

#### **CERTIFICATE OF ACCREDITATION**

## **HI-TECH CALIBRATION & TESTING LLP**

has been assessed and accredited in accordance with the standard

### **ISO/IEC 17025:2017**

# "General Requirements for the Competence of Testing & Calibration Laboratories"

for its facilities at

GALA NO.: 60, ROYAL INDUSTRIAL HUB, VILLAGE: VALWADA, UMBERGAON, VALSAD, GUJARAT, INDIA

in the field of

# CALIBRATION

**Certificate Number:** 

CC-2478

**Issue Date:** 

14/12/2023

Valid Until:

03/01/2025

This certificate remains valid for the Scope of Accreditation as specified in the annexure subject to continued satisfactory compliance to the above standard & the relevant requirements of NABL. (To see the scope of accreditation of this laboratory, you may also visit NABL website www.nabl-india.org)

Name of Legal Entity: HI-TECH CALIBRATION & TESTING LLP

Signed for and on behalf of NABL



N. Venkateswaran Chief Executive Officer





# **SCOPE OF ACCREDITATION**

Laboratory Name :

HI-TECH CALIBRATION & TESTING LLP, GALA NO.: 60, ROYAL INDUSTRIAL HUB, VILLAGE: VALWADA, UMBERGAON, VALSAD, GUJARAT, INDIA

Accreditation Standard Certificate Number Validity ISO/IEC 17025:2017 CC-2478 14/12/2023 to 03/01/2025

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S.No	Discipline / Group	Measurand or Reference Material/Type of instrument or material to be calibrated or measured / Quantity Measured /Instrument	Calibration or Measurement Method or procedure	Measurement range and additional parameters where applicable(Range and Frequency)	* Calibration and Measurement Capability(CMC)(±)
227	THERMAL- SPECIFIC HEAT & HUMIDITY	Temperature/Humidi ty meter with Sensor, Temperature/Humidi ty indicator with Inbuilt sensor, Datalogger, Thermo hygrometer	Humidity Generator	(10 °C to 50 °C) @ 50%rh	0.65°C







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228	THERMAL- SPECIFIC HEAT & HUMIDITY	Temperature/Humidi ty meter with Sensor, Temperature/Humidi ty indicator with Inbuilt sensor, Datalogger, Thermo hygrometer	Using Temperature / Humidity Generator along with RH sensor with Indicator and RTD sensor with Indicator by Comparison method	(15 %rh to 95 %rh) @ 25°C	0.91%rh
229	THERMAL- TEMPERATURE	Cordless Datalogger/Scanner/ Indicator with Inbuilt sensor/Digital Thermometer	Using 6½ Digit Digital Multimeter with 4 wire pt-100 sensor and Dry air generator by Comparison method	-55 °C to 50 °C	0.71°C
230	THERMAL- TEMPERATURE	Infrared Thermometer, Pyrometer, Laser Gun Emissivity=0.95	Using Standard Pyrometer Laser Gun and Black Body Source, Emissivity=0.95 by Comparison method	400 °C to 1000 °C	4.81°C
231	THERMAL- TEMPERATURE	Infrared Thermometer, Pyrometer, Laser Gun	Using Standard Pyrometer Laser Gun and Black Body Source, Emissivity=0.95 by Comparison method	50 °C to 400 °C	3.5°C
232	THERMAL- TEMPERATURE	Temperature Gauge, Glass Thermometer, Dial Thermometer	Using 6½ Digital multimeter with RTD and liquid bath by Comparison method	40 °C to 200 °C	0.14°C





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233	THERMAL- TEMPERATURE	Temperature Gauge, Glass Thermometer, Dial Thermometer	Using 6½ Digital multimeter with RTD and liquid bath by Comparison method	-80 °C to 40 °C	0.88°C
234	THERMAL- TEMPERATURE	Temperature Indicator / Controller / Recorder / Scanner / Datalogger with Thermocouples, only Thermocouples, Temperature Transmitter, Digital Thermometer.	Multimeter, R-Type Thermocouple, Fluid	1200 °C to 1500 °C	5.34°C
235	THERMAL <del>-</del> TEMPERATURE	Temperature Indicator, Temperature Controller, Recorder, Datalogger, Scanner with RTD or Thermocouples, Only RTD, only Thermocouples, Temperature Transmitter, Digital Thermometer	Using 6½ digital multimeter, RTD and Temperature Dry Bath by Comparison method	40 °C to 600 °C	0.44°C





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236	THERMAL- TEMPERATURE	Temperature Indicator, Temperature Controller, Recorder, Datalogger, Scanner with RTD or Thermocouples, Only RTD, only Thermocouples, Temperature Transmitter, Digital Thermometer	Using 6½ Digital multimeter, RTD and Liquid Bath by Comparison method	-80 °C to 40 °C	0.69°C
237	THERMAL- TEMPERATURE	Temperature Indicator, Temperature Controller, Recorder, Datalogger, Scanner with Thermocouples, Only Thermocouples, Temperature Transmitter, Digital Thermometer	Thermocouple, Fluid	600 °C to 1200 °C	5.3°C



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69	THERMAL- SPECIFIC HEAT & HUMIDITY	Humidity Chamber, Environment Chamber	Using Wireless Data loggers minimum - 09 by Multi Position Calibration by Comparison method	(30 %rh to 90 %rh) @ 25°C	2.15%rh
70	THERMAL- SPECIFIC HEAT & HUMIDITY	Temperature/Humidi ty meter with Sensor, Temperature/Humidi ty indicator with Inbuilt sensor, Datalogger, Thermo hygrometer	Using Temperature / Humidity Generator along with RH sensor with Indicator and RTD sensor with Indicator by Comparison method	(10 °C to 50 °C) @ 50%rh	0.65°C
71	THERMAL- SPECIFIC HEAT & HUMIDITY	Temperature/Humidi ty meter with Sensor, Temperature/Humidi ty indicator with Inbuilt sensor, Datalogger, Thermo hygrometer	Using Temperature / Humidity Generator along with RH sensor with Indicator and RTD sensor with Indicator by Comparison method	(15 %rh to 95 %rh) @ 25°C	0.91%rh
72	THERMAL- TEMPERATURE	Indicator of Bath, Oven, Chamber, Freezer, Incubator (Single Point)	Using RTD type sensor Indicator (Single Position) by Direct method	-60 °C to 50 °C	0.8°C





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73	THERMAL- TEMPERATURE	Indicator with (Sensor or Thermocouple) of Oven/Furnace/Bath/ Chamber (Single Point)	Using R-Type Thermocouple with Temperature Indicator by Direct method	400 °C to 1000 °C	5.45°C
74	THERMAL- TEMPERATURE	Indicator with (Sensor or Thermocouple) of Oven/Furnace/Bath/ Chamber/Incubator (Single Point)	Using RTD sensor with Indicator (Single Position) by Direct method	50 °C to 400 °C	1.65°C
75	THERMAL- TEMPERATURE	Oven, Chamber, Freezer, Incubator Room Autoclave by Multi position calibration (Industrial Used only)	Using Wireless Data logger minimum - 09 By Multi Position Direct method	(-)20 °C to 50 °C	1.66°C
76	THERMAL <del>-</del> TEMPERATURE	Oven, Chamber, Incubator Room Autoclave by Multiposition Method (Industrial used only)	Using RTD with minimum - 09 sensor (Multi Position) by Direct method	50 °C to 400 °C	3.0°C





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77	THERMAL- TEMPERATURE	Oven, Furnace (Multipoint mapping)	Using N-type Thermocouple with multi channel Datalogger minimum-09 sensor (Multi position) by Direct method	400 °C to 1000 °C	5.6°C
78	THERMAL- TEMPERATURE	Temperature Indicator/Controller/ Recorder/ Recorder/ Datalogger, Scanner with Thermocouples, Only Thermocouples, Temperature Transmitter	Using R-Type Thermocouple with Indicator, Dry Block bath by Comparison method	400 °C to 1000 °C	3.81°C
79	THERMAL- TEMPERATURE	Temperature Indicator/Controller/ Recorder/ Recorder/ Datalogger/Scanner with RTD or Thermocouples / Only RTD/ Only Thermocouples / Temperature Transmitter	Using RTD with Indicator, Dry Block bath (Single Position) by Comparison method	30 °C to 400 °C	0.5°C

\* CMCs represent expanded uncertainties expressed at approximately the 95% level of confidence, using a coverage factor of k = 2.