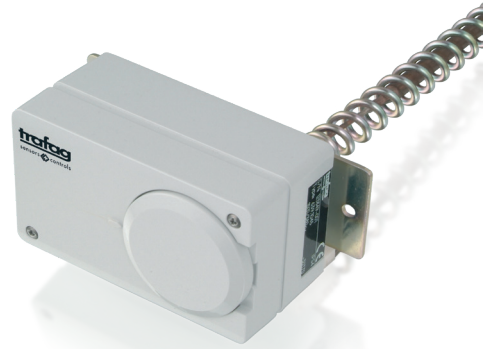


DUCT THERMOSTAT

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



Applications

- HVAC

Features

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

02/2021

Data sheet H72177k

Technical Data

Designation of application	Duct thermostat	Switching differential	Adjustable / not adjustable
Measuring range	-30°C ... +40°C to +20°C ... +110°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	XX	XXX	XX	XX
Custom build code	External adjustment	624					
	Internal adjustment	634					
Microswitch	Small switching differential, not adjustable		10				
	Average switching differential, not adjustable		11				
	With gold plated contacts, switching differential not adjustable		21				
	Adjustable large switching differential		24				
	Adjustable standard switching differential		25				
Range	Range [°C]	Sensor max. [°C]					
	-30 ... 40	45		01			
	-10 ... 25 ³⁾	50		07			
	0 ... 35	50		09			
	10 ... 45 ³⁾	85		11			
	10 ... 80 ³⁾	100		13			
	5 ... 95	105		20			
	20 ... 110 ³⁾	115		23			
Sensor¹⁾	Range	Sensor diameter [mm]	Sensor material	Range	Sensor diameter [mm]	Sensor material	
	20,23	Ø7	Copper	322	01, 07, 09, 11, 13, 17	Ø7	Copper
	20,23	Ø9	Copper	332	01, 07, 09, 11, 13, 17	Ø9	Copper
Fixing²⁾	With spring tube and flange, for direct mounting, Ø 16.5 x 200mm						30
Accessories	Switchpoint locking ³⁾						15
	Switchpoint fixed and sealed upon customer's request ³⁾						88
	Switchpoint preset upon customer's request, no guarantee on switching accuracy ³⁾						83
	Switchpoint adjustment please indicate when ordering:						
	- Switchpoint [°C]						
	- Increasing or decreasing						
	Capacitor over Pin 1-2						12
	Capacitor over Pin 1-3						13
	Capacitors over Pin 1-2 / 1-3						23
	Railway version IEC 61373, category 2						28
Outdoor application (vented)						44	
Cover with window						77	

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

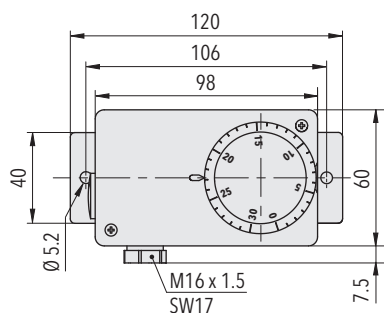
²⁾ See data sheet www.trafag.com/H72106

³⁾ Only with type 634 internal adjustment

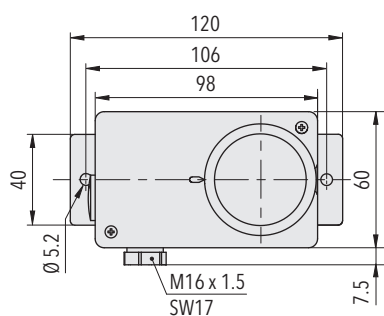
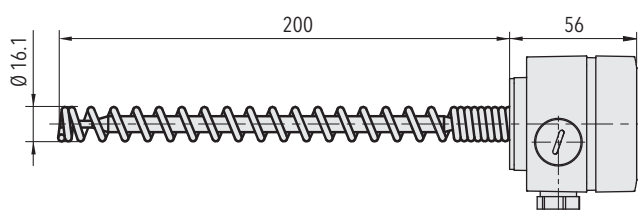
Standard products (extra short lead time)

Product No.	Type Code	Sensor material	Temperature range [°C]	Switching differential [°C]	Sensor max. [°C]
MSK35	634 2509 432 30	Copper	0 ... +35	0.7 ... 10 (adjustable)	50
MSK40	634 2501 432 30	Copper	-30 ... +40	0.7 ... 10 (adjustable)	45
MSK80	634 2513 432 30	Copper	+10 ... +80	0.7 ... 10 (adjustable)	100

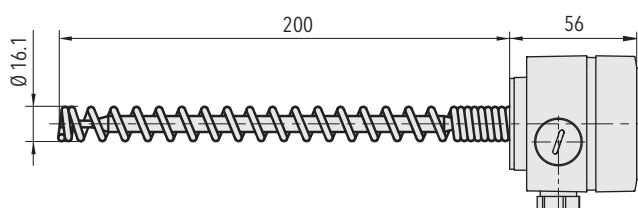
Dimensions



624.XXXX.XXX.XX.XX



634.XXXX.XXX.XX.XX



Specifications		
Accuracy	Repeatability	$\pm 0.5 \% \text{ FS typ.}$
	Scale accuracy typ.	$\pm 2 \% \text{ FS typ.}$
	Switching differential	see table
	Switching point	Temperature compensated with bimetal switch lever
Environmental conditions	Ambient temperature	-30 ... +70°C (important: Temperature at sensor may not exceed maximum sensor temperature)
	Storage temperature	Range $\leq +45^\circ\text{C}$: -30...+50°C Range $> +45^\circ\text{C}$: -30...+85°C
	Protection	IP54
	Humidity	Max. 95 % relative
Mechanical Data	Sensor housing	See ordering information
	Filling	Liquid
	Housing	PC/ABS-Blend V0
	Screwed cable gland	PA, Polyamid
	Installation	Any position
	Weight	~ 220 g
Microswitch	Rating	See table
	Resistance of insulation	$> 2 \text{ M}\Omega$
	Dielectric strength	$U \leq 250\text{V}$: 1.45 kV $U \leq 500\text{V}$: 2 kV terminal ground
	Life time (mechanical)	Microrupteur 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- \varnothing 4...9 mm
	Terminal screw	3 x 1...2.5 mm ²

Additional information

Documents	Data sheet	www.trafag.com/H72177
	Instructions	www.trafag.com/H73624
	Flyer	www.trafag.com/H70957

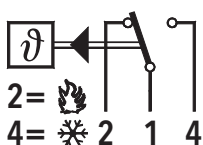
Switching differential typ.

Range	[°C]	-30 ... +40 -10 ... +25 0 ... +35 +15 ... +30 +10 ... +45 +10 ... +80	+5 ... +95 +20 ... +110
Microswitch 10 Switching differential (fixed value, not adjustable)	[°C]	0.3	0.8
Microswitch 11/21 Switching differential (fixed value, not adjustable)	[°C]	0.7	2
Microswitch 24 Switching differential (adjustable value)	[°C]	4 ... 21	5.5 ... 26
Microswitch 25 Switching differential (adjustable value)	[°C]	0.7 ... 10	2 ... 12

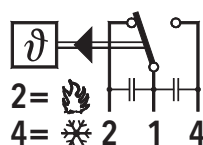
Electrical data switch

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