

Laboratory R&D Instrument Services, # 5/3A, Pomagal III Street, Ambalnagar,
Ekkattuthangal, Chennai, Tamil Nadu

Accreditation Standard ISO/IEC 17025:2005

Discipline Thermal Calibration **Issue Date** 15.10.2014

Certificate Number C-0674 **Valid Until** 14.10.2016

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Quantity Measured/ Instrument	Range / Frequency	*Calibration Measurement Capability (\pm)	Remarks
I. TEMPERATURE			
1. Glass Thermometers ^{\$}	-80 °C to 0 °C >0 °C to 90 °C >90 °C to 250 °C	0.32 °C 0.16 °C 0.35 °C	Using Standard RTD, Liquid bath, and Digital Multimeter by Comparison Method
2. RTD's, Thermocouples, Temperature Gauges, Digital thermometers, Temperature Indicators with sensors, Temperature Transmitter ^{\$}	-80 °C to 50 °C >50 °C to 650 °C >650 °C to 1000 °C >1000 °C to 1200 °C	0.14 °C 0.21 °C 1.47 °C 2.32 °C	Using Standard RTD, Thermocouple, Liquid bath, Dry block calibrator, Precision Calibrator and Digital Multimeter (6 ½ DGT) by Comparison Method
3. Temperature Indicator of Bath, Dry Block Calibrator ^{\$}	-80 °C to 50 °C >50 °C to 650 °C >650 °C to 1000 °C >1000 °C to 1200 °C	0.15 °C 0.22 °C 1.58 °C 2.39 °C	Using Standard RTD, Thermocouple, Digital Multimeter (6 ½ DGT) and Precision calibrator by Comparison Method
4. Temperature/ Non Contact ^{\$} (IR Thermometer, Pyrometer)	150 °C to 1100 °C >1100 °C to 1200 °C	2.08 °C 3.35 °C	Using Standard R- Type Thermocouple, Precision Calibrator and Black body Source by Comparison Method

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5. Analog/ Digital Thermo hygrometers/ Thermo Hygrographs/ Humidity Sensors/ Data loggers/ Transmitters ^{\$}	20 %RH to 90 %RH @(20°C to 40°C)	1.64 %RH	Using Standard Humidity Indicator With Sensor, Humidity Chamber by Comparison Method
	10 °C to 50 °C @(80%RH)	0.31 °C	
6. RTD's, Thermocouples, Temperature Gauges, Digital thermometers, Temperature Indicators with sensors, Temperature Transmitter ^{\$}	-25 °C to 50 °C	0.15 °C	Using Standard RTD, Thermocouple, Liquid bath, Dry block calibrator, Precision Calibrator and Digital Multimeter (6 ½ DGT) by Comparison Method
	>50 °C to 650 °C	0.22 °C	
	>650 °C to 1000 °C	1.49 °C	
	>1000 °C to 1200 °C	2.34 °C	
7. Temperature Indicator of Bath, Dry block Calibrator [*]	-25 °C to 50 °C	0.16 °C	Using Standard RTD, Thermocouple, Digital Multimeter (6 ½ DGT) and Precision calibrator by Comparison Method
	>50 °C to 650 °C	0.23 °C	
	>650 °C to 1000 °C	1.61 °C	
	>1000 °C to 1200 °C	2.41 °C	

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Quantity Measured/ Instrument	Range / Frequency	*Calibration Measurement Capability (\pm)	Remarks
8. Temperature by Spatial Mapping Freezer, Oven, Incubator, Furnace, Bath, Environmental Chamber and Temperature enclosures*	-25 °C to 50 °C >50 °C to 250 °C >250 °C to 1000 °C >1000 °C to 1200 °C	1.65 °C 2.49 °C 3.82 °C 4.82 °C	Using Master Thermocouple, Data acquisition Multiplexer unit by Comparison Method

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

\$Only in Permanent Laboratory

*Only for Site Calibration