



CERTIFICATE OF ACCREDITATION

The ANSI National Accreditation Board

Hereby attests that

International Process Solutions
1300 Industrial Road, Suite 22
San Carlos, CA 94070

Fulfills the requirements of

ISO/IEC 17025:2017

and national standard

ANSI/NCSL Z540-1-1994 (R2002)

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.

A handwritten signature in black ink, appearing to be 'J. Stine', is positioned above a horizontal line.

Jason Stine, Vice President

Expiry Date: 22 June 2027

Certificate Number: AC-1400



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

AND

ANSI/NCSL Z540-1-1994 (R2002)

International Process Solutions

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CALIBRATION

ISO/IEC 17025 Accreditation Granted: **22 June 2025**

Certificate Number: AC-1400

Certificate Expiry Date: **22 June 2027**

Electrical – DC/Low Frequency

Parameter/Equipment	Range	Expanded Uncertainty of Measurement (+/-)	Reference Standard, Method, and/or Equipment
DC Voltage – Source ²	(0 to 329.999 9) mV (0.33 to 3.299 999) V (3.3 to 32.999 99) V (33 to 329.999 9) V (330 to 1 020) V	63.6 μ V/V + 5.8 μ V 53.8 μ V/V + 27 μ V 54.7 μ V/V + 0.24 mV 69 μ V/V + 3.4 mV 71.1 μ V/V + 11 mV	Comparison to Fluke 5502A Multiproduct Calibrator
DC Voltage – Measure ²	(10 to 100) mV 100 mV to 1 V (1 to 10) V (10 to 100) V 100 V to 1 kV	23 μ V/V + 0.3 μ V 5.6 μ V/V + 0.4 μ V 5.6 μ V/V + 0.8 μ V 8.5 μ V/V + 45 μ V 9.9 μ V/V + 1.7 mV	Comparison to Fluke 8558A 8.5 Digit Multimeter

Electrical – DC/Low Frequency

Parameter/Equipment	Range	Expanded Uncertainty of Measurement (+/-)	Reference Standard, Method, and/or Equipment
AC Voltage – Source ² (Sinewave)	(1 to 32.999 mV)		Comparison to Fluke 5502A Multiproduct Calibrator
	(10 to 45) Hz	1.5 mV/V + 31 μ V	
	45 Hz to 10 kHz	1 mV/V + 25 μ V	
	(10 to 20) kHz	1.6 mV/V + 25 μ V	
	(20 to 50) kHz	2.1 mV/V + 30 μ V	
	(50 to 100) kHz	3.7 mV/V + 45 μ V	
	(100 to 500) kHz	10.7 mV/V + 94 μ V	
	(33 to 329.999) mV		
	(10 to 45) Hz	0.4 mV/V + 97 μ V	
	45 Hz to 10 kHz	0.31 mV/V + 35 μ V	
	(10 to 20) kHz	0.8 mV/V + 35 μ V	
	(20 to 50) kHz	1.1 mV/V + 63 μ V	
	(50 to 100) kHz	2.6 mV/V + 0.21 mV	
	(100 to 500) kHz	5.5 mV/V + 0.45 mV	
AC Voltage – Source ² (Sinewave)	(0.33 to 3.299 99 V)		Comparison to Fluke 5502A Multiproduct Calibrator
	(10 to 45) Hz	0.4 mV/V + 0.8 mV	
	45 Hz to 10 kHz	0.31 mV/V + 0.21 mV	
	(10 to 20) kHz	0.77 mV/V + 0.2 mV	
	(20 to 50) kHz	1.1 mV/V + 0.23 mV	
	(50 to 100) kHz	2.6 mV/V + 0.49 mV	
	(100 to 500) kHz	5.4 mV/V + 2.3 mV	
	(3.3 to 32.999 9 V)		
	(10 to 45) Hz	0.4 mV/V + 8 mV	
	45 Hz to 10 kHz	0.31 mV/V + 2 mV	
	(10 to 20) kHz	0.77 mV/V + 2 mV	
	(20 to 50) kHz	1.1 mV/V + 2.6 mV	
	(50 to 100) kHz	2.6 mV/V + 5.4 mV	
	(33 to 329.999 V)		
	45 Hz to 1 kHz	0.53 mV/V + 21 mV	
	(1 to 10) kHz	0.88 mV/V + 27 mV	
	(10 to 20) kHz	1 mV/V + 27 mV	
	(20 to 50) kHz	1.3 mV/V + 55 mV	
	(330 to 1 020) V		
	45 Hz to 1 kHz	0.39 mV/V + 0.26 mV	
	(1 to 5) kHz	0.88 mV/V + 0.68 mV	
	(5 to 10) kHz	1 mV/V + 0.73 mV	

Electrical – DC/Low Frequency

Parameter/Equipment	Range	Expanded Uncertainty of Measurement (+/-)	Reference Standard, Method, and/or Equipment
AC Voltage – Measure ²	(1 to 10) mV		Comparison to Fluke 8558A 8.5 Digit Multimeter
	1 Hz to 2 kHz	0.86 mV/V + 2.6 μ V	
	(2 to 10) kHz	0.64 mV/V + 2.6 μ V	
	(10 to 30) kHz	0.65 mV/V + 2.6 μ V	
	(30 to 100) kHz	6.3 mV/V + 2.6 μ V	
	(100 to 300) kHz	24 mV/V + 7.7 μ V	
	300 kHz to 1 MHz	38 mV/V + 7.7 μ V	
	(10 to 100) mV		
	1 Hz to 2 kHz	0.14 mV/V + 1.3 μ V	
	(2 to 10) kHz	0.19 mV/V + 1.3 μ V	
	(10 to 30) kHz	0.35 mV/V + 2.6 μ V	
	(30 to 100) kHz	0.85 mV/V + 26 μ V	
	(100 to 300) kHz	4.5 mV/V + 65 μ V	
	300 kHz to 1 MHz	21 mV/V + 0.26 mV	
	(1 to 2) MHz	24 mV/V + 0.9 mV	
	(2 to 4) MHz	69 mV/V + 1.5 mV	
	(4 to 8) MHz	0.14 mV/V + 1.6 mV	
	(8 to 10) MHz	0.26 mV/V + 1.6 mV	

Electrical – DC/Low Frequency

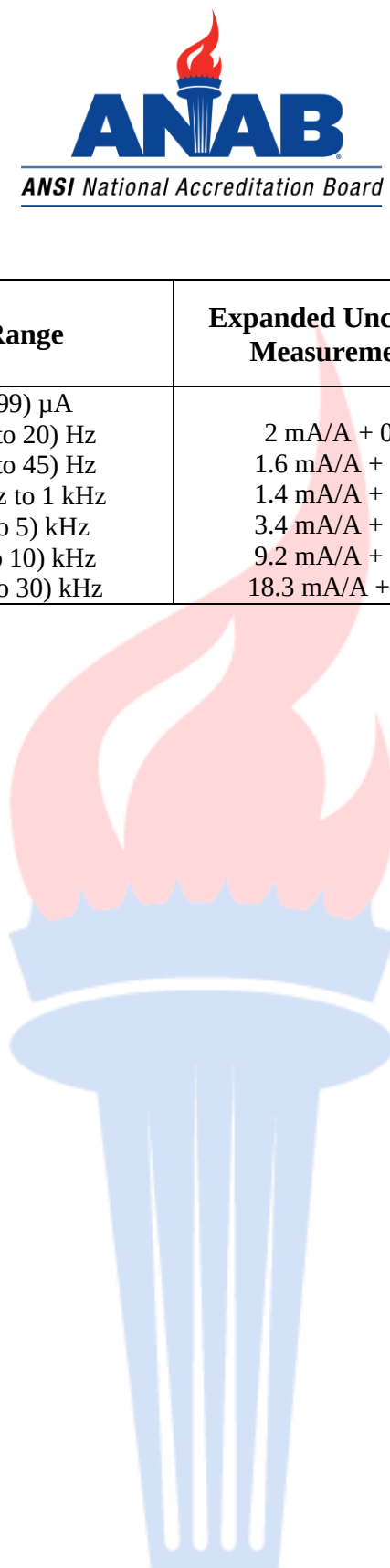
Parameter/Equipment	Range	Expanded Uncertainty of Measurement (+/-)	Reference Standard, Method, and/or Equipment
AC Voltage – Measure ²	(0.1 to 1) V		Comparison to Fluke 8558A 8.5 Digit Multimeter
	1 Hz to 2 kHz	0.14 mV/V + 13 μ V	
	(2 to 10) kHz	0.2 mV/V + 13 μ V	
	(10 to 30) kHz	0.35 mV/V + 26 μ V	
	(30 to 100) kHz	0.85 mV/V + 0.26 mV	
	(100 to 300) kHz	3.9 mV/V + 0.65 mV	
	300 kHz to 1 MHz	21 mV/V + 2.6 mV	
	(1 to 2) MHz	24 mV/V + 9 mV	
	(2 to 4) MHz	70 mV/V + 16 mV	
	(4 to 8) MHz	0.14 mV/V + 16 mV	
	(8 to 10) MHz	0.26 mV/V + 16 mV	
	(1 to 10) V		
	1 Hz to 2 kHz	0.14 mV/V + 0.13 mV	
	(2 to 10) kHz	0.19 mV/V + 0.13 mV	
	(10 to 30) kHz	0.35 mV/V + 0.26 mV	
	(30 to 100) kHz	0.85 mV/V + 2.6 mV	
	(100 to 300) kHz	3.9 mV/V + 6.5 mV	
	300 kHz to 1 MHz	21 mV/V + 26 mV	
	(1 to 2) MHz	24 mV/V + 90 mV	
	(2 to 4) MHz	69 mV/V + 0.16 V	
	(4 to 8) MHz	0.13 V/V + 0.16 V	
	(8 to 10) MHz	0.26 V/V + 0.16 V	
	(10 to 100) V		
	1 Hz to 2 kHz	0.13 mV/V + 1.3 mV	
	(2 to 10) kHz	0.19 mV/V + 1.3 mV	
	(10 to 30) kHz	0.35 mV/V + 2.6 mV	
	(30 to 100) kHz	0.85 mV/V + 26 mV	
	(100 to 300) kHz	6.3 mV/V + 0.13 V	
	300 kHz to 1 MHz	23 mV/V + 0.9 V	
	(100 to 1 000) V		
	1 Hz to 2 kHz	0.21 mV/V + 39 mV	
	(2 to 10) kHz	0.24 mV/V + 39 mV	
	(10 to 30) kHz	0.47 mV/V + 39 mV	
	(30 to 100) kHz	0.85 mV/V + 0.26 V	

Electrical – DC/Low Frequency

Parameter/Equipment	Range	Expanded Uncertainty of Measurement (+/-)	Reference Standard, Method, and/or Equipment
Resistance – Source ² (Simulation)	Up to 10.999 Ω (11 to 32.999) Ω (33 to 109.999) Ω (110 to 329.999) Ω (0.33 to 1.1) k Ω (1.1 to 3.3) k Ω (3.3 to 11) k Ω	58 $\mu\Omega/\Omega$ + 2.7 m Ω 70 $\mu\Omega/\Omega$ + 5.2 m Ω 90 $\mu\Omega/\Omega$ + 3.4 m Ω 96 $\mu\Omega/\Omega$ + 5.3 m Ω 88 $\mu\Omega/\Omega$ + 22 m Ω 93 $\mu\Omega/\Omega$ + 41 m Ω 88.5 $\mu\Omega/\Omega$ + 0.22 Ω	Comparison to Fluke 5502A Multiproduct Calibrator
Resistance – Source ² (Simulation)	(11 to 33) k Ω (33 to 110) k Ω (110 to 330) k Ω (0.33 to 1.1) M Ω (1.1 to 3.3) M Ω (3.3 to 11) M Ω (11 to 33) M Ω (33 to 110) M Ω (110 to 330) M Ω (0.33 to 1.1) G Ω	77.5 $\mu\Omega/\Omega$ + 0.6 Ω 0.11 m Ω/Ω + 2.2 Ω 0.13 m Ω/Ω + 6.6 Ω 0.16 m Ω/Ω + 20 Ω 0.13 m Ω/Ω + 22 Ω 0.67 m Ω/Ω + 0.4 k Ω 1.1 m Ω/Ω + 6.1 k Ω 5.2 m Ω/Ω + 7.6 k Ω 5.5 m Ω/Ω + 0.24 M Ω 7.5 m Ω/Ω + 19 M Ω	Comparison to Fluke 5502A Multiproduct Calibrator
Resistance – Measure ² (4-wire Configuration)	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 (10 to 100) M Ω (0.1 to 1) G Ω	26.4 $\mu\Omega/\Omega$ + 6.3 $\mu\Omega$ 19 $\mu\Omega/\Omega$ + 31 $\mu\Omega$ 13.7 $\mu\Omega/\Omega$ + 0.12 m Ω 14 $\mu\Omega/\Omega$ + 1.2 m Ω 14 $\mu\Omega/\Omega$ + 12 m Ω 13 $\mu\Omega/\Omega$ + 0.12 Ω 17 $\mu\Omega/\Omega$ + 2.4 Ω 29 $\mu\Omega/\Omega$ + 0.2 k Ω 74 $\mu\Omega/\Omega$ + 20 k Ω 0.8 m Ω/Ω + 1.9 M Ω	Comparison to Fluke 8558A 8.5 Digit Multimeter
DC Current – Source ²	(0 to 329.999) μ A (0 to 3.299 99) mA (0 to 32.999 9) mA (0 to 329.999) mA (0 to 2.999 99) A (0 to 20.5) A	0.16 mA/A + 28 nA 0.14 mA/A + 0.11 μ A 0.1 mA/A + 0.86 μ A 0.9 mA/A + 14 μ A 0.13 mA/A + 2.1 mA 1 mA/A + 4.6 mA	Comparison to Fluke 5502A Multiproduct Calibrator
DC Current – Measure	(0.001 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	48 μ A/A + 0.52 nA 16 μ A/A + 0.6 nA 16 μ A/A + 6 nA 16 μ A/A + 60 nA 53 μ A/A + 1.9 μ A 0.18 mA/A + 0.19 mA	Comparison to Fluke 8558A 8.5 Digit Multimeter

Electrical – DC/Low Frequency

Parameter/Equipment	Range	Expanded Uncertainty of Measurement (+/-)	Reference Standard, Method, and/or Equipment
AC Current – Source ²	(29 to 329.99) μ A (10 to 20) Hz (20 to 45) Hz 45 Hz to 1 kHz (1 to 5) kHz (5 to 10) kHz (10 to 30) kHz	2 mA/A + 0.22 μ A 1.6 mA/A + 0.13 μ A 1.4 mA/A + 0.12 μ A 3.4 mA/A + 0.18 μ A 9.2 mA/A + 0.23 μ A 18.3 mA/A + 0.49 μ A	Comparison to Fluke 5502A Multiproduct Calibrator



Electrical – DC/Low Frequency

Parameter/Equipment	Range	Expanded Uncertainty of Measurement (+/-)	Reference Standard, Method, and/or Equipment
AC Current – Source ²	(0.33 to 3.299 99) mA		Comparison to Fluke 5502A Multiproduct Calibrator
	(10 to 20) Hz	2.3 mA/A + 0.27 μ A	
	(20 to 45) Hz	1.4 mA/A + 0.3 μ A	
	45 Hz to 1 kHz	1.2 mA/A + 0.16 μ A	
	(1 to 5) kHz	2.3 mA/A + 0.21 μ A	
	(5 to 10) kHz	3.91 mA/A + 8.1 μ A	
	(10 to 30) kHz	7.4 mA/A + 19 μ A	
	(3.3 to 32.999 9) mA		
	(10 to 20) Hz	1.8 mA/A + 14 μ A	
	(20 to 45) Hz	1 mA/A + 3.5 μ A	
	45 Hz to 1 kHz	0.42 mA/A + 3.5 μ A	
	(1 to 5) kHz	0.93 mA/A + 2.1 μ A	
	(5 to 10) kHz	2.3 mA/A + 5.4 μ A	
	(10 to 30) kHz	4.6 mA/A + 6.6 μ A	
	(33 to 329.999) mA		
	(10 to 20) Hz	1.8 mA/A + 0.11 mA	
	(20 to 45) Hz	1 mA/A + 35 μ A	
	45 Hz to 1 kHz	0.46 mA/A + 22 μ A	
	(1 to 5) kHz	1.1 mA/A + 70 μ A	
	(5 to 10) kHz	2.3 mA/A + 0.12 mA	
	(10 to 30) kHz	4.5 mA/A + 0.26 mA	
	(0.33 to 1.099 99) A		
	(10 to 45) Hz	2.1 μ A/A + 0.11 mA	
	45 Hz to 1 kHz	0.4 μ A/A + 0.34 mA	
	(1 to 5) kHz	6.8 mA/A + 1.2 mA	
	(5 to 10) kHz	29 mA/A + 5.2 mA	
	(1.1 to 2.999 99) A		
	(10 to 45) Hz	2 mA/A + 0.25 mA	
	45 Hz to 1 kHz	0.61 mA/A + 0.4 mA	
	(1 to 5) kHz	6.9 mA/A + 1.2 mA	
	(5 to 10) kHz	29 mA/A + 5.3 mA	
	(3 to 11) A		
	(45 to 100) Hz	0.46 mA/A + 5.4 mA	
	100 Hz to 1 kHz	0.97 mA/A + 4.3 mA	
	(1 to 5) kHz	35 mA/A + 4 mA	
	(11 to 20.5) A		
	(45 to 100) Hz	0.63 mA/A + 30 mA	
	100 Hz to 1 kHz	1.6 mA/A + 7.3 mA	
	(1 to 5) kHz	34 mA/A + 25 mA	

Electrical – DC/Low Frequency

Parameter/Equipment	Range	Expanded Uncertainty of Measurement (+/-)	Reference Standard, Method, and/or Equipment
AC Current – Measure ²	(10 to 100) μ A		Comparison to Fluke 8558A 8.5 Digit Multimeter
	1 Hz to 2 kHz	6 mA/A + 13 nA	
	(2 to 10) kHz	1 mA/A + 13 nA	
	(10 to 30) kHz	1.4 mA/A + 13 nA	
	(30 to 100) kHz	7.8 mA/A + 19 nA	
	(0.1 to 1) mA		
	1 Hz to 2 kHz	0.7 mA/A + 0.13 μ A	
	(2 to 10) kHz	1.1 mA/A + 0.13 μ A	
	(10 to 30) kHz	1.5 mA/A + 0.13 μ A	
	(30 to 100) kHz	7.8 mA/A + 0.19 μ A	
	(1 to 10) mA		
	1 Hz to 2 kHz	0.6 mA/A + 1.3 μ A	
	(2 to 10) kHz	1 mA/A + 1.3 μ A	
	(10 to 30) kHz	1.3 mA/A + 1.3 μ A	
	(30 to 100) kHz	7.8 mA/A + 1.9 μ A	
	(10 to 100) mA		
	1 Hz to 2 kHz	0.58 mA/A + 13 μ A	
	(2 to 10) kHz	1 mA/A + 13 μ A	
	(10 to 30) kHz	1.3 mA/A + 13 μ A	
	(0.1 to 1) A		
	1 Hz to 2 kHz	0.75 mA/A + 0.19 mA	
	(2 to 10) kHz	1.3 mA/A + 0.19 mA	
	(10 to 30) kHz	1.5 mA/A + 0.19 mA	

Electrical – DC/Low Frequency

Parameter/Equipment	Range	Expanded Uncertainty of Measurement (+/-)	Reference Standard, Method, and/or Equipment
Capacitance – Source ² (Simulation)	(220 to 399.9) pF (0.4 to 1.099 9) nF (1.1 to 3.299 9) nF (3.3 to 10.999) nF (11 to 32.999) nF (33 to 109.99) nF (110 to 329.99) nF (0.33 to 1.099 9) μ F (1.1 to 3.299 9) μ F (3.3 to 10.999) μ F (11 to 32.999) μ F (33 to 109.99) μ F (110 to 329.99) μ F (0.33 to 1.099 9) mF (1.1 to 3.299 9) mF (3.3 to 10.999) mF (11 to 32.999) mF (33 to 110) mF	3.3 mF/F + 14 pF 3.8 mF/F + 14 pF 3.5 mF/F + 20 pF 2.1 mF/F + 22 pF 2.2 mF/F + 0.14 nF 2.1 mF/F + 0.22 nF 2.1 mF/F + 0.67 nF 2.1 mF/F + 2.2 nF 2 mF/F + 7 nF 1.9 mF/F + 26 nF 3.5 mF/F + 78 nF 3.7 mF/F + 0.32 μ F 3.9 mF/F + 0.89 μ F 4.7 mF/F + 1.8 μ F 4.7 mF/F + 5.2 μ 4.4 mF/F + 21 μ F 7.7 mF/F + 71 μ F 12 mF/F + 0.17 mF	Comparison to Fluke 5502A Multiproduct Calibrator
Electrical Simulation of Thermocouple Indicating Devices – Source ²	J-type (-210 to -100) °C (-100 to -30) °C (-30 to 150) °C (150 to 760) °C (760 to 1 200) °C K-type (-210 to -100) °C (-100 to -25) °C (-25 to 120) °C (120 to 1 000) °C (1 000 to 1 372) °C T-type (-250 to -150) °C (-150 to 0) °C (0 to 120) °C (120 to 400) °C	0.32 °C 0.19 °C 0.17 °C 0.27 °C 0.32 °C 0.39 °C 0.22 °C 0.19 °C 0.35 °C 0.5 °C 0.73 °C 0.28 °C 0.19 °C 0.16 °C	Comparison to Fluke 5502A Multiproduct Calibrator
DC Voltage – Measure ¹	(-1 to 1) V (1 to 25) V (25 to 60) V	0.21 mV/V + 6 μ V 0.22 mV/V + 60 μ V 0.23 mV/V + 52 μ V	Comparison to Beamex MC2 Documenting Process Calibrator

Electrical – DC/Low Frequency

Parameter/Equipment	Range	Expanded Uncertainty of Measurement (+/-)	Reference Standard, Method, and/or Equipment
DC Voltage – Source ¹	(-3 to 0.25) V (0.25 to 12) V	0.15 mA/A + 12 μ V 0.22 mV/V + 85 μ V	Comparison to Beamex MC2 Documenting Process Calibrator
DC Current – Measure ¹	(-100 to 100) mA	0.19 mA/A + 2 μ V	Comparison to Beamex MC2 Documenting Process Calibrator
DC Current – Source ¹	(-100 to 100) mA	0.15 mA/A + 3 μ A	Comparison to Beamex MC2 Documenting Process Calibrator
Resistance – Measure ¹	Up to 250 Ω (0.25 to 4) k Ω	0.21 $\mu\Omega/\Omega$ + 4 m Ω 0.23 $\mu\Omega/\Omega$ + 4 m Ω	Comparison to Beamex MC2 Documenting Process Calibrator
Resistance – Source ¹ (Simulation)	Up to 2 650 Ω (2 650 to 4 000) Ω	0.4 m Ω/Ω + 20 m Ω 0.46 m Ω/Ω + 3 m Ω	Comparison to Beamex MC2 Documenting Process Calibrator
Electrical Simulation of RTD Indicating Devices – Source/Measure ¹	(-200 to 200) $^{\circ}$ C (200 to 600) $^{\circ}$ C (600 to 800) $^{\circ}$ C	0.18 $^{\circ}$ C 0.29 $^{\circ}$ C 0.53 $^{\circ}$ C	Comparison to Beamex MC2 Documenting Process Calibrator

Length – Dimensional Metrology

Parameter/Equipment	Range	Expanded Uncertainty of Measurement (+/-)	Reference Standard, Method, and/or Equipment
Outside Diameter (Pin and Plug Gages)	(0.01 to 0.25) in	30 μ in	Comparison to Master Plug Gage, Mitutoyo LSM-6100 Laser Scan Micrometer
Outside Diameter (Pin and Plug Gages)	(0.25 to 1) in	78 μ in	Comparison to Measurement Heads

Mass and Mass Related

Parameter/Equipment	Range	Expanded Uncertainty of Measurement (+/-)	Reference Standard, Method, and/or Equipment
Pressure – Measure ¹	(-14.5 to 300) psig	0.18 psi	Comparison to Beamex MC2 Documenting Process Calibrator, Beamex IPM20C Pressure Module, Pressure Source
Pressure Measuring Devices (Gages, Transducers, etc.)	Up to 9.999 kPa (10 to 15) kPa Up to 59.999 kPa (60 to 100) kPa (-100 to 250) kPa (70 to 699) kPa 700 kPa to 2 MPa	1 Pa 0.11 Pa/kPa 5.8 kPa 0.11 Pa/kPa 30 Pa 181 Pa 87 Pa/MPa + 125 Pa	Comparison to Fluke 6270A Pressure Controller; Fluke PM600 A2M/BG15k, Fluke PM500 G100k/BG250k Pressure Modules
Pipettes ¹	(1 to 10) μ L (10 to 100) μ L (100 to 1 000) μ L	90 nL 0.12 μ L 1.8 μ L	Gravimetric Method using Balance per ISO 8655-2:2000/2022, ISO 8655-6:2000/2022, and ISO 20461:2023.

Thermodynamic

Parameter/Equipment	Range	Expanded Uncertainty of Measurement (+/-)	Reference Standard, Method, and/or Equipment
Temperature – Source (Temperature Probes, etc.)	(50 to 650) °C	0.076 % of reading + 0.007 9 °C	Comparison to Fluke 5628 PRT, Fluke 1560 Black Stack Thermometer, Fluke 9144 Metrology Well
Temperature – Measure ⁴	(-196 to 0) °C (0 to 300) °C	0.000 9 % of reading + 0.027 °C 0.007 % of reading + 0.027 °C	Comparison to Intelligent RTD Temperature Probe, Temperature Indicator

Thermodynamic

Parameter/Equipment	Range	Expanded Uncertainty of Measurement (+/-)	Reference Standard, Method, and/or Equipment
Relative Humidity – Generate (Humidity Sensors, Probes, etc.)	10 °C		Comparison to Thunder Scientific 2500 RH/Temp Chamber
	10 %RH	0.08 %RH	
	30 %RH	0.21 %RH	
	50 %RH	0.32 %RH	
	70 %RH	0.43 %RH	
	80 %RH	0.54 %RH	
Relative Humidity – Generate (Humidity Sensors, Probes, etc.)	21.11 °C		Comparison to Thunder Scientific 2500 RH/Temp Chamber
	10 %RH	0.08 %RH	
	30 %RH	0.26 %RH	
	50 %RH	0.3 %RH	
	70 %RH	0.4 %RH	
	80 %RH	0.49 %RH	
	70 °C		
	10 %RH	0.07 %RH	
	30 %RH	0.23 %RH	
	50 %RH	0.23 %RH	
	70 %RH	0.29 %RH	
	80 %RH	0.35 %RH	

Time and Frequency

Parameter/Equipment	Range	Expanded Uncertainty of Measurement (+/-)	Reference Standard, Method, and/or Equipment
Frequency – Measure ²	(1 to 10) Hz	2.6 µHz/Hz	Comparison to Fluke 8558A 8.5 Digit Multimeter
	10 Hz to 1 kHz	1 mHz/kHz	
	(1 to 10) kHz	1 mHz/kHz	
	(10 to 100) kHz	1 mHz/kHz	
	100 kHz to 1 MHz	1 Hz/MHz	
	(1 to 100) MHz	1 Hz/MHz	
	(10 to 100) MHz	1 Hz/MHz	
Frequency – Measure ¹	(5 to 50) Hz	0.11 mHz/Hz + 1 mHz	Comparison to Beamex MC2 Documenting Process Calibrator
	(50 to 500) Hz	0.12 mHz/Hz + 0.22 mHz	
	500 Hz to 5 kHz	0.12 mHz/Hz + 0.35 mHz	
	(5 to 50) kHz	0.12 mHz/Hz + 3 mHz	

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 expanded uncertainty of measurement expressed for this particular parameter is the standard uncertainty of the measurement multiplied by a coverage factor of 3 ($k = 3$), corresponding to a confidence level of approximately 99%.
3. Unless otherwise specified in the far-right column above, the laboratory utilizes internally written calibration procedures in the process of calibrating the parameters listed in this document.
4. The -196 °C test point is using liquid nitrogen (LN₂). The actual value from the reference probe will be utilized at the setpoint.



Jason Stine, Vice President

