



CERTIFICATE OF ACCREDITATION

The ANSI National Accreditation Board

Hereby attests that

Criterion Calibration Services, LLC
225 S. Ingraham Ave., Suite 3
Lakeland, FL 33801

Fulfills the requirements of

ISO/IEC 17025:2017

In the field of

CALIBRATION

This certificate is valid only when accompanied by a current scope of accreditation document.
The current scope of accreditation can be verified at www.anab.org.

Jason Stine, Vice President

Expiry Date: 14 February 2026
Certificate Number: AC-3074



This laboratory is accredited in accordance with the recognized International Standard ISO/IEC 17025:2017.
This accreditation demonstrates technical competence for a defined scope and the operation of a laboratory
quality management system (refer to joint ISO-ILAC-IAF Communiqué dated April 2017).

SCOPE OF ACCREDITATION TO ISO/IEC 17025:2017

Criterion Calibration Services, LLC

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Lakeland, FL 33801
Christopher Hasert 863-940-2122

CALIBRATION

Valid to: February 14, 2026

Certificate Number: AC-3074

Electrical – DC/Low Frequency

Parameter/Equipment	Range	Expanded Uncertainty of Measurement (+/-)	Reference Standard, Method, and/or Equipment
Capacitance – Source ^{1,4}	1 nF 10 nF 20 nF 50 nF 100 nF 1 µF 10 µF 100 µF 1 mF 10 mF	6.5 pF 26 pF 62 pF 87 pF 0.52 nF 8.2 nF 0.12 µF 0.6 µF 10 µF 0.1 mF	Multiproduct Calibrator (Fixed Artifacts)
DC Voltage – Source ¹	(0 to 202) mV (0.2 to 2.02) V (2 to 20.2) V (20 to 202) V (200 to 1 025) V	30 µV/V + 3.6 µV 30 µV/V + 5 µV 25 µV/V + 40 µV 30 µV/V + 0.4 mV 30 µV/V + 4 mV	Multiproduct Calibrator
DC Current – Source ¹	(0 to 202) µA (0.2 to 2.02) mA (2 to 20.2) mA (20 to 202) mA (0.2 to 2.02) A (20 to 30) A	0.1 mA/A + 30 nA 80 µA/A + 40 nA 50 µA/A + 0.3 µA 80 µA/A + 3 µA 0.15 mA/A + 35 µA 0.4 mA/A + 0.35 mA	Multiproduct Calibrator
DC Current – Source ¹ Clamp-on Meters Hall-effect Clamps	(0 to 1 500) A	4.6 mA/A + 0.42 A	Multiproduct Calibrator, Clamp Coil Adaptor

Electrical – DC/Low Frequency

Parameter/Equipment	Range	Expanded Uncertainty of Measurement (+/-)	Reference Standard, Method, and/or Equipment
AC Voltage – Source ¹	Up to 202 mV		Multiproduct Calibrator
	(10 to 45) Hz	1.8 mV/V + 50 μ V	
	45 Hz to 1 kHz	0.3 mV/V + 20 μ V	
	(1 to 20) kHz	0.7 mV/V + 35 μ V	
	(20 to 100) kHz	2.8 mV/V + 70 μ V	
	(100 to 500) kHz	6 mV/V + 0.38 mV	
	(0.2 to 2.02) V		
	(10 to 45) Hz	1.8 mV/V + 0.35 μ V	
	45 Hz to 1 kHz	0.3 mV/V + 90 μ V	
	(1 to 20) kHz	0.6 mV/V + 0.14 mV	
	(20 to 100) kHz	2.2 mV/V + 2 mV	
	(100 to 500) kHz	4.1 mV/V + 3.8 mV	
	(2 to 20.2) V		
	(10 to 45) Hz	1.8 mV/V + 3 mV	
	45 Hz to 1 kHz	0.28 mV/V + 0.9 mV	
	(1 to 20) kHz	0.5 mV/V + 1.4 mV	
	(20 to 100) kHz	1.8 mV/V + 33 mV	
AC Current – Source ¹	(20 to 202) μ A		Multiproduct Calibrator
	(10 to 45) Hz	2 mA/A + 0.25 μ A	
	45 Hz to 1 kHz	0.7 mA/A + 0.25 μ A	
	(1 to 10) kHz	8 mA/A + 0.25 μ A	
	(0.2 to 2.02) mA		
	(10 to 45) Hz	2 mA/A + 0.5 μ A	
	45 Hz to 1 kHz	0.6 μ A + 0.4 μ A	
	(1 to 10) kHz	7 mA/A + 0.7 μ A	
	(2 to 20.2) mA		
	(10 to 45) Hz	2 mA/A + 5 μ A	
	45 Hz to 1 kHz	0.6 mA/A + 4 μ A	
	(1 to 10) kHz	5 mA/A + 7 μ A	
	(20 to 202) mA		
	(10 to 45) Hz	2 mA/A + 50 μ A	
	45 Hz to 1 kHz	0.6 mA/A + 40 μ A	
	(1 to 10) kHz	6 mA/A + 70 μ A	

Electrical – DC/Low Frequency

Parameter/Equipment	Range	Expanded Uncertainty of Measurement (+/-)	Reference Standard, Method, and/or Equipment
AC Current – Source ¹	(0.2 to 2.02) A (10 to 45) Hz 45 Hz to 1 kHz (1 to 10) kHz (2 to 30) A (30 to 45) Hz (45 to 100) Hz 100 Hz to 1 kHz	2 mA/A + 0.5 mA 0.9 mA/A + 0.4 mA 6 mA/A + 0.7 mA 2 mA/A + 5 mA 0.9 mA/A + 2 mA 3 mA/A + 4 mA	Multiproduct Calibrator
AC Current – Source ¹ Clamp-on Meters Wound Clamps	(30 to 60) Hz Up to 1 500 A	2.6 mA/A + 60 mA	Multiproduct Calibrator, Clamp Coil Adaptor
Resistance – Source ^{1,4}	0.1 Ω 1 Ω 10 Ω 100 Ω 1 k Ω 10 k Ω 100 k Ω	0.15 m Ω/Ω + 5 m Ω 0.1 m Ω/Ω + 5 m Ω 0.1 m Ω/Ω + 5 m Ω 50 $\mu\Omega/\Omega$ + 5 m Ω 40 $\mu\Omega/\Omega$ + 40 m Ω 40 $\mu\Omega/\Omega$ + 0.4 Ω 40 $\mu\Omega/\Omega$ + 4 Ω	Multiproduct Calibrator (Fixed Artifacts) 4-wire Configuration
Resistance – Source ^{1,4}	1 M Ω 10 M Ω 100 M Ω 1 G Ω	0.1 m Ω/Ω + 40 Ω 0.35 m Ω/Ω + 0.4 k Ω 5 m Ω/Ω + 4 k Ω 1 m Ω/Ω + 40 k Ω	Multiproduct Calibrator (Fixed Artifacts) 2-wire Configuration
Thermocouple Indicating Devices – Source/Measure ¹	Type B (600 to 800) °C (800 to 1 000) °C (1 000 to 1 550) °C (1 550 to 1 820) °C Type C (0 to 150) °C (150 to 650) °C (650 to 1 000) °C (1 000 to 1 800) °C Type E (-250 to -100) °C (-100 to -25) °C (-25 to 350) °C (350 to 650) °C (650 to 1 000) °C	0.89 °C 0.78 °C 0.65 °C 0.66 °C 0.38 °C 0.33 °C 0.39 °C 0.56 °C 0.59 °C 0.13 °C 0.12 °C 0.15 °C 0.18 °C	Electrical Simulation using Multiproduct Calibrator, Thermocouple Simulation and Measurement Adapter

Electrical – DC/Low Frequency

Parameter/Equipment	Range	Expanded Uncertainty of Measurement (+/-)	Reference Standard, Method, and/or Equipment
Thermocouple Indicating Devices – Source/Measure ¹	Type J		Electrical Simulation using Multiproduct Calibrator, Thermocouple Simulation and Measurement Adapter
	(-210 to -100) °C	0.28 °C	
	(-100 to -30) °C	0.14 °C	
	(-30 to 150) °C	0.12 °C	
	(150 to 760) °C	0.17 °C	
	(760 to 1 200) °C	0.23 °C	
	Type K		
	(-200 to -100) °C	0.33 °C	
	(-100 to -25) °C	0.19 °C	
	(-25 to 120) °C	0.14 °C	
	(120 to 1000) °C	0.24 °C	
	(1 000 to 1 370) °C	0.31 °C	
	Type L		
	(-200 to -100) °C	0.41 °C	
	(-100 to 800) °C	0.39 °C	
	(800 to 900) °C	0.4 °C	
	Type N		
	(-200 to -100) °C	0.51 °C	
	(-100 to -25) °C	0.25 °C	
	(-25 to 120) °C	0.2 °C	
	(120 to 410) °C	0.19 °C	
	(410 to 1 300) °C	0.19 °C	
	Type R		
	(0 to 250) °C	0.98 °C	
	(250 to 1 000) °C	0.53 °C	
	(1 000 to 1 760) °C	0.62 °C	
	Type S		
	(0 to 250) °C	0.98 °C	
	(250 to 1 000) °C	0.53 °C	
	(1 000 to 1 760) °C	0.62 °C	
	Type T		
	(-250 to -150) °C	0.72 °C	
	(-150 to 0) °C	0.13 °C	
	(0 to 120) °C	0.12 °C	
	(120 to 400) °C	0.14 °C	
	Type U		
	(-200 to 0) °C	0.5 °C	
	(0 to 600) °C	0.36 °C	

Electrical – DC/Low Frequency

Parameter/Equipment	Range	Expanded Uncertainty of Measurement (+/-)	Reference Standard, Method, and/or Equipment
Inductance – Source ^{1,4}	1 kHz 1 mH 10 mH 19 mH 29 mH 50 mH 100 mH 1 H 10 H	58 μ H 83 μ H 0.13 mH 0.18 mH 65 μ H 0.6 mH 5.9 mH 59 mH	Multiproduct Calibrator (Fixed Artifacts)
DC Voltage – Measure	(0 to 120) mV (0.12 to 1.2) V (1.2 to 12) V (12 to 120) V (120 to 1 050) V	9 μ V/V + 0.17 μ V 6.4 μ V/V + 0.6 μ V 6.8 μ V/V + 6 μ V 9.5 μ V/V + 80 μ V 9.5 μ V/V + 1.2 mV	8.5 Digit Multimeter
DC Current – Measure	Up to 10 nA (10 to 100) nA (0.1 to 1) μ A (1 to 10) μ A (10 to 100) μ A (0.1 to 1) mA (1 to 10) mA (10 to 100) mA (0.1 to 1) A (1 to 10) A (10 to 30) A	0.86 nA 0.6 μ A/A + 0.85 nA 24 μ A/A + 0.91 nA 18 μ A/A + 0.92 nA 13 μ A/A + 0.97 nA 22 μ A/A + 0.14 nA 1.8 mA/A – 1.8 μ A 16 μ A 0.31 mA/A – 25 μ A 0.73 mA/A – 0.45 mA 1.3 mA/A – 5.7 mA	8.5 Digit Multimeter
Resistance – Measure	Up to 1 Ω (1 to 10) Ω (10 to 100) Ω (0.1 to 1) k Ω (1 to 10) k Ω (10 to 100) k Ω (0.1 to 1) M Ω (1 to 10) M Ω	38 $\mu\Omega/\Omega$ + 10 $\mu\Omega$ 21.3 $\mu\Omega/\Omega$ + 27 $\mu\Omega$ 17.3 $\mu\Omega/\Omega$ + 67 $\mu\Omega$ 14.3 $\mu\Omega/\Omega$ + 1.7 m Ω 18.7 $\mu\Omega/\Omega$ + 3.3 m Ω 33 $\mu\Omega/\Omega$ + 11 m Ω 24 $\mu\Omega/\Omega$ + 0.9 Ω 46 $\mu\Omega/\Omega$ – 21 Ω	8.5 Digit Multimeter

Electrical – DC/Low Frequency

Parameter/Equipment	Range	Expanded Uncertainty of Measurement (+/-)	Reference Standard, Method, and/or Equipment
AC Voltage – Measure	Up to 105 mV		8.5 Digit Multimeter
	(10 to 40) Hz	0.8 mV/V + 0.15 μ V	
	(40 to 200) Hz	0.3 mV/V + 9 μ V	
	200 Hz to 1 kHz	0.3 mV/V + 8 μ V	
	(1 to 2) kHz	0.3 mV/V + 8 μ V	
	(2 to 20) kHz	0.4 mV/V + 10 μ V	
	(20 to 100) kHz	0.9 mV/V + 50 μ V	
	105 mV to 1.05 V		
	(10 to 40) Hz	0.6 mV/V + 0.15 mV	
	(40 to 200) Hz	0.3 mV/V + 60 μ V	
	200 Hz to 1 kHz	0.2 mV/V + 60 μ V	
	(1 to 2) kHz	0.2 mV/V + 60 μ V	
	(2 to 20) kHz	0.4 mV/V + 0.1 mV	
	(20 to 100) kHz	0.9 mV/V + 0.5 mV	
	100 kHz to 1 MHz	15.6 mV/V + 25 mV	
	(1.05 to 10.5) V		
	(10 to 40) Hz	0.6 mV/V + 1.5 mV	
	(40 to 200) Hz	0.3 mV/V + 0.6 mV	
	200 Hz to 1 kHz	0.2 mV/V + 0.6 mV	
	(1 to 2) kHz	0.2 mV/V + 0.6 mV	
	(2 to 20) kHz	0.4 mV/V + 1 mV	
	(20 to 100) kHz	0.9 mV/V + 5 mV	
	(100 to 500) kHz	15.6 mV/V + 0.25 V	
	(10.5 to 105) V		
	(10 to 40) Hz	0.8 mV/V + 15 mV	
	(40 to 200) Hz	0.3 mV/V + 9 mV	
	200 Hz to 1 kHz	0.3 mV/V + 7 mV	
	(1 to 2) kHz	0.3 mV/V + 7 mV	
	(2 to 20) kHz	0.5 mV/V + 10 mV	
	(20 to 50) kHz	1.2 mV/V + 50 mV	
	(105 to 1 050) V		
	(10 to 40) Hz	0.8 mV/V + 0.15 V	
	(40 to 200) Hz	0.3 mV/V + 90 mV	
	200 Hz to 1 kHz	0.3 mV/V + 70 mV	
	(1 to 2) kHz	0.3 mV/V + 70 mV	
	(2 to 10) kHz	0.5 mV/V + 0.1 V	

Electrical – DC/Low Frequency

Parameter/Equipment	Range	Expanded Uncertainty of Measurement (+/-)	Reference Standard, Method, and/or Equipment
AC Current – Measure	Up to 100 μ A		8.5 Digit Multimeter
	(10 to 40) Hz	0.9 mA/A + 15 nA	
	40 Hz to 1 kHz	0.5 mA/A + 12 nA	
	(1 to 10) kHz	1.2 mA/A + 30 nA	
	(0.1 to 1) mA		
	(10 to 40) Hz	0.9 mA/A + 0.15 μ A	
	40 Hz to 1 kHz	0.5 mA/A + 0.12 μ A	
	(1 to 10) kHz	1.2 mA/A + 0.3 μ A	
	(1 to 10) mA		
	(10 to 40) Hz	0.9 mA/A + 1.5 μ A	
	40 Hz to 1 kHz	0.5 mA/A + 1.2 μ A	
	(1 to 10) kHz	1.2 mA/A + 3 μ A	
	(10 to 100) mA		
	(10 to 40) Hz	0.9 mA/A + 15 μ A	
	40 Hz to 1 kHz	0.5 mA/A + 12 μ A	
	(1 to 10) kHz	1.2 mA/A + 30 μ A	
	(0.1 to 1) A		
	(10 to 40) Hz	1.1 mA/A + 0.2 mA	
	40 Hz to 1 kHz	0.7 mA/A + 0.15 mA	
	(1 to 10) kHz	1.3 mA/A + 0.5 mA	
	(1 to 10) A		
	(10 to 40) Hz	1.6 mA/A + 4 mA	
	40 Hz to 1 kHz	1.2 mA/A + 3 mA	
	(10 to 30) A		
	(10 to 40) Hz	1.6 mA/A + 12 mA	
	40 Hz to 1 kHz	1.2 mA/A + 9 mA	

Length – Dimensional Metrology

Parameter/Equipment	Range	Expanded Uncertainty of Measurement (+/-)	Reference Standard, Method, and/or Equipment
Calipers ^{1,2,3}	(0.05 to 4) in	(3.7 + 6.7L) μ in	Grade 0 Gage Blocks
	(4 to 40) in	(43L – 150) μ in	Grade 2 Gage Blocks
Micrometers ^{1,2,3}	(0.05 to 4) in	(3.7 + 6.7L) μ in	Grade 0 Gage Blocks
	(4 to 20) in	(43L – 150) μ in	Grade 2 Gage Blocks
Indicators ^{1,2,3}	(0.05 to 1) in	(4.7 + 3.2L) μ in	Grade 0 Gage Blocks

Mass and Mass Related

Parameter/Equipment	Range	Expanded Uncertainty of Measurement (+/-)	Reference Standard, Method, and/or Equipment
Torque Devices	(4 to 50) lbf·in (30 to 400) lbf·in (100 to 1 000) lbf·in (20 to 250) lbf·ft (200 to 2 000) lbf·ft	0.31 % of reading + 0.000 1 lbf·in 0.27 % of reading + 0.002 2 lbf·in 0.28 % of reading + 0.031 lbf·in 0.28 % of reading + 0.000 7 lbf·ft 0.28 % of reading + 0.017 lbf·ft	Torque Analyzers
Pressure Devices ¹	(-13 to 30) psig Up to 300 psig Up to 5 000 psig Up to 10 000 psig	0.024 % of reading + 0.006 psi 0.012 % of reading + 0.012 psi 0.005 % of reading + 0.2 psi 0.005 % of reading + 0.8 psi	Comparison to Master Digital Pressure Gages
Scales and Balances ^{1,3} (SI)	Up to 1 kg (1 to 10) kg (10 to 20) kg	0.029 % of reading + 3.5 mg 0.014 % of reading + 0.1 g 0.012 % of reading + 0.3 g	ASTM E617 Class 6 weights and internal calibration procedure 2CS-M009 utilized in the calibration of the weighing system.

Thermodynamic

Parameter/Equipment	Range	Expanded Uncertainty of Measurement (+/-)	Reference Standard, Method, and/or Equipment
Temperature – Measure ¹	(0 to 400) °C	0.005 7 % of reading + 0.02 °C	Comparison to PRT with Indicator
	(15 to 25) °C	0.03 °C	Comparison to Temp/Humidity Probe
Humidity – Measure ¹	(30 to 60) %RH	0.25 %RH	Comparison to Temp/Humidity Probe

Time and Frequency

Parameter/Equipment	Range	Expanded Uncertainty of Measurement (+/-)	Reference Standard, Method, and/or Equipment
Frequency – Source ¹	Up to 100 kHz	1.4 µHz/Hz	Multiproduct Calibrator

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. L = length in inches.
3. The CMC for this parameter is highly dependent upon the resolution of the unit under test. The uncertainties presented here does not include the resolution of the unit under test. The resolution will be included in the reported measurement uncertainty at the time of calibration.
4. This value represents the nominal value. The actual value of the Capacitance, Inductance, and Resistance artifact will be utilized at the time of calibration along with the associated uncertainty.
5. This scope is formatted as part of a single document including Certificate of Accreditation No. AC-3074.



Jason Stine, Vice President

