

**Laboratory** Parashar Micro Measurement Pvt. Ltd., B-59, Sector-64, Noida, Uttar Pradesh  
**Accreditation Standard** ISO/IEC 17025: 2005  
**Certificate Number** CC-2795 (In lieu of C-0260, C-0513, C-1139) **Page** 1 of 17  
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Sl.	Quantity Measured / Instrument	Range/Frequency	*Calibration Measurement Capability ( $\pm$ )	Remarks
<b><u>ELECTRO TECHNICAL CALIBRATION</u></b>				
<b>1.</b>	<b>SOURCE</b>			
<b>1.</b>	Resistance <sup>s</sup> (4 Wire Method)	1m $\Omega$ , 10 m $\Omega$ , 100 m $\Omega$ , 1 $\Omega$	0.79% to 0.58%	Using Resistance Box (Maxwell) by Direct Method
	Resistance (4 Wire & 2 Wire Method)	1 $\Omega$ to 1 M $\Omega$ 1 M $\Omega$ to 10 M $\Omega$ 10 M $\Omega$ to 1000 M $\Omega$	0.02% 0.02% to 0.07% 0.07% to 1.74%	Using Multi Product Calibrator Fluke 5502A by Direct Method
	High Resistance	2 G $\Omega$ , 10 G $\Omega$ , 20 G $\Omega$ ,	4.2%	Using Mega Ohm Box (Sigma) by Direct Method
<b>2.</b>	Capacitance <sup>s</sup>	<b>1 kHz</b> 500 pF to 1 nF 1nF to 1 $\mu$ F  <b>100Hz</b> 1 $\mu$ F to 100 $\mu$ F	2.90% to 1.73% 1.73% to 0.4%  0.4% to 0.7%	Using Multi Product Calibrator Fluke 5502A by Direct Method
<b>3.</b>	Inductance <sup>s</sup>	<b>1 kHz</b> 100 $\mu$ H, 1 mH, 10 mH, 100 mH, 1 H	1.2%	Using Inductance Box (Sigma SL - 01) by Direct Method
<b>4.</b>	Frequency <sup>s</sup>	10 Hz to 100 Hz 100 Hz to 1 MHz	0.015% to 0.004% 0.004% to 0.003%	Using Multi Product Calibrator Fluke 5502 A by Direct Method

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 Convenor

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 Program Manager

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5.	Temperature <sup>§</sup> (By Simulation Method) RTD K Type J Type R Type S Type N Type T Type B Type E Type	 (-)200 to 800 °C (-)200 to 1370 °C (-)200 to 1200 °C 0 to 1750 °C 0 to 1750 °C (-)200 to 1300 °C (-)200 to 390 °C 600 to 1800 °C (-)200 to 1000 °C	 0.27 °C 0.55 °C 0.44 °C 0.8 °C 0.85 °C 0.46 °C 0.38 °C 0.9 °C 0.3 °C	Using Multi Product Calibrator Fluke 5502A by Direct Method
6.	DC Voltage <sup>§</sup>	1 mV to 100 mV 100 mV to 1 V 1V to 1000 V	0.35% to 0.01% 0.01% to 0.04% 0.04% to 0.01%	Using Multi Product Calibrator Fluke 5502A by Direct Method
7.	AC Voltage <sup>§</sup>	50 Hz to 1 kHz 10 mV to 1 V 1 V to 1000 V	0.35% to 0.04% 0.04% to 0.06%	Using Multi Product Calibrator Fluke 5502A by Direct Method
8.	DC Current <sup>§</sup>	10 µA to 100 mA 100 mA to 1 A 1 A to 10 A 10 A to 20 A  20 A to 1000 A	0.25% to 0.02% 0.02% to 0.05% 0.05% to 0.08% 0.08% to 0.11%  1.3% to 1.9%	Using Multi Product Calibrator Fluke 5502A by Direct Method  Using Multi Product Calibrator Fluke 5502A with Current Coil Fluke 5500A by Direct Method
9.	AC Current <sup>§</sup>	50 Hz 50 µA to 1mA 1 mA to 1 A 1 A to 10 A 10 A to 20 A	0.4% to 0.17 % 0.17% to 0.07 % 0.07% to 0.09 % 0.09% to 0.17%	Using Multi Product Calibrator Fluke 5502A by Direct Method

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		20 A to 1000 A	1.4% to 2.0%	Using Multi Product Calibrator Fluke 5502A with Current Coil Fluke 5500A by Direct Method
10.	DC Power <sup>\$</sup>	1 W to 20 kW (10 V & 0.1 A, 1000 V & 20 A)	0.95% to 0.23%	Using Multi Product Calibrator Fluke 5502A by Direct Method
11.	AC Power <sup>\$</sup> (At 50 Hz) PF = Unit to 0.5 Lead/Lag	1 W to 12 kW (10 V & 0.1 A, 600 V & 20 A)	0.2%	Using Multi Product Calibrator Fluke 5502A by Direct Method
12.	Power Factor <sup>\$</sup> (At 240 V, 2A @ 50 Hz)	0.2 to 1 PF (Lead & Lag)	0.0024 PF to 0.0006 PF	Using Multi Product Calibrator Fluke 5502A by Direct Method
13.	Temperature* (By Simulation Method) RTD J Type K Type R & S Type	(-)200 to 800 °C (-)200 to 1200 °C (-)200 to 1370 °C 0 to 1750 °C	0.73 °C 1.2 °C 1.4 °C 2.95 °C	Using Dig. Temp. Calibrator Kusum Meco KM-CAL-805 by Direct Method
II.	<b>MEASURE</b>			
1.	DC Voltage <sup>\$</sup>	1 mV to 100 mV 100 mV to 1000 V	0.41 % to 0.009 % 0.009 % to 0.006 %	Using Fluke Dig. Multimeter 8846A by Direct Method
2.	AC Voltage <sup>\$</sup>	<b>50 Hz to 1 kHz</b> 10 mV to 100 mV 100 mV to 1000 V	0.54% to 0.1% 0.1%	Using Fluke Dig. Multimeter 8846A by Direct Method.

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3.	DC Current <sup>s</sup>	10 $\mu$ A to 100 mA 100 mA to 1 A 1 A to 10 A	0.35 % to 0.06% 0.06% to 0.08% 0.08% to 0.19%	Using Fluke Dig. Multimeter 8846A by Direct Method
4.	AC Current <sup>s</sup>	50 Hz to 1 kHz 100 $\mu$ A to 1 A 1 A to 10 A	0.31% to 0.17% 0.17% to 0.29%	Using Fluke Dig. Multimeter 8846A by Direct Method
5.	Resistance <sup>s</sup> (4 Wire Method)	1 m $\Omega$ to 1 $\Omega$  1 $\Omega$ to 100 $\Omega$ 100 $\Omega$ to 100 k $\Omega$	1.2%  0.36% to 0.02% 0.02% to 0.01%	Using Micro Ohm Meter (sigma) by Direct Method  Using Fluke Dig. Multimeter 8846A by Direct Method
	(2 Wire Method)	100 k $\Omega$ to 10 M $\Omega$ 10 M $\Omega$ to 100 M $\Omega$ 100 M $\Omega$ to 1000 M $\Omega$	0.01% to 0.05% 0.05% to 0.94% 0.9% to 2.97%	Using Fluke Dig. Multimeter 8846A by Direct Method
6.	Capacitance <sup>s</sup>	1 kHz 1 nF to 1 $\mu$ F	0.7% to 0.5%	Using Aplaab 4910 LCR Meter by Direct Method
		100 Hz 1 $\mu$ F to 100 $\mu$ F	0.7% to 0.5%	
7.	Inductance <sup>s</sup>	1 kHz 1 mH to 1 H	0.6% to 0.5%	Using Aplaab 4910 LCR Meter by Direct Method
8.	Frequency <sup>s</sup>	10 Hz to 100 Hz 100 Hz to 1 MHz	0.08% to 0.01% 0.01%	Using Fluke Dig. Multimeter 8846A by Direct Method
9.	Stop Watch <sup>s</sup>	10 s to 1 Hour	0.7 s to 0.9 s	Using Dig. Stop Watch by Comparison Method

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10.	Temperature <sup>s</sup> (By Simulation Method) RTD  K Type J Type R Type S Type N Type T Type B Type E Type	(-)200 to 800 °C  (-)200 to 1370 °C (-)200 to 1200 °C 0 to 1750 °C 0 to 1750 °C (-)200 to 1300 °C (-)250 to 390 °C 600 to 1800 °C (-)200 to 1000 °C	0.06 °C  0.47 °C 0.3 °C 0.9 °C 0.8 °C 0.5 °C 0.7 °C 0.9 °C 0.3 °C	Using Fluke 1529 Thermometer Readout by Direct Method  Using Multi Product Calibrator Fluke 5502A by Direct Method
11.	DC High Voltage*	1 kV to 40 kV	0.04 kV to 1.41 kV	Using Mastech MS8050 & H.V. Probe Zeal by Direct Method
12.	AC High Voltage *	50 Hz 1 kV to 40 kV	0.05 kV to 2.14 kV	Using Mastech MS8050 & H.V. Probe Zeal by Direct Method
13.	Stop Watch*	10 s to 1 hour	0.7 s to 0.9 s	Using Dig. Stop Watch by Comparison Method
14.	Active Energy* (At UPF 3Ø)	100 V to 240 V 0.5 to 250 A	1.9%	Using Energy Logger by Comparison Method

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<b><u>MECHANICAL CALIBRATION</u></b>				
<b>I.</b>	<b>DIMENSION (BASIC MEASURING INSTRUMENTS, GAUGE ETC.)</b>			
<b>1.</b>	External Micrometer <sup>\$</sup> L.C. 0.001 mm	0 to 25 mm 0 to 50 mm 0 to 100 mm	1.4 $\mu$ m 2.3 $\mu$ m 2.6 $\mu$ m	Using ('0' Grade) Mic. Check Set, Slip Gauge Set With Accessories, Optical Parallels and Caliper Checker By Comparison Method Based on IS:2967-1983
	L.C. 0.01 mm	100 mm to 600 mm 600 mm to 1000 mm	10.0 $\mu$ m 15.0 $\mu$ m	
<b>2.</b>	Vernier/Dial/Dig. Caliper <sup>\$</sup> L.C. 0.01 mm	0 to 150 mm 0 to 300 mm 0 to 600 mm 0 to 1000 mm	8.0 $\mu$ m 10.0 $\mu$ m 12.0 $\mu$ m 17.3 $\mu$ m	Using ('0' Grade) Slip Gauge Set With Accessories and Caliper Checker By Comparison Method Based on IS:3651-1988
<b>3.</b>	Plunger Type Dial/Dig. Gauge <sup>\$</sup> L.C. 0.001 mm	0 to 100 mm	2.0 $\mu$ m	Using ('0' Grade) Slip Gauge Set and Dial Calibration Tester By Comparison Method Based on IS:2092-1983

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4.	Lever Type Dial Gauge <sup>\$</sup> L.C. 0.001 mm L.C. 0.002 mm L.C. 0.01 mm	0 to 0.14 mm 0 to 0.28 mm 0 to 0.8 mm	2.0 $\mu$ m 3.0 $\mu$ m 7.0 $\mu$ m	Using ('0' Grade) Slip Gauge Set and Dial Calibration Tester By Comparison Method Based on IS:11498
5.	Height Gauge <sup>\$</sup> (Vernier/Dial/Dig.) L.C. 0.01 mm	0 to 300 mm 0 to 1000 mm	10.0 $\mu$ m 14.0 $\mu$ m	Using ('0' Grade) Slip Gauge Set With Accessories and Caliper Checker By Comparison Method Based on IS:2921
6.	Depth Caliper & Gauge <sup>\$</sup> L.C. 0.01 mm	0 to 300 mm	12.0 $\mu$ m	Using ('0' Grade) Slip Gauge Set With Accessories and Caliper Checker By Comparison Method Based on IS:4213
7.	Snap Gauge <sup>\$</sup>	6 mm to 100 mm	3.0 $\mu$ m	Using ('0' Grade) Slip Gauge Set With Accessories By Comparison Method Based on IS:3477
8.	Dial Snap Gauge <sup>\$</sup>	6 mm to 100 mm	3.0 $\mu$ m	Using ('0' Grade) Slip Gauge Set With Accessories By Comparison Method Based on IS 14271

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9.	Plain Plug Gauge <sup>s</sup>	Ø1mm to Ø100 mm	3.0 $\mu$ m	Using ('0' Grade) Slip Gauge Set, Dial Gauge and Dig. Micrometer By Comparison Method Based on IS:6137-1983 and IS:6244
10.	Measuring Pin <sup>s</sup>	Ø1mm to Ø100 mm	3.0 $\mu$ m	Using ('0' Grade) Slip Gauge Set, Dial Gauge and Dig. Micrometer By Comparison Method Based on IS:11103
11.	Dial Thickness Gauge <sup>s</sup> L.C. 0.001 mm L.C. 0.01 mm	0 to 10 mm 0 to 50 mm	6.3 $\mu$ m 7.0 $\mu$ m	Using ('0' Grade) Slip Gauge Set By Comparison Method
12.	Feeler Gauge <sup>s</sup>	0.03 to 2 mm	3.0 $\mu$ m	Using Dial Gauge or Dig. Micrometer By Comparison Method Based on IS:3179
13.	Bore Gauge <sup>s</sup> L.C. 0.001mm (for travel only)	Up to 300 mm (2 mm Travel only)	5.0 $\mu$ m	Using Dial Gauge Tester, Dial Gauge and Bore Gauge Fixture
14.	Internal Micrometer <sup>s</sup> L.C. 0.01 mm	50 mm to 600 mm 50 mm to 1000 mm	8.0 $\mu$ m 13.0 $\mu$ m	Using ('0' Grade) Slip Gauge Set With Accessories and Caliper Checker By Comparison Method Based On IS:2966
15.	Depth Micrometer <sup>s</sup> L.C. 0.01 mm	0 to 150 mm	8.0 $\mu$ m	Using ('0' Grade) Slip Gauge Set With Accessories By Comparison Method Based on BS:6468

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16.	Bevel Protector <sup>s</sup> L.C. 5 Minute	0 to 360°	5 Minute	Using Angle Gauge Set By Comparison Method Based on IS:4239
17.	Combination Set & Angle Protector <sup>s</sup>	0 to 180°	35 Minute	Using Angle Gauge Set By Comparison Method Based on IS:4239
18.	Standard Length Bar <sup>s</sup>	25 mm to 100 mm 125mm to 200 mm 225mm to 575 mm	2.8 µm 3.5 µm 6.0 µm	Using ('0' Grade) Slip Gauge Set and Dial Gauge By Comparison Method Based on IS:7014
19.	V – Block <sup>s</sup> (Parallelism, Flatness and Symmetry)	150X150X150 mm	7.0 µm	Using Surface Plate, Mandrels and Dial Gauge By Comparison Method Based on IS:2949
20.	Std. Thickness Foil <sup>s</sup>	0.01 to 5 mm	3.0 µm	Using Dig. Micrometer and Dial Gauge By Comparison Method
21.	Coating Thickness Gauge <sup>s</sup>	30 mm to 1900 micron	4.0 µm	Using Std. Foils By Comparison Method Based on IS:14811
22.	Hegman Gauge <sup>s</sup>	0 to 102 micron	2.5 µm	Using Dial Gauge & Surface Plate By comparison Method Based on IS:14811

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23.	Pistol Caliper <sup>s</sup> L.C. 0.1 mm	0 to 100 mm	90.0 $\mu$ m	Using ('0' Grade) Slip Gauge Set By Comparison Method
24.	Test Sieves <sup>s</sup>	4 to 100 mm	104.0 $\mu$ m	Using Dig. Caliper By Comparison Method Based on IS:460 (Part 1,2,3)
II.	<b>DIMENSION (PRECISION INSTRUMENTS)</b>			
1.	Profile Projector <sup>*</sup> L.C. 0.001 mm Linear L.C. 1 sec Angular	Linear Upto 200 mm Angular Upto 90° Magnification 10X, 20X, 50X	11.2 $\mu$ m 2.3 Minute 0.42%	Using Glass Scale, Slip Gauge Set, Angle Gauge Set & Dig. Caliper By Comparison Method Based on IS:2967
2.	Travelling Micro Scope <sup>*</sup> L.C. 0.001 mm	Linear Up to 200 mm	7.0 $\mu$ m	Using Glass Scale, Slip Gauge Set By Comparison Method Based on IS:4239
3.	Height Master <sup>*</sup> L.C. 0.001 mm	0 to 1000 mm	37.0 $\mu$ m	Using ('0' Grade) Slip Gauge Set and Caliper Checker By Comparison Method Based on IS:2921
III.	<b>PRESSURE INDICATING DEVICES</b>			

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1.	Pneumatic Pressure, Dial, Dig. Gauge/Indicator. Indicator of sphygmomanometer, Pressure Transducer, Megnahelic Gauge, Pressure Switch, Pressure Valve <sup>#</sup>	0 to 1 bar 0 to 7 bar 0 to 30 bar	0.0021 bar 0.002 bar 0.06 bar	Using Dig. Pressure Calibrator & Dig. Pressure Gauge By Comparison Method as per DKD R6-1
2.	Hydraulic Pressure Dial & Dig. Gauge <sup>#</sup>	0 to 7 bar 0 to 40 bar 0 to 400 bar 0 to 700 bar	0.002 bar 0.06 bar 0.11 bar 0.3 bar	Using Dig. Pressure Gauge By Comparison Method as per DKD R6-1
3.	Vacuum Gauge <sup>#</sup> (Negative Pressure)	(-) 0.95 to 0 bar	0.002 bar	Using Dig. Pressure Calibrator & Dig. Pressure Gauge By Comparison Method as per DKD R6-1
IV.	<b>ACOUSTICS</b>			
1.	Sound Level Meter <sup>\$</sup>	1 kHz 94 dB	1.2 dB	Using Sound Calibrator By Comparison Method
V.	<b>ACCELERATION &amp; SPEED</b>			
1.	RPM Meter, Tachometer Contact & Non Contact Type <sup>\$</sup>	60 to 1000 rpm 1000 to 6000 rpm	6.08 rpm 9.9 rpm	Using Dig. Tachometer Contact Type and Tachometer Calibrator By Comparison Method

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		50 to 1000 rpm 1000 to 10000 rpm 10000 to 60000 rpm	5 rpm 45 rpm 13.4 rpm	Using Dig. Tachometer Non Contact Type and Tachometer Calibrator By Comparison Method
2.	Speed (RPM) of Centrifuge, RPM Meter, Motor, Rotary Shaker*	50 to 6000 rpm	3.2 rpm	Using Dig. Tachometer Contact Type By Comparison Method
		50 to 1000 rpm 1000 to 60000 rpm	1.5 rpm 25 rpm	Using Dig. Tachometer Non Contact Type By Comparison Method
VI.	WEIGHTS			
1.	Weights <sup>s</sup> (F1 Class & Coarser) Readability : 0.01 mg up to 100 g 0.1 mg up to 200 g	1 mg 2 mg 5 mg 10 mg 20 mg 50 mg 100 mg 200 mg 500 mg 1 g 2 g 5 g 10 g 20 g 50 g 100 g 200 g	0.01 mg 0.01 mg 0.01 mg 0.01 mg 0.01 mg 0.01 mg 0.01 mg 0.01 mg 0.01 mg 0.015 mg 0.015 mg 0.015 mg 0.02 mg 0.03 mg 0.07 mg 0.16 mg 0.27 mg	Using Std. Weights (E1 Class) and Weighing Machine Sartorius As per OIML-R-111-1
VII.	WEIGHING BALANCES AND SCALES			

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1.	Weighing Balance <sup>#</sup> Readability = 0.01 mg And Coarser	1 mg to 500 mg Up to 100 g Up to 200 g Up to 500 g	0.03 mg 0.06 mg 0.06 mg 0.6 mg	Using Std. Weights (E1 Class) as per OIML-R76-1
	Readability = 0.01 g Readability = 0.1 g Readability = 1 g Readability = 10 g Readability = 20 g	Up to 1 kg Up to 5 kg Up to 30 kg Up to 200 kg Up to 300 kg	0.05 g 0.2 g 1g 6 g 20 g	Using Std. Weights (F1 & M1 Class) As per OIML-R76-1 Class II and Coarser Class III Class III Class IV Class IV
<b>VIII.</b>	<b>VOLUME</b>			
1.	Micro Syringe/ Micro/ Auto Pipette <sup>\$</sup>	10 to 100 µl 100 to 1000 µl @ 27°C	0.07 µl 0.6 µl	Using dig. Weighing Balance (d=0.01 mg) and distilled water of known density By gravimetric Method As per ISO 8655-6
2.	Transfer Pipette <sup>\$</sup>	1 ml to 25 ml 25 ml to 100 ml 100 ml to 200 ml @ 27°C	0.12 ml 0.6 ml 0.6 ml	Using dig. Weighing Balance (d=0.01& 0.1mg) and distilled water of known density By gravimetric Method As per As per ISO 4787
3.	Glass Pipette <sup>\$</sup>	1ml to 10 ml 10ml to 25 ml 25ml to 50 ml @ 27°C	0.06 ml 0.1 ml 0.6 ml	Using dig. Weighing Balance (d=0.01mg) And distilled water of known density By gravimetric Method As per ISO 4787

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4.	Burette <sup>s</sup>	1ml to 10 ml >10 to 50 ml @ 27°C	0.01 ml 0.06 ml	Using dig. Weighing Balance (d=0.01mg) And distilled water of known density By gravimetric Method As per ISO 4787
5.	Measuring Cylinder/ Measuring Flask/Jar/ Beaker/Bottle/ Pycnometer/ Measuring Can/Conical Flask/ Volumetric Flask <sup>s</sup>	1ml to 10 ml >10ml to 50 ml >50 to 500 ml >500 ml to 1000 ml >1000 ml to 5000 ml	0.08 ml 0.13 ml 0.6 ml 3.2 ml 3.2 ml	Using dig. Weighing Balance (d=0.01 mg, 0.1 mg, 0.1g, & 1 g) and distilled Water of known density By gravimetric Method As per ISO 4787
6.	Syringe Infusion Pump <sup>s</sup>	1 ml to 60 ml (Flow Rate up to 60 ml/hr)	0.08 ml	Using dig. Weighing Balance (d=0.01 mg) And distilled Water of Known density By gravimetric Method AS per ISO 4787

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### **THERMAL CALIBRATION**

<b>I.</b>	<b>TEMPERATURE</b>			
<b>1.</b>	RTD's Thermocouples with & without, Controller/ Indicator/ Data logger/ Recorder, Temperature Transmitter, Temperature Gauges, Glass Thermometers, Digital Thermometers, Thermo Hygrometer with Sensor \$	(-)40 °C to 50 °C 50 °C to 250 °C 250 °C to 600 °C  600 °C to 1200 °C	0.20 °C 0.26 °C 0.30 °C  1.8 °C	Using RTD (Pt – 100) 4 wire, Fluke 1529 cube E – 4, Temperature Liquid & Dry Bath by Comparison Method  Using S Type thermocouple, Fluke 1529 cube E – 4, Temperature Dry Bath by Comparison Method
<b>2.</b>	Relative Humidity Digital & Analog Thermo Hygrometers with or without Sensor, RH Transmitters with Sensor, & Humidity	10 % RH to 95 % RH (@ 25 °C)	1.9% RH	Using Dig. Temperature & Humidity Indicator along with Humidity Generator by Comparison Method

**Mithilesh Kumar**  
Convenor

**Avijit Das**  
Program Manager

**Laboratory** Parashar Micro Measurement Pvt. Ltd., B-59, Sector-64, Noida, Uttar Pradesh  
**Accreditation Standard** ISO/IEC 17025: 2005  
**Certificate Number** CC-2795 (In lieu of C-0260, C-0513, C-1139) **Page** 16 of 17  
**Validity** 29.09.2018 to 28.09.2020 **Last Amended on** -

Sl.	Quantity Measured / Instrument	Range/Frequency	*Calibration Measurement Capability ( $\pm$ )	Remarks
	Controller or Meter <sup>*</sup>			
3.	RTD's & Thermocouples with & without Controller/ Indicator/ Data logger/ Recorder, Dial & Digital Temperature Gauge or Thermometers, Digital Thermometer, Temperature Transmitter <sup>*</sup>	40 °C to 250 °C 250 °C to 600 °C	0.26 °C 0.30 °C	Using RTD (Pt – 100) 4 wire, Fluke 1529 cube E – 4, Temperature Dry & Liquid Bath by Comparison Method
4.	Temperature Indicator With Sensor of Freezers, Deep Freezer, Oven, Incubator, BOD Incubator, Thermostat Water Bath, Environment / Conditioning / Humidity Chamber <sup>*</sup>	(-)80 °C to 250 °C	0.25 °C	Using RTD (Pt – 100) 4 wire, Fluke 1529 cube E – 4, (Single Position Calibration) By Comparison method
5.	Indicator of dry Block Bath, Muffle Furnace, Liquid Bath <sup>*</sup>	50 °C to 250 °C 250 °C to 600 °C	0.26 °C 0.30 °C	Using RTD (Pt – 100) 4 wire, Fluke 1529 cube E – 4, (Single position calibration ) Temperature Liquid & Dry Bath by Comparison Method
		600 °C to 1200 °C	1.8 °C	Using S Type thermocouple, Fluke 1529 cube E – 4, (Single position calibration ) Temperature Dry Bath by Comparison Method
II.	SPECIFIC HEAT AND HUMIDITY			

**Mithilesh Kumar**  
 Convenor

**Avijit Das**  
 Program Manager



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Sl.	Quantity Measured / Instrument	Range/Frequency	*Calibration Measurement Capability ( $\pm$ )	Remarks
1.	Digital & Analog Thermo Hygrometers with or without Sensor, RH Transmitters with Sensor, & Humidity Controller or Meter with Sensor*	10 % RH to 95 % RH (At ambient Temperature)	1.9% RH	Using Dig. Humidity Indicator with Sensor and Humidity Generator (Single Position Calibration) by Comparison Method

2.	Indicator of environment / Conditioning Chamber or Humidity Chamber*	10 % RH to 95 % RH (At 0 - 50 °C)	1.9% RH	Using Dig. Humidity Indicator with Sensor (Single Position Calibration) by Comparison Method
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\* 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.

Mithilesh Kumar  
Convenor

Avijit Das  
Program Manager