

TYPE APPROVAL CERTIFICATE

This is to certify:**That the Peripheral Equipment**

with type designation(s)
JUMO safetyM STB/STW

Issued to

JUMO GmbH & Co. KG
Fulda Hessen, 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 class:

Temperature	B
Humidity	B
Vibration	A
EMC	B
Enclosure	A

Issued at **Hamburg** on **2017-06-30**

This Certificate is valid until **2022-06-17**.

DNV GL local station: **Magdeburg**

for **DNV GL**

Approval Engineer: **Klaus-Peter Schröder**

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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.



Product description

STB: Safety Temperature Limiter
STW: Safety Temperature Monitor

Type	701150: JUMO safetyM STB/STW 701155: JUMO safetyM STB/STW Ex
Power supply	110 ... 240 V AC 20 ... 30 V AC/DC
Inputs	2x analogue (Pt100 / Pt1000 2- or 3-wire, thermocouple, 0/4..20mA) 1x digital
Outputs	2x c/o contacts (Pre-alarm / Alarm)
Mounting	Rail
HMI	Display: monochrome with back-light (96x64 Dots) SMD-LED's: 1x green, 2yellow, 2x red Operation: 4-time operator keys: Pgm (P), Down, Up, R (Reset)
Electrical connection	On the front via screw terminals up to 2.5 mm ²
Housing	Polycarbonate Flammability class: UL94 V0

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.

Ex-certification is not covered by this certificate. Application in hazardous area to be approved in each case according to the Rules and Ex-Certification/ Special Condition for Safe Use listed in valid Ex-Certificates issued by a notified/recognized Certification Body – see:
EC-Type Examination Certificate TÜV 11 ATEX 556139 X (31.10.2012)
Certificate of Conformity IECEx TUN 15.0036X (13.04.2017)

Product certificate

If specified in the Rules, ref. Pt.4 Ch.9 Sec.1, the control and monitoring system in which the above listed hardware is used shall be delivered with a product certificate. For each such delivery the certification test is to be performed at the manufacturer of the application system before the system is shipped to the yard. The test shall be done according to an approved test program. After the certification the clause for application software control will be put into force.

Clause for application software control

All changes in software are to be recorded as long as the system is in use on board. The records of all changes are to be forwarded to DNV for evaluation and approval. Major changes in the software are to be approved before being installed in the computer.

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:

- manufacturer name
- serial number
- type 701150 or 701155

Periodical assessment

The scope of the periodical assessment is to verify that the conditions stipulated for the type are

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Certificate No: **TAA000017J**

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