

## TYPE APPROVAL CERTIFICATE

Certificate No. : HMB32779-AE004 Initial Approval : 4th April, 2005

**Product** : Temperature Switch **Manufacturer** : Trafag spol.s r.o.

Vilemovska 2129 34701 Tachov, Czech Republic

Product Description : Type : Picotherm M, Series 474(ISP/ISPT)

" 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 3rd April, 2025 Issued at Busan, Korea on 13th March, 2020



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 (ME20008242994) and certificate No.(HMB32779 -AE004).



KOREAN REGISTER



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.

- $2. \ This \ certificate \ will be invalid from \ the \ expiry \ date \ a forementioned \ unless \ the \ extension \ or \ renewal \ has been \ granted \ to \ the \ applicant \ or \ the \ manufacturer.$
- 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.

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## Appendix 1

# **Product Description and/or Approval Condition**

Certificate No: HMB32779-AE004 Date of Issue: 13th March, 2020

## A. Product Description

### 1. Product Specification

2) Type code: 474.03.aa.bbb.cc.dddd.eeee.ff

= Measuring ranges : 20, 23, 31 = Sensor diameter : 322, 332, 342, 122, 132, 142 = Fixing : 00, 14 bbb = Sensor diameter

dddd = Protection tube : 1416, 1419, 8316, 8319 eeee = Protection tube length (65mm, 150mm)

= Accessories : 58, 77, 90, V3

#### 3) Technical Data

- Measurig ranges(°C) : 5 ~ 95, 20 ~ 110, 20 ~ 150

- Accuracy ±4% FS ±1% FS - Repeatability

250V AC, 3(1)A silver contacts - Contact rating

220V DC, 0.3(0.2)A silver contacts

: Max. 150, K type(sensor + protection tube) Max. 3000, B type(sensor + capillary tube) - Sensor length(mm)

## 2. Approved Drawings and Documents

1) Documents

Data Sheet No.: H72113n

2) Drawings

No. R93261c, R93262c

#### 3. Test Reports, etc.

1) Test reports

Picotherm2.xls & Vibration test reports dated 2002-01-24 & 2004-01-07

- V-18093 dated 2018-11-26

- 20061160.A02.01 dated 2006-08-24

## **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℃	
Vibration	Acceleration ±4g	
Degree of protection	IP65	

<sup>\*1 :</sup> Non-power equipment

< End of Certificate >

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