Laboratory	**Calibration Lab-NTSC, NSIC Technical Services Centre, The National Small Industries Corporation Ltd., (A Govt. of India Enterprise), Sector B-24, Guindy Industrial Estate, Ekkaduthangal, Chennai, Tamil Nadu**
Accreditation Standard	**ISO/IEC 17025: 2005**
Certificate Number	**CC-2011** *(in lieu of C-0601, C-0602, C-0603)* **Page 1 of 5**
Validity	**27.02.2017 to 26.02.2019** **Last Amended on --**

Sl.	Quantity Measured / Instrument	Range/Frequency	*Calibration Measurement Capability (±)	Remarks
		ELECTRO-TECHNICAL CALIBRATION		
I.	**SOURCE**			
1.	**DC Voltage**	10 mV to 100 mV 100 mV to 50 V	0.50 % to 0.05 % 0.05 % to 0.08 %	Using AOIP Calys 1000 Multifunction Calibrator by Direct Method
2.	**DC Current**	1 A to 20 mA	0.70 % to 0.1 %	Using AOIP Calys 1000 Multifunction Calibrator by Direct Method
3.	**Resistance**	10 Ω to 4000 Ω	0.50 %	Using AOIP Calys 1000 Multifunction Calibrator by Direct Method
4.	**Temperature Simulation (Indicator Controller/ Recorder)**			
	J Type Thermocouple	(-) 100 ^{0} C to 1200 ^{0} C	1.50 ^{0} C	Using AOIP Calys 1000 Multifunction Calibrator by Direct Method
	S Type Thermocouple	170 ^{0} C to 1500 ^{0} C	1.50 ^{0} C	
	RTD (PT-100)	(-) 100 ^{0} C to 800 ^{0} C	0.50 ^{0} C	
II.	**MEASURE**			
1.	**DC Voltage**	10 mV to 100 mV 100 mV to 50 V	0.50 % to 0.46 % 0.46 % to 0.10 %	Using AOIP Calys 1000 Multifunction Calibrator by Direct Method

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Sl.	Quantity Measured / Instrument	Range/Frequency	*Calibration Measurement Capability (±)	Remarks
2.	**DC Current**	1 mA to 20 mA	0.60 % to 0.10 %	Using AOIP Calys 1000 Multifunction Calibrator by Direct Method
3.	**Resistance**	10 Ω to 4000 Ω	0.20 % to 0.15 %	Using AOIP Calys 1000 Multifunction Calibrator by Direct Method
4.	**Temperature Simulation (Indicator Controller/ Recorder)**			
	J Type Thermocouple	(-) 100 ^{0} C to 1500 ^{0} C	1.50 ^{0} C	Using AOIP Calys1000 Multifunction Calibrator by Direct Method
	S Type Thermocouple	170 ^{0} C to 1500 ^{0} C	1.50 ^{0} C	
	RTD (PT-100)	(-) 100 ^{0} C to 800 ^{0} C	0.50 ^{0} C	

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Sl.	Quantity Measured / Instrument	Range/Frequency	*Calibration Measurement Capability (±)	Remarks
	MECHANICAL CALIBRATION			
I.	**PRESSURE INDICATING DEVICES**			
1.	**Pressure-Hydraulic$ (Dial, Digital Pressure Gauges/ Indicators, Pressure Transducers and Pressure Transmitter)**	1 kg/cm^2 to 30 kg/cm^2 30 kg/cm^2 to 600 kg/cm^2	0.24 % 0.22 %	Using Hydraulic Dead Weight Tester Low Pressure 1 to 30 kg/cm^2 High Pressure 10 to 600 kg/cm^2 based on DKD-R6-1
2.	**Pressure-Hydraulic$ (Industrial Dial, Digital Pressure Gauges/ Indicators, Pressure Switch and Pressure Transmitter)**	0 kg/cm^2 to 700 kg/cm^2	0.32 %	Using Digital Pressure Calibrator 0-700 & Hydraulic Pump based on DKD-R6:1
3.	**Pressure-Pneumatic$ (Dial, Digital Pressure Gauges/ Indicators, Pressure Transducers and Pressure Transmitter)**	1 kg/cm^2 to 30 kg/cm^2	0.27 %	Using Pneumatic Pump & Digital Pressure Calibrator based on DKD-R6-1

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Sl.	Quantity Measured / Instrument	Range/Frequency	*Calibration Measurement Capability (±)	Remarks
4.	**Pressure- Pneumatic♣ (Dial, Digital Pressure Gauges/ Indicators, Pressure Transducers and Pressure Transmitter)**	0 kg/cm^2 to 30 kg/cm^2	0.40 %	Using Digital Pressure Calibrator 1 to 30 kg/cm^2 & Pneumatic Pump based on DKD-R6-1

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Sl.	Quantity Measured / Instrument	Range/Frequency	*Calibration Measurement Capability (±)	Remarks
		THERMAL CALIBRATION		
I.	**TEMPERATURE**			
1.	**Temperature Sensor (RTD's Thermocouples and Thermisters with and without Indicator/ Controller and Temperature Gauges#**	(-) 20 ^{0} C to 100 ^{0} C 100 ^{0} C to 600 ^{0} C 600 ^{0} C to 1200 ^{0} C 1200 ^{0} C to 1400 ^{0} C	0.67 ^{0} C 1.65 ^{0} C 5.1 ^{0} C 5.1 ^{0} C	Using RTD Pt-100, Thermocouple Type S, AOIP calys 1000 and Dry well by Comparison Method
2.	**Temperature Baths, Oven#**	(-) 20 ^{0} C to 100 ^{0} C 100 ^{0} C to 600 ^{0} C 600 ^{0} C to 1200 ^{0} C	0.67 ^{0} C 1.65 ^{0} C 5.1 ^{0} C	Using RTD Pt-100, Thermocouple Type S, AOIP calys 1000 and high temperature by Comparison Method

*** Measurement Capability is expressed as an uncertainty (±) 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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