LABORSTAT

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



Applications

- Machine tools

Features

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

09/2014
Data sheet H72122k
Subject to change

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

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trafag
sensors controls

Ordering information/type code

		XXX	XX	XX	XXX	XX	XXXXXXXXX	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, not adjustable	**21**
	Adjustable large switching differential	**24**
	Adjustable standard switching differential	**25**

Range

Range [°C]	Sensor max. [°C]	
-30 ... +40	45	**01**
-10 ... +80	85	**95**
0 ... +35	70	**09**
+5 ... +95	105	**20**
+10 ... +45	85	**11**

Range [°C]	Sensor max. [°C]	
+20 ... +110	115	**23**
+20 ... +150	165	**31**
+20 ... +230	250	**24**
+40 ... +300	330	**53**
+70 ... +350	380	**54**

Sensor [1]

Range	Sensor diameter [mm]	Sensor material	
01, 09, 11	Ø7	Stainless steel	**421**
95, 20, 23, 31	Ø4.7	Stainless steel	**311**
95, 20, 23, 31	Ø7	Stainless steel	**321**
95, 20, 23, 31	Ø9	Stainless steel	**331**
24, 53, 54	Ø4.7	Stainless steel	**111**
24, 53, 54	Ø7	Stainless steel	**121**
24, 53, 54	Ø9	Stainless steel	**131**
01, 09, 11	Ø4.7	Copper	**412**
01, 09, 11	Ø7	Copper	**422**
01, 09, 11	Ø9	Copper	**432**
95, 20, 23, 31	Ø4.7	Copper	**312**
95, 20, 23, 31	Ø7	Copper	**322**
95, 20, 23, 31	Ø9	Copper	**332**

Range	Sensor diameter [mm]	Sensor material	
24, 53, 54	Ø4.7	Copper	**112**
24, 53, 54	Ø7	Copper	**122**
24, 53, 54	Ø9	Copper	**132**
01, 09, 11	Ø4.7	Copper nickel plated	**413**
01, 09, 11	Ø7	Copper nickel plated	**423**
01, 09, 11	Ø9	Copper nickel plated	**433**
95, 20, 23, 31	Ø4.7	Copper nickel plated	**313**
95, 20, 23, 31	Ø7	Copper nickel plated	**323**
95, 20, 23, 31	Ø9	Copper nickel plated	**333**
24, 53, 54	Ø4.7	Copper nickel plated	**113**
24, 53, 54	Ø7	Copper nickel plated	**123**
24, 53, 54	Ø9	Copper nickel plated	**133**

Fixing [2]	Nut M10 (for remote sensing version) [4]	**10**
	Console (for remote sensing version) [4]	**17**
	Bracket (for remote sensing version) [4]	**27**
	Grubscrew locked, lateral (direct mounting version) [4]	**12**
	Captive nut (for direct mounting version) [4]	**14**
	Grubscrew locked with thermal distance piece (for direct mounting version) [4]	**18**
	Standard directly mounted on protection tube, only for type 736	**00**

Protection tube	See data sheet H72114/H72163	**XXXX.XXXX**

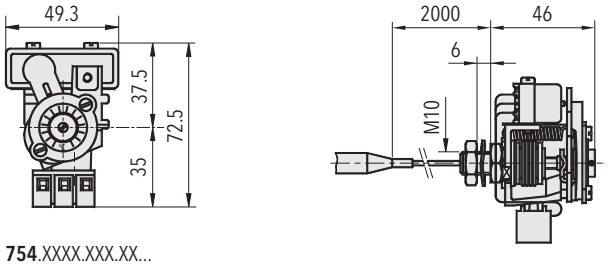
Accessories	Set blocking (only for type 754)	**15**	Capillary tube protection: Flexible metal tube, brass nickel plated	**90**
	Condensators over Pin 1-2 / 1-3	**23**	Capillary tube protection: Flexible metal tube 1.4541/V2A	**91**
	Railway version (UIC 616)	**28**	Capillary tube protection: PVC tube	**92**

Capillary tube length	Capillary tube length up to 5000 mm (no specification required for direct mounting on protection tube) **L=XXXX** [3]	

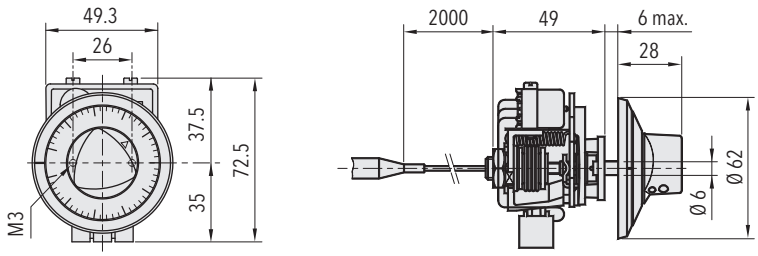
[1] See data sheet H72114/H72163
[2] See data sheet H72106
[3] Overlengths upon request
[4] Only for type 754

Standard products (extra short lead time)					
Product No.	**Type Code**	**Sensor material**	**Temperature range [°C]**	**Switching differential [°C]**	**Media temperature [°C]**
L35	754 2509 422 10	Cu	0 ... +35	0.7 ... 10	max. 60
L40	754 2501 422 10	Cu	-30 ... +40	0.7 ... 10	max. 45
L95	754 2520 322 10	Cu	+5 ... +95	2 ... 12	max. 105
L150	754 2531 322 10	Cu	+20 ... +150	2.5 ... 16	max. 165
L230S	754 2524 121 10	1.4435/316L	+20 ... +230	3 ... 32	max. 250
L350S	754 2554 121 10	1.4435/316L	+70 ... +350	4 ... 40	max. 380

Dimensions



754.XXXX.XXX.XX...



736.XXXX.XXX.XX...

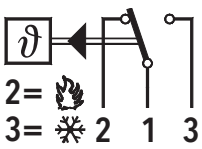
Specifications		
Accuracy	Repeatability	± 0.5 % FS typ.
	Scale accuracy typ.	± 2 % FS typ.
	Switching differential	See table
	Switching point	Temperature compensated with bimetal switch lever
Environmental Conditions	Ambient temperature	Range ≤ +45°C: -30...+50°C Range +45...+250°C: -30...+70°C Range > +250°C: -10...+70°C (Important: Temperature at sensor may not exceed maximum sensortemperature)
	Storage temperature	Range ≤ +45°C: -30...+50°C Range > +45°C: -30...+85°C
	Protection	IP00
	Humidity	Max. 95% relative
Mechanical Data	Housing	See ordering information
	Filling	Liquid
	Installation	Any position
	Weight	754: ~ 250 g 736: ~ 300 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	Terminal screw	3 x 1...2.5 mm²

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

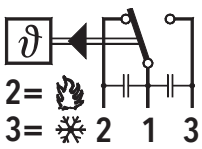
Switching differential typ.						
Range	**[°C]**	–30 ... +40 0 ... +35 +10 ... +45	–10 ... +80 +5 ... +95 +20 ... +110	+20 ... +150	+20 ... +230	+40 ... +300 +70 ... +350
Microswitch 10 Switching differential (fixed value, not adjustable)	**[°C]**	0.3	0.8	1	1.2	2
Microswitch 11/21 Switching differential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

Electrical data switch			
		Rating Resistive Load (Inductive Load)	
Type	**Features**	**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**