SCOPE OF ACCREDITATION TO ISO/IEC 17025:2017
& ANSI/NCSL Z540-1-1994

FLAGSHIP LAB SERVICES
6675 Mesa Ridge Rd, Suite 200
San Diego, CA 92121
Michael Park Phone: 800 274 0287

CALIBRATION

Valid To: January 31, 2026 Certificate Number: 2901.01

In recognition of the successful completion of the A2LA evaluation process, (including an assessment of the organization's compliance with A2LA's Calibration Program Requirements) accreditation is granted to this laboratory to perform the following calibrations[1, 5]:

I. Electrical – DC/Low Frequency

Parameter/Equipment	Range	CMC[2] (±)	Comments
Electrical Simulation of Thermocouples – Measure & Generate			
Type K	(-50 to 300) °C	0.6 °C	Fluke 743B
Type T Measure	(-200 to 1 Year) °C	0.93 °C	
Type T Generate	(-180 to 0) °C	0.7 °C	
	(0 to 100) °C	0.6 °C	

II. Mechanical

Parameter/Equipment	Range	CMC[2, 6] (±)	Comments
Balances[3]	(1 to 100) mg (100 to 1000) mg (1 to 200) g (0.2 to 2) kg (1 to 2) kg	0.0027 % + 0.011 mg 0.0011 % + 0.012 mg 0.000 23 % + 0.000 023 g 0.000 027 % + 0.011 mg 0.0023 % + 0.011 kg	Ultra-Class weight set

Parameter/Equipment	Range	CMC[2] (±)	Comments
Mass[3]	1 mg 2 mg 3 mg 5 mg 10 mg 20 mg 30 mg 50 mg 100 mg 200 mg 300 mg 500 mg 1 g 2 g 5 g 10 g 20 g 50 g 100 g 200 g 500 g 1 kg 2 kg	0.03 mg 0.01 mg 0.01 mg 0.02 mg 0.01 mg 0.01 mg 0.01 mg 0.01 mg 0.01 mg 0.01 mg 0.03 mg 0.02 mg 0.3 mg 0.92 mg 1.5 mg 1.2 mg 1.3 mg 0.3 mg 1.9 mg 3.0 mg 2.1 mg 4.0 g 4.3 g	Ultra-Class set & higher (e.g. Class 3)
Rotational Speed, Non-Contact – Measure	(60 to 18 000) RPM	1.7 RPM	Monarch

III. Thermodynamics

Parameter/Equipment	Range	CMC[2, 4] (±)	Comments
Temperature – Measure & Measuring Equipment	(-50 to 300) °C	0.07 °C	Hart 1502A

IV. Time & Frequency

Parameter/Equipment	Range	CMC[2] (±)	Comments
Tachometers – Optical	(1 to 100 000) Hz	1.7 Hz	Unomat MCX
Time/Stopwatch[3]	5 s to 24 hrs	1 s/day	VWR timer/counter

[1] This laboratory offers commercial 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 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] This scope meets A2LA's *P112 Flexible Scope Policy*.

[6] In the statement of CMC, the value is defined as the percentage of reading.

Accredited Laboratory

A2LA has accredited

FLAGSHIP LAB SERVICES

San Diego, CA

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 the requirements of ANSI/NCSL Z540-1-1994 and 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 23rd day of May 2024.

Mr. Trace McInturff, Vice President, Accreditation Services
For the Accreditation Council
Certificate Number 2901.01
Valid to January 31, 2026

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