

# TYPE APPROVAL CERTIFICATE

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**This is to certify:**

**That the Pilot Device**

with type designation(s)

**RMQ-Titan Command and Control System M22... and M22-F...**

Issued to

**Eaton Electric GmbH**  
**Bonn, Germany**

is found to comply with

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

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**Application :**

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

This Certificate is valid until **2021-08-30**.

Issued at **Hamburg** on **2016-08-31**

DNV GL local station: **Essen**

Approval Engineer: **Harald Amberger**

for **DNV GL**

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**Duy Nam Le**  
**Head of Section**

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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

Operating and Signalling Device RMQ Titan M22... + FLAT REAR Contacts & LED M22-F...

Rated insulation voltage  $U_i$  : 500V  
Rated impuls withstand voltage  $U_{imp}$  : 6000V  
Overvoltage category III, degree of pollution 3

Degree of protection: IP 66, contactor and LED elements IP 20, double push button IP 65

LED elements:

Rated operational voltage: 12 - 30 V AC/DC, 12 V AC/DC  
85 - 264 V AC, 207 - 264 V AC Type H, 85 - 264 V AC Varistor Type TA  
Rated operational current: 8 - 15 mA, 5 - 15 mA

Contactor elements:

Rated operational current AC-15: 230V/6A, 400V/4A, 500V/2A  
Rated operational current DC-13: 24V/3A, 42V/1,7A, 60V/1,2A, 110V/0,8A, 220V/0,3A

## Application/Limitation

For installations inside switchboards / enclosures onboard ships and offshore units.

Location Classes:

Temperature: C, Humidity: A, Vibration: A

## Type Approval documentation

### Tests carried out

Applicable tests according to Standard for Certification No. 2.4, April 2006.  
GL Regulations for the Performance of Type Tests (2012)  
Type Tests according to IEC 60947-5-1, test sequence I to VIII.

### Namer and place of manufacturer

Eaton Industries GmbH  
Werk Dausenau  
Dausenauer Landstraße  
56130 Bad Ems (Lahn)

### Marking of product

“Moeller” or “Eaton”, type designation

Job Id: **262.1-009083-3**  
Certificate No: **TAE0000198**

## **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) and selected type tests (ref. to applicable class programs) checked (if not available these tests shall 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.

Assessment to be performed at least every second year.

END OF CERTIFICATE