

SCOPE OF ACCREDITATION TO ISO/IEC 17025:2017

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CALIBRATION

Valid to: **March 1, 2024**

Certificate Number: **AC-2565**

Electrical – DC/Low Frequency

Parameter/Equipment	Range	Expanded Uncertainty of Measurement (+/-)	Reference Standard, Method, and/or Equipment
Electrical Simulation of Thermocouple Indicating Devices – Source/Measure ¹	Type K		Thermocouple Calibrator
	(-200 to 0) °C	0.25 % of reading + 0.3 °C	
	(0 to 1 300) °C	0.22 % of reading + 0.3 °C	
	Type T		
(-200 to 0) °C	0.26 % of reading + 0.36 °C		
(0 to 400) °C	0.36 °C		

Mass and Mass Related

Parameter/Equipment	Range	Expanded Uncertainty of Measurement (+/-)	Reference Standard, Method, and/or Equipment
Balances ^{1,2}	(1 to 500) mg	16 µg	ASTM E617 Class 1 Weights and internal calibration procedure utilized in the calibration of the weighing system.
	(0.5 to 10) g	37 µg	
	(10 to 100) g	0.000 23 % of reading + 3 µg	
	(0.1 to 1) kg	0.000 25 % of reading + 5.8 µg	
	(1 to 10) kg	0.000 24 % of reading + 0.13 mg	

Thermodynamic

Parameter/Equipment	Range	Expanded Uncertainty of Measurement (+/-)	Reference Standard, Method, and/or Equipment
Temperature – Measure ¹	(-60 to 0) °C (0 to 660) °C	2.3 °C 0.44 % of reading + 2.3 °C	Digital Thermometer, Type K Thermocouple Probe
	(-196 to -100) °C (-100 to 0) °C (0 to 200) °C	1.8 °C 1 °C 1.1 °C	Digital Thermometer, Type T Thermocouple Probe

Calibration and Measurement Capability (CMC) is expressed in terms of the measurement parameter, measurement range, expanded uncertainty of measurement and reference standard, method, and/or equipment. The expanded uncertainty of measurement is expressed as the standard uncertainty of the measurement multiplied by a coverage factor of 2 ($k=2$), corresponding to a confidence level of approximately 95%.

Notes:

1. On-site calibration service is available for this parameter, since on-site conditions are typically more variable than those in the laboratory, larger measurement uncertainties are expected on-site than what is reported on the accredited scope.
2. The CMC presented here does not include the resolution of the unit under test. It will be included when the uncertainty is reported on calibration certificates.
3. This scope is formatted as part of a single document including Certificate of Accreditation No. AC-2565.



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