

Specifications TLV25

Tamson Low temperature Visibility bath 25 litres



Item	Unit	TLV25
Ordering code 230V / 50/60Hz		00T0650
Ordering code 115V / 50/60Hz		00T0780
Range*		-80°C/-130°F..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 * Length240
Weight	[kg]	38.5
Power	[Watt]	920

- ⊕ **Completely stainless steel**
- ⊕ **3 positions, turn table**
- ⊕ **Autotuning, high precision**
- ⊕ **-30°C or -80°C with KV40 or KV80 cooler**
- ⊕ **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

General

The TLV25 system contains a 25 liter Dewar flask. The 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 glaswork 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.

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.

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 (115V/60Hz)
- KV80 00T0216 (230V/50Hz) 00T0260 (115V/60Hz)
- Viscometer and viscometer holders. See our specific brochure.

* Performance is defined by immersion cooler KV80 (-80°C) or KV40 (-30°C). Ambient higher than 24°C and Methanol unpurified by condensat results in higher temperatures.

Cool down TLV25

