

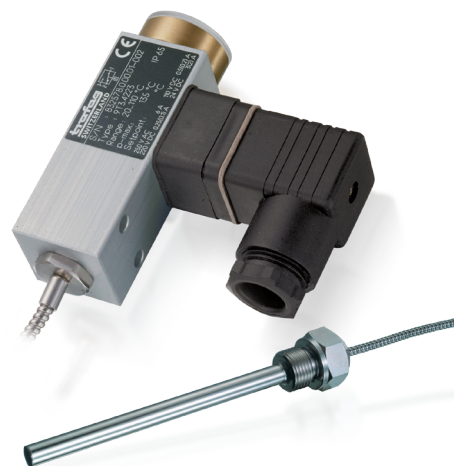
# PICOTHERM

Swiss based Trafag is a leading international supplier of high quality sensors and monitoring instruments for the measurement of pressure and temperature.



## Applications

- Shipbuilding
- Engine manufacturing
- Railways
- Hydraulics
- HVAC



## Features

- Compact design
- Rugged housing
- High repeatability
- Protection IP65
- Any mounting position possible

## Technical Data

Designation of application	Compact thermostat for shipbuilding	Switching differential	Not adjustable
Measuring range	+5 ... +95 to +20 ... 150°C	Repeatability	± 1 % FS typ.
Output signal	Floating change-over contact	Approval	ABS, BV, CCS, DNV, GL, KRS, LRS, NKK, RINA, RMRS EN60730-1/ EN60730-2-9: Typ 2.B.H

01/2015

Data sheet H72113k

Subject to change

## Ordering information/type code

		474 .	XX	XX	XXX	XX	XXXX	XXXX	XX
<b>Microswitch</b>	Standard, switching differential not adjustable		03						
<b>Range</b>	<b>Range</b> [°C]	<b>Sensor max.</b> [°C]							
	+5 ... +95	100							20
	+20 ... +110	115							23
	+20 ... +150	165							31
<b>Sensor</b>	<b>Sensor diameter</b> [mm]								
	Ø7								322
	Ø12								342
<b>Fixing</b> <sup>2)</sup>	Flange connection (for remote sensing version)								00
	Captive nut (for direct mounting version)								14
<b>Protection tube</b>	<b>Mounting</b>	<b>Suitable for sensor</b>	<b>Protection tube diameter</b> [mm]	<b>Protection tube length</b> [mm]					
	For direct mounting version	322	10	150					1416
	For direct mounting version	342	15	65					1419
	For remote sensing version	322	10	150					8316
	For remote sensing version	342	15	65					8319
<b>Protection tube length</b>	<b>Protection tube length</b> [mm]								
	65								0065
	150								0150
<b>Accessories</b>	Female electrical connector EN175301-803-A (DIN43650-A)								58
	Capillary tube protection: Flexible metal tube, brass nickel plated								90
	Fixing set								V3
	Cover with window								77
	Capillary tube length up to 5000 mm (no specification required for direct mounting on protection tube) L = XXXX								
	Standard length: L = 3000 mm with flexible metal tube								

<sup>2)</sup> See data sheet H72106

## Standard products (extra short lead time)

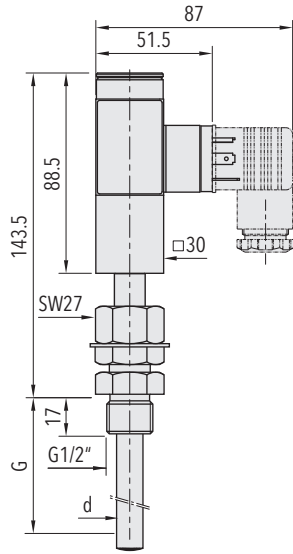
Product No.	Type Code	Temperature range [°C]	Protection tube diameter [mm]	Protection tube length [mm]	Switching differential [°C]	Sensor max. [°C]
ISPT9515	474 0320 322 14 1416 0150 58 V3	+5 ... +95	10	150	4 (fixed)	100
ISPT9565	474 0320 342 14 1419 0065 58 V3	+5 ... +95	15	65	4 (fixed)	100
ISPT11015	474 0323 322 14 1416 0150 58 V3	+20 ... +110	10	150	4 (fixed)	115
ISPT11065	474 0323 342 14 1419 0065 58 V3	+20 ... +110	15	65	4 (fixed)	115
ISPT15015	474 0331 322 14 1416 0150 58 V3	+20 ... +150	10	150	5 (fixed)	165
ISPT15065	474 0331 342 14 1419 0065 58 V3	+20 ... +150	15	65	5 (fixed)	165
ISP9515	474 0320 322 00 8316 0150 58 90 V3	+5 ... +95	10	150	4 (fixed)	100
ISP9565	474 0320 342 00 8319 0065 58 90 V3	+5 ... +95	15	65	4 (fixed)	100
ISP11015	474 0323 322 00 8316 0150 58 90 V3	+20 ... +110	10	150	4 (fixed)	115
ISP11065	474 0323 342 00 8319 0065 58 90 V3	+20 ... +110	15	65	4 (fixed)	115
ISP15015	474 0331 322 00 8316 0150 58 90 V3	+20 ... +150	10	150	6 (fixed)	165
ISP15065	474 0331 342 00 8319 0065 58 90 V3	+20 ... +150	15	65	6 (fixed)	165

Specifications		
<b>Accuracy</b>	Repeatability	± 1 % FS typ.
	Stability typ.	± 1 % FS typ.
	Scale accuracy typ.	± 4 % FS typ.
	Switching differential	See table
	Switching point	Temperature compensated with bimetal switch lever
<b>Environmental Conditions</b>	Ambient temperature	-30 ... +70°C
	Storage temperature	-40°C ... 85°C
	Protection	IP65
	Humidity	Max. 95% relative
	Vibration	5...25 Hz: ±1.6 mm 25...100 Hz: 4g
	Shock	50g/ 11ms
<b>Mechanical Data</b>	Housing	Copper (Cu)
	Filling	Liquid
	Protection tube	Brass nickel plated
	Housing	AlMgSi1 anodized
	Male electrical plug	Polyamid, (PA)
	Installation	Any position
	Weight	~ 260 g
<b>Microswitch</b>	Rating	See table
	Resistance of insulation	> 10 MΩ
	Dielectric strength	2 kV terminal ground
	Life time (mechanical)	10 Mio. cycles
<b>Electrical connection</b>	Cable gland	Cable-Ø: 6...13 mm
	Terminal screw	4 x 0.5...1.5 mm <sup>2</sup>

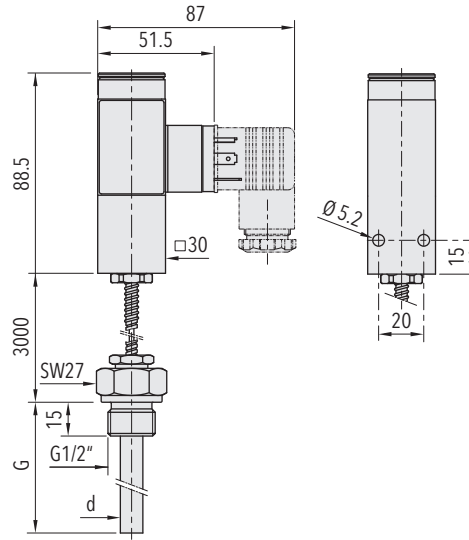
### Additional information

<b>Documents</b>	Data sheet	<a href="http://www.trafag.com/H72113">www.trafag.com/H72113</a>
	Instructions	<a href="http://www.trafag.com/H73113">www.trafag.com/H73113</a>
	Flyer	<a href="http://www.trafag.com/H70953">www.trafag.com/H70953</a>

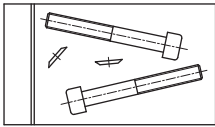
## Dimensions



474.XXXX.XXX.14.14XX...



474.XXXX.XXX.00.83XX...



M5x40 ISO4762

474...V3

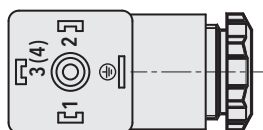
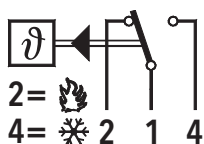
## Switching differential typ.

Range	[°C]	+5 ... +95	+20 ... +110	+20 ... +150
Sensor max.	[°C]	100	115	165
<b>Microswitch 03</b> Switching differential (fixed value, not adjustable)	[°C]	4.0	4.0	6.0

## Electrical data switch

Type	Features	Rating	
		Resistive Load (Inductive Load)	
		AC	DC
03	Silver contacts	250 V, 3 (1) A	250 V, 0.1 (0.05) A 220 V, 0.25 (0.2) A 110 V, 0.5 (0.3) A 24 V, 2.0 (1.0) A

## Electrical Connection



DIN 43650-A