

Laboratory ICL Calibration and Testing Services, SCO- 37, Ground Floor, Sector-12, Panchkula, Haryana

Accreditation Standard ISO/IEC 17025:2005

Discipline Thermal Calibration **Issue Date** 20.11.2014

Certificate Number C-0382 **Valid Until** 19.11.2016

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Quantity Measured/ Instrument	Range / Frequency	*Calibration Measurement Capability (\pm)	Remarks
I. TEMPERATURE			
1. RTD's, Thermocouples with and without Indicator / Data logger / Recorder, Temperature gauge, Glass thermometer, Digital thermometer, Temperature transmitter, Temperature Controllers [#]	(-) 30 °C to 50 °C 50 °C to 300 °C 300 °C to 1000 °C 1000 °C to 1200 °C	1.4 °C 1.2 °C 2.8 °C 3.5 °C	Using 4-wire RTD & 6.5 DMM, oil bath, low temperature bath and dry block furnace by Comparison Method Using S-type thermo-couple and 6.5 DMM using dry block furnace by Comparison Method
2. Calibration of liquid bath / dry block furnaces, Freezers / Oven, Incubator, BOD incubator, Centrifugal chamber, Environment chamber, Autoclave [#]	(-) 30 °C to 200 °C	2.0 °C	Using RTD with data logger / scanner and mini wireless data loggers by Multipoint calibration
3. Temperature indicators of liquid bath / dry block furnace, Freezer/ Oven/ Incubator, BOD incubator, Centrifugal chamber, Environment chamber, Autoclave [#]	(-) 50 °C to 300 °C	0.6 °C	Using RTD with digital multi meter by Single position calibration
4. Temperature indicators of dry block furnace, Muffle furnace [#]	300 °C to 1000 °C 1000 °C to 1200 °C	3.0 °C 3.0 °C	Using S-type thermocouple and indicator & 6.5 DMM by Single position calibration
5. Calibration of Oven/ temperature furnace , dry block furnace [#]	200 °C to 1000 °C	4.5 °C	Using nine thermocouple N & K type and data logger scanner by Multipoint calibration

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Convenor

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Program Manager

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Quantity Measured/ Instrument	Range / Frequency	*Calibration Measurement Capability (\pm)	Remarks
6. Calibration of liquid bath / dry block furnaces, Freezers / Oven, Incubator, BOD incubator, Centrifugal chamber, Environment chamber, Cold room, Hot room, Autoclave*	(-) 30 °C to 200 °C	2.0 °C	Using RTD with data logger / scanner & mini wireless data loggers by Multipoint calibration
7. Temperature indicators of liquid bath/ Dry block furnace, Freezer/ Oven/ Incubator, BOD incubator, Centrifugal chamber, Environment chamber, Cold room, Hot room, Autoclave*	(-) 50 °C to 300 °C	0.6 °C	Using RTD with digital multi meter by Single position calibration
II. RELATIVE HUMIDITY			
1. Digital/analog hygrometer, RH sensors, with transmitter /indicator/ Data logger/ Scanner#	20 % RH to 90 % RH @ \approx 25 °C	2.5 % RH @ \approx 25 °C	Using Digital temp./humidity indicator with sensors using humidity generator with chamber by Comparison Calibration
2. Humidity indicator of humidity chamber, Environment chamber/ Generator#	20 % RH to 90 % RH @ \approx 25 °C	2.6 % RH @ \approx 25 °C	Using Digital temp./ humidity indicator with sensors/ mini wireless data logger by Single point calibration
3. Calibration of Humidity chamber, Environment chamber#	20% RH to 90 % RH @ \approx 25 °C	4.0 % RH @ \approx 25 °C	Using Nine mini wireless data loggers by Multipoint calibration

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

*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.

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