



Marine & Offshore

Certificate number: 07855/C0 BV

File number: AP 624

Product code: 3812H

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

www.veristar.com

## TYPE APPROVAL CERTIFICATE

*This certificate is issued to*

**NORIS AUTOMATION GmbH**

Nürnberg - GERMANY

*for the type of product*

**TEMPERATURE SENSORS / PROBES / TRANSDUCERS**

Type: TP 81 and TH 81

**Requirements:**

Bureau Veritas Rules for the Classification of Steel Ships

EC Code: 33

*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 Feb 2026**

**For Bureau Veritas Marine & Offshore,**

At BV HAMBURG, on 10 Feb 2021,

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. 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.

The electronic version is available at: <http://www.veristarnb.com/veristarnb/jsp/viewPublicPdfTypepec.jsp?id=ndhewiv5h5>

BV Mod. Ad.E 530 June 2017

This certificate consists of 2 page(s)

## THE SCHEDULE OF APPROVAL

### 1. PRODUCT DESCRIPTION:

**TP81** and **TH81** are temperature sensors for continuous measurement with protection tube.

#### Main characteristics:

	TP81	TH81
Sensor type:	Pt 100	NTC
Measuring range:	- 25°C...120°C	40°C...120°C
Diameter sensor/tube:	D = 8mm/11mm	D = 8mm/11mm
Enclosure protection:	IP67	IP67
Process connection:	Screw-in thread	Screw-in thread

### 2. DOCUMENTS AND DRAWINGS:

- 60.207.8 Rev. 1 dated 15.03.2017; 60.207.81 Rev. 1 dated 15.03.2017; HG-TH8-1 III Rev. d dated 04.08.03

### 3. TEST REPORTS:

- LGA: 477 1245 dated 16 Dec 1997

### 4. APPLICATION / LIMITATION:

4.1 - Bureau Veritas Rules 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-CCS, AUT-PORT and AUT-IMS.**

4.3 - Bureau Veritas Environmental Category, **EC Code: 33**

4.4 - A thermowell/protection tube, according to manufacturer's specifications, is to be used.

4.5 - The installation shall comply with the Manufacturer's recommendation described in the above-referenced documentation.

4.6 - The equipment, once installed on board ship, is to be tested in accordance with the above referred regulations under the supervision of a Society's Surveyor.

### 5. PRODUCTION SURVEY REQUIREMENTS:

5.1 - The above mentioned product is to be supplied by **Noris Automation GmbH** 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 - **Noris Automation GmbH** has to make the necessary arrangements to have its works recognized by Bureau Veritas in compliance with the requirements of NR320 for HBV products:

**Noris Automation GmbH**  
**Muggenhofer Strasse 95**  
**90429 Nürnberg**  
**GERMANY**

### 6. MARKING OF PRODUCT:

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

### 7. OTHERS:

7.1 - It is the responsibility of **Noris Automation GmbH - GERMANY**, 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° 07855/B0 BV issued on 10/08/2004 by the Society.

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