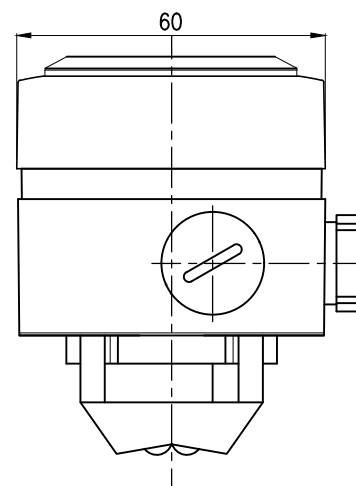
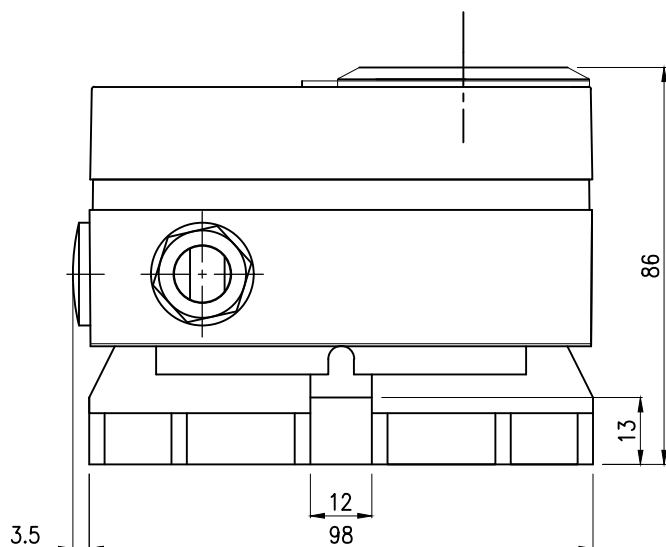


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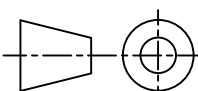


◇ - CRITICAL DIMENSIONS
 △ - MAJOR DIMENSIONS
 NO SYMBOL - MINOR DIMENSIONS

SPECIFICATION

Make	: Trafag Controls India Pvt. Ltd.,
Model No	: 664.1020.502.00
664	: Thermostats with Internal Adjustment
10	: 1SPDT (1NO+1NC) Microswitch-10A, 250V AC / 0.2A, 250V DC
20	: Range 5°C to 95°C
502	: Copper Sensor bulb
00	: Standard with strap
Maximum Process Temperature	: 105°C
Operating temperature	: -30 to +70°C
Storage temperature	: -30 to +85°C
Material of Construction Case	: Cyloloy C2950 (PC+ABS V0)
Ingress Protection	: IP54
Set Point	: Adjustable throughout range
Switching Differential	: 2.5°C Max. (not adjustable)
Reset	: Auto Reset
Scale Accuracy	: ± 2% FSR
Repeatability	: ± 0.5% FSR
Internal Wiring	: With 1.5 sq.mm multi standard copper conductor
Cable Gland Type	: M16x1.5

(Refer our Datasheet No. H72175h for other technical details)

ALL DIMENSIONS ARE IN MM													
UNSPECIFIED GENERAL TOLERANCES ARE ACCORDING TO ISO 2768 – m/H													
OVER		0.5	6	30	120	400	1000	2000					
UPTO	0.5	6	30	120	400	1000	2000	4000	REV.	ECN.No.	ALTERATION	DATE	SIGN.
±	0.05	0.10	0.20	0.30	0.50	0.80	1.20	2.0			trafag controls  india pvt ltd MANESAR – 122050		
COMPT. Wt.	—	MATERIAL: Temperature Switch Assembly					DATE	2023	NAME				
							03.10	DRAWN	VIVEK				
SCALE: NTS		TREATMENT: —					03.10	CHECKED	MANMOHAN				
PAGE SIZE: A4							03.10	APPROVED	VM				
SHEETS: 1/1		PART NAME: <u>GA DRAWING for MSP 95</u>								DRG. No.		REV.	
										4100212		—	

ENQUIRY

PROTO

TOOLING

PIPE MOUNTING THERMOSTAT

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



Applications

- Process technology
- Water treatment

Features

- For pipe or barrel mounting
- Short response time
- Protection IP54
- Electrical connection on terminal screw

02/2021

Data sheet H72175h

Technical Data

Designation of application	Pipe mounting thermostat	Switching differential	Adjustable / not adjustable
Measuring range	-10°C ... +35°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

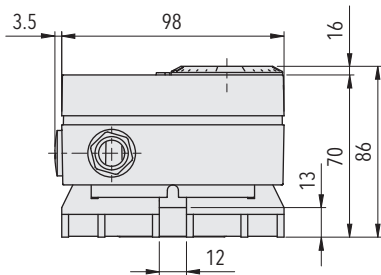
		XXX	XX	XX	XXX	XX	XX
Custom build code	External adjustment	663					
	Internal adjustment	664					
Microswitch	Small switching differential, not adjustable		10				
	Average switching differential, not adjustable		11				
	Adjustable standard switching differential		25				
Range	Range [°C]	Sensor max. [°C]					
	-10 ... 35 ¹⁾	50		94			
	-10 ... 80 ¹⁾	85		95			
	0 ... 45 ¹⁾	85		93			
	10 ... 55 ¹⁾	85		22			
	5 ... 95	105		20			
	20 ... 110 ¹⁾	115		23			
Sensor	Copper				502		
	Copper nickel plated				503		
Fixing	Standard with strap					00	
Accessories	Switchpoint locking ¹⁾						15
	Switchpoint fixed and sealed upon customer's request ¹⁾						88
	Switchpoint preset upon customer's request, no guarantee on switching accuracy ¹⁾						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
	Outdoor application (vented)						44
	Cover with window						77

¹⁾ Only with type 664 internal adjustment

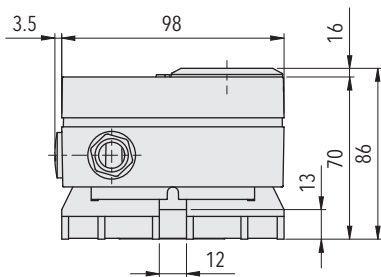
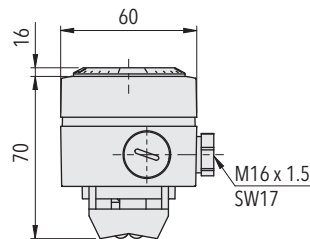
Standard products (extra short lead time)

Product No.	Type Code	Temperature range [°C]	Switching differential [°C]	Sensor max. [°C]
MSP35	664 2594 502 00	-10 ... +35	3.7 ... 14 (adjustable)	50
MSP80	664 2595 502 00	-10 ... +80	3.7 ... 14 (adjustable)	85
MSP95	664 2520 502 00	+5 ... +95	3.7 ... 14 (adjustable)	105
MSP110	664 2523 502 00	+20 ... +110	3.7 ... 14 (adjustable)	115

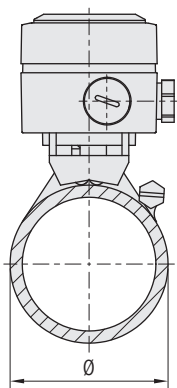
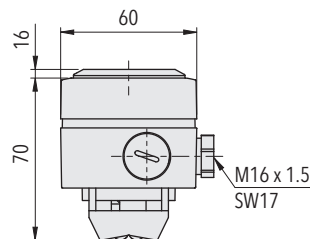
Dimensions



663.XXXX.XXX.XX.XX



664.XXXX.XXX.XX.XX



The supplied strap (500mm) is sufficient for double winding upto pipe diameter of 65mm (2"), single winding upto pipe diameter 160mm.

Determination of strap length:

Strap length [mm]

= 180 [mm] + 5 x $\varnothing_{\text{Pipe}}$ [mm] (twice wound)

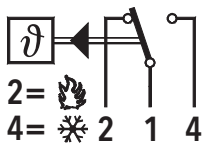
Specifications		
Accuracy	Repeatability	± 0.5 % FS typ.
	Scale accuracy typ.	± 2 % FS typ.
	Switching differential	Microswitch 10 (not adjustable): 2.5oC 11 (not adjustable): 3.7oC 25 (adjustable): 3.7...14oC
	Switching point	Temperature compensated with bimetal switch lever
Environmental conditions	Ambient temperature	-30 ... +70°C (important: Temperature at sensor may not exceed maximum sensor temperature)
	Storage temperature	Range ≤ +45°C: -30...+50°C Range > +45°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 MΩ
	Dielectric strength	U ≤ 250V: 1.45 kV U ≤ 500V: 2 kV terminal ground
	Life time (mechanical)	20 Mio. cycles
Electrical connection	Cable gland	M16x1.5 Cable-Ø 4...9 mm
	Terminal screw	3 x 1...2.5 mm²

Additional information		
Documents	Data sheet	www.trafag.com/H72175
	Instructions	www.trafag.com/H73663
	Flyer	www.trafag.com/H70958

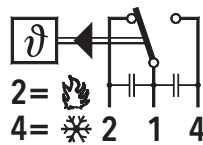
Electrical data switch

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
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

Electrical Connection



663/664



with accessory 23