



# TCS 140 Low Temperature Furnace

## Dry Block + Liquid Bath Multifunction Temperature Calibrator

TCS Series of Multifunction Temperature Calibrators is a temperature source to check and calibrate TCs, Resistance Thermometers, Temperature transmitters, glass thermometers, thermostats, etc.

- Simple to use
- Built to last
- Dry Block
- Liquid Stirred Bath
- Resolution 0.1°C/°F
- Multi-hole Insert
- Interchangeable Inserts
- Optional Black Body Insert 
- Range: -55°C from Tamb to 140°C
- Heating Speed: -30°C to 140°C in 15 minutes
- Cooling Speed: 140°C to 0°C in 15 minutes
- NIST Calibration Certification Included



Accurate

Easy to use

Efficient

Fast

Quality

Reliable

Stable

Sturdy



**E Instruments International**

**www.E-Inst.com**

P:215-750-1212 F:215-750-1399 A: 172 Middletown Blvd, Ste B201 Langhorne, PA 19047



# TCS Series 140 Low Temperature Furnace

## Dry Block + Liquid Bath

The TCS 140 portable source offers fast temperature calibration in an easy to use design for low temperatures ( -55°C to 140°C) applications.

**Optional Black Body Insert**  
for infrared thermometers

**Standard 6 Multi-hole Insert**  
2 x 4.5, 2 x 6.4, 1 x 8, 1 x 9.5mm

**Dry Block:** Depth 160mm  
**Liquid Well:** Depth 157mm



## Applications

The TCS 140 is designed to verify and calibrate temperature sensors, thermometers, and process transmitters both in the laboratory and in the field!

**Range:** -55° from Tamb to 140°C

**Stability:**  
Dry Block: ±0.035°C  
Liquid Bath: ±0.02°C

**Radial Uniformity:**  
DB: ±0.02°C & LB: ±0.04°C @140°C

### TCS 140 Dry Block & Liquid Bath Specifications

<b>Range:</b> -55°C (-67°F) from Tamb to 140°C (285°F) * Specifications subject to change *	
<b>Absolute Stability</b>	<b>Dimensions (WxHxD)</b>
Dry Block: ±0.035°C @ 140°C	340 x 300 x 170mm
Liquid Bath: ±0.02°C @ 140°C	13.4" x 11.8" x 6.7"
<b>Radial Uniformity:</b>	<b>Weight:</b>
Dry Block: ±0.02°C @ 140°C	14.0Kg (30.86 lbs)
Liquid Bath: ±0.004°C @ 140°C	
<b>Heating Speed:</b> -30°C to 140°C in 15 minutes	<b>Measuring Units:</b> °C or °F / ITS90
<b>Cooling Speed:</b> 140°C to 0°C in 15 minutes	<b>Power Consumption:</b> 2500 Watts
<b>Stabilization Time:</b> 10 minutes	
<b>Block Diameter:</b> 35mm	
<b>Block Depth:</b> 160mm	
<b>Well Depth:</b> 157mm	
<b>Multi-hole Insert:</b>	2 x 4.5mm (0.18"), 2 x 6.4mm (0.25"), 1 x 8mm (0.31"), 1 x 9.5mm (0.37")

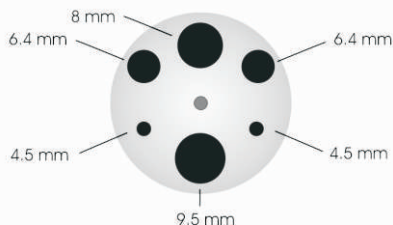
### Part Number. Ordering Information

- 20-8882-6** TCS 140 standard unit with 6 hole insert, liquid container, vinyl carrying case, manual, & NIST Calibration Certificate
- 1 120V 50/60Hz US Plug
  - 2 230V 50/60Hz with Schuko Plug
  - 3 230V 50/60Hz with UK Plug
  - 4 230V 50/60Hz with European Plug
  - 5 100V 50/60Hz with USA/Japan Plug

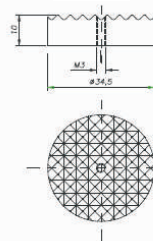
#### Accessories

- 21-0017-6** - Stirred Liquid Bath Container
- 21-2273-0** - TCS 140 Black Body Insert option
- 21-4692-3** - TCS 140 undrilled metal block insert
- 21-8945-8** - Standard TCS140 Insert
- EE180050** - Probe Support Kit
- EE180057** - 500cc silicon oil -35°C to 140°C
- 2160** - TC S 1400°C Working Reference Standard Probe
- 2168** - TC K 1100°C Working Reference Standard Probe
- 2184** - Pt100 Class A Working Reference Standard Probe

#### Standard Insert



#### 21-2273-0



Optional Black Body Insert