



SCOPE OF ACCREDITATION TO ISO/IEC 17025:2017

TRESCAL CANADA INC. (MONTREAL)
7555 Rue Béclard
Montreal, Quebec, H1J 2S5 CANADA
Christian Lefroit Phone: 514 329 3242 x 229

CALIBRATION

Valid Until: August 31, 2024

Certificate Number: 3332.01

In recognition of the successful completion of the A2LA evaluation process, accreditation is granted to this laboratory to perform the following calibrations^{1, 7}:

I. Dimensional

Parameter/Equipment	Range	CMC ^{2, 5} ($\pm$)	Comments
Gage Block Length – Steel, Rectangular & Square	Up to 4 in (4 to 20) in Up to 100 mm (100 to 500) mm	$(2.8 + 1.6L) \mu\text{in}$ $(2.5 + 2.9L) \mu\text{in}$ $(0.061 + 0.002L) \mu\text{m}$ $(0.065 + 0.0022L) \mu\text{m}$	Comparison method with a reference gage block set ANSI/ASME B89.1.2M, FED SPEC GGG-G-15C
Cylindrical Ring Gage – Diameter	Up to 8 in Up to 200 mm	$(20 + 6D) \mu\text{in}$ $(0.5 + 0.006D) \mu\text{m}$	Comparison method w/ ring gages & Mahr Model 828. ANSI/ASME B89.1.6M
Cylindrical Plug Gage – Diameter	Up to 8 in Up to 200 mm	$(12 + 6D) \mu\text{in}$ $(0.31 + 0.006D) \mu\text{m}$	ANSI/ASME B89.1.5

Parameter/Equipment	Range	CMC ^{2, 5} ($\pm$)	Comments
Thread Plug Gage (60°) & Thread Setting Plug Gage –			
Pitch Diameter	Up to 1 in (>1 to 6) in Up to 80 TPI	85 μ in (85 + 6D) μ in	ANSI/ASME B1.2, ANSI/ASME B1.16M
	Up to 25 mm (>25 to 150) mm, Up to 5.0 mm pitch	2.2 μ m (2.2 + 0.006D) μ m	Diameter on flank, measured w/ thread wires
Major Diameter	Up to 8 in Up to 200 mm	(12 + 6D) μ in (0.31 + 0.006D) μ m	
Thread Ring Gauge – (60°) Adjustable (Set to Thread Setting Plug, Pitch Diameter Only)	Up to 3 in Up to 75 mm	W (Set Plug Tolerance)	Set using thread setting plug gages ANSI/ASME B1.2 ANSI/ASME B1.3
Indicators – up to 6 inches of travel			
Analog	0.001 in Graduation 0.0001 in Graduation 0.000 02 in Graduation 0.000 05 in Graduation	560 μ in 72 μ in 20 μ in 41 μ in	ANSI/ASME B89.1.10M height master, gage blocks
	0.02 mm Graduation 0.002 mm Graduation 0.0002 mm Graduation	13 μ m 1.4 μ m 0.4 μ m	
Digital	0.0005 in Resolution 0.0001 in Resolution 0.000 05 in Resolution	580 μ in 130 μ in 53 μ in	
	0.01 mm Resolution 0.001 mm Resolution	12 μ m 1.2 μ m	

Parameter/Equipment	Range	CMC ^{2, 4, 5} ($\pm$)	Comments
Micrometers ³ –			ASME B89.1.13
Outside	Up to 6 in (6 to 40) in Up to 150 mm (150 to 2000) mm	$(41 + 1.8L) \mu\text{in}$ $(25 + 5.2L) \mu\text{in}$ $(1.1 + 0.0018L) \mu\text{m}$ $(0.63 + 0.0052L) \mu\text{m}$	Gage blocks
Inside	Up to 24 in (24 to 60) in Up to 600 mm (600 to 1500) mm	$(100 + 7.4L) \mu\text{in}$ $(100 + 8.5L) \mu\text{in}$ $(2.6 + 0.007L) \mu\text{m}$ $(2.6 + 0.008L) \mu\text{m}$	
Depth	Up to 12 in Up to 300 mm	$(120 + 12L) \mu\text{in}$ $(2.9 + 0.012L) \mu\text{m}$	
Bore Gages	Up to 4 in Up to 100 mm	$(81 + 3L) \mu\text{in}$ $(2.1 + 0.003L) \mu\text{m}$	Ring gages, UMM
Length Standards –			
Height Masters, Setting Rods & Step Gages	Up to 60 in Up to 1500 mm	$(26 + 9L) \mu\text{in}$ $(0.67 + 0.009L) \mu\text{m}$	Gage blocks
Calipers ³	Up to 40 in Up to 1000 mm	$(300 + 2L) \mu\text{in}$ $(7.6 + 0.002L) \mu\text{m}$	Gage blocks
Height Gages	Up to 40 in Up to 1000 mm	$(100 + 3.5L) \mu\text{in}$ $(2.6 + 0.0035L) \mu\text{m}$	Gage blocks
Linear Displacement – Measuring Equipment			
Push-Rod	Up to 8 in	$320 \mu\text{in/in} + 60 \mu\text{in}$	ULM
	Up to 24 in	$50 \mu\text{in/in} + 0.0026 \text{ in}$	Linear scale gage
String Pot	Up to 40 in	$40 \mu\text{in/in} + 0.0029 \text{ in}$	Height gage

II. Electrical – DC/Low Frequency

Parameter/Equipment	Range	CMC ^{2, 5, 6} ($\pm$)	Comments
DC Voltage ³ – Generate	(0 to 329.9999) mV (0.33 to 3.299 999) V (3.3 to 32.9999) V (33 to 329.9999) V (100 to 1000) V	0.0011 % + 2.9 μ V 0.0006 % + 19 μ V 0.0006 % + 0.17 mV 0.0011 % + 1.6 mV 0.0005 % + 21 mV	Fluke 5520A
DC Voltage – Measure	(0 to 100) mV 100 mV to 1 V (1 to 10) V (10 to 100) V (100 to 1000) V	10 μ V/V + 0.18 μ V 6.2 μ V/V + 3.2 μ V 6.2 μ V/V + 29 μ V 0.001 % + 0.36 mV 0.001 % + 3.1 mV	HP 3458A
High Voltage ³	(1 to 50) kV (50 to 100) kV	0.23 V/kV + 1.9 V 4.4 V/kV + 9.3 V	Precision high voltage meter & probe Voltage divider & meter
DC Current ³ – Generate	(0 to 329.999) μ A (0.33 to 3.299 99) mA (3.3 to 32.9999) mA (33 to 329.999) mA (0 to 1.099 99) A (1.1 to 2.999 99) A (0 to 10.9999) A (11 to 20.5) A	2.1 μ A/A + 2.1 μ A 0.70 μ A/A + 22 μ A 0.62 μ A/A + 0.22 μ A 0.58 μ A/A + 2.2 μ A 140 μ A/A + 0.1 mA 0.027 % + 0.13 mA 0.0053 % + 20 mA 0.017 % + 61 mA	Fluke 5520A
Clamp Meters	(10 to 150) A (150 to 500) A (500 to 1025) A	1.2 % 0.9 % 0.7 %	Fluke 5520A & coil

Parameter/Equipment	Range	CMC ^{2, 5, 6} ($\pm$)	Comments
DC Current – Measure	(0 to 100) nA 100 nA to 1 μ A (1 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 20) A 10 μ A to 200 mA	24 μ A/A + 0.03 nA 16 μ A/A + 0.03 nA 16 μ A/A + 0.08 nA 17 μ A/A + 0.001 μ A 16 μ A/A + 0.012 μ A 16 μ A/A + 0.11 μ A 27 μ A/A + 0.39 μ A 130 μ A/A + 17 μ A 420 μ A/A + 220 μ A 0.30 %	HP 3458A Fluke 8508A Hipot leakage current using a digital meter
Electrical Simulation of Temperature Indicators – RTD Simulation ³ Pt 385, 100 Ω	(-200 to 80) $^{\circ}$ C (-80 to 0) $^{\circ}$ C (0 to 100) $^{\circ}$ C (100 to 300) $^{\circ}$ C (300 to 400) $^{\circ}$ C (400 to 600) $^{\circ}$ C (600 to 800) $^{\circ}$ C	0.04 $^{\circ}$ C 0.04 $^{\circ}$ C 0.05 $^{\circ}$ C 0.07 $^{\circ}$ C 0.08 $^{\circ}$ C 0.09 $^{\circ}$ C 0.18 $^{\circ}$ C	Fluke 5520A/5522A
AC Power ³ – Generate (45 to 65) Hz	3.3 μ W to 11 mW 11 mW to 337 W 0.34 W to 11.2 kW (11.2 to 20.9) kW	0.14 % 0.11 % 0.07 % 0.09 %	Fluke 5520A/5522A
DC Power ³ – Generate	11 μ W to 337 W 11 mW to 3 kW 0.1 W to 20.9 kW	0.06 % 0.05 % 0.08 %	Fluke 5520A/5522A

Parameter/Equipment	Range	CMC ² (±)	Comments
Electrical Simulation of Temperature Indicators Thermocouple Simulation ³ –			
Type B	(0 to 250) °C (250 to 1400) °C (1400 to 1767) °C (-250 to 1000) °C	0.40 °C 0.35 °C 0.32 °C 0.34 °C	Fluke 5520A/5522A
Type E	(-250 to -100) °C (100 to 650) °C (650 to 1000) °C	0.45 °C 0.26 °C 0.28 °C	
Type J	(-210 to -100) °C (-100 to 150) °C (150 to 760) °C (760 to 1200) °C	0.31 °C 0.30 °C 0.26 °C 0.29 °C	
Type K	(-200 to -100) °C (-100 to 120) °C (120 to 1000) °C (1000 to 1372) °C	0.34 °C 0.27 °C 0.30 °C 0.38 °C	
Type N	(-200 to -100) °C (-100 to 410) °C (120 to 1000) °C	0.38 °C 0.28 °C 0.31 °C	
Type S	(0 to 250) °C (250 to 1400) °C (1400 to 1767) °C	0.43 °C 0.37 °C 0.35 °C	
Type T	(-250 to -150) °C (-150 to 0) °C (0 to 400) °C	0.54 °C 0.29 °C 0.26 °C	

Parameter/Range	Frequency	CMC ^{2, 6} ($\pm$)	Comments
AC Voltage – Generate			
Up to 32.9 mV	45 to 10 kHz	0.006 % + 12 μ V	Fluke 5520A/5522A
(33 to 329.9) mV	45 to 10 kHz (10 to 20) kHz (20 to 50) kHz (50 to 100) kHz (100 to 500) kHz	0.016 % + 10 μ V 0.019 % + 9.7 μ V 0.043 % + 5.0 μ V 0.079 % + 96 μ V 0.2 % + 230 μ V	
330 mV to 3.29 V	45 to 10 kHz (10 to 20) kHz (20 to 50) kHz (50 to 100) kHz (100 to 500) kHz	0.016 % + 0.51 μ V 0.024 % + 0.03 mV 0.038 % + 0.01 mV 0.065 % + 0.77 mV 0.26 % + 1.6 mV	
(3.3 to 32.9) V	45 to 10 kHz (10 to 20) kHz (20 to 50) kHz	0.018 % + 5.8 mV 0.030 % + 9.2 mV 0.022 % + 14 mV	
(33 to 329.9) V	45 to 1 kHz (1 to 10) kHz (10 to 20) kHz (20 to 50) kHz	0.014 % + 46 mV 0.024 % + 79 mV 0.013 % + 100 mV 0.015 % + 120 mV	
(330 to 1020) V	45 to 1 kHz	0.031 % + 260 mV	
AC Voltage – Measure			
1 μ V to 0.01 V (0.01 to 0.1) V (0.1 to 1.0) V (1.0 to 10.0) V (10.0 to 100.0) V (100.0 to 1000) V	40 Hz to 20 kHz 40 Hz to 20 kHz 40 Hz to 20 kHz 40 Hz to 20 kHz 40 Hz to 20 kHz 40 Hz to 20 kHz	0.08 % + 1.5 μ V 0.005 % + 8.2 μ V 0.008 % + 20 μ V 0.005 % + 0.2 mV 0.02 % + 5.8 mV 0.02 % + 51 mV	HP 3458A
High Voltage ³ – (1 to 100) kV	60 Hz	4.7 V/kV + 0.1 V	Voltage divider & meter

Parameter/Range	Frequency	CMC ^{2, 5, 6} ($\pm$)	Comments
AC Current ³ – Generate (29 to 329.99) μ A (0.33 to 3.299) mA (3.3 to 32.99) mA (33 to 329.99) 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	45 Hz to 1 kHz 45 Hz to 1 kHz 45 Hz to 1 kHz 45 Hz to 1 kHz 45 Hz to 1 kHz 45 Hz to 1 kHz (45 to 100) Hz (45 to 100) Hz	0.07 % + 0.24 μ A 0.08 % + 0.69 μ A 0.03 % + 3.3 μ A 0.03 % + 26 μ A 0.05 % + 0.24 mA 0.06 % + 0.45 mA 0.02 % + 21 mA 0.05 % + 33 mA	Fluke 5520A
AC Current ³ – Measure 100 pA 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 20) A 10 μ A to 200 mA	45 Hz to 1 kHz 45 Hz to 5 kHz 45 Hz to 5 kHz 45 Hz to 5 kHz 45 Hz to 5 kHz 55 Hz to 5 kHz 60 Hz	0.05 % + 0.033 μ A 0.05 % + 0.25 μ A 0.05 % + 2.4 μ A 0.05 % + 25 μ A 0.06 % + 260 μ A 0.016 % + 800 μ A 0.36 %	HP3458A Fluke 8508A Hipot leakage current using a digital meter
AC Clamp Ammeters ³ – Toroidal (10 to 150) A (150 to 500) A (500 to 1025) A Other Than Toroidal (40 to 150) A (150 to 500) A (500 to 1025) A	(45 to 65) Hz (45 to 65) Hz (45 to 65) Hz (45 to 65) Hz (45 to 65) Hz (45 to 65) Hz	0.6 % 0.4 % 0.3 % 1.4 % 1.3 % 0.8 %	Fluke 5520A & coil Fluke 5520A & coil

Parameter/Equipment	Range	CMC ^{2, 5, 6} ($\pm$)	Comments
Resistance ³ – Generate	(0 to 10.9999) Ω (11 to 32.999) Ω (33 to 109.9999) Ω (110 to 329.9999) Ω 330 Ω to 1.099 999 k Ω (1.1 to 3.299 99) 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	0.0017 % + 0.78 m Ω 0.0032 % + 1.1 m Ω 0.0018 % + 2.0 m Ω 0.0023 % + 2.1 m Ω 0.0080 % + 18 m Ω 0.0018 % + 77 m Ω 0.0017 % + 180 m Ω 0.0023 % + 540 m Ω 0.0018 % + 1.7 Ω 0.0025 % + 5.1 Ω 0.0025 % + 13 Ω 0.0046 % + 90 Ω 0.012 % + 380 Ω 0.019 % + 4.7 k Ω 0.033 % + 24 k Ω 0.23 % + 0.41 M Ω 2.0 % + 0.4 M Ω	Fluke 5520A
Resistance ³ – Generate, Fixed Points	10 $\mu\Omega$ 100 $\mu\Omega$ 1 m Ω 10 m Ω 100 m Ω 1 Ω 10 Ω 100 k Ω 1 M Ω 10 M Ω 100 M Ω 1 G Ω 10 G Ω 100 G Ω	0.27 % 0.027 % 0.024 % 0.017 % 0.015 % 0.013 % 0.013 % 0.58 % 0.58 % 0.58 % 0.59 % 0.63 % 0.59 % 0.25 %	Standard resistors Fixed resistors: for the calibration of insulation testers

Parameter/Equipment	Range	CMC ^{2, 5, 6} (±)	Comments
Resistance ³ – Measure	100 μΩ to 10 Ω	0.001 % + 0.04 μΩ	HP 3458A Standard resistors & transfer method
	(10 to 100) Ω	0.001 % + 0.54 μΩ	
	100 Ω to 1 kΩ	0.001 % + 3.2 μΩ	
	(1 to 10) kΩ	0.001 % + 0.03 mΩ	
	(10 to 100) kΩ	0.001 % + 0.3 mΩ	
	100 kΩ to 1) MΩ	0.0017 % + 7.2 Ω	
	(1 to 10) MΩ	0.004 % + 250 Ω	
	(10 to 100) MΩ	0.04 % + 6.7 kΩ	
	(10 to 100) μΩ	0.013 %	
	(0.1 to 1) mΩ	0.013 %	
	(1 to 10) mΩ	0.013 %	
	(10 to 100) mΩ	0.004 %	
	100 mΩ to 1 Ω	0.003 %	
	(1 to 10) Ω	0.002 %	

Parameter/Range	Frequency	CMC ^{2, 6} (±)	Comments
Capacitance ³ – Generate			Fluke 5520A
(0.19 to 0.3999) nF	10 Hz to 10 kHz	0.43 % + 0.008 nF	
(0.4 to 1.099) nF	10 Hz to 10 kHz	0.38 % + 0.008 nF	
(1.1 to 3.2999) nF	10 Hz to 3 kHz	0.44 % + 0.007 nF	
(3.3 to 10.9999) nF	10 Hz to 1 kHz	0.11 % + 0.017 nF	
(11 to 32.9999) nF	10 Hz to 1 kHz	0.22 % + 0.075 nF	
(33 to 109.999) nF	10 Hz to 1 kHz	0.20 % + 0.08 nF	
(110 to 329.999) nF	10 Hz to 1 kHz	0.19 % + 0.25 nF	
(0.33 to 1.099 99) μF	(10 to 600) Hz	0.20 % + 0.3 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 % + 8.2 nF	
(11 to 32.9999) μF	(10 to 120) Hz	0.38 % + 6.4 nF	
(33 to 109.999) μF	(10 to 80) Hz	0.37 % + 74 nF	
(110 to 329.999) μF	(0 to 50) Hz	0.35 % + 0.24 μF	
0.33 μF 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 % + 2.3 μF	
(3.3 to 10.9999) mF	(0 to 2) Hz	0.41 % + 1.3 μF	
(11 to 32.9999) mF	(0 to 0.6) Hz	0.69 % + 11 μF	
(33 to 110) mF	(0 to 0.2) Hz	0.82 % + 140 μF	

III. Mechanical

Parameter/Equipment	Range	CMC ^{2, 5} ($\pm$)	Comments
Torque Wrenches & Screwdrivers, Clockwise	0.5 ozf·in to 1000 lbf·in (10 to 250) lbf·ft (250 to 2000) lbf·ft	0.55 % 0.55 % 0.55 %	Electronic transducer system
Rockwell Hardness Testers ³	HRBW: Low Medium High HRC: Low Medium High	1.1 HRBW 0.67 HRBW 0.49 HRBW 0.41 HRC 0.37 HRC 0.35 HRC	Indirect verification per ASTM E18
Scales & Balances ³ – Fixed Points	(1 to 500) mg 1 g 2 g 3 g 5 g 10 g 20 g 30 g 50 g 100 g 200 g 300 g 500 g 1 kg 2 kg 5 kg 10 kg	0.012 mg 0.05 mg 0.04 mg 0.04 mg 0.04 mg 0.059 mg 0.086 mg 0.087 mg 0.14 mg 0.29 mg 0.59 mg 0.87 mg 1.4 mg 3.0 mg 5.9 mg 14 mg 29 mg	ASTM Class 1 weights

Parameter/Equipment	Range	CMC ^{2, 5} (±)	Comments
Pressure Indicators & Gages –			
Pneumatic Pressure	Up to 5 psig	0.013 % + 0.002 psi	Pressure calibrator
Hydraulic Pressure	(10 to 800) psig (800 to 16 000) psig	0.045 % 0.045 %	Deadweight tester
Barometric Pressure – Negative pressure	(70 to 110) kPa Down to -14.5 psig Down to -29.5 in·Hg	0.010 % 0.010 % + 0.002 psi 0.010 % + 0.004 in·Hg	Pressure calibrator
Accelerometers – Frequency Response	(5 to 10) Hz (10 to 99) Hz 100 Hz (101 to 920) Hz (921 to 5000) Hz 5001 Hz to 10 kHz (10 to 15) kHz	1.7 % 1.2 % 0.75 % 1.0 % 1.4 % 1.9 % 2.2 %	ISO 16063-21; “back-to-back” comparison calibration to primary standard

IV. Optical Quantities

Parameter/Range	Range	CMC ^{2, 4, 5} (±)	Comments
Illuminance – Measuring Equipment (Light Meters) Visible Spectrum	(170 to 195) lux (15.8 to 18) fc	1.6 % 1.6 %	Reference incandescent light source @ 2856K
	(680 to 775) lux (63 to 72) fc	2.1 % 2.1 %	
	(1660 to 1895) lux (154 to 176) fc	2.6 % 2.6 %	
	(4250 to 4850) lux (395 to 451) fc	3.8 % 3.8 %	
	(7550 to 8615) lux (701 to 800) fc	4.5 % 4.5 %	

V. Thermodynamics

Parameter/Range	Range	CMC ^{2, 4, 5} ($\pm$)	Comments
Relative Humidity ³ – Measuring Equipment	(10 to 90) % RH	1.2 % RH	Humidity generator
Temperature – Measure ³	(-50 to 600) °C	0.25 °C	SPRT
Temperature – Measuring Equipment			
Liquid in Glass Thermometers	(-80°C to 250) °C	0.039 °C	Liquid calibration baths w/ SPRT
Digital Thermometers ³	(-40 to 50) °C (50 to 300) °C (300 to 700) °C	0.44 °C 0.56 °C 0.90 °C	Metrology wells (dry)
	(700 to 1200) °C	4.7 °C	Thermocouple furnace
Digital Thermometers – Resistance	(-80 to 50) °C (50 to 250) °C	0.018 °C 0.025 °C	Liquid calibration baths w/ SPRT
Air Probe Thermometers	(10 to 45) °C	0.24 °C	Environmental chamber & SPRT
Temperature System Checks ³ (System Accuracy Tests)	Type J or N (25 to 300) °C (300 to 650) °C	0.8 °C 1.1 °C	Datalogger, thermocouple
Temperature Uniformity Survey ³	Type J or N (25 to 300) °C (300 to 650) °C	0.8 °C 1.1 °C	Datalogger, thermocouples
Infrared Thermometers	(35 to 100) °C (100 to 350) °C (350 to 500) °C	0.6 °C 2.2 °C 2.5 °C	Infrared calibrator (8 μ m to 14 μ m spectral range, ϵ = 0.95)

VI. Time & Frequency

Parameter/Equipment	Range	CMC ^{2, 4, 5} ($\pm$)	Comments
Frequency – Measure	(1 to 40) Hz 40 Hz to 10 MHz	0.04 % + 1 μ Hz 0.01 % + 0.012 Hz	HP 3458A
Frequency – Measuring Equipment	0.01 Hz to 2 MHz	2.5 μ Hz/Hz + 5 μ Hz	Fluke 5520A
Timers ³	60 s to 1 h	1.2 s	Reference stopwatch
Stopwatches	20 s to 24 h	37 ms	NIST Publication 960-12
Optical Tachometers ³	(60 to 90 000) rpm	0.0042 % + 0.0078 rpm	Fluke 5520A

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. CMC's 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 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.

⁵ In the statement of CMC, L is the numerical value of the nominal length of the gage block in inches or millimeters as noted, and D is the numerical value of the nominal diameter of the gage in inches or millimeters as noted; percentages are to be read as percent of reading unless otherwise noted.

⁶ 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. CMCs 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.

⁷ This scope meets A2LA's *P112 Flexible Scope Policy*.



Accredited Laboratory

A2LA has accredited

TRESCAL CANADA INC. (MONTREAL)

Montreal, Québec, 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 30th day of August 2022.

A blue ink signature of Mr. Trace McInturff.

Mr. Trace McInturff, Vice President, Accreditation Services
For the Accreditation Council
Certificate Number 3332.01
Valid to August 31, 2024
Revised June 13, 2023

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