Certificate No:
TAE00004E5

TYPE APPROVAL CERTIFICATE

This is to certify:

That the Instrument for Switchboard

with type designation(s)
Push-Button Switch Series: 51

Issued to
EAO AG
Olten, SO, Switzerland

is found to comply with
DNV 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.

Issued at **Hamburg** on **2021-11-01**
This Certificate is valid until **2026-10-31**.
DNV local station: **Augsburg**

Approval Engineer: **Maik Gagern**

for **DNV**

Arne Schaarmann
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.

LEGAL DISCLAIMER: Unless otherwise stated in the applicable contract with the holder of this document, or following from mandatory law, the liability of DNV AS, its parent companies and their subsidiaries as well as their officers, directors and employees ("DNV") arising from or in connection with the services rendered for the purpose of the issuance of this document or reliance thereon, whether in contract or in tort (including negligence), shall be limited to direct losses and under any circumstance be limited to 300,000 USD.

Product description

Push-buttons for flush-mounting with or without signal lamp series 51
Indicator: 51-030, -040, -050
Push-button, momentary action: 51-12x, -13x, -15x
Push-button, maintained action: 51-26x, -27x, --28x
Keylock switch: 51-13x, -15x, -19x, -23x, -25x, -29x, -33x, -35x. -39x
Keylock switch, momentary/ maintained action: 51-14x, -49x
Number of switches: 1 to 4, lamp: T 1 3/4 MG, max. 48 V
Contact rating: 5 A, 250 V AC 3 A, 250 V AC (PF=0.3)
Indicator: 51-031, -041, -051
Push-button, momentary action: 51-41x, -43x, -45x
Push-button, maintained action: 51-46x, -47x, -48x
Keylock switch: 51-40x, -41x, -44x
Keylock switch, momentary/ maintained action: 51-42x, -43x, -45x
Degree of protection front side: IP 65

Application/Limitation

Voltage division by series connection of resistors or capacitors with the bulb is not permitted.

Type Approval documentation

Tests carried out

DNV Class Guideline DNV-CG-0339, Edition 2021-08

Marking of product

EAO Part.-No.
Assembly Instruction (provided for the smallest package) includes information about Maker and Type / Series of Product

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