Laboratory	**Electrometer Corporation , 34, Main Patel Nagar Road, New Delhi**		
Accreditation Standard	**ISO/IEC 17025: 2005**		
Discipline	**Electro-Technical Calibration**	**Issue Date**	**01.12.2016**
Certificate Number	**C-1478**	**Valid Until**	**30.11.2018**
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	Quantity Measured/ Instrument	Range / Frequency	*Calibration Measurement Capability (±)	Remarks
	SOURCE			
1.	**D C VOLTAGE**[$]	1 mV to 100 mV	1.37% to 0.027%	Using Fluke 5080A
		100 mV to 1 V	0.027% to 0.015%	Calibrator by Direct Method
		1 V to 10 V	0.015% to 0.016%	
		10 V to 100 V	0.016% to 0.024%	
		100 V to 1000 V	0.024% to 0.016%	
2.	**D C CURRENT**[$]	10 µA to 100 µA	1.22% to 0.20%	Using Fluke 5080A
		100 µA to 1 mA	0.20% to 0.10%	Calibrator by Direct Method
		1 mA to 100 mA	0.10% to 0.076%	
		100 mA to 1 A	0.076% to 0.20%	
		1 A to 10 A	0.20% to 0.15%	
		10 A to 20 A	0.15% to 0.59%	
	D C HIGH CURRENT[$]	100 A to 1000 A	0.59% to 1.44 %	with 50 turn coil
3.	**RESISTANCE**[$]	1 Ω to 10 Ω	2.15% to 0.17%	Using Fluke 5080A
		10 Ω to 100 Ω	0.17% to 0.046%	Calibrator by Direct Method
		100 Ω to 1 k Ω	0.046% to 0.028%	
		1 k Ω to 100 k Ω	0.028% to 0.044%	
		100 k Ω to 1 M Ω	0.044% to 0.048%	
		1 M Ω to 10 M Ω	0.048% to 0.113%	
		10 M Ω to 19 M Ω	0.113% to 0.177%	
4.	**A C VOLTAGE**[$]	**50 Hz**		
		30 mV to 100 mV	0.612% to 0.25%	Using Fluke 5080A
		100 mV to 1 V	0.25% to 0.17%	Calibrator by Direct Method
		1 V to 10 V	0.17% to 0.16%	
		10 V to 100 V	0.16% to 0.19%	
		100 V to 1000 V	0.19%	
5.	**FREQUENCY**[$]	45Hz to 1000Hz	0.061%	Using Fluke 5080A Calibrator by Direct Method

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	Quantity Measured/ Instrument	Range / Frequency	*Calibration Measurement Capability (±)	Remarks
6.	**A C CURRENT$**	50µA to 1mA	2% to 0.59%	Using Fluke 5080A
		1 mA to 100 mA	0.59% to 0.37%	Calibrator by Direct Method
		100 mA to1 A	0.37% to 0.42%	
		1 A to 10 A	0.42% to 0.61%	
	A C HIGH CURRENT$	100 A to 1000 A	1.63% to 1.33%	with 50 turn coil
7	**TEMPERATURE SIMULATION$ (INDICATOR/ CONTROLLER / RECODER)**			
	K Type	(-)200 °C to 0 °C	0.83 °C to 0.30 °C	Using Fluke 5080A
		0 °C to 1300 °C	0.30 °C to 0.55 °C	Calibrator by Direct Method
	J Type	(-)200 °C to 0 °C	0.44 °C to 0.24 °C	
		0 °C to 1200 °C	0.24 °C to 0.38 °C	
	E Type	(-)200 °C to 0 °C	0.81 °C to 0.2 °C	
		0 °C to 1000 °C	0.2 °C to 0.31 °C	
	T Type	(-)200 °C to 0 °C	1.03 °C to 0.3 °C	
		0 °C to 400 °C	0.3 °C to 0.24 °C	
	N Type	(-)200 °C to 0 °C	0.15 °C to 0.44 °C	
		0 °C to 1300 °C	0.44 °C to 0.51 °C	
	R Type	0 °C to 1700 °C	2.27 °C to 1.1 °C	
	S Type	0 °C to 1700 °C	2.27 °C to 1.17 °C	
	B Type	600 °C to 1700 °C	1.93 °C to 1.11 °C	

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	Quantity Measured/ Instrument	Range / Frequency	*Calibration Measurement Capability (±)	Remarks
	MEASURE			
1.	**D C VOLTAGE**[$]	1 mV to 100 mV 100 mV to 1 V 1 V to 10 V 10 V to 100 V 100 V to 300 V	0.477% to 0.011% 0.011% to 0.009% 0.009% to 0.01% 0.01% to 0 .007% 0.007% to 0.09%	Using Data Acquistion Switch Unit by Direct Method
2.	**D C CURRENT**[$]	1 mA to 10 mA 10 mA to 100m A 100 mA to 1 A	0.28% to 0.08% 0.08% to 0.22% 0.22% to 0.32%	Using Data Acquistion Switch Unit by Direct Method
3.	**RESISTANCE**[$]	2 Ω to 100 Ω 100 Ω to 1 kΩ 1 kΩ to 10 kΩ 10 kΩ to 100 kΩ 100 kΩ to 1 MΩ	2.15% to 0.017% 0.017% to 0.046% 0.046% to 0.028% 0.028% to 0.044% 0.044% to 0.049%	Using Data Acquistion Switch Unit by Direct Method
4.	**A C VOLTAGE**[$]	**50 Hz** 1 mV to 100 mV 100 mV to 1 V 1 V to 10 V 10 V to 100 V 100 V to 300 V	 4.72% to 0.17% 0.17% to 0.12% 0.12% 0.12% 0.12% to 0.166%	Using Data Acquistion Switch Unit by Direct Method
5.	**FREQUENCY**[$]	45Hz to 1000Hz	0.037% to 0.016%	Using Data Acquistion Switch Unit by Direct Method
6.	**A C CURRENT**[$]	1 mA to10 mA 10 mA to 100 mA 100 mA to 1 A	0.64% to 0.41% 0.41% to 0.73% 0.73% to 0.59%	Using Data Acquistion Switch Unit by Direct Method

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	Quantity Measured/ Instrument	Range / Frequency	*Calibration Measurement Capability (±)	Remarks
7	**TEMPERATURE SIMULATION[$]**			
	(Indicator/ Controller / Recorder)			
	K Type	0°C to 1200°C	0.58°C to 0.63°C	Using Data Acquistion
	J Type	0°C to 1200°C	0.58°C	Switch Unit by Direct
	T Type	0°C to 400°C	0.58°C	Method
	R Type	0°C to 1700°C	1.22°C to 0.9°C	
	S Type	0°C to 1700°C	1.22°C to 0.93°C	
	Pt-100	(-)200°C to 600°C	0.06°C to 0.20°C	

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

[$]Only in Permanent Laboratory

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