

Laboratory	HTA Instrumentation Pvt. Ltd., 73, Rama Chandra Agrahara, Near T. R. Mills, Chamrajpet, Bangalore, Karnataka		
Accreditation Standard	ISO/IEC 17025: 2005		
Discipline	Thermal Calibration	Issue Date	24.07.2014
Certificate Number	C-0618	Valid Until	23.07.2016
Last Amended on	30.07.2014	Page	1 of 4

Quantity Measured/ Instrument	Range / Frequency	*Calibration Measurement Capability (\pm)	Remarks
I. TEMPERATURE			
1. RTD/ THERMOCOUPLE^{\$}	-90° C to 550° C	0.6° C	Using Reference Thermometer Fluke 1523 with Fluke 5626 SPRT Sensor, Dry Block Calibrator & Field Metrology Dry Well Fluke 9190A as a Source By Comparison Method
	550° C to 1000° C	3.60° C	Using Thermocouple Thermometer Delta Ohm 2108.1 with "R" Type Thermocouple and Dry Block Calibrator as a Source By Comparison Method
2. TEMPERATURE INDICATOR WITH SENSOR^{\$}	-90° C to 550° C	0.6° C	Using Reference Thermometer Fluke 1523 with Fluke 5626 SPRT Sensor, Dry Block Calibrator & Field Metrology Dry Well Fluke 9190A as a Source By Comparison Method
	550° C to 1000° C	3.60° C	Using Thermocouple Thermometer Delta Ohm 2108.1 with "R" Type Thermocouple and Dry Block Calibrator as a Source By Comparison Method

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3. TEMPERATURE GAUGE^{\$}	0° C to 550° C	1.3° C	Using Reference Thermometer Fluke 1523 with Fluke 5626 SPRT Sensor, Dry Block Calibrator & Field Metrology Dry Well Fluke 9190A as a Source. By Comparison Method
4. INFRARED CALIBRATOR^{\$}	50° C to 350° C	3.40° C	Using IR Calibrator with SPRT Thermometer Delta ohm HD 2307.0. By Comparison Method
5. TEMPERATURE GAUGE[*]	0° C to 140° C	1.20° C	Using Digital Thermometer Delta ohm 2307.0 with SPRT Sensor and Metrology Well Fluke 9170. By Comparison Method
	140° C to 350° C	1.33° C	Using Digital Thermometer Delta ohm 2307.0 with SPRT Sensor and Dry Block Calibrator. By Comparison Method
	350° C to 550° C	2.75° C	Using Thermocouple Thermometer Delta ohm 2128.2 with "S" Type Thermocouple and Dry Block Calibrator. By Comparison Method

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	Quantity Measured/ Instrument	Range / Frequency	*Calibration Measurement Capability (\pm)	Remarks
6.	TEMPERATURE INDICATOR WITH SENSOR*	-40° C to 140° C	0.35° C	Using Digital Thermometer Delta ohm 2307 with SPRT Sensor and Metrology Well Fluke 9170 as a source. By Comparison Method
		140° C to 350° C	0.67° C	Using Digital Thermometer Delta ohm 2307 with SPRT Sensor and Dry Block Calibrator as a source. By Comparison Method
		350° C to 550° C	2.6° C	Using Thermocouple Thermometer Delta ohm 2128.2 with "S" type Thermocouple and Dry Block Calibrator as a Source. By Comparison Method
		550° C to 1000° C	3.52° C	Using Thermocouple Thermometer Delta ohm 2307.0 with "S" type Thermocouple and Dry Block Calibrator as a Source. By Comparison Method
7.	RTD/ THERMOCOUPLE*	-40° C to 140° C	0.53° C	Using Digital Thermometer Delta ohm 2307 with SPRT Sensor and Metrology Well Fluke 9170 as a source. By Comparison Method

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Quantity Measured/ Instrument	Range / Frequency	*Calibration Measurement Capability (\pm)	Remarks
	140° C to 350° C	0.79° C	Using Digital Thermometer Delta ohm 2307 with SPRT Sensor and Dry Block Calibrator as a source. By Comparison Method
	350° C to 550° C	2.5° C	Using Thermocouple Thermometer Delta ohm 2128.2 with "S" type Thermocouple and Dry Block Calibrator as a Source. By Comparison Method
	550° C to 1000° C	3.47° C	Using Thermocouple Thermometer Delta ohm 2128.2 with "S" type Thermocouple and Dry Block Calibrator as a Source. 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

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