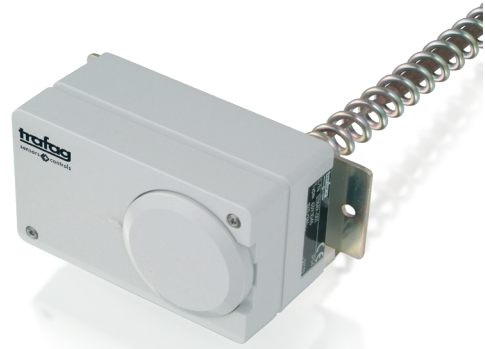


DUCT THERMOSTAT

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

06/2024

Data sheet H72177m

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 ⁴⁾		10					
	Average switching differential, not adjustable ⁴⁾		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) 4)}	50		07				
	0 ... 35	50		09				
	10 ... 45 ^{3) 4)}	85		11				
	10 ... 80 ^{3) 4)}	100		13				
	5 ... 95	105		20				
	20 ... 110 ³⁾	115		23				
Sensor ¹⁾	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	422
	20,23	Ø9	Copper	332	01, 07, 09, 11, 13, 17	Ø9	Copper	432
Fixing ²⁾	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 ⁴⁾						12	
	Capacitor over Pin 1-3						13	
	Capacitors over Pin 1-2 / 1-3 ⁴⁾						23	
	Railway version IEC 61373, category 2						28	

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

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

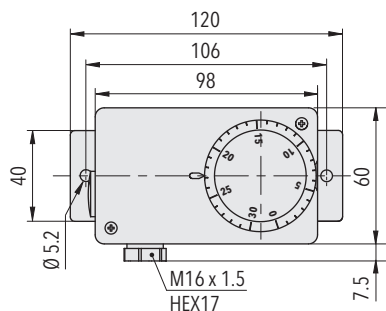
³⁾ Only with type 634 internal adjustment

⁴⁾ Do not use for new designs. Will be phased out in 2024.

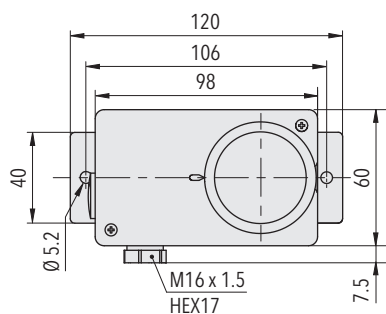
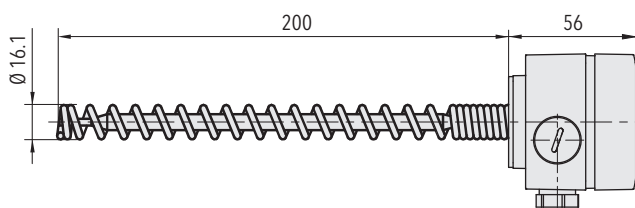
Standard products (extra short lead time)

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

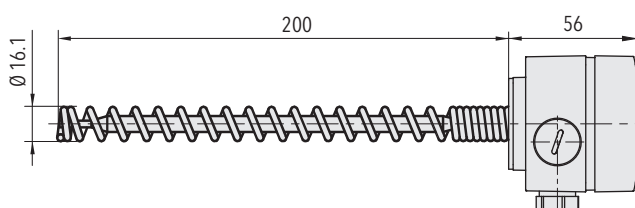
Dimensions



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	$\sim 220 \text{ g}$
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

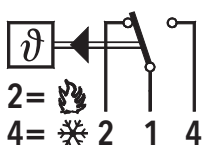
Switching differential typ.

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

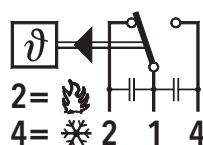
Electrical data switch

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