SCOPE OF ACCREDITATION TO ISO/IEC 17025:2017

SCIENTIFIC CALIBRATION, INC.
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CALIBRATION

Valid To: October 31, 2027 Certificate Number: 5345.01

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, 4]:

I. Chemical

Parameter/Equipment	Range	CMC[2, 6] (±)	Comments
Conductivity – Measuring Equipment[3]	≈ 1 µS/cm ≈ 1413 µS/cm ≈ 200 000 µS/cm	0.67 µS/cm 15 µS/cm 1700 µS/cm	Conductivity solutions
pH – Measuring Equipment[3]	≈ 4 pH ≈ 7 pH ≈ 10 pH	0.031 pH 0.022 pH 0.038 pH	pH buffer solutions
CO_2 Sensors[3]	(0 to 5) % CO_2 (>5 to 20) % CO_2	0.23 % CO_2 0.52 % CO_2	% CO_2 meter

II. Dimensional

Parameter/Equipment	Range	CMC[2] (±)	Comments
Micrometers	Up to 16 in	0.000 12 in	Grade 0 gauge blocks
Calipers	Up to 16 in	0.000 42 in	Grade 0 gauge blocks
Tape Measures & Rulers	Up to 480 in (>480 to 1200) in	0.063 in 0.089 in	Calibrated tape measure

III. Electrical/DC Low Frequency

Parameter/Equipment	Range	CMC[2, 7] (±)	Comments
DC Voltage – Measure	Up to 100 mV (>0.1 to 3) V (>3 to 30) V (>30 to 300) V	0.02 % + 0.005 mV 0.02 % + 0.000 05 V 0.02 % + 0.0005 V 0.05 % + 0.05 V	Fluke 753
DC Current – Measure	Up to 30 mA (>30 to 100) mA	0.015 % + 0.005 mA 0.014 % + 0.02 mA	Fluke 753
DC Resistance – Measure	Up to 10 Ω (>10 to 100) Ω (>0.1 to 1) kΩ (>1 to 10) kΩ	0.33 % + 0.05 Ω 0.05 % + 0.05 Ω 0.05 % + 0.005 kΩ 0.1 % + 0.01 kΩ	Fluke 753

Parameter/Range	Frequency	CMC[2, 7] (±)	Comments
AC Voltage – Measure			
(>0.1 to 3) V (>3 to 30) V (>30 to 300) V	(40 to 500) Hz (40 to 500) Hz (40 to 500) Hz	0.53 % + 0.002 V 0.5 % + 0.02 V 0.5 % + 0.2 V	Fluke 753

Parameter/Equipment	Range	CMC[2] (±)	Comments
Electrical Simulation of RTD – Generate			
Pt100 385	(-200 to 100) °C (>100 to 800) °C	0.060 °C 0.15 °C	Fluke 753
Electrical Simulation of RTD – Measure			
Pt100 385	(-200 to 100) °C (>100 to 800) °C	0.10 °C 0.32 °C	Fluke 753
Electrical Simulation of Thermocouples – Generate			
Type J	(-210 to -100) °C (>-100 to 800) °C (>800 to 1200) °C	0.44 °C 0.40 °C 0.35 °C	Fluke 753
Type K	(-200 to -100) °C (>-100 to 400) °C (>400 to 1200) °C (>1200 to 1372) °C	0.53 °C 0.45 °C 0.39 °C 0.36 °C	
Type T	(-250 to -100) °C (>-100 to 0) °C (>0 to 400) °C	1.1 °C 0.44 °C 0.49 °C	
Electrical Simulation of Thermocouples – Measure			
Type J	(-210 to -100) °C (>-100 to 800) °C (>800 to 1200) °C	0.67 °C 0.45 °C 0.53 °C	Fluke 753
Type K	(-200 to -100) °C (>-100 to 400) °C (>400 to 1200) °C (>1200 to 1372) °C	0.75 °C 0.38 °C 0.53 °C 0.72 °C	
Type T	(-250 to -100) °C (>-100 to 0) °C (>0 to 400) °C	1.7 °C 0.63 °C 0.49 °C	

IV. Fluid Quantities

Parameter/Equipment	Range	CMC[2, 6] (±)	Comments
Gas Flow – Measuring Equipment (Nitrogen)[3]	Up to 500 ml/min (0.5 to 10) l/min (10 to 200) l/min	0.39 ml/min + 2 % of reading 0.15 l/min 3.3 l/min	Restek Proflow 6000 Alborg GFM17 Alborg GFM57
Liquid Flow (Water) – Measure[3]	(0.05 to 25) ml/min	0.014 ml/min + 1 % of reading	Liquid flow meter

V. Mechanical

Parameter/Equipment	Range	CMC[2] (±)	Comments
Scales, Balances & Weighing Systems[3]	(0.002 to 0.5) g (>0.5 to 5) g (>5 to 10) g (>10 to 20) g (>20 to 50) g (>50 to 100) g (>100 to 200) g (>200 to 500) g (>500 to 1000) g (>1 to 2) kg (>2 to 3) kg (>3 to 4) kg (>4 to 5) kg (>5 to 6) kg (100 to 200) g (>200 to 500) g (>500 to 1000) g (>1 to 2) kg (>2 to 3) kg (>3 to 4) kg (>2 to 5) kg (>5 to 6) kg (>6 to 8) kg (>8 to 10) kg	0.019 mg 0.044 mg 0.071 mg 0.11 mg 0.22 mg 0.38 mg 0.71 mg 1.6 mg 3.3 mg 6.7 mg 10 mg 13 mg 17 mg 20 mg 2.5 mg 6.1 mg 12 mg 24 mg 36 mg 48 mg 61 mg 73 mg 97 mg 120 mg	Class 1 weights Class 3 weights Note: uncertainties for ASTM Class 3 (>5 to 10 kg) are the sum of uncertainties associated with the combination of applied masses

Parameter/Equipment	Range	CMC[2, 6] (±)	Comments
Scales, Balances & Weighing Systems[3] (cont)	10 kg (>10 to 25) kg (>25 to 30) kg (>30 to 35) kg (>35 to 45) kg (>45 to 50) kg (>55 to 60) kg (>60 to 100) kg (>100 to 200) kg (>200 to 250) kg	1.2 g 1.4 g 1.5 g 2.6 g 2.7 g 2.8 g 4.0 g 5.6 g 11 g 14 g	Class 5, 6 weights Note: uncertainties for ASTM Class 5 & 6 >25 kg are the sum of uncertainties associated with the combination of applied masses
Pipettes[3]	(0.1 to 1) µL (1 to 20) µL (>20 to 50) µL (>50 to 100) µL (>100 to 200) µL (>200 to 500) µL (>500 to 1000) µL (>1 to 2) mL (>2 to 5) mL (>5 to 10) mL (>10 to 25) mL (>25 to 50) mL (>50 to 100) mL	0.025 µL 0.37 µL 0.43 µL 0.49 µL 0.84 µL 0.93 µL 2.3 µL 5 µL 11 µL 22 µL 56 µL 120 µL 220 µL	Sartorius Cubis MP6.6S Gravimetric – Mettler Toledo WXTS205
Pressure & Vacuum – Measuring Equipment[3]	(-13 to 300) psi Up to 500 psi (-30 to 30) inH_2O (-29.5 to 0) inHg	0.078 psi 0.31 psi 0.035 inH_2O 0.16 inHg	Additel 760 CP300 Fluke 750P07 Additel 760 DP30 Ashcroft DG25
Force – Measuring Equipment – Tension & Compression	(0.5 to 5) lbf (230 to 2300) gf (10 to 100) lbf (4500 to 45 000) gf	0.015 lbf 6.8 gf 0.30 lbf 140 gf	Mark-10 MR03-5 Mark-10 MR03-100
Torque – Measuring Equipment	(5 to 50) lbf·in (5.8 to 58) kgf·cm (20 to 200) lbf·in (23 to 230) kgf·cm	0.27 lbf·in 0.31 kgf·cm 1.7 lbf·in 2.0 kgf·cm	Mark-10 MR52-50 Mark-10 MR55-200

VI. Thermodynamics

Parameter/Equipment	Range	CMC[2, 6] (±)	Comments
Temperature – Measure[3]	(-196 to 0) °C (0 to 30) °C (30 to 420) °C	0.065 °C 0.065 °C 0.17 °C	Hart 1502A Thermometer, Isotech T100-450 probe
	(-196 to -39) °C (-39 to 0) °C (0 to 232) °C (232 to 420) °C	0.066 °C 0.029 °C 0.032 °C 0.33 °C	Additel 282, Accumac AM1730 PRT
Chambers, Freezers, Incubators, Ovens	(-196 to 200) °C (200 to 400) °C	1.3 °C 2 °C	Fluke 54 II w/ Type T thermocouple
Temperature – Measuring Equipment[3]	-196 °C (-180 to 50) °C (-95 to 140) °C	0.066 °C 0.1 °C 0.088 °C	Reference PRT, thermal wells, chamber, LN2
Digital & Analogue Temperature Measuring Equipment	(30 to 232) °C (>232 to 400) °C	0.16 °C 0.23 °C	
Thermocyclers[3]	(0 to 95) °C	0.69 °C	Quanta Biotech TAS System
Relative Humidity – Measure[3]	(15 to 90) % RH	1.5 % RH	Vaisala MI70 HMP 77B
Relative Humidity – Measuring Equipment[3]	(15 to 90) % RH	1.5 % RH	Geo calibration humidity chamber 2000 SP-SH, Vaisala MI70 HMP 77B

VII. Time & Frequency

Parameter/Equipment	Range	CMC[2, 6] (±)	Comments
Frequency – Measure	(1 to 110) Hz (>0.11 to 1.1) kHz (>1.1 to 11) kHz (>11 to 50) kHz	0.064 Hz 0.51 Hz 0.0070 kHz 0.051 kHz	Fluke 753

Parameter/Equipment	Range	CMC[2, 6] (±)	Comments
Frequency – Measuring Equipment	Up to 10.99 Hz (11 to 109.99 Hz) (110 to 1099.99 Hz) (1.1to 21.99 kHz) (22 to 50 kHz)	0.01 Hz 0.058 Hz 0.082 Hz 0.0016 kHz 0.0031 kHz	Fluke 753
Tachometer – Measuring Equipment	Up to 660 rpm (660 to 6600) rpm (6.6 to 66) krpm (66 to 132) krpm (132 to 3000) krpm	0.6 rpm 3.5 rpm 4.9 rpm 96 rpm 190 rpm	Fluke 753, optical diode
Centrifuges[3]	(9 to 10) rpm (>10 to 60) rpm (>60 to 600) rpm (>600 to 6000) rpm (>6000 to 60 000) rpm (>60 000 to 100 000) rpm	0.0053 rpm 0.017 rpm 0.15 rpm 1.7 rpm 14 rpm 24 rpm	Monarch PLT-200 laser tachometer
Stopwatches / Timers	(30 to 72 000) s	23 ms	Counter, stopwatch, frequency generator

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

[5] In the statement of CMC, the percentage given is the percentage of the reading, unless otherwise noted.

[6] 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.

[7] 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.

Accredited Laboratory

A2LA has accredited

SCIENTIFIC CALIBRATION, INC.

Cary, NC

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 October 2025.

Mr. Trace McInturff, Vice President, Accreditation Services
For the Accreditation Council
Certificate Number 5345.01
Valid to October 31, 2027

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