

Laboratory

Central Scientific Instruments Organisation, Chennai Centre, CSIR
Madras Complex, Taramani, Chennai, Tamil Nadu

Accreditation Standard ISO/IEC 17025: 2005

Certificate Number

CC-2836

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Validity

26.09.2018 to 25.09.2020

Last Amended on -

	Quantity Measured / Instrument	Range/Frequency	*Calibration Measurement Capability (\pm)	Remarks
<u>ELECTRO TECHNICAL CALIBRATION</u>				
I.	SOURCE			
1.	DC Voltage ^s	4 mV to 33 mV 33 mV to 0.33 V 0.33 V to 3.3 V 3.3 V to 33 V 33 V to 330 V 330 V to 1020 V	0.0038 mV to 0.0058 mV 0.0058 mV to 0.00007 V 0.00007 V to 0.0004 V 0.0004 V to 0.0046 V 0.0046 V to 0.029 V 0.029 V to 0.58 V	Using Fluke 5500A Multi Product Calibrator by Direct Method
2.	DC Current ^s	0.01 mA to 3.3 mA 3.3 mA to 33 mA 33 mA to 0.33 A 0.33 A to 2 A	0.0006 mA to 0.0023 mA 0.0023 mA to 0.0079 mA 0.0079 mA to 0.0002 A 0.0002 A to 0.0011 A	Using Fluke 5500A Multi Product Calibrator by Direct Method
3.	Resistance ^s	1 Ω to 0.33 k Ω 0.33 k Ω to 1.1 M Ω 1.1 M Ω to 110 M Ω 110 M Ω to 330 M Ω	0.0094 Ω to 0.0001 k Ω 0.0001 k Ω to 0.00083 M Ω 0.00083 M Ω to 0.92 M Ω 0.92 M Ω to 2.03 M Ω	Using Fluke 5500A Multi Product Calibrator by Direct Method
4.	AC Voltage ^s	45Hz to 1kHz 4 mV to 33 mV 33 mV to 0.33 V 0.33 V to 3.3 V 3.3 V to 33 V 33 V to 330 V 330 V to 750 V	0.031mV to 0.08 mV 0.08mV to 0.001V 0.001V to 0.006V 0.006V to 0.033V 0.033V to 0.28V 0.28V to 0.55V	Using Fluke 5500A Multi Product Calibrator by Direct Method
5.	AC Current ^s	45Hz to 1kHz 0.1 mA to 0.33 mA 0.33 mA to 3.3 mA 3.3 mA to 33 mA 33 mA to 0.33 A 0.33 A to 2 A	0.0004mA to 0.0008mA 0.0008mA to 0.0072mA 0.0072mA to 0.072mA 0.072mA to 0.0008A 0.0008A to 0.0062A	Using Fluke 5500A Multi Product Calibrator by Direct Method

Shally Sharma
Convenor

Battal Singh
Program Manager

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6.	DC Voltage*	10 mV to 0.11 V 0.11 V to 1.2 V 1.2 V to 15 V	0.059 mV to 0.0001 V 0.0001 V to 0.0024 V 0.0024 V to 0.0034 V	Using Fluke 743B Process Calibrator by Direct Method
7.	DC Current*	2 mA to 20 mA	0.0041 mA to 0.012 mA	Using Fluke 743B Process Calibrator by Direct Method
8.	DC Resistance*	1 Ω to 1.2 k Ω 1.2 k Ω to 10 k Ω	0.023 Ω to 0.001 k Ω 0.001 k Ω to 0.013 k Ω	Using Fluke 743B Process Calibrator by Direct Method
II.	MEASURE			
1.	DC Voltage*	100 mV to 1 V 1 V to 10 V 10 V to 100 V 100 V to 300 V	0.051 mV to 0.0007 V 0.0007 V to 0.0036 V 0.0036 V to 0.035 V 0.035 V to 0.1 V	Using Fluke 743B Process Calibrator by Direct Method
2.	DC Current*	1 mA to 30 mA 30 mA to 110 mA	0.0059 mA to 0.009 mA 0.009 mA to 0.069 mA	Using Fluke 743B Process Calibrator by Direct Method
3.	DC Resistance*	11 Ω to 110 Ω 110 Ω to 1.1 k Ω 1.1 k Ω to 10 k Ω	0.064 Ω to 0.64 Ω 0.64 Ω to 0.0013 k Ω 0.0013 k Ω to 0.024 k Ω	Using Fluke 743B Process Calibrator by Direct Method
4.	AC Voltage*	50Hz 1 V to 10 V 10 V to 100 V 100 V to 300 V	0.0059 V to 0.059 V 0.059 V to 0.58 V 0.58 V to 1.74 V	Using Fluke 743B Process Calibrator by Direct Method

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<u>MECHANICAL CALIBRATION</u>				
I.	PRESSURE INDICATING DEVICES			
1.	Pressure-Hydraulic [§] Pressure Indicators, Pressure Gauges, Test Pressure Gauges	0 to 60 bar 0 to 1000 bar	1.72 % rdg. 0.189% rdg.	Using Hydraulic Dead Weight Tester Based on DKD-R-6-1
2.	Pressure Indicators, Pressure Gauges, Test Pressure Gauges [*]	0 to 700bar	0.1 % rdg.	Using Pressure Indicator By Comparison Method based on DKD-R6-1
II.	DIMENSION (BASIC MEASURING INSTRUMENT, GAUGE ETC.)			
1.	Calipers [§] L.C.: 0.01mm	0 to 300 mm	12.4 μ m	Using Gauge Block Grade '0' and Length Bar
2.	External Micrometer [§] L.C.: 0.001mm	0 to 25 mm	5.9 μ m	Using Gauge Block Grade '0'

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

[§]Only in Permanent Laboratory

^{*}Only for Site Calibration

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