Certificate No:
**TAE00004E0**

# TYPE APPROVAL CERTIFICATE

## This is to certify:

**That the Instrument for Switchboard**

with type designation(s)
**Buzzer 31-810**

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

Electronic buzzer for front panel installation
Frequency: 2.8 k Hz
Sound level: 88+/- 8 dB (A) in 10 cm distance
Power supply I: 10 V to 55 V AC, 25 mA
Power supply II: 10 V to 75 V DC, 15 mA
Electrical connection: soldering terminals
Tone waveform: continuous tone or intervall tone (about 3 Hz)
Sound level: to be adjusted by a external resistor
Degree of protection: front IP 40

## Application/Limitation

Instructions of the maker are to be observed.

## 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**