Tamson Instruments Specification sheet

Specifications TLV25

Tamson low temperature visibility bath 25 litres



ltem	Unit	TLV25	
Ordering code 230V / 50/60Hz		00T0650	
Ordering code 115V / 50/60Hz		00T0780	
Range*	-80°+60°C /-130°140°F		
Reading	Standard °C, °F on request		
Window	[mm]	148*213	
Setting±	[°]	0.1	
Stability	[°K]	±0.04	
Heating	[W]	780	
Heaters		1	
Bath volume	[L]	25	
Opening	[mm]	162(dia.)	
Depth	[mm]	400	
Length	[mm]	570	
Width	[mm]	410	
Height	[mm]	540	
Opening Cold finger	[mm]	Dia 50 * length 240	
Weight	[kg]	38.5	
Power	[Watt]	920	

3 positions turn table

General

- Auto tuning
 - -30°C with KV40 or -80°C with KV80
 - Heated window

Stability TLV25 - KV40 and KV80 [in °C] min, max(peak) values over 1 hr						
Temperature TLC25	Absolute inaccuracy	Delta T(peak) (Between two points)	Cryostat			
0	± 0.029	0.02	KV40/80			
-20	± 0.023	0.02	KV40/80			
-30	± 0.025	0.02	KV40/80			
-40	± 0.029	0.02	KV80			
-50	± 0.025	0.02	KV80			
-60	± 0.020	0.02	KV80			

fluid in the flask must permanently be cooled by a separate cryostat. The temperature set point is maintained via a microprocessor controlled heating element. When using the KV40 or KV80 minimum working temperatures of minus 30° or minus 80°C can be reached. All presented data is measured by using a TLV25 filled with 25 liters of Methanol and a KV40 or KV80 immersion cooler. At the minimum-temperature still enough heat removal is provided to maintain stable temperature control, even when glasswork is placed in the bath for measurement. The systems accuracy is better than the requirements of ASTM D445 and ISO 3104. The bath is illuminated by a fluorescent light built in behind the Dewar-flask. The top lid has a turn table construction containing 3 holes of 51mm, each with a round cover. By turning the lid the immersed viscometer can be positioned in front of the window. This window is heated to keep clear sight at low temperatures.

The TLV25 system contains a 25 liter Dewar flask. The

Immersion cooler

The cooler is a separate device having enough capacity to cool the 25 litres of methanol. Accuracy and performance only can be achieved with KV40 or KV80 immersion cooler.

Span

Depending on the used cryostat:

- Minus 30°C with KV40*
- Minus 80°C with KV80*

Accuracy

The set point can be set in steps of 0.1 °C from - 90 °C up to plus 60 °C (-130..140 °F). Overall accuracy is better than ± 0.03 °K.



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Temperature readout

Standard available in °C, on request in °F.

Safety

The bath conforms CE regulation. In case of error a fixed safety thermostat will switch off the bath from the mains supply.

Optional equipment

- On request:

RS232 (NOT compatible with Tamcom)

- KV40	00T0212	(230V/50Hz)	00T0259
- KV80 (115V/60Hz)	00T0216	(230V/50Hz)	00T0260

- Viscometer and viscometer holders. See our specific brochure.







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