DNV·GL

Certificate No:
TAA00001DK

TYPE APPROVAL CERTIFICATE

This is to certify:

That the Peripheral Equipment

with type designation(s)
Electronic auxiliary circuit switch, MICO 4.4, 4.6, 4.10

Issued to
Murrelektronik GmbH
Oppenweiler, 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	**B**
Humidity	**B**
Vibration	**A**
EMC	**A**
Enclosure	**A**

Issued at **Hamburg** on **2017-09-12**
This Certificate is valid until **2022-09-17**.
DNV GL local station: **Augsburg**

for **DNV GL**

Approval Engineer: **Klaus-Peter Schröder**

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.

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Job Id: **262.1-025663-1**
Certificate No: **TAA00001DK**

Product description

4-channel electronic auxiliary circuit switch.

Type
MICO 4.4
MICO 4.6
MICO 4.10

Input	Voltage	24V DC
	Current (operating current)	ca. 32mA, U=24V
	Overvoltage protector	suppressor protector 36V
	Polarity	any
Output	Voltage	24V DC corresponding to the input voltage
	Current	MICO 4.4: adjustable to 1, 2, 3 or 4A with rotary switch MICO 4.6: adjustable to 1, 2, 4 or 6A with rotary switch MICO 4.10: adjustable to 4, 6, 8 or 10A with rotary switch
	Overvoltage protector	suppressor protector 36V
	Internal delay fuse for each channel	MICO 4.4: 4A MICO 4.6: 6,3A MICO 4.10: 10A

Hardware version: 4.xx
Software version: 3.xx

Application/Limitation

The Type Approval covers hardware listed under Product description.
When the hardware is used in applications to be classed by DNV GL, 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 GL RU SHIP Pt.4 Ch.9 Sec. 1.

Type Approval documentation

Tests carried out

Applicable tests according to Class Guideline DNVGL-CG-0339, Edition November 2016.

Marking of product

The products to be marked with:
· device name /Art. no.
· manufacturer name
· code.

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