



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

TOLEDO TRANSDUCERS, INC.
 6834 Spring Valley Drive
 Holland, OH 43528
 Rose Alvarez Phone: 419 867 4170

CALIBRATION

Valid To: August 31, 2025

Certificate Number: 1379.01

In recognition of the successful completion of the A2LA evaluation process, accreditation is granted to this laboratory to perform the following calibrations¹:

I. Mechanical

Parameter/Equipment	Range	CMC ^{2, 4} (±)	Comments
Calibration of Force, Load Cells –			
Tension/Compression	(10 to 100) lbf (20 to 500) lbf 100 lbf to 5 klbf (5 to 50) klbf (5 to 120) klbf	0.04 % 0.04 % 0.05 % 0.10 % 0.08 %	Calibrated using internal procedure 1017 with load cells
Compression Only ³	(20 to 500) lbf 100 lbf to 5 klbf (5 to 50) klbf (5 to 120) klbf (1 to 50) klbf 85 klbf to 1 Mlbf 175 klbf to 2.0 Mlbf	0.04 % 0.05 % 0.10 % 0.08 % 0.06% 0.04 % 0.07 %	
Calibration of Force –			
Tension & Compression	(0.1 to 5) lbf	0.11 %	Class 6 dead weights, Toledo procedure 1017

Parameter/Equipment	Range	CMC ^{2,4} (±)	Comments
Calibration of Torque Load Cells	(0.125 to 20) lbf·in, 4 in beam	0.29 %	Class 6 dead weights Toledo procedure 1017
	(10 to 1000) lbf·in, 10 in beam	0.04 %	Standard load cells, Toledo procedure 1017 w/ elements of E2428
	(30 to 3000) lbf·in, 30 in beam	0.06 %	
	(24 000 to 48 000) lbf·in, 24 in beam	0.04 %	
	(10 000 to 120 000) lbf·in, 48 in beam	0.03 %	
(60 000 to 240 000) lbf·in, 48 in beam	0.03 %		

¹ This laboratory offers commercial calibration services.

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 routine calibrations of nearly ideal measurement standards of 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 specified 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 In the statement of CMC, percentages are to be read as percent of reading, unless noted otherwise.



Accredited Laboratory

A2LA has accredited

TOLEDO TRANSDUCERS, INC.

Holland, OH

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 5th day of September 2023.

A blue ink signature of Mr. Trace McInturff, written over a horizontal line.

Mr. Trace McInturff, Vice President, Accreditation Services
For the Accreditation Council
Certificate Number 1379.01
Valid to August 31, 2025

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