



TYPE APPROVAL CERTIFICATE

Certificate no.:
TAA00001TH
Revision No:
2

This is to certify:
that the Level Transmitter

with type designation(s)
MAERA S29 SW (Type 404393)

issued to
JUMO GmbH & Co. KG
Fulda, Hessen, Germany

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.

Location classes:

Temperature	B
Humidity	B
Vibration	A
EMC	B
Enclosure	B (IP68)

Issued at **Hamburg** on **2025-11-03**

This Certificate is valid until **2030-11-04**.

DNV local unit: **Augsburg**

Approval Engineer: **Holger Jansen**



for **DNV**

This document has been digitally signed and will
therefore not have handwritten signature

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 USD 300 000.

Product description

The JUMO MAERA S29 SW level probe is used for the continuous hydrostatic level measurement in ventilated tanks.

Approved types: 404393/062 and 404393/662
Voltage supply: 21...24V DC (nominal 24V DC)
Output: 4...20mA, 2-wire
Measuring ranges: 0...1mH₂O to 0...10bar sealed gauge / absolute pressure
Process connection: Front-flush process connection with protective cap
Process connection material: Titanium
Electrical connection type: FEP cable: 6-core, shielded cable with integrated pressure compensation hose
Protection type: IP68 according to EN 60529 (100m/8h)
Ex-Marking (referenced only, not in scope of this certificate): Ex ib IIC T6....T4 Gb.

Application/Limitation

The Type Approval covers hardware listed under Product description. When the hardware is used in applications to be classed by DNV, documentation for the actual application is to be submitted for approval by the manufacturer of the application system in each case. Reference is made DNV RU SHIP Pt.4, Ch.9, Sec.1.

Type Approval documentation

Test reports JUMO according to "Dokumentenübersicht Prüfprotokolle für GL Zulassung Maera S29 (404393) SW", version 05, dated 2020-10-01;
Installation Instructions 40439300T94Z002K000, V12.00/EN/00744209/2024-02-15;
Drawing summary Maera S29 SW (Type 404393/...), DNV Version 07, dated 2025-07-29;
Diagram Composition 40439300 JUMO MAERA S29 SW, 40439300C40Z000K000, vers.04, 2018-05-03;
IECEx Type Approval Eurofins Electrosuisse, certificate no. IECEx SEV 20.0010X, issued 2023-04-27;
Additional EMC test report JUMO Maera S29 SW_14.8_Radiated_EM Field Immunity_Nachtest 6GHz.pdf, dated 2020-09-25.
Type Approval Assessment Report issued at Augsburg on 2025-10-20

Tests carried out

Applicable tests according to DNV CG-0339, August 2021

Marking of product

Maker, type, serial number

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 after 2 years and after 3.5 years. A renewal assessment will be performed at renewal of this certificate

END OF CERTIFICATE