

TYPE APPROVAL CERTIFICATE

This is to certify:**That the**

- 1. Terminals for printed circuit boards**
- 2. Multi-pole terminals for printed circuit boards**

with type designation(s)

- 1. FRONT 2,5-../, FRONT 4../, KDS 4, KDS 10, KDS10-../**
- 2. GMKDS 1,5/../, GMKDS 3/../, MKDS 1,5/../, MKDS 3/../, MKDS 5/../, MKDSN 1,5/../**

Issued to

Phoenix Contact GmbH & Co. KG
Flachmarktstraße 8
32825 Blomberg, Germany

is found to comply with

DNV GL rules for classification – Ships and offshore units**Application :**

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

Temperature B**Humidity B****Vibration A**This Certificate is valid until **2021-10-04**.Issued at **Hamburg** on **2016-10-05**DNV GL local station: **Magdeburg**Approval Engineer: **Didier Girardin**for **DNV GL**

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

PCB terminal blocks

1. Type	A (mm ²)	I (A)	U (V)	2. Type	A (mm ²)	I (A)	U (V)
FRONT 2,5-H/SA5	2,5	16	250	GMKDS 1,5/ ...	1,5	10	500
FRONT 2,5-H/SA10	2,5	16	250	GMKDS 3/ ...	2,5	16	500
FRONT 2,5-V/SA5	2,5	16	250	MKDS 1,5/ ...	1,5	10	250
FRONT 2,5-V/SA10	2,5	16	250	MKDS 3/ ...	2,5	16	250
FRONT 4 H-6,35	4	26	250	MKDS 5/ ...	4	20	500
FRONT 4 H-7,62	4	26	400	MKDSN 1,5/ ...	1,5	10	250
FRONT 4 V-6,35	4	26	250				
FRONT 4 V-7,62	4	26	400				
KDS 4	4	26	250				
KDS 10	10	50	250				
KDS 10-PE	10						
KDS 10-PE/SO	10						
KDS 10-SO	10	50	400				

Application/Limitation

Operating instruction of the manufacturer to be observed

Tests carried out

Applicable tests according IEC 60998-1:2004

Marking of product

The products to be marked with:

- model name
- manufacturer name

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, 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 components and/or materials used comply with type approved documents and/or referenced component and material specifications
- Review of possible changes in design of systems, 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