

HIGH TEMPERATURE CALIBRATOR

MODEL : TCAL 1500 / 1500



For Inspection of Thermometers

Inspection is performed by comparison of the temperature measured by test piece and the block temperature indicated by the calibrator or comparison with master thermocouple reading.

Thermocouples

A separate temperature measuring instruments is required for inspection. The inspection is performed by comparison of the temperature indicated on the external measuring instrument with the reference temperature of the calibrator.

Introduction

Exact temperature measurements and monitoring are must in application crucial to operational safety of machinery and industrial installations. Regular inspection of the temperature sensors used in these applications is absolutely essential for economical and technical-safety reason and is already prescribed as obligatory in many sectors.

“SANSEL” Series TCAL 1500 / 1500 is a Micro controller Based Precision “Dry Block” Temperature Calibrators Generates True Reference Temperature. The Temperature Controller of the Calibrators Uses a Auto Tune PID Controller Algorithm. This Response Closely Follows the Heating Curve of an Actual Thermal System. Place the Sensor to be Calibrated in the Calibrator.

Set the Temperature from 4.3 inch Touch screen . Both True and set Temperature can be read. When Stabilization Occurs, Simply Read the Temperature and Re- Calibrate the Process System or sensor. TCAL 1500 / 1500 Calibrator may be used for calibration of all type of temperature sensors above 500°C to 1500°C range - K, R, S, B, etc.,.

Applications

- ☐ Energy - Production and Energy -Distribution Sectors
- ☐ Glass, Ceramic, Semi Conductor Industries
- ☐ Steel Material Processing Industries
- ☐ Calibrators laboratories etc.,.
- ☐ For Calibration of Thermocouples – Type (K,R,S,B, etc.,.)

The temperature calibrators and calibration bath are already a part of the Standard equipment of the above listed sectors.

Features

- ✓ Range from 500 to 1500°C
- ✓ Resolution 0.1°C
- ✓ Stability to $\pm 0.5^\circ\text{C}$
- ✓ Radial Uniformity better than 0.5% of reading
- ✓ PC Interface RS 232 (optional)
- ✓ No Liquids, Safe dry Calibration
- ✓ ISO/IEC 17025 Traceable Calibration Certificate
- ✓ Semi Portable & Rugged

Technical Specifications

Model	TCAL 1500 / 1500
Display	4.3 inch True TFT DISPLAY with touch screen
Temperature Range	500 to 1500 °C
Resolution	0.1°C
Stability	$\pm 0.5^\circ\text{C}$
Radial Uniformity	Better than ± 0.5 % of reading
Bath Temperature Control	Digital Temperature Controller with Auto Tune PID Algorithm
Heating time	3 ½ Hrs (Amb. to 1500 °C)
Time to Stabilize	30 minutes
Well Dia / Length	50 mm x 300 mm
Well Hole Depth	240 mm
Thermo Well Holes	6 x 2nos, 8 x 1nos, 10 x 1nos, 14 x 1nos in mm (Approx)
PC Interface	RS 232 (optional)
Power supply	230V AC 50/60Hz (Optional 110V AC)
Power consumption	3500 VA
Dimension (L x W x H)	250 L X 410 W X 625 + 90 (wheel) H (mm)
Instrument Weight (Approx.)	57 kg (with well insert)

Note: Due to continuous product improvements, Published specifications may change with out notice

Standard Delivery

1. Basic Instrument
2. Spare Heater – 6nos
3. Spare Semiconductor Fuse – 1no
4. Control Thermocouple with Connector
5. Instruction manual
6. Mains card

Optional

1. Carrying case
2. 110V AC 60Hz Power supply
3. Reference Standard Thermocouple
4. ISO/IEC 17025 Calibration Certificate
5. Additional Thermo Wells / Insertion Tubes (as per customer requirements)



SANSEL INSTRUMENTS AND CONTROLS SANSEL CALIBRATION LABORATORIES LLP

ISO/IEC 17025 Accredited Calibration Laboratory by NABL CC - 2879

(Thermal, Mechanical, Electro-Technical, Dimension Parameters)

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