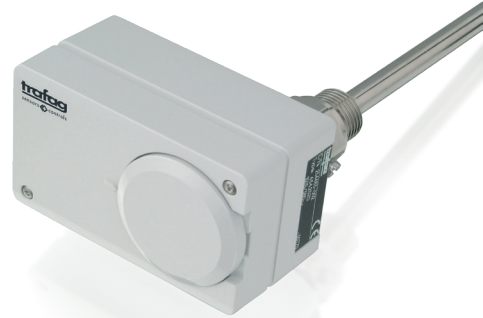


MINISTAT

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



Applications

- Machine tools
- HVAC
- Process technology
- Water treatment

Features

- Short response time
- Protection IP54
- Electrical connection on terminal screw

05/2024

Data sheet H72174r

Technical Data

Designation of application	Direct mounting thermostat	Switching differential	Adjustable / not adjustable
Measuring range	-30°C ... +40°C to +70°C ... +350°C	Repeatability	± 0.5 % FS typ.
Output signal	Floating change-over contact	Approval / conformity	EN60730-1/ EN60730-2-9: Typ 2.B.H

Subject to change

Ordering information/type code

		XXX	XX	XXXXXXXXXX	XXXX	XXXX	XX
Custom build code	External adjustment	624					
	Internal adjustment	634					
Microswitch	Small switching differential, not adjustable ³⁾		10				
	Average switching differential, not adjustable ³⁾		11				
	With gold plated contacts, switching differential not adjustable		21				
	Adjustable large switching differential		24				
	Adjustable standard switching differential		25				
Range	Sensor material	Sensor diameter [mm]	Range [°C]	Sensor max. [°C]			
	Cu	7	-30...+40	45	01.422.12		
	Cu ^{2) 3)}	7	-10...+25	50	07.422.12		
	Cu	7	0...+35	50	09.422.12		
	Cu ^{2) 3)}	7	+10...+45	85	11.422.12		
	Cu ^{2) 3)}	7	+10...+80	100	13.422.12		
	Cu ²⁾	7	-10...+35	50	94.322.12		
	Cu ²⁾	7	-10...+80	85	95.322.12		
	Cu	7	+5...+95	105	20.322.12		
	Cu ²⁾	7	+20...+110	115	23.322.12		
	Cu	7	+20...+150	165	31.122.12		
	Cu	7	+20...+230	250	24.022.35		
	Cu ²⁾	7	+30...+300	330	53.022.35		
	Cu ²⁾	7	+70...+350	380	54.022.35		
Protection tube	For fixing option 12, brass nickel-plated, G1/2" ¹⁾				1216		
	For fixing option 12, stainless steel, G1/2" ¹⁾				1211		
	For fixing option 35, brass nickel-plated, G1/2" ¹⁾				8316		
	For fixing option 35, stainless steel, G1/2" ¹⁾				8411		
Protection tube length	Suitable for sensor			Protection tube length [mm]			
	XX.122.XX ¹⁾			110		0110	
	XX.122.XX; XX.322.XX ¹⁾			150		0150	
	XX.122.XX; XX.322.XX; XX.422.XX ¹⁾			200		0200	
	XX.122.XX; XX.322.XX; XX.422.XX ¹⁾			400		0400	
Accessories	Switchpoint locking ²⁾						15
	Switchpoint fixed and sealed upon customer's request ²⁾						88
	Switchpoint preset upon customer's request, no guarantee on switching accuracy ²⁾						83
	Switchpoint adjustment please indicate when ordering: - Switchpoint [°C] - Increasing or decreasing						
	Capacitor over Pin 1-2 ³⁾						12
	Capacitor over Pin 1-3						13
	Capacitors over Pin 1-2 / 1-3 ³⁾						23
	Railway version IEC 61373, category 2						28

¹⁾ See data sheet www.trafag.com/H72114 and www.trafag.com/H72163

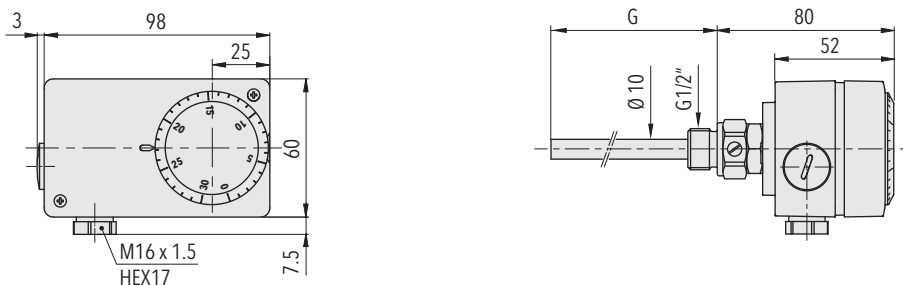
²⁾ Only with type 634 internal adjustment

³⁾ Do not use for new designs. Will be phased out in 2024.

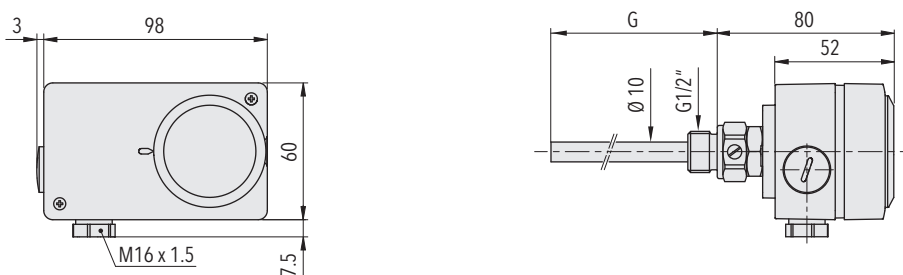
Standard products (extra short lead time)

Product No.	Type Code	Temperature range [°C]	Protection tube length [mm]	Switching differential [°C]	Sensor max. [°C]
MST8015	634 2595 322 12 1216 0150	-10 ... +80	150	2 ... 12 (adjustable)	85
MST8040	634 2595 322 12 1216 0400	-10 ... +80	400	2 ... 12 (adjustable)	85
MST9511	634 2520 332 12 1217 0110	+5 ... +95	110	2 ... 12 (adjustable)	105
MST9515	634 2520 322 12 1216 0150	+5 ... +95	150	2 ... 12 (adjustable)	105
MST9540	634 2520 322 12 1216 0400	+5 ... +95	400	2 ... 12 (adjustable)	105
MST15015	634 2531 122 12 1216 0150	+20 ... +150	150	2.5 ... 16 (adjustable)	165
MST15040	634 2531 122 12 1216 0400	+20 ... +150	400	2.5 ... 16 (adjustable)	165

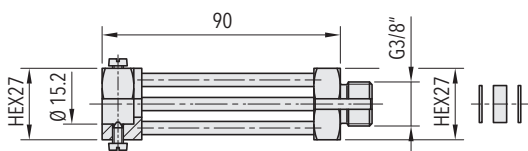
Dimensions



624.XXXX.X22.12...



634.XXXX.X22.12...



Fixation 35

Specifications		
Accuracy	Repeatability	± 0.5 % FS typ.
	Scale accuracy typ.	± 2 % FS typ.
	Switching differential	See table
	Switching point	Temperature compensated with bimetal switch lever
Environmental conditions	Ambient temperature	Range ≤ +45°C: -30°C ... +50°C Range +45°C ... +250°C: -30°C ... +70°C Range > + 250°C: -10°C ... +70°C (Important: Temperature at sensor may not exceed maximum sensor temperature)
	Storage temperature	Range ≤ +45°C: -30°C ... +50°C Range > +45°C: -30°C ... +85°C
	Protection	IP54
	Humidity	Max. 95 % relative
Mechanical data	Sensor housing	See ordering information
	Filling	Liquid
	Protection tube	See ordering information
	Housing	PC/ABS-Blend V0
	Screwed cable gland	Polyamide (PA)
	Installation	any position
	Weight	~ 430 g
Microswitch	Rating	See table
	Resistance of insulation	> 2 MΩ
	Dielectric strength	U ≤ 250V: 1.45 kV U ≤ 500V: 2 kV terminal ground
	Life time (mechanical)	Microswitch 10/11/25: 20 Mio. cycles Microswitch 21: 0.5 Mio. cycles Microswitch 24: 0.3 Mio. cycles
Electrical connection	Cable gland	M16x1.5 Cable-Ø 4...9 mm
	Terminal screw	3 x 1 ... 2.5 mm ²

Additional information

Documents		
Data sheet	www.trafag.com/H72174	
Instructions	www.trafag.com/H73624	

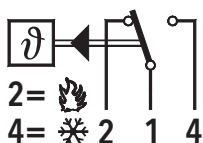
Switching differential typ.

Measuring range	[°C]	-30 ... +40 -10 ... +25 0 ... +35 +15 ... +30 +10 ... +45 +10 ... +80	-10 ... +35 -10 ... +80 +5 ... +95 +20 ... +110	+20 ... +150	+20 ... +230	+40 ... +300 +70 ... +350
Microswitch 10: Switching differential not adjustable	[°C]	0.3	0.8	1	1.2	2
Microswitch 11/21: Switching differential not adjustable	[°C]	0.7	2	2.5	3	4
Microswitch 24: Switching differential adjustable	[°C]	4 ... 21	5.5 ... 26	7 ... 34	15 ... 65	18 ... 84
Microswitch 25: Switching differential adjustable	[°C]	0.7 ... 10	2 ... 12	2.5 ... 16	3 ... 32	4 ... 40

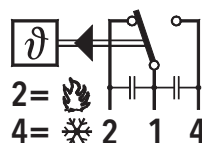
Electrical data switch

Type	Features	Rating	
		Resistive Load (Inductive Load)	
		AC	DC
10	Small switching differential, not adjustable	125 V, 10 (1.5) A 250 V, 10 (1.25) A	250 V, 0.2 (0.02) A 125 V, 0.4 (0.03) A 30 V, 2 (1) A 14 V, 15 (2.5) A
11	Average switching differential, not adjustable	125 V, 15 (1.5) A 250 V, 15 (1.25) A 500 V, 10 (0.75) A	250 V, 0.25(0.03) A 125 V, 0.5(0.05) A 30 V, 6 (1.5) A 14 V, 15 (1.5) A
21	Gold plated contacts, not adjustable	24 V, 0.1(0.1)A 12 V, 1 (1) A 5 V, 2 (2) A	24 V, 0.1(0.1)A 12 V, 1 (1) A 5 V, 2 (2) A
25	Adjustable standard switching differential	125 V, 15 (1.5) A 250 V, 15 (1.25) A 500 V, 10 (0.75) A	250 V, 0.25(0.03) A 125 V, 0.5(0.05) A 30 V, 6 (1.5) A 14 V, 15 (2.5) A
24	Adjustable large switching differential	125 V, 15 (1.5) A 250 V, 15 (1.25) A 500 V, 10 (0.75) A	250 V, 0.3 (0.2) A 125 V, 0.75 (0.4) A 30 V, 15 (1.5) A 14 V, 15 (1.5) A

Electrical Connection



624/634



with accessory 23