

TYPE APPROVAL CERTIFICATE

This is to certify:

That the Terminal Block

with type designation(s)
Surge protection device Valvetrab VAL...

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 :

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

This Certificate is valid until **2022-01-25**.

Issued at **Hamburg** on **2017-01-26**

DNV GL local station: **Magdeburg**

for **DNV GL**

Approval Engineer: **Harald Amberger**

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

Surge protection for the power supply

VAL-MS-T1/T2... Type 1/2 lightning arrestor/surge arrestor

VAL-MS-385... Type 2 surge arrestor

F-MS-T1/T2 50 ST Replacement plug for VAL-MS-T1/T2... N-PE

F-MS 80 ST Replacement plug for VAL-MS-385... N-PE

Ratings:	
Continuous operating voltage U_c :	up to 385 VAC
Nom. discharge current I_n 8/20 μ s:	up to 40 kA
Max. discharge current I_{max} 8/20 μ s:	up to 80 kA
Voltage protection level U_p	up to $\leq 2,0$ kV
Overcurrent protection	up to 250 A gL/gG
Short-circuit withstand capability	25 kA rms
Degree of protection	IP20
Overvoltage category	III
Pollution degree	2
Further ratings according manufactures documentation.	

Application/Limitation

Location Classes:

Temperature: B, Humidity: B, Vibration: B

Operating instruction of the manufacturer to be observed

Type Approval documentation

Tests carried out

IEC 61643-11:2011, EN 61643-11:2012, cold, dry heat, damp heat, vibration, flame retardancy

Marking of product

Phoenix Contact - Type designation - Main data.

All type designation may be followed by suffix such as color or packaging options.

Job Id: **262.1-024728-1**
Certificate No: **TAE00001N9**

Place of production

PHOENIX CONTACT GmbH & Co. KG
Flachsmarktstr. 8
32825 Blomberg
Germany

Periodical assessment

The scope of the periodical assessment is to verify that the conditions stipulated for the Type approval are complied with and that no alterations are made to the product design or choice of materials.

The main elements of the assessment are:

- Inspection on factory samples, selected at random from the production line (where practicable).
- Results from Routine Tests (RT) checked (if not available tests according to RT to be carried out).
- Review of type approval documentation.
- Review of possible change in design, materials and performance.
- Ensuring traceability between manufacturer's product type marking and 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