PTI 2,5 PE	2,5mm ²	800V	
PTI 2,5-PE/L/NT	2,5mm ²	250V	24A
PTI 2,5-PE/L/L	2,5mm ²	250V	24A
PTI 2,5-PE/L/N	2,5mm ²	250V	24A
PTI 2,5-L	2,5mm ²	250V	24A
PTI 2,5-N	2,5mm ²	250V	24A
PTI 2,5-L/L	2,5mm ²	250V	24A
PTI 2,5-L/N	2,5mm ²	250V	24A
PTI 2,5-L/NT	2,5mm ²	250V	24A
PTI 2,5-L/LT	2,5mm ²	250V	24A
PTI 2,5-PE/L/NTB	2,5mm ²	250V	24A
PTI 2,5-PE/L/LTB	2,5mm ²	250V	24A
PTI 2,5-PE/L/LB	2,5mm ²	250V	24A
PTI 2,5-PE/L/TG	2,5mm ²	250V	24A
PTI 2,5-L/NTB	2,5mm ²	250V	24A
PTI 2,5-L/LTB	2,5mm ²	250V	24A
PTI 2,5-L/TG	2,5mm ²	250V	24A
PTI 4	4,0mm ²	800V	32A
PTI 4 BU	4,0mm ²	800V	32A
PTI 4-PE	4,0mm ²	800V	
PTI 4-PE/L/NT	4,0mm ²	400V	28A
PTI 4-PE/L/LT	4,0mm ²	400V	28A
PTI 4-PE/L/N	4,0mm ²	400V	28A
PTI 4-PE/L/L	4,0mm ²	400V	28A
PTI 4-L/N	4,0mm ²	400V	28A
PTI 4-L/L	4,0mm ²	400V	28A
PTI 6	6,0mm ²	800V	41A
PTI 6-PE	6,0mm ²	800V	
PTN 2,5	2,5mm ²	250V	24A
PTN 4	4,0mm ²	250V	32A
PTN 6	6,0mm ²	400V	41A

Application/Limitation

Location classes:

- Temperature: B
- Humidity: B
- Vibration: B
- Required protection according to the Rules shall be provided upon installation on board.

Operating instruction (CAT_3_2015_EN_LoRes) of the manufacturer is to be observed.

Type Approval documentation

Test report: U130310E1; U130310E2; TTR_2404_3214051_00_EN; TTR_2403_3214049_00_EN; TTR_2402_3214047_00_EN; TR_20535_3214051_00_EN; TR_20534_3214047_00_EN.

Laboratory data sheet no: Lds_3096_3213946_01_en; Lds_3097_3213949_01_en; Lds_3098_3213951_01_en; Lds_3099_3213959_01_en; Lds_3100_3213955_01_en; Lds_3101_3213960_with_3036783_01_en; Lds_3117_3213962_01_en; Lds_3118_3213968_01_en; Lds_3119_3213963_01_en; Lds_3127_3213970_01_en; Lds_3128_3213964_01_en; Lds_3129_3213965_01_en; Lds_3130_3213966_01_en; Lds_3131_3213967_01_en; Lds_4190_3214047_00_en; Lds_4191_3214049_00_en; Lds_4192_3214051_00_en.

Catalogue: CAT_3_2015_EN_LoRes

Tests carried out

Applicable tests according to:

- Class Guideline DNVGL-CG-0339, Edition November 2015.
- IEC60947-7-1:2009-04
- IEC 60947-7-2:2009-04.

Marking of product

The products to be marked with:

- manufacture name
- device name
- rated insulation voltage, rated cross section

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 at least every second year and at renewal of this certificate.

END OF CERTIFICATE