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CURRENT ACCREDITATION	<a href="#">Click here for more information.</a>
Last Scope Review	7/9/2021
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Situation	Active
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## SCOPE OF ACCREDITATION - ABNT NBR ISO/IEC 17025 - CALIBRATION

Service description	Parameter, Range and Method	Measurement and Calibration Capability (CMC)
<i>(Performed at permanent facilities)</i>		
<b>DC CURRENT MEASUREMENTS</b>		
DC Current Source	10 µA to 100 µA > 100 µA up to 1 mA > 1 mA up to 10 mA > 10 mA up to 100 mA Comparison Method with Standard Multimeter	8 nA 40 ppm + 8 nA 40 ppm + 70 nA 50 ppm + 1 µA
DC Current Meter	10 µA to 100 µA > 100 µA up to 1 mA > 1 mA up to 10 mA > 10 mA up to 100 mA Comparison Method with Standard Multimeter	10 nA 40 ppm + 10 nA 40 ppm + 70 nA 50 ppm + 1 µA

#### DIRECT CURRENT RESISTANCE MEASURES

Resistive Decade, in Direct Current	1 Ω to 10 Ω	20 ppm + 0.16 mΩ
	> 10 Ω up to 1 kΩ	20 ppm + 1.5 mΩ
	> 1 kΩ up to 10 kΩ	20 ppm + 17 mΩ
	> 10 kΩ up to 100 kΩ	20 ppm + 0.13 Ω
	Comparison method with standard multimeter)	
Resistance Meter, in Direct Current	1 Ω to 10 Ω	20 ppm + 0.16 mΩ
	> 10 Ω up to 1 kΩ	20 ppm + 1.6 mΩ
	> 1 kΩ up to 10 kΩ	20 ppm + 17 mΩ
	Comparison Method with Standard Multimeter	

#### DC VOLTAGE MEASUREMENTS

DC Voltage Source	1 mV to 20 mV	0.8 μV
	> 20 mV up to 100 mV	20 ppm + 0.4 μV
	> 100 mV up to 1 V	10 ppm + 6 μV
	> 1V up to 10V	10 ppm + 30 μV
	> 10V up to 100V	10 ppm + 0.3 mV
	Comparison Method with Standard Multimeter	
DC Voltage Meter	1 mV to 20 mV	0.8 μV
	> 20 mV up to 100 mV	20 ppm + 0.4 μV
	> 100 mV up to 1 V	10 ppm + 8 μV
	> 1V up to 10V	10 ppm + 30 μV
	> 10V up to 60V	10 ppm + 0.16 mV
	> 60V up to 100V	10 ppm + 0.29 mV
	Comparison Method with Standard Multimeter	

**Comments:**

1. Measurement and Calibration Capability (CMC) refers to the lowest uncertainty that the Laboratory is able to obtain, with a coverage probability or confidence level of approximately 95%. If the laboratory uses more than one method to perform a given calibration or measurement, the CMC will refer to the method by which the laboratory obtains the lowest measurement uncertainty. (See NIT-Dicla-021)
2. The CMC identified by an asterisk (\*) does not include all contributions from the calibrated instrument or standard or the measured device.
3. The Laboratory may declare in its calibration certificates, measurement uncertainties greater than its CMC, due to contributions relative to the properties or characteristics of the standard or calibrated measuring instrument.