



Marine &amp; Offshore

Certificate number: 03554/I0 BV

File number: AP0341

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*

**TRAFAG AG**

Bubikon - SWITZERLAND

*for the type of product*

**TEMPERATURE SENSORS / PROBES / TRANSDUCERS**

Type: NAVISTAT ISN/ISNT 471/472

Temperature switch

### Requirements:

Bureau Veritas Rules for the Classification of Steel Ships

EC Code: 31, 41, 33, 43 (see item 4.3)

*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: 14 Feb 2029**

**For Bureau Veritas Marine & Offshore,**

At BV HAMBURG, on 14 Feb 2024,

Dirk Hoepfner

***This certificate was created electronically and is valid without signature***



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 3 page(s)

## **THE SCHEDULE OF APPROVAL**

### **1. PRODUCT DESCRIPTION :**

The NAVISTAT ISN/ISNT 471/472 series are temperature controller.

#### **1.1 - Main characteristics:**

|                         | <b>ISN/ISNT 471/472</b>        |
|-------------------------|--------------------------------|
| Range:                  | -10°C ... 80°C to 40 ... 300°C |
| Output:                 | floating change-over contact   |
| Degree of protection:   | IP65                           |
| Switching differential: | fixed                          |

**1.2 - Order code:** aaa.aa.bb.ccc.dd.ee.ffff.gg.

**aaa.aa = Sensor type:** 471.23; 471.26; 472.12

**bb = Range:** 95; 23; 31; 24; 53

**ccc = Sensor:** Stainless steel: 321; 331; 341; 121; 131; 141; 021; 031; 041

Cooper: 322; 332; 343; 122; 132; 142; 022; 032; 042

**dd = Fixing:** 27; 14; 18

**ee = Protection tube:** 1411; 1412; 1414; 1416; 1417; 1419; 8316; 8317; 8319; 8411; 8412; 8414

**ffff = Protection tube length:** XXXX

**gg = Accessories:** 88; 83; 07; 27; 40; 90

### **2. DOCUMENTS AND DRAWINGS:**

- Documents filed in AP0341.

For version I0:

- C33174 Rev. C dated 20.10.2022

- Datasheet: H72111o dated 12/2023; H72163i dated 01/2022

### **3. TEST REPORTS:**

- Documents filed in AP0341.

- Test reports dated 02/10/1990 and 21/01/1994.

### **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: 31, 41** (Protection tube length > 150mm);

**EC Code: 33, 43** (Protection tube length <= 150mm)

4.4 - To be fitted in protection tube.

4.5 - Pressure proofness of protection tube: maximum 25 bar.

### **5. PRODUCTION SURVEY REQUIREMENTS:**

5.1 - The above mentioned products are to be supplied by **TRAFAG AG** 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.

5.3 - **TRAFAG AG** has to make the necessary arrangements to have its works recognized by Bureau Veritas in compliance with the requirements of NR320 for HBV products.

5.4 - For information, **TRAFAG AG** has declared to Bureau Veritas the following production site:

**TRAFAG spol. s.r.o.**  
**Vilemovska 2129**  
**34701 Tachov**  
**CZECH REPUBLIC**

**6. MARKING OF PRODUCT:**

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

**7. OTHERS:**

7.1 - It is the responsibility of **TRAFAG AG** 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° 03554/H0 BV issued on 23 Mar 2015 by the Society.

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