



SCOPE OF ACCREDITATION TO ISO/IEC 17025:2017

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CALIBRATION

Valid To: May 31, 2026

Certificate Number: 3023.01

In recognition of the successful completion of the A2LA evaluation process (including an assessment of the organization's compliance with R205 – A2LA's Calibration Program Requirements), accreditation is granted to this laboratory to perform the following calibrations^{1, 7}:

I. Electrical – DC/Low Frequency

Parameter/Equipment	Range	CMC ^{2, 4, 6} (±)	Comments
DC Voltage – Generate ³	Up to 220 mV 220 mV to 2.2 V (2.2 to 11) V (11 to 22) V (22 to 220) V (220 to 1100) V	5.4 µV/V + 0.39 µV 3.1 µV/V + 0.62 µV 2.3 µV/V + 2.4 µV 2.3 µV/V + 3.9 µV 3.1 µV/V + 39 µV 4.7 µV/V + 0.39 mV	Fluke 5730A
DC Voltage – Measure ³	Up to 200 mV (0.2 to 2) V (2 to 20) V (20 to 200) V (200 to 1000) V	4.7 µV/V + 0.093 µV 3.1 µV/V + 0.39 µV 3.1 µV/V + 3.9 µV 4.7 µV/V + 39 µV 4.7 µV/V + 0.47 mV	Fluke 8508A
	Up to 100 mV (0.1 to 1) V (1 to 10) V (10 to 100) V 100 to 1000) V	5.0 µV/V + 0.2 µV 2.8 µV/V + 0.3 µV 2.8 µV/V + 0.47 µV 4.1 µV/V + 30 µV 4.3 µV/V + 0.5 mV	Fluke 8588A



Parameter/Equipment	Range	CMC ^{2, 4, 5, 6} (±)	Comments
DC Voltage – Measure, High Voltage ³	(0.001 00 to 1.0000) kV	0.023 % + 0.04 V	Vitrek 4700
	(1.0001 to 4.4662) kV	0.026 % + 0.04 V	
	(4.4663 to 5.2558) kV	0.027 % + 0.04 V	
	(5.2559 to 5.9095) kV	0.028 % + 0.04 V	
	(5.9096 to 6.4837) kV	0.029 % + 0.04 V	
	(6.4838 to 7.0035) kV	0.030 % + 0.04 V	
	(7.0036 to 7.4826) kV	0.031 % + 0.04 V	
	(7.4827 to 7.9298) kV	0.032 % + 0.04 V	
	(7.9299 to 8.3510) kV	0.033 % + 0.04 V	
	(8.3511 to 8.7504) kV	0.034 % + 0.04 V	
	(8.7505 to 9.1313) kV	0.035 % + 0.04 V	
	(9.1314 to 9.4959) kV	0.036 % + 0.04 V	
	(9.4960 to 9.8464) kV	0.037 % + 0.04 V	
	(9.8465 to 10.1843) kV	0.038 % + 0.04 V	
	(10.1844 to 10.5108) kV	0.039 % + 0.04 V	
	(10.5109 to 10.8272) kV	0.040 % + 0.04 V	
	(10.8273 to 11.1342) kV	0.041 % + 0.04 V	
	(11.1342 to 11.4328) kV	0.042 % + 0.04 V	
	(11.4329 to 11.7235) kV	0.043 % + 0.04 V	
	(11.7236 to 12.0069) kV	0.044 % + 0.04 V	
	(12.0070 to 12.2837) kV	0.045 % + 0.04 V	
	(12.2837 to 12.5542) kV	0.046 % + 0.04 V	
	(12.5543 to 12.8189) kV	0.047 % + 0.04 V	
	(12.8190 to 13.0781) kV	0.048 % + 0.04 V	
	(13.0782 to 13.3322) kV	0.049 % + 0.04 V	
	(13.3323 to 13.5815) kV	0.050 % + 0.04 V	
	(13.5816 to 13.8261) kV	0.051 % + 0.04 V	
(13.8262 to 14.0665) kV	0.052 % + 0.04 V		
(14.0666 to 14.3027) kV	0.053 % + 0.04 V		
(14.3028 to 14.5351) kV	0.054 % + 0.04 V		
(14.5352 to 14.7637) kV	0.055 % + 0.04 V		
(14.7638 to 14.9888) kV	0.056 % + 0.04 V		
(14.9889 to 15.0000) kV	0.056 % + 0.04 V		
(15 to 20) kV	0.22 % + 4.0 V	Vitrek 4600A	
(15 000 to 29 880.7) V	0.03 % + 0.25 V	Vitrek 4700A /HVL-70	
(29 880.8 to 40 089.1) V	0.04 % + 0.25 V		
(40 089.2 to 48 181.2) V	0.05 % + 0.25 V		
(48 181.3 to 55 097.3) V	0.06 % + 0.25 V		
(55 097.4 to 61 237.2) V	0.07 % + 0.25 V		
(61 237.3 to 66 815.3) V	0.08 % + 0.25 V		
(66 815.4 to 70 000.0) V	0.09 % + 0.25 V		
(71 to 100) kV	0.10 %	Phenix DVD100 with Keysight 34401A	

Parameter/Equipment	Range	CMC ^{2, 4, 6} (\pm)	Comments
DC Current – Generate ³	Up to 220 μ A 220 μ A to 2.2 mA (2.2 to 22) mA (22 to 220) mA 220 mA to 2.2 A	33 μ A/A + 5.4 nA 27 μ A/A + 6.2 nA 27 μ A/A + 39 nA 35 μ A/A + 0.62 μ A 54 μ A/A + 12 μ A	Fluke 5730A
	(2.2 to 3.0) A (3 to 11) A (11 to 20) A (20 to 100) A	0.023 % + 32 μ A 0.026 % + 0.37 mA 0.062 % + 0.58 mA 0.020 % + 21 mA	Fluke 5520 Fluke 5725A Fluke 5520 Ballantine 1620A with Fluke 5520
Clamp-On – Non-Toroidal	(2.2 to 3.1) A (11 to 12) A (11 to 20) A	0.027 % + 14 μ A 0.029 % + 0.23 mA 0.068 % + 0.47 mA	Fluke 5550A
	(20 to 150) A (150 to 1000) A	0.50 % + 0.14 A 0.50 % + 0.50 A	Fluke 5520A with 50 turn coil
DC Current – Measure ³	Up to 200 μ A 200 μ A to 2 mA (2 to 20) mA (20 to 200) mA 200 mA to 2 A (2 to 20) A	12 μ A/A + 0.31 nA 12 μ A/A + 3.1 nA 12 μ A/A + 31 nA 35 μ A/A + 0.62 μ A 0.016 % + 12 μ A 0.035 % + 0.31 mA	Fluke 8508A
	Up to 10 μ A 10 to 100 μ A 100 μ A to 1 mA (1 to 10) mA (10 to 100) mA 100 mA to 1 A (1 to 10) A (10 to 30) A	24 μ A/A + 0.4 nA 8.5 μ A/A + 0.39 nA 7.8 μ A/A + 3.9 nA 8.5 μ A/A + 39 nA 33 μ A/A + 1 μ A 0.01 % + 100 μ A 0.017 % + 0.4 mA 0.049 % + 4.4 mA	Fluke 8588A
	(21 to 100) A (101 to 300) A	0.040 % + 0.7 mA 0.040 % + 0.7 mA	HP 34401 with L&N shunts
DC Resistance – Generate, Fixed Points ³	(0 to 12) Ω (12 to 120) Ω (0.12 to 1.2) k Ω (1.2 to 12) k Ω (12 to 120) k Ω (0.12 to 1.2) M Ω (1.2 to 12) M Ω (12 to 120) M Ω (120 to 1200) M Ω	25 $\mu\Omega/\Omega$ + 0.78 m Ω 19 $\mu\Omega/\Omega$ + 0.8 m Ω 17 $\mu\Omega/\Omega$ + 1.6 m Ω 17 $\mu\Omega/\Omega$ + 16 m Ω 17 $\mu\Omega/\Omega$ + 0.16 Ω 19 $\mu\Omega/\Omega$ + 1.6 Ω 30 $\mu\Omega/\Omega$ + 31 Ω 310 $\mu\Omega/\Omega$ + 1.9 k Ω 0.4 % + 0.8 M Ω	Fluke 5550A

Parameter/Equipment	Range	CMC ^{2, 4, 5, 6} (\pm)	Comments
DC Resistance – Generate, Fixed Points ³ (cont)	1.9 Ω 10 Ω 19 Ω 100 Ω 190 Ω 1 k Ω 1.9 k Ω 10 k Ω 19 k Ω 100 k Ω 190 k Ω 1 M Ω 1.9 M Ω 10 M Ω 19 M Ω 100 M Ω	74 $\mu\Omega/\Omega$ 19 $\mu\Omega/\Omega$ 19 $\mu\Omega/\Omega$ 8.5 $\mu\Omega/\Omega$ 8.5 $\mu\Omega/\Omega$ 5.6 $\mu\Omega/\Omega$ 5.6 $\mu\Omega/\Omega$ 5.4 $\mu\Omega/\Omega$ 5.4 $\mu\Omega/\Omega$ 6.2 $\mu\Omega/\Omega$ 7.8 $\mu\Omega/\Omega$ 11 $\mu\Omega/\Omega$ 13 $\mu\Omega/\Omega$ 29 $\mu\Omega/\Omega$ 36 $\mu\Omega/\Omega$ 85 $\mu\Omega/\Omega$	Fluke 5730A
DC Resistance – Generate ³	(0 to 11) Ω (11 to 33) Ω (33 to 110) Ω (0.11 to 0.33) k Ω (0.33 to 1.1) k Ω (1.1 to 3.3) k Ω (3.3 to 11.0) k Ω (11 to 33) k Ω (33 to 110) k Ω (110 to 330) k Ω (0.330 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	27 $\mu\Omega/\Omega + 0.78$ m Ω 19 $\mu\Omega/\Omega + 1.2$ m Ω 17 $\mu\Omega/\Omega + 1.1$ m Ω 17 $\mu\Omega/\Omega + 1.6$ m Ω 17 $\mu\Omega/\Omega + 1.6$ m Ω 17 $\mu\Omega/\Omega + 16$ m Ω 17 $\mu\Omega/\Omega + 16$ m Ω 17 $\mu\Omega/\Omega + 0.16$ Ω 17 $\mu\Omega/\Omega + 0.16$ Ω 19 $\mu\Omega/\Omega + 1.6$ Ω 19 $\mu\Omega/\Omega + 1.6$ Ω 33 $\mu\Omega/\Omega + 23$ Ω 85 $\mu\Omega/\Omega + 39$ Ω 0.016 % + 1.9 k Ω 0.031 % + 2.3 k Ω 0.19 % + 78 k Ω 0.93 % + 0.39 M Ω	Fluke 5520A
Fixed Points	0.001 Ω 0.0019 Ω 0.01 Ω 0.019 Ω 0.1 Ω 0.19 Ω 1.0 Ω 1.9 Ω 19 Ω 190 Ω 1.9 k Ω 19 k Ω	58 $\mu\Omega/\Omega$ 210 $\mu\Omega/\Omega$ 23 $\mu\Omega/\Omega$ 110 $\mu\Omega/\Omega$ 23 $\mu\Omega/\Omega$ 61 $\mu\Omega/\Omega$ 61 $\mu\Omega/\Omega$ 21 $\mu\Omega/\Omega$ 10 $\mu\Omega/\Omega$ 10 $\mu\Omega/\Omega$ 10 $\mu\Omega/\Omega$ 10 $\mu\Omega/\Omega$	YEW 2792 resistor IET labs resistor YEW 2792 resistor IET labs resistor YEW 2792 resistor IET labs resistor ESI-SR1 resistor IET labs resistor

Parameter/Equipment	Range	CMC ^{2, 4, 5, 6} (±)	Comments
DC Resistance – Generate ³ (cont)			
Fixed Points	500 MΩ 1 GΩ 10 GΩ 100 GΩ 1 TΩ	0.5 % 1.0 % 1.0 % 1.0 % 5.0 %	CISG fixed resistor
DC Resistance – Measure ³	Up to 2 Ω (2 to 20) Ω (20 to 200) Ω 200 Ω to 2 kΩ (2 to 20) kΩ (20 to 200) kΩ 200 kΩ to 2 MΩ (2 to 20) MΩ (20 to 200) MΩ 200 MΩ to 1 GΩ Up to 1 Ω (1 to 10) Ω (10 to 100) Ω 100 Ω to 1 kΩ (1 to 10) kΩ (10 to 100) kΩ 100 kΩ to 1 MΩ (1 to 10) MΩ (10 to 100) MΩ 100 MΩ to 1 GΩ (1.1 to 10) GΩ (10.1 to 100) GΩ 101 GΩ to 1 TΩ	15 μΩ/Ω + 3.9 μΩ 8.9 μΩ/Ω + 14 μΩ 7.4 μΩ/Ω + 47 μΩ 7.4 μΩ/Ω + 0.47 mΩ 7.4 μΩ/Ω + 4.7 mΩ 7.4 μΩ/Ω + 47 mΩ 8.1 μΩ/Ω + 0.93 Ω 15 μΩ/Ω + 9.3 Ω 58 μΩ/Ω + 0.93 kΩ 0.015 % + 93 kΩ 11 μΩ/Ω + 4.0 μΩ 7.7 μΩ/Ω + 14 μΩ 7.1 μΩ/Ω + 47 μΩ 7.1 μΩ/Ω + 0.47 mΩ 7.1 μΩ/Ω + 4.7 mΩ 7.3 μΩ/Ω + 47 mΩ 8.2 μΩ/Ω + 1 Ω 11 μΩ/Ω + 100 Ω 39 μΩ/Ω + 10 kΩ 0.015 % + 100 kΩ 0.071 % 0.10 % 0.20 %	Fluke 8508A High voltage mode Fluke 8588A Fluke 8588A HV Mode Guildline 6500A
DC Power – Generate	(1 to 504) V (0.1 to 10) A	390 μW/W	Fluke 6105A

Parameter/Range	Frequency	CMC ^{2, 4, 6} (\pm)	Comments
AC Voltage – Generate ³			
(1 to 2.2) mV	(10 to 20) Hz (20 to 40) Hz 40 Hz to 20 kHz (20 to 50) kHz (50 to 100) kHz (100 to 300) kHz (300 to 500) kHz 500 kHz to 1 MHz	0.021 % + 3.9 μ V 0.0081 % + 3.9 μ V 0.0070 % + 3.9 μ V 0.018 % + 3.9 μ V 0.042 % + 4.7 μ V 0.093 % + 9.3 μ V 0.17 % + 19 μ V 0.24 % + 19 μ V	Fluke 5730A
(2.2 to 22) mV	(10 to 20) Hz (20 to 40) Hz 40 Hz to 20 kHz (20 to 50) kHz (50 to 100) kHz (100 to 300) kHz (300 to 500) kHz 500 kHz to 1 MHz	0.021 % + 3.9 μ V 0.0081 % + 3.9 μ V 0.0070 % + 3.9 μ V 0.018 % + 3.9 μ V 0.042 % + 4.7 μ V 0.093 % + 9.3 μ V 0.12 % + 19 μ V 0.24 % + 19 μ V	
(22 to 220) mV	(10 to 20) Hz (20 to 40) Hz 40 Hz to 20 kHz (20 to 50) kHz (50 to 100) kHz (100 to 300) kHz (300 to 500) kHz 500 kHz to 1 MHz	0.021 % + 12 μ V 81 μ V/V + 6.2 μ V 53 μ V/V + 6.2 μ V 0.011 % + 6.2 μ V 0.029 % + 16 μ V 0.054 % + 19 μ V 0.12 % + 23 μ V 0.22 % + 47 μ V	
220 mV to 2.2 V	(10 to 20) Hz (20 to 40) Hz 40 Hz to 20 kHz (20 to 50) kHz (50 to 100) kHz (100 to 300) kHz (300 to 500) kHz 500 kHz to 1 MHz	0.021 % + 39 μ V 78 μ V/V + 16 μ V 36 μ V/V + 7.8 μ V 60 μ V/V + 9.3 μ V 75 μ V/V + 31 μ V 0.029 % + 78 μ V 0.085 % + 0.19 mV 0.07 % + 0.47 mV	

Parameter/Range	Frequency	CMC ^{2, 4, 6} (±)	Comments
AC Voltage – Generate ³ (cont)			
(2.2 to 22) V	(10 to 20) Hz (20 to 40) Hz 40 Hz to 20 kHz (20 to 50) kHz (50 to 100) kHz (100 to 300) kHz (300 to 500) kHz 500 kHz to 1 MHz	0.021 % + 0.39 mV 78 μV/V + 0.16 mV 36 μV/V + 55 μV 60 μV/V + 93 μV 75 μV/V + 0.19 mV 0.022 % + 0.62 mV 0.085 % + 1.9 mV 0.12 % + 3.1 mV	Fluke 5730A
(22 to 220) V	(10 to 20) Hz (20 to 40) Hz 40 Hz to 20 kHz (20 to 50) kHz (50 to 100) kHz	0.021 % + 3.9 mV 80 μV/V + 1.6 mV 46 μV/V + 0.55 mV 74 μV/V + 0.93 mV 0.013 % + 2.3 mV	Fluke 5725A
(220 to 1100) V	50 Hz to 1 kHz	58 μV/V + 3.1 mV	
750 V	(30 to 50) kHz (50 to 100) kHz	0.028 % + 8.5 mV 0.10 % + 35 mV	
1100 V	(1 to 20) kHz (20 to 30) kHz	97 μV/V + 4.7 mV 0.028 % + 8.5 mV	
AC Voltage – Measure ³			
Up to 200 mV	(1 to 10) Hz (10 to 40) Hz (40 to 100) Hz 100 Hz to 2 kHz (2 to 10) kHz (10 to 30) kHz (30 to 100) kHz	0.016 % + 12 μV 0.012 % + 3.9 μV 98 μV/V + 3.9 μV 0.010 % + 1.9 μV 99 μV/V + 3.9 μV 0.027 % + 7.8 μV 0.059 % + 19 μV	Fluke 8508A
200 mV to 2 V	(1 to 10) Hz (10 to 40) Hz (40 to 100) Hz 100 Hz to 2 kHz (2 to 10) kHz (10 to 30) kHz (30 to 100) kHz (100 to 300) kHz 300 kHz to 1 MHz	0.015 % + 0.11 mV 96 μV/V + 19 μV 77 μV/V + 19 μV 59 μV/V + 19 μV 75 μV/V + 19 μV 0.019 % + 39 μV 0.043 % + 0.19 mV 0.24 % + 1.9 mV 0.78 % + 19 mV	

Parameter/Range	Frequency	CMC ^{2, 4, 6} (±)	Comments
AC Voltage – Measure ³ (cont)			
(2 to 20) V	(1 to 10) Hz (10 to 40) Hz (40 to 100) Hz 100 Hz to 2 kHz (2 to 10) kHz (10 to 30) kHz (30 to 100) kHz (100 to 300) kHz 300 kHz to 1 MHz	0.015 % + 1.1 mV 96 μV/V + 0.19 mV 76 μV/V + 0.19 mV 59 μV/V + 0.19 mV 75 μV/V + 0.19 mV 0.019 % + 0.39 mV 0.043 % + 1.9 mV 0.24 % + 19 mV 0.78 % + 0.19 V	Fluke 8508A
(20 to 200) V	(1 to 10) Hz (10 to 40) Hz (40 to 100) Hz 100 Hz to 2 kHz (2 to 10) kHz (10 to 30) kHz (30 to 100) kHz (100 to 300) kHz 300 kHz to 1 MHz	0.014 % + 11 mV 93 μV/V + 1.9 mV 74 μV/V + 1.9 mV 58 μV/V + 1.9 mV 74 μV/V + 1.9 mV 0.019 % + 3.9 mV 0.043 % + 19 mV 0.23 % + 19 mV 0.78 % + 0.19 V	
(200 to 1000) V	(1 to 10) Hz (10 to 40) Hz 40 Hz to 10 kHz (10 to 30) kHz (30 to 100) kHz	0.014 % + 65 mV 0.010 % + 20 mV 85 μV/V + 20 mV 0.019 % + 41 mV 0.048 % + 0.20 V	
Up to 10 mV	1 to 2 kHz (2 to 10) kHz (10 to 30) kHz (30 to 100) kHz (100 to 300) kHz 300 kHz to 1MHz	0.025 % + 1.1 μV 0.033 % + 1.1 μV 0.034 % + 1.1 μV 0.3 % + 0.8 μV 1 % + 3.8 μV 2 % + 3.8 μV	Fluke 8588A
(10 to 100) mV	1 to 2 kHz (2 to 10) kHz (10 to 30) kHz (30 to 100) kHz (100 to 300) kHz 300 kHz to 1MHz (1 to 2) MHz (2 to 4) MHz (4 to 8) MHz (8 to 10) MHz	68 μV/V + 0.5 μV 0.011 % + 0.5 μV 0.021 % + 1 μV 0.051 % + 5 μV 0.2 % + 31 μV 1 % + 100 μV 1.5 % + 500 μV 4 % + 1 mV 8 % + 1 mV 15 % + 1 mV	

Parameter/Range	Frequency	CMC ^{2, 4, 6} (\pm)	Comments
AC Voltage – Measure ³			
100 mV to 1 V	1 to 2 kHz (2 to 10) kHz (10 to 30) kHz (30 to 100) kHz (100 to 300) kHz 300 kHz to 1MHz (1 to 2) MHz (2 to 4) MHz (4 to 8) MHz (8 to 10) MHz	64 μ V/V + 5.0 μ V 0.011 % + 5.0 μ V 0.021 % + 10 μ V 0.051 % + 50 μ V 0.2 % + 310 μ V 1 % + 1 mV 1.5 % + 5 mV 4 % + 10 mV 8 % + 10 mV 15 % + 10 mV	Fluke 8588A
(1 to 10) V	1 to 2 kHz (2 to 10) kHz (10 to 30) kHz (30 to 100) kHz (100 to 300) kHz 300 kHz to 1MHz (1 to 2) MHz (2 to 4) MHz (4 to 8) MHz (8 to 10) MHz	64 μ V/V + 50 μ V 0.011 % + 50 μ V 0.021 % + 100 μ V 0.051 % + 500 μ V 0.2 % + 3.1 mV 1 % + 10 mV 1.5 % + 50 mV 4 % + 100 mV 8 % + 100 mV 15 % + 100 mV	
(10 to 100) V	1 to 2 kHz (2 to 10) kHz (10 to 30) kHz (30 to 100) kHz (100 to 300) kHz 300 kHz to 1MHz	70 μ V/V + 0.50 mV 90 μ V/V + 0.50 mV 0.021 % + 1 mV 0.051 % + 5 mV 0.35 % + 47 mV 1 % + 500 mV	
(100 to 1000) V	1 to 10 kHz (10 to 30) kHz (30 to 100) kHz	90 μ V/V + 25 mV 0.021 % + 25 mV 0.051 % + 100 mV	
AC Voltage Ratio –			
0.000 05 to 1 (20 000 to 1)	60 Hz	0.006 % of Ratio	ESI 73

Parameter/Range	Frequency	CMC ^{2, 4, 5, 6} (\pm)	Comments
AC Voltage – Measure High Voltage ³			
(10 to 1000) V	(30 to 200) Hz	0.10 % + 0.02 V	Vitrek 4700
(1000.1 to 8165.5) V	(30 to 200) Hz	0.10 % + 0.15 V	
(8165.6 to 10 000.0) V	(30 to 200) Hz	0.11 % + 0.15 V	
(10 to 15) kV	(20 to 100) Hz	0.49 % + 20 V	Vitrek 4600A
(15 to 20) kV	60 Hz	0.28 %	Hipotronics KVM20 with Keysight 34401
(100 to 26 726.1) V	(30 to 100) Hz	0.08 % + 0.45 V	Vitrek 4700A with HLV-70
(26 726.2 to 37 796.4) V	(30 to 100) Hz	0.09 % + 0.45 V	
(37 796.5 to 46 291.0) V	(30 to 100) Hz	0.10 % + 0.45 V	
(46 291.1 to 50 000.0) V	(30 to 100) Hz	0.11 % + 0.45 V	
(50 to 100) kV	60 Hz	0.28 %	Phenix DVD100 with Keysight 34401A
AC Current – Generate ³			
(2.2 to 3.1) A	(3 to 45) Hz 45 Hz to 1 kHz (1 to 5) kHz (5 to 10) kHz	0.07 % + 34 μ A 0.047 % + 35 μ A 0.07 % + 0.35 mA 0.4 % + 0.8 mA	Fluke 5550A
(11 to 12) A	(3 to 45) Hz (45 to 1000) Hz (1 to 5) kHz (5 to 10) kHz	0.093 % + 0.9mA 0.074 % + 0.5 mA 0.093 % + 0.9 mA 0.37 % + 0.9 mA	
(12 to 30) A	(3 to 45) Hz (45 to 1000) Hz (1 to 5) kHz	0.062 % + 9.3mA 0.043 % + 7.4 mA 0.31 % + 9.3 mA	
Up to 220 μ A	(10 to 20) Hz (20 to 40) Hz 40 Hz to 1 kHz (1 to 5) kHz (5 to 10) kHz	0.022 % + 16 nA 0.014 % + 9.3 nA 0.009 % + 7.8 nA 0.025 % + 12 nA 0.085 % + 62 nA	Fluke 5730A
220 μ A to 2.2 mA	(10 to 20) Hz (20 to 40) Hz 40 Hz to 1 kHz (1 to 5) kHz (5 to 10) kHz	0.022 % + 39 nA 0.014 % + 32 nA 0.009 % + 32 nA 0.017 % + 0.10 μ A 0.085 % + 0.62 μ A	

Parameter/Range	Frequency	CMC ^{2, 4, 6} (\pm)	Comments
AC Current – Generate ³ (cont)			
(2.2 to 22) mA	(10 to 20) Hz (20 to 40) Hz 40 Hz to 1 kHz (1 to 5) kHz (5 to 10) kHz	0.022 % + 0.39 μ A 0.014 % + 0.32 μ A 0.009 % + 0.32 μ A 0.017 % + 0.55 μ A 0.085 % + 4.7 μ A	Fluke 5730A
(22 to 220) mA	(10 to 20) Hz (20 to 40) Hz 40 Hz to 1 kHz (1 to 5) kHz (5 to 10) kHz	0.022 % + 3.9 μ A 0.014 % + 3.2 μ A 0.009 % + 2.4 μ A 0.39 % + 0.78 mA 0.085 % + 9.3 μ A	
220 mA to 2.2 A	20 Hz to 1 kHz (1 to 5) kHz (5 to 10) kHz	0.022 % + 32 μ A 0.036 % + 78 μ A 0.54 % + 0.16 mA	
(2.2 to 3) A	(10 to 45) Hz 45 Hz to 1 kHz (1 to 5) kHz (5 to 10) kHz	0.12 % + 78 μ A 0.039 % + 78 μ A 0.039 % + 0.78 mA 1.6 % + 3.9 mA	Fluke 5520A
(3 to 11) A	(40 to 1000) Hz (1 to 5) kHz (5 to 10) kHz	0.031 % + 0.13 mA 0.066 % + 0.29 mA 0.26 % + 0.58 mA	Fluke 5725A
(11 to 20) A	(45 to 100) Hz (100 to 1000) Hz (1 to 5) kHz	0.078 % + 3.9 mA 0.10 % + 3.9 mA 1.9 % + 3.9 mA	Fluke 5520A
(20 to 100) A	(45 to 1000) Hz	0.18 % + 0.10 A	Ballantine 1620 / Fluke 5520
Clamp-On Toroidal Type ³ :			
(20 to 150) A	(45 to 65) Hz (65 to 440) Hz	0.30 % + 25 mA 0.80 % + 27 mA	Fluke 5520A with 50 turn coil
(150 to 1000) A	(45 to 65) Hz (65 to 440) Hz	0.27 % + 0.12 A 0.78 % + 0.13 A	

Parameter/Range	Frequency	CMC ^{2, 4, 6} (±)	Comments
AC Current – Generate ³ (cont) Clamp-On Non-Torodal Type ³ :			
(20 to 150) A	(45 to 65) Hz (65 to 440) Hz	0.57 % + 0.25 A 1.0 % + 0.25 A	Fluke 5520A with 50 turn coil
(150 to 1000) A	(45 to 65) Hz (65 to 440) Hz	0.55 % + 0.30 A 1.0 % + 0.90 A	
AC Current – Measure ³			
Up to 200 µA	(1 to 10) Hz 10 Hz to 10 kHz (10 to 30) kHz (30 to 100) kHz	0.046 % + 19 nA 0.046 % + 19 nA 0.060 % + 19 nA 0.31 % + 19 nA	Fluke 8508A
200 µA to 2 mA	(1 to 10) Hz 10 Hz to 10 kHz (10 to 30) kHz (30 to 100) kHz	0.029 % + 0.19 µA 0.026 % + 0.19 µA 0.060 % + 0.19 µA 0.31 % + 0.19 µA	
(2 to 20) mA	(1 to 10) Hz 10 Hz to 10 kHz (10 to 30) kHz (30 to 100) kHz	0.029 % + 1.9 µA 0.026 % + 1.9 µA 0.060 % + 1.9 µA 0.31 % + 1.9 µA	
(20 to 200) mA	(1 to 10) Hz 10 Hz to 10 kHz (10 to 30) kHz	0.029 % + 19 µA 0.024 % + 19 µA 0.054 % + 19 µA	
200 mA to 2 A	10 Hz to 2 kHz (2 to 10) kHz (10 to 30) kHz	0.055 % + 0.19 mA 0.063 % + 0.19 mA 0.23 % + 0.19 mA	
(2 to 20) A	10 Hz to 2 kHz (2 to 10) kHz	0.070 % + 1.9 mA 0.19 % + 1.9 mA	
(21 to 100) A	Up to 1 kHz	0.10 % + 2 mA	Fluke 8508A/VS2575
Up to 10 µA	1 Hz to 30 kHz	0.20 % + 2.5 nA	Fluke 8588A
10 to 100 µA	1 Hz to 2 kHz (2 to 10) kHz (10 to 30) kHz (30 to 300) kHz	0.026 % + 5.0 nA 0.051 % + 5.0 nA 0.072 % + 5.0 nA 0.40 % + 10 nA	

Parameter/Range	Frequency	CMC ^{2, 4, 5, 6} (\pm)	Comments
AC Current – Measure³ (cont)			
100 μ A to 1 mA	1 Hz to 2 kHz (2 to 10) kHz (10 to 30) kHz (30 to 300) kHz	0.026 % + 0.05 μ A 0.051 % + 0.05 μ A 0.072 % + 0.05 μ A 0.40 % + 0.10 μ A	Fluke 8588A
(1 to 10) mA	1 Hz to 2 kHz (2 to 10) kHz (10 to 30) kHz (30 to 300) kHz	0.026 % + 0.50 μ A 0.051 % + 0.50 μ A 0.072 % + 0.50 μ A 0.40 % + 1 μ A	
(10 to 100) mA	1 Hz to 2 kHz (2 to 10) kHz (10 to 30) kHz	0.026 % + 5.0 μ A 0.05 % + 5.0 μ A 0.07 % + 5.0 μ A	
100 mA to 1 A	1 Hz to 2 kHz (2 to 10) kHz (10 to 30) kHz	0.026 % + 0.10 mA 0.051 % + 0.10 mA 0.071 % + 0.10 mA	
(1 to 10) A	10 Hz to 10 kHz	0.08 % + 0.50 mA	
(10 to 30) A	10 Hz to 2 kHz (2 to 10) kHz	0.08 % + 12 mA 0.12 % + 12 mA	
Capacitance – Generate³			
(0 to 1.2) nF (1.2 to 12) nF (12 to 120) nF (0.12 to 1.2) μ F (1.2 to 12) μ F (12 to 120) μ F (0.12 to 1.2) mF (1.2 to 12) mF (12 to 120) mF	100 Hz to 10 kHz 10 Hz to 10 kHz 10 Hz to 1.3 kHz (2 to 310) Hz (0.5 to 110) Hz (0.5 to 40) Hz (0.1 to 11) Hz (0.03 to 4) Hz (0.01 to 1.3) Hz	0.15 % + 2.7 pF 0.15 % + 7.8 pF 0.12 % + 39 pF 0.12 % + 0.39 nF 0.12 % + 3.9 nF 0.12 % + 39 nF 0.28 % + 0.39 μ F 0.28 % + 3.9 μ F 0.62 % + 39 μ F	Fluke 5550A
(0.19 to 0.4) nF (0.4 to 1.1) nF (1.1 to 3.3) nF (3.3 to 11) nF (11 to 33) nF (33 to 110) nF (110 to 330) nF (0.33 to 1.1) μ F (1.1 to 3.3) μ F	10 Hz to 10 kHz 10 Hz to 10 kHz 10 Hz to 3 kHz 10 Hz to 1 kHz 10 Hz to 1 kHz 10 Hz to 1 kHz 10 Hz to 1 kHz (10 to 600) Hz (10 to 300) Hz	0.29 % + 7.8 pF 0.29 % + 7.8 pF 0.29 % + 7.8 pF 0.15 % + 7.8 pF 0.15 % + 78 pF 0.15 % + 78 pF 0.15 % + 0.23 nF 0.15 % + 0.78 nF 0.15 % + 2.3 nF	

Parameter/Range	Frequency	CMC ^{2, 4, 5, 6} (±)	Comments
Capacitance – Generate ³ (cont)			
(3.3 to 11) μF	(10 to 150) Hz	0.29 % + 7.8 pF	Fluke 5520A
(11 to 33) μF	(10 to 120) Hz	0.23 % + 23 nF	
(33 to 110) μF	(10 to 80) Hz	0.26 % + 78 nF	
(110 to 330) μF	Up to 50 Hz	0.26 % + 0.23 μF	
(0.33 to 1.1) mF	Up to 20 Hz	0.26 % + 0.78 μF	
Capacitance – Generate, Fixed Values ³			
100 pF	1 kHz	0.10 %	GR 1409
1 nF	1 kHz	0.054 %	
10 nF	1 kHz	0.054 %	
100 nF	1 kHz	0.054 %	
1 μF	1 kHz	0.054 %	
10 μF	100 Hz	0.064 %	CRC X93X106
100 μF	100 Hz	0.20 %	CRC X93X107
900 μF	50 Hz	0.22 %	CISG-900 μF
Capacitance – Measure ³			
Up to 6400 pF	1 kHz	0.020 %	GR 1689 RLC Digibridge
(6.4 to 100) nF	1 kHz	0.021 %	
(100 to 1600) nF	1 kHz	0.020 %	
(1.6 to 25) μF	1 kHz	0.021 %	
Up to 6400 pF	100 Hz	0.040 %	
(6.4 to 100) nF	100 Hz	0.040 %	
(100 to 1600) nF	100 Hz	0.040 %	
(1.6 to 25) μF	100 Hz	0.040 %	
Up to 6400 pF	10 kHz	0.050 %	
(6.4 to 100) nF	10 kHz	0.050 %	
(100 to 1600) nF	10 kHz	0.050 %	
(1.6 to 25) μF	10 kHz	0.41 %	
Up to 6400 pF	20 kHz	0.070 %	
(6.4 to 100) nF	100 kHz	0.32 %	
(100 to 1600) nF	100 kHz	0.32 %	

Parameter/Range	Frequency	CMC ^{2, 4, 5, 6} (±)	Comments
Inductance – Generate ³			
(13 to 120) μH	1 kHz	0.21 % + 19 nH	Fluke 5550A
(0.12 to 1.2) mH	1 kHz	0.14 % + 0.9 μH	
(1.2 to 12) mH	110 Hz	0.14 % + 9.3 μH	
(12 to 120) mH	100 Hz	0.14 % + 93 μH	
(0.12 to 1.2) H	10 Hz	0.18 % + 0.9 mH	
(1.2 to 12) H	3 Hz	0.21 % + 9.3 mH	
(12 to 120) H	2 Hz	0.28 % + 93 mH	
100 μH	10 kHz 1 kHz	0.053 % 0.11 %	
1 mH	1 kHz 100 Hz	0.026 % 0.31 %	
10 mH	1 kHz 100 Hz	0.023 % 0.042 %	
100 mH	1 kHz 100 Hz	0.024 % 0.042 %	
1 H	1 kHz 100 Hz	0.023 % 0.042 %	
10 H	1 kHz 100 Hz	0.024 % 0.042 %	
Phase – Measure ³			
(0 to 360)° 10 mV to 630 V	5 Hz to <2 kHz (2 to 5) kHz (>5 to 10) kHz (>10 to 50) kHz	0.021° 0.033° 0.042° 0.052°	Clarke-Hess 6000
Inductance – Measure ³			
(4.1 to 65) H	1 kHz	0.023 %	GR 1689 RLC Digibridge
(256 to 4100) mH	1 kHz	0.023 %	
(16 to 256) mH	1 kHz	0.023 %	
(1 to 16) mH	1 kHz	0.023 %	
100 uH	1kHz	0.11 %	
(4.1 to 65) H	100 Hz	0.11 %	
(256 to 4100) mH	100 Hz	0.042 %	
(16 to 256) mH	100 Hz	0.042 %	
(1 to 16) mH	100 Hz	0.042 %	
(4.1 to 65) H	10 kHz	1.6 %	

Parameter/Range	Frequency	CMC ^{2, 4, 5, 6} (±)	Comments
Inductance – Measure ³ (cont)			
(256 to 4100) mH	10 kHz	0.17 %	GR 1689 RLC Digibridge
(16 to 256) mH	10 kHz	0.052 %	
(0.1 to 16) mH	10 kHz	0.052 %	
(0.1 to 16) mH	100 kHz	0.32 %	

Parameter/Equipment	Range	CMC ^{2, 6} (±)	Comments
Electrical Simulation of Thermocouple Devices – Generate & Measure			
Type E	(-250 to -100) °C	0.29 °C	Fluke 5520A
	(-100 to -25) °C	0.093 °C	
	(-25 to 350) °C	0.078 °C	
	(350 to 650) °C	0.093 °C	
	(650 to 1000) °C	0.12 °C	
Type J	(-250 to -150) °C	0.25 °C	Fluke 5550A
	(-150 to -25) °C	0.078 °C	
	(-25 to 350) °C	0.07 °C	
	(350 to 650) °C	0.10 °C	
	(650 to 1200) °C	0.12 °C	
Type J	(-210 to -100) °C	0.16 °C	Fluke 5520A
	(-100 to -30) °C	0.093 °C	
	(-30 to 150) °C	0.078 °C	
	(150 to 760) °C	0.10 °C	
	(760 to 1200) °C	0.14 °C	
Type J	(-210 to -100) °C	0.15 °C	Fluke 5550A
	(-100 to -30) °C	0.078 °C	
	(-30 to 150) °C	0.07 °C	
	(150 to 760) °C	0.085 °C	
	(760 to 1200) °C	0.12 °C	

Parameter/Equipment	Range	CMC ^{2,6} (±)	Comments	
Electrical Simulation of Thermocouple Devices – Generate & Measure (cont)	Type K	(-200 to -100) °C	0.19 °C	Fluke 5520A
		(-100 to -25) °C	0.11 °C	
		(-25 to 120) °C	0.093 °C	
		(120 to 1000) °C	0.15 °C	
		(1000 to 1372) °C	0.23 °C	
	Type N	(-200 to -100) °C	0.17 °C	Fluke 5550A
		(-100 to -25) °C	0.078 °C	
		(-25 to 120) °C	0.07 °C	
		(120 to 1000) °C	0.13 °C	
		(1000 to 1372) °C	0.22 °C	
	Type N	(-200 to -100) °C	0.23 °C	Fluke 5520A
		(-100 to -25) °C	0.13 °C	
		(-25 to 120) °C	0.12 °C	
		(120 to 410) °C	0.11 °C	
		(410 to 1300) °C	0.16 °C	
	Type R	(-200 to -100) °C	0.20 °C	Fluke 5550A
(-100 to -25) °C		0.093 °C		
(-25 to 120) °C		0.078 °C		
(120 to 410) °C		0.07 °C		
(410 to 1300) °C		0.12 °C		
Type R	(0 to 250) °C	0.37 °C	Fluke 5520A	
	(250 to 400) °C	0.22 °C		
	(400 to 1000) °C	0.20 °C		
	(1000 to 1767) °C	0.23 °C		
	(0 to 250) °C	0.32 °C		Fluke 5550A
(250 to 400) °C	0.18 °C			
(400 to 1000) °C	0.17 °C			
(1000 to 1767) °C	0.21 °C			
Type S	(0 to 250) °C	0.36 °C	Fluke 5520A	
	(250 to 1000) °C	0.23 °C		
	(1000 to 1400) °C	0.22 °C		
	(1400 to 1767) °C	0.26 °C		
	(0 to 250) °C	0.26 °C		Fluke 5550A
(250 to 1000) °C	0.19 °C			
(1000 to 1400) °C	0.20 °C			
(1400 to 1767) °C	0.26 °C			

Parameter/Equipment	Range	CMC ^{2, 6} (±)	Comments
Electrical Simulation of Thermocouple Devices – Generate & Measure (cont)			
Type T	(-250 to -150) °C (-150 to 0) °C (0 to 120) °C (120 to 400) °C	0.37 °C 0.14 °C 0.093 °C 0.078 °C	Fluke 5520A
	(-250 to -150) °C (-150 to 0) °C (0 to 120) °C (120 to 400) °C	0.37 °C 0.13 °C 0.078 °C 0.07 °C	Fluke 5550A
Electrical Simulation of RTD Indicators & Indicating Systems ³ – Generate			
Pt 385, 100 Ω	(-200 to -80) °C (-80 to 0) °C (0 to 100) °C (100 to 300) °C (300 to 400) °C (400 to 630) °C (630 to 800) °C	0.031 °C 0.039 °C 0.054 °C 0.062 °C 0.070 °C 0.078 °C 0.16 °C	Fluke 5520A
	(-200 to -80) °C (-80 to 0) °C (0 to 100) °C (100 to 300) °C (300 to 400) °C (400 to 630) °C (630 to 800) °C	0.039 °C 0.039 °C 0.047 °C 0.062 °C 0.070 °C 0.085 °C 0.15 °C	Fluke 5550A

Parameter/Equipment	Range	CMC ^{2, 5, 6} (±)	Comments
Oscilloscopes ³ –			
DC Signal Output			
50 Ω Load	(-6 to 6) V	0.19 % + 31 μV	Fluke 5520A/SC600
1 MΩ Load	(-130 to 130) V	0.039 % + 31 μV	
50 Ω Load	(-6 to 6.6) V	0.19 % + 31 μV	Fluke 5550A/SC1100
1 MΩ Load	(-120 to 120) V	0.039 % + 31 μV	
Square Wave Output – V(p-p)			
50 Ω Load	1 mV to 6.6 V	0.19 % + 31 μV	Fluke 5520A/SC600
1 MΩ Load	1 mV to 130 V	0.078 % + 31 μV	
50 Ω Load	1 mV to 6.6 V	0.19 % + 31 μV	Fluke 5550A/SC1100
1 MΩ Load	1 mV to 120 V	0.078 % + 31 μV	
Leveled Sine Wave (Into 50 Ω) – V(p-p)			
5 mV to 5.5 V	50 kHz Reference	1.6 % + 0.23 mV	Fluke 5520A/SC600
5 mV to 5.5 V	50 kHz Reference	1.6 % + 0.23 mV	Fluke 5550A/SC1100
Leveled Sine Flatness (50 kHz Reference)			
5 mV to 5.5 V	50 kHz to 100 MHz	1.2 % + 78 μV	Fluke 5520A/SC600
	(100 to 300) MHz	1.6 % + 78 μV	
	(300 to 600) MHz	3.1 % + 78 μV	
5 mV to 5.5 V	50 kHz to 10 MHz	1.2 % + 78 μV	Fluke 5550A/SC1100
	(10 to 600) MHz	2.3 % + 78 μV	
5 mV to 3.5 V	(600 to 1100) MHz	3.1 % + 78 μV	
Time Marker (50 Ω Load)			
	(5 to 2) ns	1.9 μs/s	Fluke 5520A/SC600
	10 ns	1.9 μs/s	
	(50 to 20) ns	1.9 μs/s	
	20 ms to 100 ns	1.9 μs/s	
	5 s to 50 ms	58 μs/s	
	5 s to 2 ns	1.9 μs/s	Fluke 5550A/SC1100

Parameter/Equipment	Frequency	CMC ^{2, 6} (±)	Comments
AC Power ³ – Generate 0.5 = < PF <=1 (1.0 to 1008) V (0.1 to 50) A	(16 to 850) Hz	67 μW/W	Fluke 6105A

II. Electrical – Microwave/RF

Parameter/Range	Frequency	CMC ^{2, 4, 6} (±)	Comments
RF Power – Generate ³ (-48 to 24) dBm (-74 to -48) dBm (-94 to -74) dBm (-48 to 20) dBm (-17 to 20) dBm (-74 to -17) dBm (-17 to 20) dBm (-94 to -74) dBm (-130 to -94) dBm	10 Hz to 125 MHz 100 kHz to 125 MHz 100 kHz to 300 MHz (125 to 300) MHz 300 MHz to 1.4 GHz 300 MHz to 4 GHz (3 to 4) GHz 300 MHz to 4 GHz 10 MHz to 3 GHz	0.039 dBm 0.16 dBm 0.39 dBm 0.078 dBm 0.39 dBm 0.78 dBm 0.39 dBm 0.39 dBm 1.2 dBm	Fluke 9640A with Fluke 9640A-50 head

III. Mechanical

Parameter/Equipment	Range	CMC ^{2, 5, 6} (±)	Comments
Pressure – Pneumatic Pressure/Vacuum Gauges & Tools	(-15 to 0) lb/in ² (0 to 3.6) lb/in ² (0 to 5) lb/in ² (0 to 15) lb/in ² (0 to 30) lb/in ² (0 to 100) lb/in ² (0 to 200) lb/in ² (0 to 300) lb/in ² (0 to 600) lb/in ² (0 to 1000) lb/in ² (0 to 2500) lb/in ² -100 to 200 kPa	0.029 kPa 0.007 kPa 0.011 kPa 0.029 kPa 0.056 kPa 0.21 kPa 0.38 kPa 0.56 kPa 1.1 kPa 2.1 kPa 4.4 kPa 0.02 kPa	Heise ST-2H digital indicator with HQS-2 module HQS-1 module HQS-2 module Fluke PM500-BG200K

Parameter/Equipment	Range	CMC ^{2, 5, 6} (±)	Comments
Pressure – Pneumatic Pressure/Vacuum Gauges & Tools	-100 to 1000 kPA 1001 to 2000 kPA	0.1 kPa 0.01 %	Fluke PM500-BG2M
	-100 to 2000 kPA 2001 to 4000 kPA	0.2 kPa 0.01 %	Fluke PM500-BG4M
	-100 to 5000 kPA 5001 to 10 000 kPA	0.5 kPa 0.01 %	Fluke PM500-BG10M
	-100 to 10 000 kPA 10 001 to 20 000 kPA	1.0 kPa 0.01 %	Fluke PM500-BG20M
Torque – Torque Wrenches & Tools	(5 to 50) lbf·in (40 to 400) lbf·in (100 to 1000) lbf·in (25 to 250) lbf·ft	0.28 % 0.28 % 0.28 % 0.28 %	CDI 5000-ST with CDI 2000-400-02 4 in 1 transducer
	(60 to 600) lbf·ft	0.28 %	CDI 5000-ST with CDI 2000-12-02
	(100 to 1000) lbf·ft	0.28 %	CDI 5000-ST with CDI 2000-13-02

IV. Time & Frequency

Parameter/Equipment	Range	CMC ^{2, 6, 8} (±)	Comments
Frequency – Measure	Up to 3 GHz	0.18 uHz/Hz	HP53132 OPT.010
Frequency – Generate	10 MHz Up to 80 MHz 80 MHz to 4 GHz	6 x 10 ⁻¹² Hz 2.0 µHz/Hz 0.031 µHz/Hz + 0.12 mHz	HP 58503B / GPS HP33250A Fluke 9640

¹ This laboratory offers commercial calibration service and field calibration service.

² Calibration and Measurement Capability Uncertainty (CMC) is the smallest uncertainty of measurement that a laboratory can achieve within its scope of accreditation when performing more or less routine calibrations of nearly ideal measurement standards or nearly ideal measuring equipment. CMCs represent expanded uncertainties expressed at approximately the 95 % level of confidence, usually using a coverage factor of $k = 2$. The actual measurement uncertainty of a specific calibration performed by the laboratory may be greater than the CMC due to the behavior of the customer's device and to influences from the circumstances of the specific calibration.

- ³ Field calibration service is available for this calibration. Please note the actual measurement uncertainties achievable on a customer's site can normally be expected to be larger than the CMC found on the A2LA Scope. Allowance must be made for aspects such as the environment at the place of calibration and for other possible adverse effects such as those caused by transportation of the calibration equipment. The usual allowance for the actual uncertainty introduced by the item being calibrated, (e.g., resolution) must also be considered and this, on its own, could result in the actual measurement uncertainty achievable on a customer's site being larger than the CMC.
- ⁴ The measurands stated are generated using the indicated instrument (see Comments). This capability is suitable for the calibration of the devices intended to measure the measurand in the ranges indicated. CMCs are expressed as either a specific value that covers the full range or as a fraction/percentage of the reading plus a fixed floor specification.
- ⁵ In the statement of CMC, the value is defined as the percentage of the reading unless otherwise indicated.
- ⁶ In the statement of CMC, the resolution and repeatability of the unit under test is not taken into account.
- ⁷ This scope meets A2LA's *P112 Flexible Scope Policy*.
- ⁸ The type of instrument or material being calibrated is defined by the parameter. This indicates the laboratory is capable of calibrating instruments that measure or generate the values in the ranges indicated for the listed measurement parameter.



Accredited Laboratory

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for technical competence in the field of

Calibration

This laboratory is accredited in accordance with the recognized International Standard ISO/IEC 17025:2017 *General requirements for the competence of testing and calibration laboratories*. This laboratory also meets R205 – Specific Requirements: Calibration Laboratory Accreditation Program. 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).

Presented this 28th day of August 2024.

A handwritten signature in blue ink, appearing to read "Trace McInturff".

Mr. Trace McInturff, Vice President, Accreditation Services
For the Accreditation Council
Certificate Number 3023.01
Valid to May 31, 2026
Revised March 5, 2025



For the calibrations to which this accreditation applies, please refer to the laboratory's Calibration Scope of Accreditation.