



# TYPE APPROVAL CERTIFICATE

**Certificate No.** : HMB32779-AE001                      **Initial Approval :** 15th April, 1994  
**Product** : Temperature Switch  
**Manufacturer** : Trafag spol.s r.o.  
Vilemovska 2129 34701 Tachov, Czech Republic

**Product Description** : Type : 471.23, 471.26, 472.12(NAVISTAT)  
" See Appendix 1 "

**Approval Condition** : " See Appendix 1 "

**THIS IS TO CERTIFY** that the above-mentioned product has been approved in accordance with the relevant requirement of this Society's Rules and / or of the recognized standards as follows and entered in the "List of Approved Manufacturers and Type Approved Equipment".  
Pt. 6, Ch. 2, Art. 301 of the Rules for Classification, Steel Ships.

This Certificate is valid until 14th April, 2024  
Issued at Busan, Korea on 16th September, 2019



This certificate is signed electronically in accordance with IMO FAL.5/Circ.39/Rev.2. Validation and authentication of the certificate can be confirmed from "http://e-cert.krs.co.kr" by using the tracking No (ME19025892240) and certificate No.(HMB32779-AE001).



**KOREAN REGISTER OF SHIPPING**

*General Manager of  
Marine & Ocean Equipment Team*

- Note :**
1. This certificate will be valid subject to complying with the approval conditions described on the certificate and/or on the Rules of this Society.
  2. This certificate will be invalid from the expiry date aforementioned unless the extension or renewal has been granted to the applicant or the manufacturer.
  3. Any significant modifications or changes in design or construction to the above product without approval from this Society will render this certificate invalid.
  4. Should the specified rules, regulations or standards be amended during the validity of this certificate, the product is to be re-approved by this Society in accordance with the requirements as amended.

**Appendix 1**

**Product Description and/or Approval Condition**

**Certificate No :** HMB32779-AE001

**Date of Issue :** 16th September, 2019

**A. Product Description**

**1. Product Specification**

1) Product Description

- 471.23 : Controller, increased vibration resistance
- 471.26 : Controller, high vibration resistance
- 472.12 : Temperature switch with locking, high vibration resistance
  
- Measuring range : 20 ~ 110 °C to 40 ~ 300 °C
- Output : Floating change-over contact
- Protection grade : IP 65

**2. Approved Drawings and Documents**

1) Drawings

- Dwg. No. R93159, R93160, C33174

2) Data sheet

- H72111m (2018.07)

**3. Test Reports, etc.**

1) Environmental Test Report

- Test Report No. Z-471 of Feb. 10 1990.
- V-18062 for Performance, Dry heat, Cold test of 2018.11

**B. Approval Condition**

**1. Application & Limitation**

- 1) This approval is granted on the basis of the test reports and the approved documentation.

**2. Individual Product Cert. and Drawing Approval Requirement**

- 1) Individual Product Certification is not required.

**3. Marking**

- 1) The product or packing is to be marked with the manufacturer's name and type designation on a suitable position.

**4. Others**

1) Test condition

Test	Condition	Remark
EMC	Not Applied	*1
Temperature	-30 ~ +70°C	-
Vibration	Acceleration ±4g	-
Degree of protection	IP65	-

\*1 : Non-power equipment

< End of Certificate >