



# **Accredited Laboratory**

A2LA has accredited

### INTERFACE, INC. Scottsdale, AZ

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 8<sup>th</sup> day of November 2022

Vice President, Accreditation Services For the Accreditation Council Certificate Number 1991.01 Valid to November 30, 2024

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



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

INTERFACE, INC. 7401 E. Butherus Drive Scottsdale, AZ 85260 Rocky Lee Phone: 480 648 5938

#### CALIBRATION

Valid To: November 30, 2024

Certificate Number: 1991.01

In recognition of the successful completion of the A2LA evaluation process, accreditation is granted to this laboratory to perform the following calibrations<sup>1, 5</sup>:

I. Electrical – DC/Low Frequency

Parameter/Equipment	Range	CMC <sup>2, 3, 4</sup> (±)	Comments
DC Voltage – Measure	(0 to 0.2) V (0.2 to 2) V (2 to 20) V (20 to 200) V	$\begin{array}{c} 6 \; \mu V/V + 1.2 \; \mu V \\ 4.4 \; \mu V/V + 0.46 \; \mu V \\ 4.4 \; \mu V/V + 4.6 \; \mu V \\ 6.6 \; \mu V/V + 46 \; \mu V \end{array}$	Fluke 8508A, Fluke 8588A
DC Voltage Ratio	(0 to 8) mV/V, 5V Ref (0 to 20) mV/V, 10V Ref (0 to 10) mV/V, 20V Ref	$\begin{array}{c} 0.0006 \ \% + 25 \ nV/V_{ref} \\ 0.0006 \ \% + 12 \ nV/V_{ref} \\ 0.000 \ 55 \ \% + 6 \ nV/V_{ref} \end{array}$	Fluke 8508A, Fluke 8588A
Resistance – Measure	$\begin{array}{c} (0 \text{ to } 2) \ \Omega \\ (2 \text{ to } 20) \ \Omega \\ (20 \text{ to } 200) \ \Omega \\ (200 \text{ to } 2000) \ \Omega \\ (2 \text{ to } 20) \ k\Omega \\ (20 \text{ to } 200) \ k\Omega \\ (200 \text{ to } 2000) \ k\Omega \end{array}$	$\begin{array}{c} 20 \ \mu\Omega/\Omega + 5 \ \mu\Omega \\ 11 \ \mu\Omega/\Omega + 16 \ \mu\Omega \\ 9.4 \ \mu\Omega/\Omega + 60 \ \mu\Omega \\ 9.4 \ \mu\Omega/\Omega + 600 \ \mu\Omega \\ 9.4 \ \mu\Omega/\Omega + 6 \ m\Omega \\ 9.4 \ \mu\Omega/\Omega + 60 \ m\Omega \\ 11 \ \mu\Omega/\Omega + 1200 \ m\Omega \end{array}$	Fluke 8508A, Fluke 8588A

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#### II. Mechanical

Parameter/Equipment	Range	CMC <sup>2, 3</sup> (±)	Comments
Force – Load Cells, Force Transducers	(200 to 240 000) lbf (100 to 1100) lbf (240 000 to 1 000 000) lbf	0.035 % 0.05 % 0.041 %	Load cells
	(1 to 500) lbf	0.04 %	Free weights
	(25 to 1100) lbf	0.03 %	Actuated weights
	(10 to 550) lbf	0.021 %	Actuated weights (stainless steel)
	(2 to 50) gf (25 to 2000) gf	0.04 % 0.03 %	Free weights
Torque – Torque Transducers	(0.022 to 0.11) lbf·in (0.09 to 0.18) lbf·in (0.20 to 100) lbf·in (2.2 to 250) lbf·in (8.8 to 177) lbf·in (40 to 2200) lbf·in (1700 to 50 000) lbf·in (3500 to 50 000) lbf·in (5300 to 100 000) lbf·in	0.37 % 0.1 % 0.055 % 0.042 % 0.05 % 0.04 % 0.11 % 0.07 % 0.07 %	Torque arm and weights Transducer comparison

<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> In the statement of CMC a % denotes a percent of reading unless otherwise noted.
- <sup>4</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 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.

<sup>5</sup> This scope meets A2LA's *P112 Flexible Scope Policy*.

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