



SCOPE OF ACCREDITATION TO ISO/IEC 17025:2017

PYLON ATLANTIC – A DIVISION OF
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CALIBRATION

Valid To: October 31, 2024

Certificate Number: 3630.02

In recognition of the successful completion of the A2LA evaluation process, accreditation is granted to this laboratory to perform the following calibrations^{1, 8}:

I. Dimensional

Parameter/Equipment	Range	CMC ^{2, 4} (±)	Comments
Hand Tools ³ –			
Calipers (OD/ID/Depth)	Up to 24 in (600 mm)	300 μin (7.7 μm)	Gage blocks
Depth Gages	Up to 6 in (150 mm)	300 μin (7.7 μm)	Gage blocks
Height Gages	Up to 24 in (600 mm)	300 μin (7.7 μm)	Gage blocks
Indicators	Up to 2 in (50 mm)	54 μin (1.4 μm)	Gauge blocks
Micrometers (ID/OD/Depth)	Up to 6 in (150 mm) (6 to 24) in (600 mm)	(31 + 1.2L) μin (8 + 4.6L) μin	Gage blocks
Length, 1D – Measure	Up to 12 in Up to 40 in	(20 + 1L) μin 43 μin	ULM Precision height gage with gage block
Flatness – Anvils and Spindles ³	Up to 0.001 in	10 μin	Optical flat

II. Electrical – DC/Low Frequency

Parameter/Equipment	Range	CMC ^{2, 5, 6} (±)	Comments
DC Voltage ³ – Measure	(0 to 202) mV (0.202 to 2.02) V (2.02 to 20.2) V (20.2 to 202) V (202 to 1050) V	7.5 μV/V + 0.2 μV 2.9 μV/V + 0.3 μV 2.9 μV/V + 0.5 μV 4.3 μV/V + 30 μV 4.4 μV/V + 0.5 mV	8588A
	(0 to 120) mV (0.12 to 1.2) V (1.2 to 12) V (12 to 120) V (120 to 1000) V	11 μV/V + 0.35 μV 9.6 μV/V + 0.34 μV 9.6 μV/V + 0.57 μV 12 μV/V + 35 μV (12 + (14V/1000) ²) μV/V + 120 μV	3458A V = voltage
	(0 to 10) kV (10 to 140) kV	0.034 % + 0.034 V 0.091 % + 0.8 V	Vitrek 4700 w/ HVL-150 probe
DC Voltage ³ – Generate	(0 to 329.9999) mV (0.33 to 3.299 999) V (3.3 to 32.999 99) V (33 to 329.9999) V (330 to 1000.000) V	16 μV/V + 0.78 μV 8.6 μV/V + 1.6 μV 9.4 μV/V + 16 μV 14 μV/V + 120 μV 14 μV/V + 1200 μV	Fluke 552X series calibrator
DC Current ³ – Measure	(0 to 20.2) μA (20.2 to 202) μA (0.202 to 2.02) mA (2.02 to 20.2) mA (20.2 to 202) mA (0.202 to 2.02) A (2.02 to 20.2) A (20.2 to 30.2) A	27 μA/A + 0.4 nA 9.8 μA/A + 0.4 nA 9.2 μA/A + 4 nA 14 μA/A + 40 nA 57 μA/A + 1 μA 140 μA/A + 0.1 mA 240 μA/A + 0.4 mA 560 μA/A + 4.4 mA	8588A
	(12 to 120) μA (0.12 to 1.2) mA (1.2 to 12) mA (12 to 120) mA (0.12 to 1.05) A	24 μA/A + 0.93 nA 24 μA/A + 5.8 nA 24 μA/A + 58 nA 41 μA/A + 0.58 μA 0.013 % + 12 μA	3458A

Parameter/Equipment	Range	CMC ^{2,5} (±)	Comments
DC Current ³ – Generate	(0 to 329.999) μ A (0.330 to 3.299 99) mA (3.3 to 32.9999) mA (33 to 329.999) mA (0.33 to 1.099 99) A (1.1 to 2.999 99) A (3 to 10.9999) A (11 to 20.5) A	0.012 % + 0.016 μ A 78 μ A/A + 0.039 μ A 78 μ A/A + 0.20 μ A 78 μ A/A + 2.0 μ A 0.016 % + 32 μ A 0.03 % + 32 μ A 0.039 % + 390 μ A 0.078 % + 580 μ A	Fluke 552X series calibrator
Clamp-On Meters	(20 to 149.999) A (150 to 549.999) A (550 to 1025) A	0.58 % + 0.17 A 0.58 % + 0.58 A 0.59 % + 0.58 A	Fluke 552X series w/ Fluke 552XA/coil
Resistance ³ – Measure	(0 to 10) Ω (10 to 100) Ω 100 Ω to 1 k Ω (1 to 10) k Ω (10 to 100) k Ω 100 k Ω to 1 M Ω (10 to 100) M Ω (10 to 100) M Ω	18 $\mu\Omega/\Omega$ + 58 $\mu\Omega$ 15 $\mu\Omega/\Omega$ + 0.58 m Ω 13 $\mu\Omega/\Omega$ + 0.57 m Ω 13 $\mu\Omega/\Omega$ + 5.7 m Ω 13 $\mu\Omega/\Omega$ + 56 m Ω 18 $\mu\Omega/\Omega$ + 2.3 Ω 0.058 % + 1200 Ω 0.58 % + 12 k Ω	Agilent 3458A
Resistance ³ – Generate	(0 to 10.9999) Ω (11 to 32.9999) Ω (33 to 109.9999) Ω (110 to 329.9999) Ω (330 to 1.099 999) k Ω (1.1 to 3.299 999) k Ω (3.3 to 10.999 99) k Ω (11 to 32.999 99) k Ω (33 to 109.9999) k Ω (110 to 329.9999) k Ω 330 k Ω to 1.099 999 M Ω (1.1 to 3.299 999) M Ω (3.3 to 10.999 99) M Ω (11 to 32.999 99) M Ω (33 to 109.9999) M Ω (110 to 329.9999) M Ω (330 to 1100) M Ω	32 $\mu\Omega/\Omega$ + 0.78 m Ω 24 $\mu\Omega/\Omega$ + 1.2 m Ω 22 $\mu\Omega/\Omega$ + 1.1 m Ω 22 $\mu\Omega/\Omega$ + 1.6 m Ω 22 $\mu\Omega/\Omega$ + 1.6 m Ω 22 $\mu\Omega/\Omega$ + 16 m Ω 22 $\mu\Omega/\Omega$ + 16 m Ω 22 $\mu\Omega/\Omega$ + 0.16 Ω 22 $\mu\Omega/\Omega$ + 0.16 Ω 25 $\mu\Omega/\Omega$ + 1.6 Ω 25 $\mu\Omega/\Omega$ + 1.6 Ω 47 $\mu\Omega/\Omega$ + 24 Ω 0.011 % + 36 Ω 0.02 % + 2.0 k Ω 0.039 % + 2.4 k Ω 0.24 % + 78 k Ω 1.2 % + 390 k Ω	Fluke 552X series calibrator

Parameter/Equipment	Range	CMC ^{2, 5} (±)	Comments
Resistance ³ – Measure/Generate	(0 to 2.02) Ω (2.02 to 20.2) Ω (20.2 to 202) Ω 202 Ω to 2.02 kΩ (2.02 to 20.2) kΩ (20.2 to 202) kΩ 202 kΩ to 2.02 MΩ (2.02 to 20.2) MΩ (20.2 to 202) MΩ 202 MΩ to 2.02 GΩ (2.02 to 20.2) GΩ	17 μΩ/Ω + 4 μΩ 10 μΩ/Ω + 14 μΩ 9.2 μΩ/Ω + 50 μΩ 9.1 μΩ/Ω + 0.5 mΩ 9.2 μΩ/Ω + 5 mΩ 9.3 μΩ/Ω + 50 mΩ 11 μΩ/Ω + 1 Ω 17 μΩ/Ω + 10 Ω 68 μΩ/Ω + 1 kΩ 230 μΩ/Ω + 0.1 MΩ 0.14 % + 10 MΩ	8588A with 552X series calibrator or standard resistors

Parameter/Range	Frequency	CMC ^{2, 5} (±)	Comments
AC Voltage ³ – Measure			
(1 to 10) mV	(1 to 40) Hz 40 Hz to 1 kHz (1 to 20) kHz (20 to 50) kHz (50 to 100) kHz (100 to 300) kHz	0.035 % + 3.5 μV 0.024 % + 1.3 μV 0.035 % + 1.3 μV 0.12 % + 1.3 μV 0.58 % + 1.3 μV 4.7 % + 2.4 μV	Agilent 3458A
(10 to 100) mV	(1 to 40) Hz 40 Hz to 1 kHz (1 to 20) kHz (20 to 50) kHz (50 to 100) kHz (100 to 300) kHz 300 kHz to 1 MHz (1 to 2) MHz	0.0081 % + 4.7 μV 0.0081 % + 2.4 μV 0.017 % + 2.4 μV 0.035 % + 2.4 μV 0.093 % + 2.4 μV 0.35 % + 12 μV 1.2 % + 12 μV 1.8 % + 12 μV	
(0.1 to 1.0) V	(1 to 40) Hz 40 Hz to 1 kHz (1 to 20) kHz (20 to 50) kHz (50 to 100) kHz (100 to 300) kHz 300 kHz to 1 MHz (1 to 2) MHz	0.0081 % + 47 μV 0.0081 % + 24 μV 0.017 % + 24 μV 0.035 % + 24 μV 0.093 % + 24 μV 0.35 % + 120 μV 1.2 % + 120 μV 1.8 % + 120 μV	

Parameter/Range	Frequency	CMC ^{2, 5, 6} (±)	Comments
AC Voltage ³ – Measure (cont)			
(1.0 to 10.0) V	(1 to 40) Hz 40 Hz to 1 kHz (1 to 20) kHz (20 to 50) kHz (50 to 100) kHz (100 to 300) kHz 300 kHz to 1 MHz (1 to 2) MHz	0.0081 % + 0.47 mV 0.0081 % + 0.24 mV 0.017 % + 0.24 mV 0.035 % + 0.24 mV 0.093 % + 0.24 mV 0.35 % + 1.2 mV 1.2 % + 1.2 mV 1.8 % + 1.2 mV	Agilent 3458A
(10.0 to 100.0) V	(1 to 40) Hz 40 Hz to 1 kHz (1 to 20) kHz (20 to 50) kHz (50 to 100) kHz (100 to 300) kHz 300 kHz to 1 MHz	0.024 % + 4.7 mV 0.024 % + 2.4 mV 0.024 % + 2.4 mV 0.041 % + 2.4 mV 0.14 % + 2.4 mV 0.47 % + 12 mV 1.8 % + 12 mV	
(100.0 to 700) V	(1 to 40) Hz 40 Hz to 1 kHz (1 to 20) kHz (20 to 50) kHz (50 to 100) kHz	0.047 % + 47 mV 0.047 % + 24 mV 0.07 % + 24 mV 0.14 % + 24 mV 0.35 % + 24 mV	
(0.1212 to 12.12) mV	1 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	290 μV/V + 1.1 μV 370 μV/V + 1.1 μV 380 μV/V + 1.1 μV 0.3 % + 1.1 μV 1 % + 4 μV 2 % + 4 μV	8588A
(12.12 to 121.2) mV	1 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 (1 to 2) MHz (2 to 4) MHz (4 to 8) MHz (8 to 10) MHz	88 μV/V + 0.5 μV 130 μV/V + 0.5 μV 230 μV/V + 1 μV 530 μV/V + 5 μV 0.21 % + 30 μV 1.1 % + 0.1 mV 1.6 % + 0.5 mV 4.1 % + 1 mV 8.4 % + 1 mV 16 % + 1 mV	

Parameter/Range	Frequency	CMC ^{2,5} (±)	Comments
AC Voltage ³ – Measure (cont)			
(0.1212 to 1.212) V	1 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 (1 to 2) MHz (2 to 4) MHz (4 to 8) MHz (8 to 10) MHz	76 µV/V + 5 µV 130 µV/V + 5 µV 230 µV/V + 10 µV 530 µV/V + 50 µV 0.21 % + 0.3 mV 1 % + 1 mV 1.5 % + 5 mV 4 % + 10 mV 8.2 % + 10 mV 16 % + 10 mV	8588A
(1.212 to 12.12) V	1 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 (1 to 2) MHz (2 to 4) MHz (4 to 8) MHz (8 to 10) MHz	76 µV/V + 50 µV 130 µV/V + 50 µV 230 µV/V + 100 µV 530 µV/V + 500 µV 0.21 % + 3 mV 1 % + 10 mV 1.5 % + 50 mV 4 % + 100 mV 8.2 % + 100 mV 16 % + 100 mV	
(12.12 to 121.2) V	1 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	90 µV/V + 0.5 mV 110 µV/V + 0.5 mV 230 µV/V + 1 mV 590 µV/V + 5 mV 0.37 % + 50 mV 1.1 % + 0.5 V	
(121.2 to 1050) V	1 Hz to 2 kHz (2 to 10) kHz (10 to 30) kHz (30 to 100) kHz	110 µV/V + 25 mV 110 µV/V + 25 mV 230 µV/V + 25 mV 590 µV/V + 100 mV	
(0.1 to 10) kV (10 to 100) kV	60 Hz 60 Hz	0.14 % + 0.11 V 0.57 % + 1.1 V	Vitrek 4700 w/ HLV-150 probe

Parameter/Range	Frequency	CMC ^{2,5} (±)	Comments
AC Voltage ³ – Generate			
(1 to 32.999) mV	(10 to 45) Hz 45 Hz to 10 kHz (10 to 20) kHz (20 to 50) kHz (50 to 100) kHz (100 to 500) kHz	0.063 % + 4.7 μV 0.012 % + 4.7 μV 0.016 % + 4.7 μV 0.078 % + 4.7 μV 0.28 % + 9.4 μV 0.63 % + 39 μV	Fluke 552X series calibrator
(33 to 329.999) mV	(10 to 45) Hz 45 Hz to 10 kHz (10 to 20) kHz (20 to 50) kHz (50 to 100) kHz (100 to 500) kHz	0.024 % + 6.3 μV 0.012 % + 6.3 μV 0.013 % + 6.3 μV 0.028 % + 6.3 μV 0.063 % + 25 μV 0.16 % + 55 μV	
(0.33 to 3.299 99) V	(10 to 45) Hz 45 Hz to 10 kHz (10 to 20) kHz (20 to 50) kHz (50 to 100) kHz (100 to 500) kHz	0.024 % + 39 μV 0.012 % + 47 μV 0.015 % + 47 μV 0.024 % + 39 μV 0.055 % + 97 μV 0.19 % + 470 μV	
(3.3 to 32.9999) V	(10 to 45) Hz 45 Hz to 10 kHz (10 to 20) kHz (20 to 50) kHz (50 to 100) kHz	0.024 % + 510 μV 0.012 % + 470 μV 0.019 % + 470 μV 0.028 % + 470 μV 0.07 % + 1300 μV	
(33 to 329.999) V	45 Hz to 1 kHz (1 to 10) kHz (10 to 20) kHz (20 to 50) kHz (50 to 100) kHz	0.015 % + 1600 μV 0.016 % + 4700 μV 0.02 % + 4700 μV 0.024 % + 4700 μV 0.16 % + 39 000 μV	
(330 to 1020) V	45 Hz to 1 kHz (1 to 5) kHz (5 to 10) kHz	0.024 % + 7800 μV 0.02 % + 7800 μV 0.024 % + 7800 μV	

Parameter/Range	Frequency	CMC ^{2,5} (±)	Comments
AC Current ³ – Measure			
(5 to 100) µA	(10 to 20) Hz (20 to 45) Hz (45 to 100) Hz 100 Hz to 1 kHz	0.47 % + 0.035 µA 0.18 % + 0.035 µA 0.07 % + 0.035 µA 0.07 % + 0.035 µA	Agilent 3458A
(0.05 to 1) mA	(10 to 20) Hz (20 to 45) Hz (45 to 100) Hz 100 Hz to 1 kHz	0.47 % + 0.24 µA 0.18 % + 0.24 µA 0.07 % + 0.24 µA 0.035 % + 0.24 µA	
(0.5 to 10) mA	(10 to 20) Hz (20 to 45) Hz (45 to 100) Hz 100 Hz to 1 kHz	0.47 % + 2.4 µA 0.18 % + 2.4 µA 0.07 % + 2.4 µA 0.035 % + 2.4 µA	
(5 to 100) mA	(10 to 20) Hz (20 to 45) Hz (45 to 100) Hz 100 Hz to 1 kHz	0.47 % + 24 µA 0.18 % + 24 µA 0.07 % + 24 µA 0.035 % + 24 µA	
(0.05 to 1) A	(10 to 20) Hz (20 to 45) Hz (45 to 100) Hz 100 Hz to 1 kHz	0.47 % + 240 µA 0.19 % + 240 µA 0.093 % + 240 µA 0.12 % + 240 µA	
(0.202 to 20.2) µA	1 Hz to 2 kHz (2 to 10) kHz	0.21 % + 2.5 nA 0.21 % + 2.5 nA	8588A
(20.2 to 202) µA	1 Hz to 2 kHz (2 to 10) kHz (10 to 30) kHz	280 µA/A + 5 nA 530 µA/A + 5 nA 740 µA/A + 5 nA	
(0.202 to 2.02) mA	1 Hz to 2 kHz (2 to 10) kHz (10 to 30) kHz	280 µA/A + 50 nA 530 µA/A + 50 nA 740 µA/A + 50 nA	
(2.02 to 20.2) mA	1 Hz to 2 kHz (2 to 10) kHz (10 to 30) kHz	280 µA/A + 0.5 µA 530 µA/A + 0.5 µA 740 µA/A + 0.5 µA	
(20.2 to 202) mA	1 Hz to 2 kHz (2 to 10) kHz (10 to 30) kHz	280 µA/A + 5 µA 520 µA/A + 5 µA 740 µA/A + 5 µA	
(0.202 to 2.02) A	1 Hz to 2 kHz (2 to 10) kHz	300 µA/A + 0.1 mA 550 µA/A + 0.1 mA	

Parameter/Range	Frequency	CMC ^{2,5} (±)	Comments
AC Current ³ – Measure (cont)			
(2.02 to 20.2) A	10 Hz to 2 kHz (2 to 10) kHz	840 µA/A + 0.5 mA 840 µA/A + 0.5 mA	8588A
(20.2 to 30.2) A	10 Hz to 2 kHz (2 to 10) kHz	840 µA/A + 12 mA 0.13 % + 12 mA	
AC Current ³ – Generate			
(29 to 329.99) µA	(10 to 20) Hz (20 to 45) Hz 45 to 1 kHz (1 to 5) kHz (5 to 10) kHz (10 to 30) kHz	0.16 % + 0.078 µA 0.12 % + 0.078 µA 0.097 % + 0.078 µA 0.24 % + 0.12 µA 0.63 % + 0.16 µA 1.3 % + 0.32 µA	Fluke 5500 series calibrator
(0.33 to 3.2999) mA	(10 to 20) Hz (20 to 45) Hz 45 to 1 kHz (1 to 5) kHz (5 to 10) kHz (10 to 30) kHz	0.16 % + 0.12 µA 0.097 % + 0.12 µA 0.078 % + 0.12 µA 0.16 % + 0.16 µA 0.39 % + 0.24 µA 0.78 % + 0.47 µA	
(3.3 to 32.999) mA	(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	0.14 % + 1.6 µA 0.07 % + 1.6 µA 0.032 % + 1.6 µA 0.063 % + 1.6 µA 0.16 % + 2.4 µA 0.32 % + 3.2 µA	
(33 to 329.99) mA	(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	0.14 % + 16 µA 0.07 % + 16 µA 0.032 % + 16 µA 0.078 % + 39 µA 0.16 % + 78 µA 0.32 % + 160 µA	
(0.33 to 1.099 99) A	(10 to 45) Hz 45 Hz to 1 kHz (1 to 5) kHz (5 to 10) kHz	0.14 % + 78 µA 0.039 % + 78 µA 0.47 % + 780 µA 2.0 % + 3900 µA	

Parameter/Range	Frequency	CMC ^{2,5} (±)	Comments
AC Current ³ – Generate (cont)			
(1.1 to 2.999 99) A	(10 to 45) Hz 45 Hz to 1 kHz (1 to 5) kHz (5 to 10) kHz	0.14 % + 78 µA 0.047 % + 78 µA 0.47 % + 780 µA 2.0 % + 3900 µA	552X series calibrator
(3 to 10.9999) A	(45 to 100) Hz 100 Hz to 1 kHz (1 to 5) kHz	0.047 % + 1600 µA 0.078 % + 1600 µA 2.4 % + 1600 µA	
(11 to 20.5) A	(45 to 100) Hz 100 Hz to 1 kHz (1 to 5) kHz	0.094 % + 3900 µA 0.12 % + 3900 µA 2.4 % + 3900 µA	
Clamp-On Meters: (Toroidal Type)			
(20 to 54.999) A (55 to 149.999) A (150 to 1025) A	(45 to 65) Hz	0.31 % + 0.054 A 0.34 % + 0.042 A 0.34 % + 0.13 A	552X series w/ 5500A/coil
(20 to 54.999) A (55 to 149.999) A (150 to 400) A	(65 to 440) Hz	0.93 % + 0.054 A 0.94 % + 0.046 A 1.2 % + 0.22 A	
Clamp-On Meters: (Non-Toroidal Type)			
(20 to 149.999) A (150 to 549.999) A (550 to 1025) A	(45 to 65) Hz	0.65 % + 0.30 A 0.66 % + 1.1 A 0.65 % + 1.1 A	
(20 to 149.999) A (150 to 400) A	(65 to 440) Hz	1.2 % + 0.30 A 1.4 % + 1.1 A	

Parameter/Range	Frequency	CMC ^{2,5} (±)	Comments
Capacitance – Measure/Generate	(0 to 2.02) nF (1.8 to 20.2) nF (18 to 202) nF (0.18 to 2.02) μF (1.8 to 20.2) μF (18 to 202) μF (0.18 to 2.02) mF (1.8 to 20.2) mF (18 to 202) mF	0.19 % + 1 pF 810 μF/F + 2 pF 490 μF/F + 10 pF 420 μF/F + 0.1 nF 420 μF/F + 1 nF 620 μF/F + 10 nF 620 μF/F + 0.1 μF 720 μF/F + 1 μF 720 μF/F + 10 μF	8588A with 552X series calibrator
Capacitance ³ – Generate			
(0.22 to 0.399 99) nF	10 Hz to 10 kHz	0.39 % + 0.0078 nF	Fluke 552X series calibrator
(0.4 to 1.0999) nF	10 Hz to 10 kHz	0.39 % + 0.0078 nF	
(1.1 to 3.2999) nF	10 Hz to 3 kHz	0.39 % + 0.0078 nF	
(3.3 to 10.999) nF	10 Hz to 1 kHz	0.20 % + 0.0078 nF	
(11 to 32.9999) nF	10 Hz to 1 kHz	0.20 % + 0.078 nF	
(33 to 109.999) nF	10 Hz to 1 kHz	0.20 % + 0.078 nF	
(110 to 329.999) nF	10 Hz to 1 kHz	0.20 % + 0.24 nF	
(0.33 to 1.099 99) μF	(10 to 600) Hz	0.20 % + 0.78 nF	
(1.1 to 3.299 99) μF	(10 to 300) Hz	0.20 % + 2.4 nF	
(3.3 to 10.9999) μF	(10 to 150) Hz	0.20 % + 7.8 nF	
(11 to 32.9999) μF	(10 to 120) Hz	0.32 % + 24 nF	
(33 to 109.999) μF	(10 to 80) Hz	0.35 % + 78 nF	
(110 to 329.999) μF	(0 to 50) Hz	0.35 % + 240 nF	
(0.33 to 1.099 99) mF	(0 to 20) Hz	0.35 % + 0.78 μF	
(1.1 to 3.2999) mF	(0 to 6) Hz	0.35 % + 2.4 μF	
(3.3 to 10.9999) mF	(0 to 2) Hz	0.35 % + 7.8 μF	
(11 to 32.9999) mF	(0 to 0.6) Hz	0.59 % + 24 μF	
(33 to 110) mF	(0 to 0.2) Hz	0.86 % + 78 μF	

Parameter/Equipment	Range	CMC ² (±)	Comments
Electrical Simulation of Thermocouples and Thermocouple Indicating Devices ³ – Generate			
Type B	(600 to 800) °C (800 to 1000) °C (1000 to 1550) °C (1550 to 1820) °C	0.35 °C 0.27 °C 0.24 °C 0.26 °C	Fluke 552X series calibrator
Type E	(-250 to -100) °C (-100 to -25) °C (-25 to 350) °C (350 to 650) °C (650 to 1000) °C	0.39 °C 0.13 °C 0.11 °C 0.13 °C 0.17 °C	
Type J	(-210 to -100) °C (-100 to -30) °C (-30 to 150) °C (150 to 760) °C (760 to 1200) °C	0.21 °C 0.13 °C 0.11 °C 0.14 °C 0.18 °C	
Type K	(-200 to -100) °C (-100 to -25) °C (-25 to 120) °C (120 to 1000) °C (1000 to 1372) °C	0.26 °C 0.14 °C 0.13 °C 0.21 °C 0.32 °C	
Type N	(-200 to -100) °C (-100 to -25) °C (-25 to 120) °C (120 to 410) °C (410 to 1300) °C	0.32 °C 0.18 °C 0.15 °C 0.14 °C 0.21 °C	
Type R	(0 to 250) °C (250 to 400) °C (400 to 1000) °C (1000 to 1767) °C	0.45 °C 0.28 °C 0.26 °C 0.32 °C	
Type S	(0 to 250) °C (250 to 1000) °C (1000 to 1400) °C (1400 to 1767) °C	0.37 °C 0.28 °C 0.29 °C 0.36 °C	

Parameter/Equipment	Range	CMC ^{2,6} (±)	Comments
Electrical Simulation of Thermocouples and Thermocouple Indicating Devices ³ – Generate (cont) Type T	(-250 to -150) °C (-150 to 0) °C (0 to 120) °C (120 to 400) °C	0.49 °C 0.19 °C 0.13 °C 0.11 °C	Fluke 552X series calibrator
Electrical Simulation of RTD Indicators and Indicating Systems ³ – 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	0.039 °C 0.039 °C 0.055 °C 0.070 °C 0.078 °C 0.094 °C 0.18 °C	Fluke 552X series calibrator
Oscilloscopes ³ – Amplitude – DC Signal 50 Ω Load 1 MΩ Load Amplitude – Square Wave 50 Ω Load 1 MΩ Load Bandwidth Flatness Time Marker	 1 mV to 6.6 V 1 mV to 130 V 1 mV to 6.6 V _{pp} 10 Hz to 100 kHz 1 mV to 130 V _{pp} 10 Hz to 100 kHz 50 kHz to 100 MHz (100 to 300) MHz (300 to 600) MHz (600 to 1100) MHz 50 ms to 5 s 2 ns to 20 ms	 0.20 % + 32 μV 0.039 % + 32 μV 0.20 % + 32 μV 0.078 % + 32 μV 1.2 % + 78 μV 1.6 % + 78 μV 3.2 % + 78 μV 3.9 % + 78 μV (20 + (t·1000)) μs/s 1.9 μs/s	 552XA/SC1100 t = time in seconds

Parameter/Equipment	Range	CMC ^{2, 5, 6} (\pm)	Comments
Oscilloscopes ³ – (cont)			
Resistance – Measure	40 to 60 Ω (0.5 to 1.5) M Ω	0.079 % 0.078 %	Fluke 552XA/SC600
Capacitance – Measure	(5 to 50) pF	3.9 % + 0.39 pF	

III. Mechanical

Parameter/Equipment	Range	CMC ^{2, 4, 6} (\pm)	Comments
Pneumatic and Hydraulic Gage Pressure ³	(30 to 15 000) psig	0.11 %	Digital pressure standard
Pneumatic Absolute / Gage Pressure	(-15 to 150) psig (150 to 1000) psig Up to 925 psig (925 to 3000) psig (3000 to 10 000) psig	0.0079 psi 0.0096 % 0.12 psi 0.013 % 0.013%	MENSOR CPG2500 RPM4 A20M RPM4 A70M
Torque Wrenches ³	(10 to 100) lb·ft (25 to 250) lb·ft (100 to 1000) lb·ft	0.76 % – 0.002 <i>T</i> 0.54 % + 0.000 17 <i>T</i> 0.52 % + 0.000 03 <i>T</i>	Norbar 43236 torque standard
Scales and Balances ³	Up to 30 kg Up to 66 lb	3.5 <i>M</i> mg	S class weights
Load Cells ^{3, 10}	Up to 60 000 lb	0.018 %	Load cells
Aircraft Scales ¹⁰	Up to 25 000 lb (25 000 to 60 000) lb	0.018 % 0.014 %	Load cells

IV. Thermodynamics

Parameter/Equipment	Range	CMC ^{2, 6, 9} (\pm)	Comments
Temperature – Measuring Equipment	(5 to 70) °C	0.14 °C	Thunder Scientific 2500
	(-20 to 100) °C Ambient to 250 °C	0.03 °C 0.38 °C	Temperature bath and Fluke PRT w/1502A
Relative Humidity – Measuring Equipment	(10 to 80) % RH	0.63 % RH	Thunder Scientific 2500
Infrared Temperature ¹¹ – Measuring Equipment	(50 to 500) °C	0.47 °C	Wika CTI5000 and Fluke PRT w/ 1502A

V. Time & Frequency

Parameter/Equipment	Range	CMC ^{2, 6, 9} (\pm)	Comments
Frequency ³ – Measure	(1 to 40) Hz	0.058 %	Agilent 3458A
	40 Hz to 10 MHz	0.12 %	
Frequency ³ – Measuring Equipment	0.01 Hz to 2 MHz Up to 500 MHz	2 μ Hz/Hz + 3.9 μ Hz 2 μ Hz/Hz	Fluke 5522A Fluke 5522A/SC600

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

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 In the statement of CMC, L is the numerical value of the nominal length of the device measured in inches for Imperial units, or in millimeters for metric units. M is the numerical value of the nominal weight measured in Kg (Mass, Scales). T is the numerical value of the nominal torque in lbf (Torque Wrenches).
- ⁵ The stated measured values are determined using the indicated instrument (see Comments). This capability is suitable for the calibration of the devices intended to measure or generate the measured value in the ranges indicated. CMC's are expressed as either a specific value that covers the full range or as a percent or fraction of the reading plus a fixed floor specification.
- ⁶ In the statement of CMC, percentages are to be read as percent of reading, unless otherwise noted.
- ⁷ This laboratory meets R205 – Specific Requirements: Calibration Laboratory Accreditation Program for the types of dimensional tests listed above and is considered equivalent to that of a calibration.
- ⁸ This scope meets A2LA's *P112 Flexible Scope Policy*.
- ⁹ 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.
- ¹⁰ The contributions attributed to the repeatability of the "best existing device" are not included in the CMC claim.
- ¹¹ The contributions attributed to the emissivity of the infrared calibrator are not included in the CMC.



Accredited Laboratory

A2LA has accredited

PYLON ATLANTIC – A DIVISION OF PYLON ELECTRONICS INC.

Dartmouth, NS, CANADA

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 7th day of December 2022.

A blue ink signature of Trace McInturff, written over a horizontal line.

Mr. Trace McInturff, Vice President, Accreditation Services
For the Accreditation Council
Certificate Number 3630.02
Valid to October 31, 2024
Revised September 25, 2024

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