

LABORSTAT

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



Applications

- Machine tools

Features

- Without housing
- Short response time
- Electrical connection on terminal screw

06/2021

Data sheet H72122q

Technical Data

Designation of application	Remote sensing thermostat, skeleton type	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	XX	XXX	XX	XXXXXXXXXX	XX	XX
Custom build code	Front panel mounting, screw terminal			736							
	Screw terminal			754							
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	Sensor max.		Range	Sensor max.						
	[°C]	[°C]		[°C]	[°C]						
	-30 ... +40	45	01	+20 ... +110	115	23					
	-10 ... +80	85	95	+20 ... +150	165	31					
	0 ... +35	70	09	+20 ... +230	250	24					
	+5 ... +95	105	20	+40 ... +300	330	53					
	+10 ... +45	85	11	+70 ... +350	380	54					
Sensor ¹⁾	See table "Ordering-no. for sensors"						XXX				
Fixing ²⁾	Nut M10 (for remote sensing version) ⁴⁾						10				
	Angle bracket (for remote sensing version) ⁴⁾						17				
	Bracket (for remote sensing version) ⁴⁾						27				
	Grubscrew locked, lateral (direct mounting version) ^{4) 5)}						12				
	Cap nut (for direct mounting version) ^{4) 5)}						14				
	Grubscrew locked with spacer (cooling element) (for direct mounting version) ⁴⁾						18				
	Standard directly mounted on protection tube, only for type 736						00				
Protection tube	See data sheet www.trafag.com/H72114 and www.trafag.com/H72163							XXXX.XXXX			
Accessories	Switchpoint locking ⁴⁾	15		Capacitors over Pin 1-2 / 1-3			23				
	Switchpoint fixed and sealed upon customer's request ⁴⁾	88		Railway version IEC 61373, category 2			28				
	Switchpoint preset upon customer's request, no guarantee on switching accuracy ⁴⁾	83		Capillary tube protection: Flexible metal tube, brass nickel-plated			90				
	Switchpoint adjustment please indicate when ordering:			Capillary tube protection: Flexible metal tube 1.4301 (AISI 304)			91				
	- Switchpoint [°C]			Capillary tube protection: PVC tube			92				
	- Increasing or decreasing										
Capillary tube length	Capillary tube length up to 5000 mm (no specification required for direct mounting on protection tube) L=XXXX ³⁾										

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

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

³⁾ Overlengths upon request

⁴⁾ Only for type 754

⁵⁾ Media max. 150°C in continuous operation

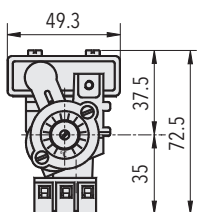
Ordering no. for sensors

Range	Sensor-Ø	Sensor material		
		Stainless steel	Copper	Copper nickel plated
01, 09, 11	4.7 mm		412	413
	7.0 mm	421	422	423
	9.0 mm		432	433
95, 20, 23	4.7 mm	311	312	313
	7.0 mm	321	322	323
	9.0 mm	331	332	333
31	4.7 mm	111	112	113
	7.0 mm	121	122	123
	9.0 mm	131	132	133
24, 53, 54	4.7 mm	011	012	013
	7.0 mm	021	022	023
	9.0 mm	031	032	033

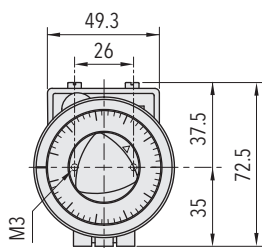
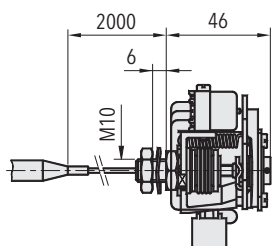
Standard products (extra short lead time)

Product No.	Type Code	Sensor material	Temperature range [°C]	Switching differential [°C]	Sensor max. [°C]
L35	754 2509 422 10	Copper	0 ... +35	0.7 ... 10 (adjustable)	60
L40	754 2501 422 10	Copper	-30 ... +40	0.7 ... 10 (adjustable)	45
L95	754 2520 322 10	Copper	+5 ... +95	2 ... 12 (adjustable)	105
L150	754 2531 122 10	Copper	+20 ... +150	2.5 ... 16 (adjustable)	165
L230S	754 2524 021 10	1.4435 (AISI316L)	+20 ... +230	3 ... 32 (adjustable)	250
L350S	754 2554 021 10	1.4435 (AISI316L)	+70 ... +350	4 ... 40 (adjustable)	380

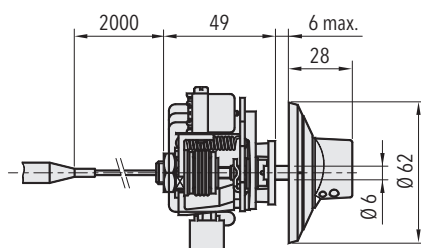
Dimensions



754.XXXX.XXX.XX...



736.XXXX.XXX.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	Range $\leq +45^{\circ}\text{C}$: $-30^{\circ}\text{C} \dots +50^{\circ}\text{C}$ Range $+45^{\circ}\text{C} \dots +250^{\circ}\text{C}$: $-30^{\circ}\text{C} \dots +70^{\circ}\text{C}$ Range $> +250^{\circ}\text{C}$: $-10^{\circ}\text{C} \dots +70^{\circ}\text{C}$ (Important: Temperature at sensor may not exceed maximum sensortemperature)
	Storage temperature	Range $\leq +45^{\circ}\text{C}$: $-30^{\circ}\text{C} \dots +50^{\circ}\text{C}$ Range $> +45^{\circ}\text{C}$: $-30^{\circ}\text{C} \dots +85^{\circ}\text{C}$
	Protection	IP00
	Humidity	Max. 95 % relative
Mechanical Data	Sensor housing	See ordering information
	Filling	Liquid
	Installation	any position
	Weight	754: $\sim 250 \text{ g}$ 736: $\sim 300 \text{ g}$
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)	Microswitch 10/11/25: 20 Mio. cycles Microswitch 21: 0.5 Mio. cycles Microswitch 24: 0.3 Mio. cycles
Electrical connection	Terminal screw	$3 \times 1 \dots 2.5 \text{ mm}^2$

Additional information		
Documents	Data sheet	www.trafag.com/H72122
	Instructions	www.trafag.com/H70211
	Flyer	www.trafag.com/H70967

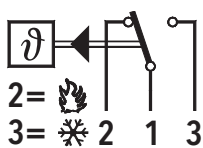
Switching differential typ.

Measuring range	[°C]	-30 ... +40 0 ... +35 +10 ... +45	-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

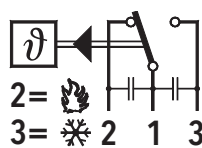
Electrical data switch

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



736/754



with accessory 23