



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

DYTRAN INSTRUMENTS INC.  
21592 Marilla St  
Chatsworth, CA 91311  
Denis Varak Phone: 818 700 7818

CALIBRATION

Valid To: May 31, 2026

Certificate Number: 2672.01

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<sup>1, 7, 8</sup>:

I. Electrical – DC/Low Frequency

Parameter/Equipment	Range	CMC <sup>2, 3, 4</sup> (±)	Comments
DC Voltage – Measure	10 mV to 30 V	0.093 %	Fluke 45
Capacitance – Measure	(150 to 330) pF 330 pF to 15 µF	0.16 % 0.12 %	Capacitance meter, 1 kHz
Resistance – Measure	10 Ω to 1 M Ω	0.17 %	Fluke 45

Parameter/Equipment	Frequency	CMC <sup>2, 3, 4</sup> (±)	Comments
AC Voltage – Measure Up to 5 V	20 Hz to 10 kHz	0.3 %	Data acquisition card

## II. Mechanical

Parameter/Equipment	Range <sup>5</sup>	CMC <sup>2, 4, 6</sup> (±)	Comments
Acceleration Sensitivity/Frequency Response – Measure	(1 to 20) Hz 20 Hz to 2,500 Hz 2,500 Hz to 10,000 Hz	0.9 % 1.7 % 3.0 %	Data acquisition card
Acceleration Sensitivity Deviation Due to Temperature – Measure	(-55 to 270) °C @ 100 Hz, 1 g	4.3 %	Mini-shaker and oven
Transverse Sensitivity – Measure	328 Hz @ 1 g	3.6 %	Back-to-back comparison using electrodynamic shaker
Acoustic Pressure – Measure	160 dB @ 1000 Hz	1.3 %	Comparison to standard microphone
Static Force – Measure	1.876 lbf 2.840 lbf 3.290 lbf 4.170 lbf  (100 to 500) lbf 1,000 lbf to 10,000 lbf 10,000 lbf to 100,000 lbf	0.7 %     1.0 % 1.1 % 1.2 %	Ring dynamometer, strain gage, load cell, Dead weights
Shock – Measure	100 g to 5,000 g  10,000 g to 20,000 g 20,000 g to 50,000 g 50,000 g to 100,000 g	3.0 %  4.4 % 5.1 % 6.0 %	Load cell  Hopkinson Bar
Static Pressure – Measure	5 PSIG to 10,000 PSIG	1.0 %	Back-to-back comparison in pressure pump
Impulse Force – Measure	(50 to 1000) lbf (1000 to 5000) lbf	3.8 % 1.0 %	Load cell

Parameter/Equipment	Range <sup>5</sup>	CMC <sup>2, 4, 6</sup> (±)	Comments
Acceleration Amplitude Linearity Vibration – Measure	100 Hz, 1 g to 20 g	1.7 %	Back-to-back comparison using electrodynamic shaker
Angular Rate	(50 to 250) °/s	2.5 %	Robotic Arm

<sup>1</sup> This laboratory offers commercial calibration service.

<sup>2</sup> 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.

<sup>3</sup> 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 values 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.

<sup>4</sup> In the statement of CMC, % denotes percentage of reading.

<sup>5</sup> In the statements of Parameter and Range, g represents the gravitational acceleration.

<sup>6</sup> 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.

<sup>7</sup> This scope contains measurands of sensor/transducer with input expression. The output measurand is omitted and can be expressed in the form of sensitivity, for example, mV/g, pC/g, etc.

<sup>8</sup> This scope meets A2LA's *P112 Flexible Scope Policy*.



# Accredited Laboratory

A2LA has accredited

**DYTRAN INSTRUMENTS INC.**

Chatsworth, 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/NC SL 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 29<sup>th</sup> day of May 2024.

A blue ink signature of Mr. Trace McInturff.

Mr. Trace McInturff, Vice President, Accreditation Services  
For the Accreditation Council  
Certificate Number 2672.01  
Valid to May 31, 2026

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