



**National Accreditation Board for
Testing and Calibration Laboratories**

(A Constituent Board of Quality Council of India)



CERTIFICATE OF ACCREDITATION

CENTRAL SCIENTIFIC INSTRUMENTS ORGANISATION

has been assessed and accredited in accordance with the standard

ISO/IEC 17025:2005

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

for its facilities at

Chennai Centre, CSIR Madras Complex, Taramani,
Chennai, Tamil Nadu

in the field of

CALIBRATION

Certificate Number CC-2836

Issue Date 26/09/2018

Valid Until 25/09/2020

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)

Signed for and on behalf of NABL



89076970200020000604

Anil Relia
Chief Executive Officer



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SCOPE OF ACCREDITATION

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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