

Laboratory Shiva Calibration Laboratory, B-Block, Gali No. 3, Bharat Colony, Old Faridabad, Haryana

Accreditation Standard ISO/IEC 17025: 2005

Certificate Number CC-2465

Page 1 of 15

Validity 06.12.2017 to 05.12.2019

Last Amended on 23.05.2019

Sl.	Quantity Measured / Instrument	Range/Frequency	*Calibration Measurement Capability ( $\pm$ )	Remarks
<b><u>ELECTRO-TECHNICAL CALIBRATION</u></b>				
<b>I.</b>	<b>SOURCE</b>			
1.	DC Voltage <sup>#</sup>	1 mV to 100 mV 100 mV to 1000 V	0.58 % to 0.55 % 0.55% to 0.2%	Using Multifunction Calibrator 5½
2.	DC Current <sup>#</sup>	100 $\mu$ A to 20 mA 20 mA to 2 A 2 A to 10 A	0.7% to 0.35 % 0.35 % to 0.36 % 0.36 % to 0.22 %	Using Multifunction Calibrator 5½
3.	DC High Current <sup>#</sup>	10 A to 1000 A	0.92%	Using Multifunction Calibrator 5½ with current coil
4.	AC Voltage <sup>#</sup>	<b>50 Hz</b> 10 mV to 100 mV 100 mV to 1000 V	0.71 % to 0.08% 0.08% to 0.12%	Using Multifunction Calibrator 5½
5.	AC Current <sup>#</sup>	<b>50 Hz</b> 100 $\mu$ A to 20 mA 20 mA to 2 A 2 A to 10 A	3 % to 0.25 % 0.25 % to 4.2 % 4.2 % to 0.25 %	Using Multifunction Calibrator 5½
6.	AC High Current <sup>#</sup>	10 A to 1000 A	0.85%	Using Multifunction Calibrator 5½ with current coil
7.	Resistance <sup>#</sup>	1 m $\Omega$ 10 m $\Omega$ 100 m $\Omega$ 1 $\Omega$ to 100k $\Omega$ 100k $\Omega$ to 100M $\Omega$ 100M $\Omega$ to 1G $\Omega$ 2G $\Omega$ 20G $\Omega$	6.4% 6.4 % 0.64 % 10.56% to 0.58% 0.58% to 2.38% 2.38% to 2.34% 6.5% 6.5%	Using Std. Resistance Box, Decade Resistance Box & Mega Ohm Box

Dheeraj Chawla  
Convenor

Srikanth.R  
Program Manager

Laboratory

Shiva Calibration Laboratory, B-Block, Gali No. 3, Bharat Colony, Old Faridabad, Haryana

Accreditation Standard ISO/IEC 17025: 2005

Certificate Number

CC-2465

Page 2 of 15

Validity

06.12.2017 to 05.12.2019

Last Amended on 23.05.2019

Sl.	Quantity Measured / Instrument	Range/Frequency	*Calibration Measurement Capability ( $\pm$ )	Remarks
8.	Frequency <sup>#</sup>	10 Hz to 1 MHz	0.095% to 0.7%	Using Process Calibrator & Function Generator
9.	Inductance <sup>#</sup>	100 $\mu$ H to 100mH	0.7%	Using Decade Inductance Box
10.	Capacitance <sup>§</sup>	1 nF to 1000 nF 1 $\mu$ F to 10 $\mu$ F	2.29 % to 5.92 % 5.92 % to 1.71 %	Using Decade Capacitance Box
11.	Temperature Simulation <sup>#</sup> (Indicator/Controller/Recorder) RTD Type Thermocouple T-Type S-Type J-Type N-Type K-Type R-Type B-Type E-Type	(-)200 °C to 800 °C  (-)200 °C to 400 °C 0 to 1700 °C (-)200 °C to 1200 °C (-)200 °C to 1300 °C (-)200 °C to 1300 °C 0 to 1700 °C 0 to 1700 °C (-)100 °C to 600 °C	0.49°C  0.7 °C 0.55 °C 0.38°C 0.38°C 0.42°C 0.55 °C 0.55 °C 0.55°C	Using Universal Calibrator& Process Meter
II.	<b>MEASURE</b>			
1.	DC Voltage <sup>#</sup>	1mV to 100 mV 100mV to 10 V 10 V to 1000 V	0.7% to 0.01% 0.01% to 0.007% 0.007% to 0.008%	Using 6½ DMM
2.	DC Current <sup>#</sup>	100 $\mu$ A to 20 mA 20 mA to 2 A 2 A to 10 A	0.1 % to 0.07% 0.07% to 0.10% 0.10% to 0.18%	Using 6½ DMM

Dheeraj Chawla  
Convenor

Srikanth.R  
Program Manager

Laboratory

Shiva Calibration Laboratory, B-Block, Gali No. 3, Bharat Colony,  
Old Faridabad, Haryana

Accreditation Standard ISO/IEC 17025: 2005

Certificate Number

CC-2465

Page 3 of 15

Validity

06.12.2017 to 05.12.2019

Last Amended on 23.05.2019

Sl.	Quantity Measured / Instrument	Range/Frequency	*Calibration Measurement Capability ( $\pm$ )	Remarks
3	AC Voltage <sup>#</sup>	50 Hz 10mV to 10 V 10 V to 1000 V	0.08% to 0.10% 0.10% to 0.095%	Using 6½ DMM
4	AC Current <sup>#</sup>	50 Hz 100 $\mu$ A to 20 mA 20 mA to 2A 2A to 10A	0.25 % to 0.18% 0.18% to 0.7% 0.7 % to 0.25%	Using 6½ DMM
5	Resistance <sup>#</sup> (4 Wire)	1m $\Omega$ to 1 $\Omega$ 1 $\Omega$ to 10 $\Omega$	3.05% to 0.06% 0.06%	Using 6½ DMM & Milli Ohm Meter
6	Resistance <sup>#</sup> (2 Wire)	10 $\Omega$ to 1M $\Omega$ 1M $\Omega$ to 100M $\Omega$ 100M $\Omega$ to 1G $\Omega$ 1 G $\Omega$ to 20 G $\Omega$	0.06% to 0.03% 0.03% to 0.03% 0.03 % to 0.5% 0.5% to 0.8%	Using 6½ DMM & Insulation Tester
7	Frequency <sup>#</sup>	10 Hz to 1 MHz	0.06%	Using 6½ DMM
8	DC Capacitance <sup>#</sup>	1 nF to 100 $\mu$ F	1.8%	Using 6½ DMM
9	Stop Watch <sup>#</sup> (Digital / Analog)	1sec to 1799 Sec 1800 sec to 24 Hrs	0.23 sec 0.65 Sec	Using Digital Stop Watch
10	Temperature Simulation <sup>#</sup> (Indicator/Controller/Recorder) RTD Type Thermocouple T-Type S-Type J-Type N-Type K-Type R-Type B-Type E-Type	(-)200 °C to 800 °C  (-)200 °C to 400 °C 0 to 1700 °C (-)200 °C to 1200 °C (-)200 °C to 1300 °C (-)200 °C to 1300 °C 0 to 1700 °C 0 to 1700 °C (-)100 °C to 600 °C	0.43°C  0.7 °C 0.55 °C 0.38°C 0.38°C 0.66°C 0.55 °C 0.55 °C 0.55°C	Using Digital Thermometer

Dheeraj Chawla  
Convenor

Srikanth.R  
Program Manager

**Laboratory** Shiva Calibration Laboratory, B-Block, Gali No. 3, Bharat Colony,  
Old Faridabad, Haryana

**Accreditation Standard** ISO/IEC 17025: 2005

**Certificate Number** CC-2465

**Page** 4 of 15

**Validity** 06.12.2017 to 05.12.2019

**Last Amended on** 23.05.2019

Sl.	Quantity Measured / Instrument	Range/Frequency	*Calibration Measurement Capability ( $\pm$ )	Remarks
11	AC High Current*	50 Hz 10A to 1000 A	1.4% to 0.72%	Using 6½ DMM & Current Transformer
12	DC High Current*	10A to 750 A	1.2%	Using 6½ DMM & 1000A/100mV Shunt
13	AC High Voltage*	50 KHz 1kV to 28kV	2.54%	Using H V Probe with Multimeter
14	DC High Voltage*	1kV to 37kV	1.82%	Using H V Probe with Multimeter
15	Current Coil <sup>s</sup> AC & DC current	10A to 1000A	2%	By Using Multifunction Calibrator, 6.5 DMM & Clamp Meter

---

**Dheeraj Chawla**  
Convenor

---

**Srikanth.R**  
Program Manager

Laboratory Shiva Calibration Laboratory, B-Block, Gali No. 3, Bharat Colony,  
Old Faridabad, Haryana

Accreditation Standard ISO/IEC 17025: 2005

Certificate Number CC-2465

Page 5 of 15

Validity 06.12.2017 to 05.12.2019

Last Amended on 23.05.2019

Sl.	Quantity Measured / Instrument	Range/Frequency	*Calibration Measurement Capability ( $\pm$ )	Remarks
<b><u>FLUID FLOW CALIBRATION</u></b>				
1	Flow Rate : Digital Flow Meter, Laminar Flow Meter, Element Mass Flow Meter, Mass Flow Meter, Gas Flow Meter, Sampler, BTU Flow Meter, Rotameter, Blower Flow, Flow Switch, Flow Transmitter etc (Medium of Calibration Air) \$	1 LPM to 100 LPM	0.95% Rdg	By Using Laminar Gas Flow Calibrator & 6.5 digit Multimeter By comparison Method
2	Volume Flow rate : Flow Switch, Flow Meter, Flow Transmitter, Level Transmitter, BTU Flow Meter etc. (Medium of Calibration Liquid Water) *	0.8 m <sup>3</sup> /hr to 1450 m <sup>3</sup> /hr	0.65%	Using Transducer based Portable Ultrasonic Flow Meter & 6.5 Digit Multimeter (By Comparison Method)

Dheeraj Chawla  
Convenor

Srikanth.R  
Program Manager

Laboratory Shiva Calibration Laboratory, B-Block, Gali No. 3, Bharat Colony, Old Faridabad, Haryana

Accreditation Standard ISO/IEC 17025: 2005

Certificate Number CC-2465

Page 6 of 15

Validity 06.12.2017 to 05.12.2019

Last Amended on 23.05.2019

Sl.	Quantity Measured / Instrument	Range/Frequency	*Calibration Measurement Capability ( $\pm$ )	Remarks
<b><u>MECHANICAL CALIBRATION</u></b>				
<b>I.</b>	<b>DIMENSION (BASIC MEASURING INSTRUMENT, GAUGE ETC.)</b>			
1.	Calipers <sup>§</sup> (Vernier/Dial/Digital) L.C. 0.01mm L.C. 0.01mm	0 to 300 mm 0 to 600 mm	10.5 $\mu$ m 11.7 $\mu$ m	Using Slip Gauge Set, Caliper Checker & Long Gauge Block
2.	External Micrometer <sup>§</sup> L.C. 0.001mm L.C. 0.01mm	0 to 100 mm 0 to 300 mm	1.63 $\mu$ m 8.8 $\mu$ m	Using Slip gauge set & Long gauge block
3.	Height Gauge <sup>§</sup> (Vernier/Dial/Digital) L.C. 0.01mm L.C. 0.01mm	0 to 300 mm 0 to 600 mm	10.6 $\mu$ m 12 $\mu$ m	Using Caliper Checker, Dial Test Indicator & Surface Plate
4.	Plunger type Dial Gauge <sup>§</sup> L.C. 0.001mm	0 to 25 mm	6.3 $\mu$ m	Using Dial Calibration Tester
5.	Lever type Dial Gauge <sup>§</sup> L.C. 0.001mm	0 to 1 mm	6.3 $\mu$ m	Using Dial Calibration Tester
6.	Plain Plug Gauge <sup>§</sup>	Upto $\varnothing$ 200 mm	3.4 $\mu$ m	Using Slip Gauge Block, Lever Dial Gauge & Surface Plate
7.	Measuring Pin Gauge/Three Wire unit Set <sup>§</sup>	0 to 50 mm	2.2 $\mu$ m	Using Slip Gauge Block, Lever Dial Gauge & Surface Plate

**Dheeraj Chawla**  
Convenor

**Srikanth.R**  
Program Manager

Laboratory

Shiva Calibration Laboratory, B-Block, Gali No. 3, Bharat Colony,  
Old Faridabad, Haryana

Accreditation Standard ISO/IEC 17025: 2005

Certificate Number

CC-2465

Page 7 of 15

Validity

06.12.2017 to 05.12.2019

Last Amended on 23.05.2019

Sl.	Quantity Measured / Instrument	Range/Frequency	*Calibration Measurement Capability ( $\pm$ )	Remarks
8.	Bore Gauge <sup>\$</sup> L.C. 0.001mm	Upto 1 mm travel	2.54 $\mu$ m	Using Dial Calibration Tester
9.	Dial Thickness Gauge <sup>\$</sup> L.C. 0.01mm	Upto 150 mm	5.8 $\mu$ m	Using Slip Gauge Set
10.	Dial calibration Tester <sup>\$</sup> 0.001mm	Upto 25 mm	3.8 $\mu$ m	Using Slip Gauge Set & Lever Dial Indicator
11.	Coating/Plating Thickness <sup>\$</sup> Gauge L.C. 0.01 $\mu$ m	10 to 713 $\mu$ m	5.8 $\mu$ m	Using Standard Foils
12.	Test Sieve <sup>\$</sup> Aperture Size	3 mm to 150 mm	124 $\mu$ m	Using Digital Caliper
13.	Snap/Dial Snap Gauge <sup>\$</sup>	2 mm to 150 mm	1.5 $\mu$ m	Using Slip Gauge set
14.	Standard Foil <sup>\$</sup>	10 $\mu$ m to 2mm	1.5 $\mu$ m	Using External Micrometer
15.	Feeler Gauge <sup>\$</sup>	0.03 mm to 1 mm	1.58 $\mu$ m	Using External Micrometer
16.	Depth Gauge <sup>\$</sup> (Vernier/Dial/Digital) L.C. 0.01mm	0 to 300 mm	14.5 $\mu$ m	Using Slip Gauge set & Caliper Checker
17.	LengthBar/Master setting rod <sup>\$</sup>	Upto 300 mm	6.7 $\mu$ m	Using Slip Gauge Set, & Long Gauge Block & Dial Test Indicator

Dheeraj Chawla  
Convenor

Srikanth.R  
Program Manager

Laboratory

Shiva Calibration Laboratory, B-Block, Gali No. 3, Bharat Colony,  
Old Faridabad, Haryana

Accreditation Standard ISO/IEC 17025: 2005

Certificate Number

CC-2465

Page 8 of 15

Validity

06.12.2017 to 05.12.2019

Last Amended on 23.05.2019

Sl.	Quantity Measured / Instrument	Range/Frequency	*Calibration Measurement Capability ( $\pm$ )	Remarks
18.	Thread Plug Gauge <sup>§</sup> ( Effective $\varnothing$ )	Upto M100	2.5 $\mu$ m	Using Three Wire Unit & Digital Micrometer
19.	Dial Comparator Stand <sup>§</sup> Flatness	Upto 300 mm x300 mm	3.2 $\mu$ m	Using Height Gauge & Puppy Dial& surface Plate
20.	V- Block <sup>§</sup> Parallesim of V wrt Base Parallisium of V wrt side faces Sysmetricity of v axis	300 mm x150 mm x150 mm	6.83 $\mu$ m 6.82 $\mu$ m 6.75 $\mu$ m	Using Slip Gauge Set Lever Dial gauge & Height Gauge & Surface Plate
21.	RPM Meter, Digital Tachometer, Pluse Engine Tachometer, Stroboscope, Certrefuse <sup>§</sup> (Non Contact-Type)	60 rpm to 1000 rpm 1000 rpm to 10000rpm 10000 rpm to 99000 rpm	1.51% 0.12% 0.09%	Using Digital Tachometer & RPM Source
II.	<b>PRESSURE INDICATING DEVICES</b>			
1.	Pressure Gauge Digital/ Analog/ Vacuum Gauge Transmitters <sup>#</sup>	(-)0.9 bar to 0 bar	0.00065 bar	Using Digital Pressure Indicator& Digital Multimeter & Pressure Pump
2.	Pneumatic pressure gauge Digital/ Analog Manometer, Differential Gauge, Transmitters, Magnehalic Gauge/ Pressure Switch/ Pressure Valve <sup>#</sup>	0 to 2000 pascal 20 mbar to100 mbar	2.30 Pascal 0.14 mbar	Using polltech pressure calibrator & Differential pressure gauge& Digital Multimeter & Low Pressure Pump

Dheeraj Chawla  
Convenor

Srikanth.R  
Program Manager



Laboratory

Shiva Calibration Laboratory, B-Block, Gali No. 3, Bharat Colony, Old Faridabad, Haryana

Accreditation Standard

ISO/IEC 17025: 2005

Certificate Number

CC-2465

Page

9 of 15

Validity

06.12.2017 to 05.12.2019

Last Amended on 23.05.2019

Sl.	Quantity Measured / Instrument	Range/Frequency	*Calibration Measurement Capability ( $\pm$ )	Remarks
3.	Pneumatic pressure gauge Digital/ Analog Manometer, Differential Gauge, Transmitters, Magnehalic Gauge/ Pressure Switch/ Pressure Valve/BP Appratus <sup>#</sup>	0 to 1 bar 0 to 24.9bar	0.00046 bar 0.0062 bar	Using Digital Pressure Gauge & Pressure Comperator & Digital Multimeter & Low Pressure Pump
4.	Hydraulic pressure Analog/Digital Pressure gauge Transmitters/ Pressure Switch/ Pressure Valve <sup>#</sup>	0 to 70 bar 70 to 698 bar	0.25 bar 0.40 bar	Using Digital Pressure Gauge & Digital Multimeter & Pressure Comperator
5.	Barometric Pressure gauge <sup>\$</sup>	0 to 1030 mbar	1.35 mbar a	Using polltech pressure calibrator & Pressure Pump
<b>III</b>	<b>MASS &amp; VOLUME</b>			
1.	Mass Weights (F1 Class & Coarser) <sup>\$</sup>	1 mg	0.014 mg	Using E2 Class Weight & Weighing Balance (Readability 0.01/0.1 mg As Per OIMLR-111-1 By ABBA method)
		2 mg	0.014 mg	
		5 mg	0.014 mg	
		10 mg	0.014 mg	
		20 mg	0.015 mg	
		50 mg	0.015 mg	
		100 mg	0.015 mg	
		200 mg	0.015 mg	
		500 mg	0.018 mg	
		1 g	0.018 mg	
		2 g	0.018 mg	
5 g	0.018 mg			

Dheeraj Chawla  
Convenor

Srikanth.R  
Program Manager

**Laboratory** Shiva Calibration Laboratory, B-Block, Gali No. 3, Bharat Colony, Old Faridabad, Haryana

**Accreditation Standard** ISO/IEC 17025: 2005

**Certificate Number** CC-2465

**Page** 10 of 15

**Validity** 06.12.2017 to 05.12.2019

**Last Amended on** 23.05.2019

Sl.	Quantity Measured / Instrument	Range/Frequency	*Calibration Measurement Capability ( $\pm$ )	Remarks
		10 g	0.018 mg	
		20 g	0.22 mg	
		50 g	0.22 mg	
		100 g	0.22 mg	
		200 g	0.22 mg	
	Mass Weights (F2 Class & Coarser) <sup>§</sup>	500 g	1.6 mg	Using F1 Class Weight & Weighing Balance ( Readability 0.001g) As Per OIMLR-111-1 By ABBA method
		1 kg	1.6 mg	
		2 kg	10 mg	
		5 kg	15 mg	
		10 kg	93 mg	
		20 kg	0.24 g	
		50 kg	5 g	
2.	Volume Micropipettes/Glass Pipettes <sup>§</sup>	>10 $\mu$ l to 100 $\mu$ l	0.06 $\mu$ l	Using Digital Weighing Balance with Readability 0.01/0.1 mg & with Distilled water (as per ISO 8655(6))
		100 $\mu$ l to 1000 $\mu$ l	0.22 $\mu$ l	
3.	Burette / Pipette / Volumetric Flask / Measuring Cylinder / Beaker / Dispenser / Syringe / Pycnometer <sup>§</sup>	1 ml to 10 ml	0.5 $\mu$ l	Using Digital Weighing Balance with Readability 0.001/0.01/0.1 g & with Distilled water (as per ISO 4787:2010 )
		10 ml to 100 ml	8.6 $\mu$ l	
		100 ml to 200 ml	0.06 ml	
		200 ml to 500 ml	0.15 ml	
		500 ml to 1 litre	0.20 ml	
		1 litre to 10 litre	1.2 ml	
4.	Digital Weighing Balance (Readability 1 mg & Coarser) <sup>#</sup>	Upto 220 g	0.60 mg	Using E2 Class Weight ( As per OIML-R-76-1)
5.	Digital Weighing Balance (Readability 0.01 g & Coarser) <sup>#</sup>	Upto 1000 g	0.007 g	Using E2& F1 Class Weight ( As per OIML-R-76-1)

**Laboratory** Shiva Calibration Laboratory, B-Block, Gali No. 3, Bharat Colony, Old Faridabad, Haryana

**Accreditation Standard** ISO/IEC 17025: 2005

**Certificate Number** CC-2465

**Page** 11 of 15

**Validity** 06.12.2017 to 05.12.2019

**Last Amended on** 23.05.2019

Sl.	Quantity Measured / Instrument	Range/Frequency	*Calibration Measurement Capability ( $\pm$ )	Remarks
6.	Digital Weighing Balance (Readability 0.01 g & Coarser) #	Upto 6000 g	0.05 g	Using E2& F1 Class Weight (As per OIML-R-76-1)
7.	Digital Weighing Balance (Readability 0.1 g & Coarser) #	Upto 25000 g	0.15 g	Using F1 Class Weight (As per OIML-R-76-1)
8.	Digital Weighing Balance (Readability 0.005 kg & Coarser) #	Upto 150 kg	6.9 g	Using F1 Class Weight (As per OIML-R-76-1)
9.	Spring Balance (LC-10 g) #	Upto 50 kg	8.0 g	Using E2& F1 Class Weight
10.	Spring Balance (LC-100 g) #	Upto 100 kg	70 g	Using F1 Class Weight
11.	Tension Gauge (LC- 10 g) #	Upto 1000 g	8.0 g	Using E2& F1 Class Weight
12.	Tension Gauge (LC- 40 g) #	Upto 2000 g	23.1 g	Using E2& F1 Class Weight

**Dheeraj Chawla**  
Convenor

**Srikanth.R**  
Program Manager

Laboratory Shiva Calibration Laboratory, B-Block, Gali No. 3, Bharat Colony,  
Old Faridabad, Haryana

Accreditation Standard ISO/IEC 17025: 2005

Certificate Number CC-2465

Page 12 of 15

Validity 06.12.2017 to 05.12.2019

Last Amended on 23.05.2019

Sl.	Quantity Measured / Instrument	Range/Frequency	*Calibration Measurement Capability ( $\pm$ )	Remarks
<b><u>THERMAL CALIBRATION</u></b>				
<b>I.</b>	<b>TEMPERATURE</b>			
1.	RTDs / Thermocouples with or without Temperature Indicator/ Controller/ Datalogger /Recorder, Temperature Gauge, Digital Thermometer, Temperature Transmitter with sensor#	(-)196 °C	0.34 °C	Using RTD (Pt-100) 4 wire with 6.5 Digital Multimeter & Liquid Nitrogen cryostat
2.	RTDs / Thermocouples with or without Temperature Indicator/ Controller/ Datalogger /Recorder, Temperature Gauge, Digital Thermometer, Temperature Transmitter with sensor#	(-)40 °C to 30 °C	0.33 °C	Using RTD (Pt-100) 4 wire with 6.5 Digital Multimeter & Low Temperature Liquid Bath
3.	RTDs / Thermocouples with or without Temperature Indicator/ Controller/ Datalogger /Recorder, Temperature Gauge, Digital Thermometer, Temperature Transmitter with sensor#	30 °C to 200 °C	0.27 °C	Using RTD (Pt-100) 4 wire with 6.5 Digital Multimeter & Silicon Oil Temperature Bath

**Dheeraj Chawla**  
Convenor

**Srikanth.R**  
Program Manager

**Laboratory** Shiva Calibration Laboratory, B-Block, Gali No. 3, Bharat Colony, Old Faridabad, Haryana

**Accreditation Standard** ISO/IEC 17025: 2005

**Certificate Number** CC-2465

**Page** 13 of 15

**Validity** 06.12.2017 to 05.12.2019

**Last Amended on** 23.05.2019

Sl.	Quantity Measured / Instrument	Range/Frequency	*Calibration Measurement Capability ( $\pm$ )	Remarks
4.	RTDs / Thermocouples with or without Temperature Indicator/Controller/ Datalogger /Recorder, Temperature Gauge, Digital Thermometer, Temperature Transmitter with sensor <sup>#</sup>	200 °C to 300 °C	0.83 °C	Using RTD (Pt-100) 4 wire with 6.5 Digital Multimeter & Silicon Oil Temperature Bath
5.	RTD's, Thermocouples with or without Temperature Indicator/Controller/ Recorder/ Data Logger & Digital Thermometer, Temperature Transmitter with sensor <sup>#</sup>	300 °C to 1200 °C	2.2 °C	Using R- type Thermocouple, Digital Multimeter 6½ & Dry Block Furnace
6.	Liquid in Glass Thermometer <sup>\$</sup>	(-)40 °C to 250 °C	0.62 °C	Using RTD (Pt-100) with 6.5DMM & Low Temp. Bath, Oil Bath
7.	Temperature Indicator with sensor of Nitrogen Bath/Cryostat <sup>*</sup>	(-)196 °C	0.34 °C	Using RTD (Pt-100) 4 wire with 6.5 Digital Multimeter

**Dheeraj Chawla**  
Convenor

**Srikanth.R**  
Program Manager

**Laboratory**

**Shiva Calibration Laboratory, B-Block, Gali No. 3, Bharat Colony,  
Old Faridabad, Haryana**

**Accreditation Standard ISO/IEC 17025: 2005**

**Certificate Number**

**CC-2465**

**Page 14 of 15**

**Validity**

**06.12.2017 to 05.12.2019**

**Last Amended on 23.05.2019**

Sl.	Quantity Measured / Instrument	Range/Frequency	*Calibration Measurement Capability ( $\pm$ )	Remarks
8.	Temperature Indicator with sensor of Freezers, Oven, Environment Chamber, Incubator, Liquid Bath, Dry Block Furnaces, Centrifuge*	(-)80 °C to 50 °C 50 °C to 200 °C	0.40 °C 2.5 °C	Using RTD (Pt-100) 4 wire with 6.5 Digital Multimeter (Single Position Calibration)
9.	Temperature Indicator with sensor of Furnace, Dry Block Furnace & Oven*	200 °C to 1200 °C	2.9 °C	Using R type Thermocouple & Digital Thermometer (Single Position Calibration)
10.	Freezers, Cold Chamber, Oven, Environment Chamber, Incubator*	(-)80 °C to 50 °C 50 °C to 250 °C	3.5 °C 3.1 °C	Using Multipoint Datalogger with RTD (Pt-100) Sensors (Minimum. Nine Sensor) (Multi Position Calibration)
11.	Industrial Furnaces / Oven*	200 °C to 1200 °C	5.9 °C	Using Multipoint Datalogger with N Type Thermocouples Minimum Nine Sensor. (Multi Position Calibration)

---

**Dheeraj Chawla**  
Convenor

---

**Srikanth.R**  
Program Manager

**Laboratory** Shiva Calibration Laboratory, B-Block, Gali No. 3, Bharat Colony, Old Faridabad, Haryana

**Accreditation Standard** ISO/IEC 17025: 2005

**Certificate Number** CC-2465

**Page** 15 of 15

**Validity** 06.12.2017 to 05.12.2019

**Last Amended on** 23.05.2019

Sl.	Quantity Measured / Instrument	Range/Frequency	*Calibration Measurement Capability ( $\pm$ )	Remarks
<b>II.</b>	<b>SPECIFIC HEAT &amp; HUMIDITY</b>			
1.	Digital & Analog Hygrometer, Humidity/ Temperature Sensors with Indicator/ Controller /Recorder, Transmitter/Data Logger , Thermo-Hygrometer <sup>§</sup>	30 % to 85 % RH @25°C 10 °C to 50 °C @ 50% Rh	1.3 % 0.2 °C	Using Std. RH /Temp.Sensors with Indicator & Digital Multimeter Temperature Humidity Chamber
2.	Humidity Indicator with sensor Humidity Calibrator/Generator/ Chamber*	10 % to 95 % RH @25 °C	1.1 %	Using Std. RH Sensor with Indicator (Single Position Calibration)
3.	Environment Chamber / Humidity Chamber*	10 % to 95 % RH @ 25 °C	5.2 %RH	Using RH Sensors with Datalogger Minimum Nine Sensor (Multi Position Calibration)

\* 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.

---

Dheeraj Chawla  
Convenor

---

Srikanth.R  
Program Manager