

Laboratory	Instrument Calibration Laboratory (India), House No.-6, Bhim Gali, Gali No.-3 A, Saboli Bagh, Delhi		
Accreditation Standard	ISO/IEC 17025: 2005		
Discipline	Electro-Technical Calibration	Issue Date	07.08.2015
Certificate Number	C-1252	Valid Until	06.08.2017
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	Quantity Measured/ Instrument	Range / Frequency	*Calibration Measurement Capability (\pm)	Remarks
I. MEASURE				
1. DC Voltage \$		1 mV to 100 mV 100 mV to 1000 V	0.14 % to 0.05 % 0.05 %	Digital Multimeter 6½ Digit (Fluke 8846A) by Comparison/Direct Method
2. AC Voltage \$		50 Hz 10 mV to 100 mV 100 mV to 750 V	0.22 % to 0.13 % 0.13 % to 0.15 %	Digital Multimeter 6½ Digit (Fluke 8846A) by Comparison/Direct Method
3. DC Current \$		10 μ A to 1 mA 1 mA to 100 mA 100 mA to 1 A 1 A to 8 A	0.87 % to 0.11 % 0.11 % to 0.09 % 0.09 % to 0.11 % 0.11 % to 0.24 %	Digital Multimeter 6½ Digit (Fluke 8846A) by Comparison/Direct Method
4. AC Current \$		50 Hz 100 μ A to 100 mA 100 mA to 1 A 1 A to 10 A	0.54 % to 0.19 % 0.19 % 0.19 % to 0.25 %	Digital Multimeter 6½ Digit (Fluke 8846A) by Comparison/Direct Method
5. Frequency \$		10 Hz to 1000 kHz	0.12 % to 0.34 %	Digital Multimeter 6½ Digit (Fluke 8846A) by Direct Method
6. Inductance \$		1 kHz 1 mH to 10 H	0.64 % to 0.85 %	LCR Meter (APLAB 4910) by Direct Method
7. Capacitance \$		1 kHz 1 nF to 100 μ F	1.25 % to 2.5 %	LCR Meter (APLAB 4910) by Direct Method

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	Quantity Measured/ Instrument	Range / Frequency	*Calibration Measurement Capability (\pm)	Remarks
8.	DC Resistance ^{\$} (2 & 4W)	100 $\mu\Omega$ to 1 m Ω 1 m Ω to 10 m Ω 10 m Ω to 100 m Ω 100 m Ω to 1 Ω 1 Ω to 10 Ω 10 Ω to 100 Ω 100 Ω to 1k Ω 1 k Ω to 10k Ω 10 k Ω to 1G Ω	2.5 % to 0.67 % 0.67 % to 0.57 % 0.57 % 0.57 % 0.57 % to 0.65 % 0.65 % to 0.56 % 0.59 % 0.59 % to 0.02 % 0.02 % to 2.3 %	Digital Micro ohm Meter (Upto 1 k Ω) Digital Multimeter 6½ Digit Fluke 8846A (Above 1 k Ω) by Direct Method
9.	Indicator/Controller, PID, Data logger, Scanner ,Calibrator Recorder ^{\$} J-Type T/C K-Type T/C T-Type T/C R-Type T/C S-Type T/C RTD (PT-100)	50 $^{\circ}$ C to 750 $^{\circ}$ C 50 $^{\circ}$ C to 1300 $^{\circ}$ C -150 $^{\circ}$ C to 390 $^{\circ}$ C 200 $^{\circ}$ C to 1700 $^{\circ}$ C 200 $^{\circ}$ C to 1700 $^{\circ}$ C -200 $^{\circ}$ C to 850 $^{\circ}$ C	0.6 $^{\circ}$ C 0.6 $^{\circ}$ C 0.7 $^{\circ}$ C 1.3 $^{\circ}$ C 1.3 $^{\circ}$ C 0.6 $^{\circ}$ C	Universal Calibrator (Masibus 3001M) by Direct Method
10.	Stop Watch/Timer / Hour Meter ^{\$} (Mechanical / Digital)	1 s to 3600 s	0.11 s to 4.5 s	Digital Timer Calibrator (Selec TI103C) by Comparison Method
11.	AC High Voltage [*]	3 kV to 25 kV	6.67 % to 6.1 %	HV Probe with DMM (Fluke 80K-40) by Direct Method
12.	Stop Watch/Timer / Hour Meter [*] (Mechanical / Digital)	1 s to 3600 s	0.11 s to 4.5 s	Digital Timer Calibrator (Selec TI103C) by Comparison Method

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II. SOURCE			
1. Temp. Simulation # (Temp. Indicator, Controller, PID, Data logger, scanner & Recorder)			
RTD PT-100	-200 °C to 850 °C	0.6 °C	Universal calibrator Masibus 3001M by Direct Method
J-Type	50 °C to 750 °C	1.0 °C	
K-Type	50 °C to 1200 °C	1.0 °C	
T-Type	-150 °C to 400 °C	0.7 °C	
R-Type	200 °C to 1700 °C	1.6 °C	
S-Type	200 °C to 1700 °C	1.6 °C	
2. Resistance (2W) \$			
	2G Ω	4.32%	Standard Resistance Box (Discreet Values) by Direct Method
	20G Ω	4.31%	

* 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.

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