



# TCS 650 Medium Temperature Furnace

## Dry Block 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
- Resolution 0.1°C/°F
- Multi-hole Insert
- Interchangeable Inserts
- Optional Black Body Insert
- Range: 35°C to 650°C (95°F to 1200°F)
- Heating Speed: 50°C to 600°C in 30 minutes
- Cooling Speed: 600°C to 150°C in 30 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 650 Medium Temperature Furnace

## Dry Block

The TCS 650 portable source offers fast temperature calibration in an easy to use design for medium temperatures ( 35°C Tamb to 650°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 148mm**



## Applications

The TCS 650 is designed to verify and calibrate temperature sensors, thermometers, and process transmitters both in the laboratory and in the field!

**Range:**  
35°C from Tamb to 650°C

**Stability:**  
Dry Block: ±0.03°C @ 650°C

**Radial Uniformity:**  
±0.08°C @ 650°C

### TCS 650 Dry Block Specifications

<b>Range:</b>	from 35°C (95°F) to 650°C (1200°F)	* Specifications subject to change *
<b>Absolute Stability</b>	±0.03°C @ 650°C	<b>Dimensions (WxHxD)</b> 340 x 300 x 170mm 13.4" x 11.8" x 6.7"
<b>Radial Uniformity:</b>	±0.08°C @ 650°C	<b>Weight:</b> 11.0Kg (24.25 lbs)
<b>Heating Speed:</b>	50°C to 600°C in 30 minutes	<b>Measuring Units:</b> °C or °F / ITS90
<b>Cooling Speed:</b>	600°C to 150°C in 30 minutes	<b>Power Consumption:</b> 1200 Watts
<b>Stabilization Time:</b>	10 minutes	
<b>Block Diameter:</b>	35mm	
<b>Block Depth:</b>	148mm	
<b>Well Depth:</b>	140mm	
<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**

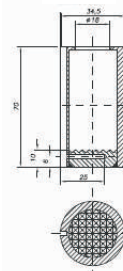
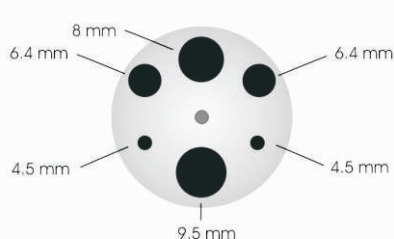
- 20-8177-5** TCS 650 standard unit with 6 hole insert, vinyl carrying case, manual, & NIST Calibration Certificate
- 1 120V 50/60Hz US Plug
  - 2 230V 50/60Hz with Schuko Plug
  - 3 230V 50/60Hz with UK Plug
  - 4 230V 50/60Hz with European Plug
  - 5 100V 50/60Hz with USA/Japan Plug

#### Accessories

- 21-4693-1** - TCS 650 undrilled metal block insert  
**21-2732-0** - TCS 650 Standard Insert  
**21-5251-6** - TCS 650 Black Body Insert option
- EE180050** - Probe Support Kit  
**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**



**Optional Black Body Insert**

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