

### Specifications TC16 - TC40 - TC58

Thermostatic Bath and Circulator



**Completely stainless steel**  
**Precise control, auto tune**  
**Over temperature protection**  
**RS232 communication**  
**Standard bath drain**  
**Standard cooling coil**

#### General

The TC16, TC40, and TC58 are used for precise temperature control. The baths offer a choice in different bath volumes and offer high reliability for use under rough circumstances.

#### Accuracy

The insulation of the bath and electronic design result in a stable working temperature of  $\pm 0.02^{\circ}\text{C}$  for the TC16, TC40, and TC58. The stability was measured in water at  $50^{\circ}\text{C}$ . The set point temperature can be set in steps of  $0.1^{\circ}\text{C}$  in the range of  $0^{\circ}\text{C}$  up to  $250^{\circ}\text{C}$  ( $32^{\circ}\text{F}$ .. $482^{\circ}\text{F}$ ). The accuracy on the display is displayed in  $0.1^{\circ}\text{C}$ . However the controller has an internal accuracy of  $0.01^{\circ}\text{C}$ . This two decimal-readout also is available using the RS232 communication port and the free Tamcom software.

#### Temperature readout

Standard available in  $^{\circ}\text{C}$ , on request in  $^{\circ}\text{F}$ .

#### Pump

Three pumps can be offered:

- Standard pump
- Suction/pressure pump
- Performance pump

**00T0253**  
**24T0399**

Item	Unit	TC16	TC40	TC58
P/N		00T0671	00T0681	00T0691
P/N		00T0861	00T0851	00T0881
Power	[Watt]	1600	3000	3000
Materials	Used inside bath: stainless steel 304, brass			
Range	Ambient .. $250^{\circ}\text{C}$ / .. $482^{\circ}\text{F}$			
Reading	Standard $^{\circ}\text{C}$ , $^{\circ}\text{F}$ on request			
Setting	[ $^{\circ}$ ]	0.1		
Stability $\pm$	[ $^{\circ}\text{C}$ ]	0.02	0.02	0.02
Heating	[W]	1400**	2800	2800
Bath volume	[L]	16	40	58
Pump	[mBar]	Max pressure 300*		
Pump	[L/min]	Max flow 7.5*		
Opening	[mm]	180*210	420*275	420*275
Depth bath	[mm]	220	200	300
Length	[mm]	480	705	705
Width	[mm]	295	375	375
Height	[mm]	480	440	590
Weight	[Kg]	19	26.8	35
CE	Conforms to CE regulation			
* Optional pump with pressure max 1Bar, flow max 16L/min, reference: 24T0399. See specification sheet "pump graph"				
** Additional heater 1400W optional to heat larger loads when circulating				

#### Span

The baths can be operated from ambient up to  $250^{\circ}\text{C}$  ( $482^{\circ}\text{F}$ ). Due to the "self-heating" of the stirring mechanism (friction-heat) and when using a top lid, the minimum temperature lies approximately  $5^{\circ}\text{C}$  above the ambient temperature. When using the standard built-in cooling coil the minimum operating temperature lies approximately  $\pm 5^{\circ}\text{C}$  above the temperature of the cooling liquid circulating inside the cooling coil. Minimum working temperature when using external cooling lies around  $10^{\circ}\text{C}$ . Lower temperatures generate problems with built up of condensate in the inner insulation of the bath.

#### Safety

The bath conforms to CE regulation. It is further equipped with a mechanical resettable safety thermostat.

#### Optional

See table on the next page.

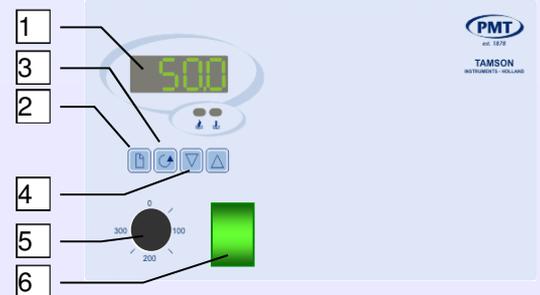
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#### Operating

- 1 - LED Temperature display
- 2 - Item
- 3 - Sequence
- 4 - Up & Down
- 5 - Over temperature safety
- 6 - Power

The thermostatic bath is easy to operate. The four keys will set all the parameters. Using the up and down arrow the desired working temperature or SP can be set in steps of 0.1°C. The bath temperature is displayed with a resolution of 0.1°C.



Item		TC16	TC40	TC58
Remote PT100		On request		
RS232 serial communication		02T3025		
Software "Tamcom"		Free of charge		
Suction/pressure pump		00T0253		
Performance pump		24T0399		
Bath drain		Standard included		
Levelling platform		07T0210	07T0211	07T0212
Lid levelling platform		Included in 07T0210	03T2270	
Gabled lid			03T2210 (In combination with 07T0211/07T0212)	
Top lid with cover of one set of nine rings		00T0254		
Top lid with cover of two sets of six rings (opening without rings ø180 mm)			00T0255	
Top lid with cover of six sets of three rings (opening without rings ø95 mm)			00T0256	

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Item		TC16	TC40	TC58
Cooling circulator TLC10-3 230V/50Hz		00T0050		
Cooling circulator TLC10-3 230V/60Hz		00T0051		
Cooling circulator TLC10-3 115V/60Hz		00T0052		
Cooling circulator TLC15-5 230V/50Hz			00T0565	
Cooling circulator TLC15-5 230V/60Hz			00T0567	
Cooling circulator TLC15-5 115V/60Hz			00T0570	
Additional heater (1400W)		25T0194 - 230V		

TC16 TC40 TC58