

Laboratory	Dimensions, #128, 19th Cross, 8th Main, CHBS Layout, Vijayanagar, Bangalore		
Accreditation Standard	ISO/IEC 17025:2005		
Discipline	Thermal Calibration	Issue Date	21.07.2015
Certificate Number	C-0538	Valid Until	20.07.2017
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Quantity Measured/ Instrument	Range / Frequency	*Calibration Measurement Capability ($\pm$)	Remarks
I. TEMPERATURE			
1. TEMPERATURE SENSOR^s (RTD / Thermocouple / Thremistors with Indicator & Digital Thermometers)	(-) 196 °C	0.09 °C	Using SSPRT, 6½ Digital Multimeter, Thermometer Readout, LN ₂ Comparator by Comparison Method
	(-) 80 °C	0.1 °C	Using SPRT, 6½ Digit Multimeter, Thermometer Readout, Dry Ice- Methanol Bath by Comparison Method
	(-) 40 °C to 150 °C	0.2 °C	Using SPRT, 6½ Digit Multimeter, Thermometer Readout, Dry Block Calibrator by Comparison Method
	150 °C to 650 °C	0.36 °C	Using SPRT, R Type Thermocouple , 6½ Digit Multimeter, Thermometer Readout, Dry Block Calibrator by Comparison Method
	650 °C to 1200 °C	1.93 °C	Using R Type Thermocouple , 6½ Digit Multimeter, Thermometer Readout, Dry Block Calibrator by Comparison Method
2. THERMOMETERS^s (Dial/ Glass)	(-) 30 °C to 300 °C	1.14 °C	Using SSPRT , Thermometer Readout, Oil baths by Comparison Method

Naveen Jangra
Convenor

Avijit Das
Program Manager

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3.	TEMPERATURE INDICATOR OF TEMPERATURE BATHS AND DRY BLOCK CALIBRATORS^s	(-)196 °C to 0 °C	0.24 °C	Using SSPRT, Thermometer Readout by Single Position Calibration
		0 °C to 650 °C	0.31 °C	Using R Type Thermocouple Thermometer Readout by Single Position Calibration
		650 °C to 1200 °C	1.93 °C	Using R Type Thermocouple, Thermometer Readout by Single Position Calibration

II. SPECIFIC HEAT AND HUMIDITY

1.	HUMIDITY INDICATORS / CONTROLLERS/ TRANSMITTERS/ DATA LOGGERS WITH PROBES^s	5 % RH 10 % RH 35 % RH 65% RH 95 % RH	0.83% 0.83% 0.7% 1.1% 1.32%	Using Humidity Standard by Direct Comparison Method
2.	HUMIDITY INDICATORS / CONTROLLERS/ TRANSMITTERS/ DATA LOGGERS WITH PROBES/ THERMOHYGROMETERS^s	10% RH to 90% RH @ $\approx$ 25 °C	1.3% RH	Using Humidity Meter with Probe, Saturated Salt Solutions Setup by Comparison Method
3.	HUMIDITY INDICATOR OF HUMIDITY CHAMBERS, ENVIRONMENTAL CHAMBERS *	10 % to 95% RH @ $\approx$ 25 °C	2.5% RH	Using Humidity Meter by Single Position Calibrator

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4.	IR THERMOMETERS*	50 °C to 550 °C	2.3 °C	Using PT-100 Sensor, Thermocouple Readout, Black Body Furnace by Comparison Method
		500 °C to 1100 °C	2.6 °C	Using R Type Thermocouple, Thermocouple Readout, Black Body Furnace by Comparison Method
5.	TEMPERATURE SENSOR * (RTD / Thermocouple, Thermistors with Indicators & Digital Thermometers)	(-) 196 °C	0.09 °C	Using SSPRT, Advanced modular Calibrator with LN2 Comparator with Comparison Method
		(-) 80 °C	0.1 °C	Using SSPRT, Advanced modular Calibrator with Methanol Bath with Comparison Method
		(-) 40 °C to 150 °C	0.52 °C	Using PRT Sensor, Advanced Modular Calibrator, Dry Block Calibrator by Comparison Method
		150 °C to 650 °C	1.55 °C	Using PRT Sensor, R Type, Advanced Modular Calibrator, Dry Block Calibrator by Comparison Method
		650 °C to 1200 °C	2.1 °C	Using R Type Thermocouple , Advanced Modular Calibrator, Dry Block Calibrator by Comparison Method

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6.	THERMOMETERS (Dial & Glass)	(-) 30 °C to 300 °C	1.14 °C	Using PRT Sensor, Advanced Modular Calibrator, Oil Bath by Comparison Method
7.	TEMPERATURE INDICATOR OF TEMPERATURE BATHS, DRY BLOCK CALIBRATORS *	(-) 196 °C to 0 °C	0.52 °C	Using SSPRT, Advanced Modular Calibrator by Single Position Calibration
		0 °C to 650 °C	0.57 °C	Using PRT Sensor, R Type Thermocouple, Advanced Modular Calibrator by Single Position Calibration
		650 °C to 1200 °C	2.1 °C	Using R Type Thermocouple, Advanced Modular Calibrator by Single Position Calibration
8.	CALIBRATION OF OVENS , DEEP FREEZERS , REFRIGERATOR CYCLING CHAMBER & FURNACE*	(-) 196 °C to 100 °C	1.2 °C	Using Nine RTS Sensors with Data Logger by Multi Position Calibration
		100 °C to 260 °C	1.5 °C	
		260 °C to 1200 °C	3.1 °C	

* Measurement Capability is expressed as an uncertainty ($\pm$) at a confidence probability of 95%

\$ Only in Permanent Laboratory

* Only for Site Calibration

The laboratory is also capable for site calibration however, the uncertainty at site depends on the prevailing actual environmental conditions and master equipment used.