



Marine &amp; Offshore

Certificate number: 02330/G0 BV

File number: AP1740

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 GmbH & Co. KG**

Fulda - GERMANY

*for the type of product*

**TEMPERATURE SENSORS / PROBES / TRANSDUCERS**

Type: 902006/53 and 902020/10

**Requirements:**

Bureau Veritas Rules for the Classification of Steel Ships.

EC Code: 31

*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: 07 Jun 2023**

**For Bureau Veritas Marine & Offshore,**

At BV HAMBURG, on 07 Jun 2018,

Dirk Hoepfner



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](http://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 2 page(s)

## THE SCHEDULE OF APPROVAL

### 1. PRODUCT DESCRIPTION:

The **902006/53** and **902020/10** series are resistance temperature sensors with thermowell.

Type	Sensor	Length [mm]	Thermowell type
902006/53-507-1003-1-12-100-815/000	1x PT100, 2-wire	100	39349
902006/53-507-2003-1-12-100-815/000	2x PT100, 2-wire	100	39349
902006/53-505-3003-1-12-100-815/000	3x PT100, 2-wire	100	39349
902006/53-507-1003-1-12-160-815/000	1x PT100, 2-wire	160	32010
902006/53-507-2003-1-12-160-815/000	2x PT100, 2-wire	160	32010
902006/53-505-3003-1-12-160-815/000	3x PT100, 2-wire	160	32010
902006/53-507-1003-1-12-220-815/000	1x PT100, 2-wire	220	35520
902006/53-507-2003-1-12-220-815/000	2x PT100, 2-wire	220	35520
902006/53-505-3003-1-12-220-815/000	3x PT100, 2-wire	220	35520
902020/10-505-1001-1-6-220-165/000	1x PT100, 3-wire	220	35520

### 2. DOCUMENTS AND DRAWINGS:

- 90.239-F01-3M Vers. 17, dated 31.08.2016
- 90.239-F01.00.00 Vers. 33, dated 31.08.2016
- 90.239-F02.00.00 Vers. 34, dated 31.08.2016
- 90.239-F07.00.00 Vers. 13, dated 31.08.2016
- 90.239-F30-3M Vers. 05, dated 28.06.2016
- 90.239-F30.00.00 Vers. 09, dated 31.10.2013
- 90.060-F45.00.00 Vers. 17, dated 22.03.2018

### 3. TEST REPORTS:

According to test reports filed in AP 1740.

### 4. APPLICATION / LIMITATION:

- 4.1 - Bureau Veritas Rules and Regulation for the Classification of Steel Ships.
- 4.2 - Approval valid for ships intended to be granted with the following additional class notations: **AUT-UMS, AUT-PORT, AUT-CCS** and **AUT-IMS**.
- 4.3 - Bureau Veritas Environmental Category, **EC Code: 31**
- 4.4 - Temperature transmitters not to be used for diesel engine exhaust gas monitoring

### 5. PRODUCTION SURVEY REQUIREMENTS:

- 5.1 - The resistance temperature sensors are to be supplied by **Jumo GmbH & Co. KG** 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 GmbH & Co. KG** has to make the necessary arrangements to have its works recognised by Bureau Veritas in compliance with the requirements of NR320 for HBV products :

**Jumo GmbH & Co. KG**  
**Moritz - Juchheim - Str. 1**  
**36039 Fulda**  
**GERMANY**

### 6. MARKING OF PRODUCT:

- Maker's name or trademark
- Date of manufacture and/or serial number
- Equipment type number or model identification

### 7. OTHERS :

- 7.1 - It is the responsibility of **Jumo GmbH & Co. KG** 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 N° 02330/F1 BV issued on 20 Nov 2013 by the Society.

\*\*\* END OF CERTIFICATE \*\*\*