

Specifications TLC90-14

Tamson Low-Temperature Circulator



- ⊕ **Completely stainless steel**
- ⊕ **Drain to empty bath**
- ⊕ **Wheels fitted for easy transport**
- ⊕ **Compact, fits under workbench**
- ⊕ **Low noise**
- ⊕ **Autotune, high precision**
- ⊕ **Fluid level detection**

General

The TLC90-14 is a low temperature circulator with a bath contents of 14..15 liters. The minimum temperature which can be reached is minus 90°C. At this low temperature the heat removal capacity lies around 75 Watts. The bath can be used for general low temperature use but shows excellent heat removal performance i.e. combination with cloud and pour point tests. The drain located at the back provides easy removal of the bath fluid. Low fluid level is detected electronically.

Cooling medium

The used cooling system is ozone friendly, so it doesn't contain any CFK/HCFK gas.

Control mechanism

With the compressor running continuously, the fluid temperature is regulated through an electronic controlled heater.

Safety

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

Item	Unit	TLC90-14	
P/N 230V / 50Hz		00T0580	
P/N 230V / 60Hz		On request	
P/N 115V / 60Hz		On request	
Power *	[W]	3200 max	
Used materials inside bath		Stainless steel, chrome plated coil	
Range		-90..ambient°C -130..ambient°F	
Reading		Standard °C on request °F	
Setting ±	[°]	0.1	
Stability ± **	[°C]	Better than 0.05	
Heating	[W]	1400 (1 heater)	
Bath volume	[L]	14..15	
Pump pressure *	[mBar]	300 max	
Pump cap. ***	[L/min]	10 max	
Compressor	[W]	2 * 400	
Heat removal	[W]	@-70°C	200
	[W]	@-74°C	100
	[W]	@ -80°C	75
Opening bath	[mm]	240 x 170 (240 x 160 effective use)	
Depth bath	[mm]	150	
Length	[mm]	810	
Width	[mm]	460	
Height	[mm]	770	
Weight	[kg]	80	
CE		Conforms to CE regulation	
* Depends on bath temperature and cooling or heating cycle			
** Absolute min/max value measured over 1 hour in methanol			
*** Optional pump with pressure max 0.8 Bar, flow max 16ltrs/min, reference: P/N 24T0399			

Span

The working temperature range is : -90°C to ambient (-130°F .. ambient)

Accuracy

The set point can be set in steps of 0.1°C. The overall system accuracy is ± 0.05°C. Temperature readout standard available in °C, on request in °F.

Pump

A pressure pump provides circulation in the bath or via an external circuit. The pressure of the pump is 300 mBar at 10 liters per minute.

Optional

- Remote control via RS232 **P/N 02T3025**
- Pump higher capacity **P/N 24T0392**