



Marine & Offshore

Certificate number: 47622/B0 BV

File number: AP 4715

Product code: 3812H

This certificate is not valid when presented without the full attached schedule composed of 7 sections

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TYPE APPROVAL CERTIFICATE

This certificate is issued to

JUMO Mät- och Reglerteknik AB
HELSINGBORG - SWEDEN

for the type of product

TEMPERATURE SENSORS / PROBES / TRANSDUCERS

Temperature probes 902850 Marine temp

Requirements:

Bureau Veritas Rules for the Classification of Steel Ships

EC Code: 41

This certificate is issued to attest that Bureau Veritas Marine & Offshore did undertake the relevant approval procedures for the product identified above which was found to comply with the relevant requirements mentioned above.

This certificate will expire on: 10 Nov 2026

For Bureau Veritas Marine & Offshore,

At BV GOTHENBURG, on 10 Nov 2021,

Torbjorn Ygesjo



This certificate remains valid until the date stated above, unless cancelled or revoked, provided the conditions indicated in the subsequent page(s) are complied with and the product remains satisfactory in service. This certificate will not be valid if the applicant makes any changes or modifications to the approved product, which have not been notified to, and agreed in writing with Bureau Veritas Marine & Offshore. Should the specified regulations or standards be amended during the validity of this certificate, the product(s) is/are to be re-approved prior to it/they being placed on board vessels to which the amended regulations or standards apply. This certificate is issued within the scope of the General Conditions of Bureau Veritas Marine & Offshore available on the internet site www.veristar.com. Any Person not a party to the contract pursuant to which this document is delivered may not assert a claim against Bureau Veritas Marine & Offshore for any liability arising out of errors or omissions which may be contained in said document, or for errors of judgement, fault or negligence committed by personnel of the Society or of its Agents in establishment or issuance of this document, and in connection with any activities for which it may provide.

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BV Mod. Ad.E 530 June 2017

This certificate consists of 3 page(s)

THE SCHEDULE OF APPROVAL

1. PRODUCT DESCRIPTION:

- Product model or type designation :

Types: 902850

- Product description:

Screw-in RTD temperature probes

1.1 - Screw-in RTD temperature probe:

Type designation	Temperature probe 902850/10 with terminal head form B
Measuring element	1x Pt100, 2-wires réf. 902850/..-1003 1 x Pt100, 4 wires réf. 902850/..-1011
Permitted operation temperature	-50...+200°C réf. 902850/..-380 -50...+400°C réf. 902850/..-402
Protection tube materials	Stainless steel 1.4571, Ø 6 mm, Ø 8 mm
Dimension of the protection tube	diameter: from 6 up to 8 mm length: from 50 up to 200 mm Stepped tube: for Ø 6 mm on Ø 3.8 mm for Ø 8 mm on Ø 6 mm
IP protection type	IP65
Application	see clause 4.5

1.2 - Code details RTD temperature probe:

Basic type	Operating temp. °C	Measuring insert	Tolerance class	Sheath diameter D in mm	Fitting length EL (EL 50 to 200 mm)	Process connection	Extra codes
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
(8): 999							Specify other approved transmitter, Bureau Veritas

1.3 - Programmable 2-Wire Transmitter:

Type designation	Programmable 2-Wire Transmitter Type 707050 (For installation into terminal head form B)
Connection type	2-wire, 3-wire, or 4-wire circuit
Output signal	4 to 20 mA or 20 to 4 mA
Voltage supply	DC 11 to 35 V
Materials	Polycarbonate UL 94 V2 (grouted)
IP protection type	IP20

2. DOCUMENTS AND DRAWINGS:

Jumo:

- Drawing Marine Temp 902850/10 No. SE902850.0010.A4.01, dated Sep 23, 2016
- Drawing Marine Temp 902850/10 8mm No. SE902850.0020.A4.01, dated Sep 22, 2016
- Drawing 902850/11 Stepped tube 8 to 6mm No. SE902850.0186.A4.01, dated Sep 23, 2016
- Drawing 902850/11 Stepped tube 6 to 3.8mm No. SE902850.1100.A4.01, dated Sep 23, 2016
- Data Sheet JUMO MarineTemp No. V1.00/SV/00676935, dated Jan 12, 2017
- Data Sheet JUMO dTRANS T05 No. 707050, dated Jun 4, 2012

3. TEST REPORTS:

Danak:

- Type Approval testing No. 5P02064, dated May 9, 2016.

RISE:

- EMC test No. P109597, dated June 03, 2021

4. APPLICATION / LIMITATION:

- 4.1 - BV Rules for the Classification of Steel Ships, Offshore Units, Yachts.
4.2 - Approval also valid for ships to be granted with the notations: **AUT-UMS, AUT-CCS, AUT-PORT and AUT-IMS.**
4.3 - BUREAU VERITAS Environmental Category, **EC Code: 41**
4.4 - The equipment fulfils the EMC requirements for installation on the Bridge and Deck Zone.
4.5 - The application areas are, among others, in the air conditioning technology and refrigeration engineering as well as the HVAC and apparatus engineering sector.
4.6 - Equipment covered by this Type Approval certificate has been tested according to requirements of IACS UR E10 rev7.

5. PRODUCTION SURVEY REQUIREMENTS:

- 5.1 - The above products are to be supplied by **JUMO Mat- och Reglerteknik AB** in compliance with the type described in this certificate.
5.2 - This type of product is within the category HBV of Bureau Veritas Rule Note NR320 and as such does not require a BV product certificate.
5.3 - **JUMO Mat- och Reglerteknik AB** has to make the necessary arrangements to have its works recognised by Bureau Veritas in compliance with the requirements of NR320 for HBV products.
5.4 - **JUMO Mat- och Reglerteknik AB** has declared to Bureau Veritas the following production site(s):

JUMO Mat- och Reglerteknik AB
Lilla Garnisonsgatan 33
254 67 HELSINGBORG
SWEDEN

6. MARKING OF PRODUCT:

- Maker's name or trade mark.
- Serial number of the units.
- Equipment type number or model identification under which it was type-tested.

7. OTHERS:

- 7.1 - It is **JUMO Mat- och Reglerteknik AB - SWEDEN**'s responsibility to inform shipbuilders or their sub-contractors of the proper methods of fitting, use and general maintenance of the approved equipment and the conditions of this approval.
7.2 - This certificate supersedes the Type Approval Certificate No. 47622/A0 BV issued on 30/03/2017 by the Society.

*** END OF CERTIFICATE ***