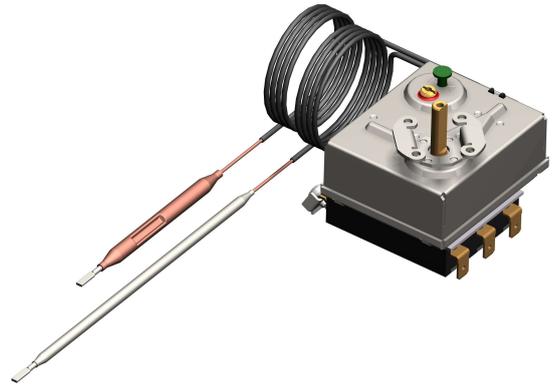


Combined control/limit and safety-limit thermostat

Three pole switch

RAC



Application

Combination of control/limit and safety-limit thermostat with capillary, for applications up to 350°C.

Features

TR Electro-mechanical control thermostat , non-fail-save
 TW Electro-mechanical limit thermostat , non-fail-save
 STB Electro-mechanical safety limit thermostat, fail-save. If cut-out temperature exceeded, circuit switches to OFF and stays at this position. Manual reset after sensing element has cooled by the switching differential

- Approved to EN 60 730-1 / -2-9
- Time factor of sensing element according to DIN EN 14597
- Features of automatic action TR/TW: Type 1.B according to EN 60 730-1 / -2-9
- Features of automatic action STB: Type 2.B.H.K.L according to EN 60 730-1 / -2-9
- Degree of pollution: 2
- Optional with test button to short-cut when checking STB cut-out point
- RoHS-conform

Technical data

Switching system:

Nominal voltage range	AC 24...400 V	
Nominal current range	20 (3,3) A	
Service life at nominal load		
TR/TW	100.000 operations	
STB	500 operations	
Protection against electric shock	for incorporation in class I equipment	
Protection standard of housing	IP00 (EN60529)	
Overvoltage category	II	

Range of application:

	STB	TR/TW
Cut-out temperatures /		
Setting ranges: (Maximum values, other ranges on inquiry)	max. 350°C [662°F]	0...320 °C [32.. 608°F]
Max. sensing element temperature	> t _{max} + 25°C	
Ambiant temperature at switching head	max. 125 °C (T125) [257°F]	
Storage and transport temp.	-25...+60 °C [-13.. +140°F]	

Calibration:

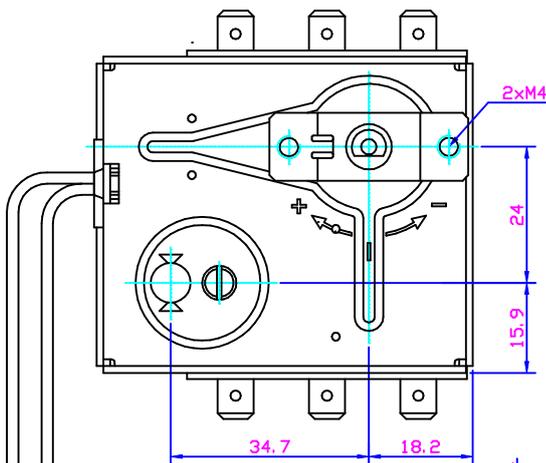
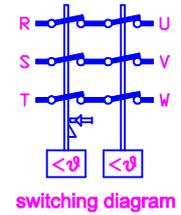
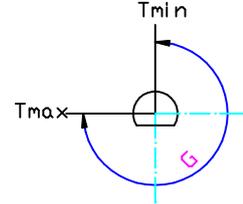
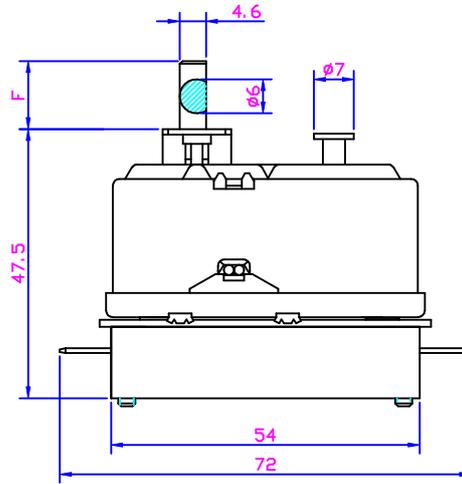
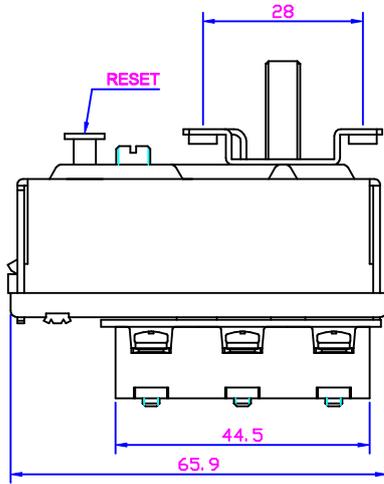
Calibrated for ambient temperature at switching head and capillary tube	23°C [73,4°F] (Tu23 to DIN EN 14597)
Time factor in water / in oil	< 45 s / < 60 s

Design:

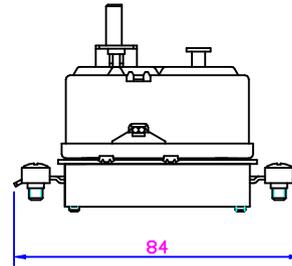
Switch system support (base isolation)	plastic, GWT 850°C
Capillary und sensing element	copper / stainless steel
Capillary length	300 ... 3500 mm
Diameter of sensig element	6, 6.5 mm (3, 4, 5, 7, 8, 9.5, 10mm)
Diaphragm	stainless steel
Connection terminals	
Screw terminals	M4x8
Tab terminals (free combinat ion)	A6.3x0.8 0°, 45°, 60°, 90°

Examples

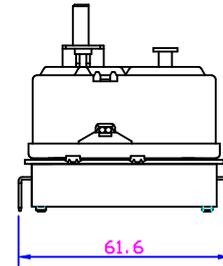
Setting range [°C]		Calibration tolerance [K]		Switching differential [K]		Max. phial temp. [°C]	
TR/TW	STB	TR/TW	STB	TR/TW	STB	TR/TW	STB
30...85	100	±3.2	0 - 6	~10	~10	115	130
0...100	110	±3.5	0 - 6	~12	~10	125	140
0...300	330	±10	0 - 16	~30	~30	340	370
[86...185°F	212°F	±3,2K	0 - 6 K	~10K	~10K	239°F	266°F]



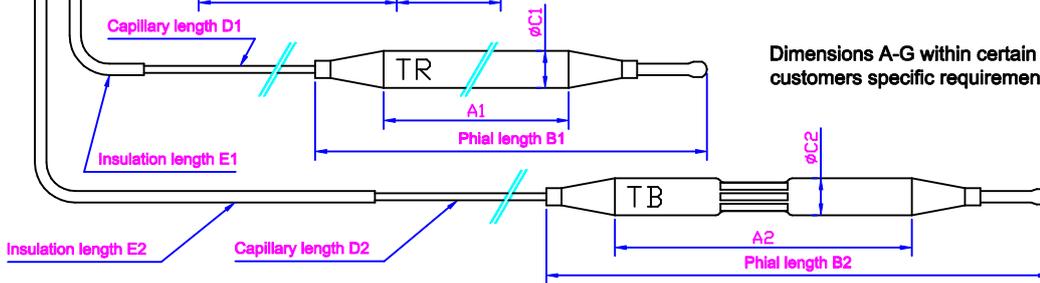
View with screw terminals 0°



View with tab terminals 90°



Dimensions A-G within certain limits adjustable to customers specific requirements



Other products

- RAS Three pole safety-limit thermostat
- 88, 716 Single pole control / limit thermostat
- 89, 710 Single pole safety-limit thermostat