



SCOPE OF ACCREDITATION TO ISO/IEC 17025:2017

HUMBOLDT SCIENTIFIC, INC. dba HUMBOLDT MFG. CO.
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CALIBRATION

Valid To: January 31, 2026

Certificate Number: 3956.01

In recognition of the successful completion of the A2LA evaluation process, accreditation is granted to this laboratory to perform the following calibrations^{1, 5}:

I. Dimensional

Parameter/Equipment	Range	CMC ² (±)	Comments
Linear Displacement Indicators and Transducers ³	(0.008 to 0.4) in (0.4 to 1.0) in (1.0 to 2.0) in	0.000 36 in 0.0008 in 0.0044 in	Micrometer head, gage blocks

II. Electrical

Parameter/Equipment	Range	CMC ² (±)	Comments
Electrical Density Gauge ³ – Density	(1775 to 2725) kg/m ³	27 kg/m ³	MCU
Moisture	(0 to 800) kg/m ³	16 kg/m ³	

III. Mechanical

Parameter/Equipment	Range	CMC ^{2, 4} (±)	Comments
Pressure Gauge ³	Up to 300 psi	0.10 %	Pressure calibrator

Parameter/Equipment	Range	CMC ^{2, 4} (±)	Comments
Load Cells ³	(100 to 10 000) lbf	0.50 %	Load cells, dead weights, ASTM E4
Density Blocks ³	(1100 to 2725) kg/m ³	0.050 %	Calipers, load cells, scales, nuclear gauge
Moisture Blocks ³	Up to 800 kg/m ³	0.40 %	Nuclear density gauge
Nuclear Density Gauge ³ – Density	(1100 to 2725) kg/m ³	0.13 %	Density and moisture blocks
Moisture	Up to 800 kg/m ³	0.60 %	

¹ This laboratory offers commercial 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 In the statement of CMC, percentages are percentage of reading, unless otherwise indicated.

⁵ This scope meets A2LA's *P112 Flexible Scope Policy*.



Accredited Laboratory

A2LA has accredited

HUMBOLDT SCIENTIFIC, INC. DBA HUMBOLDT MFG. CO.

Raleigh, 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 5th day of March, 2024.

A blue ink signature of Trace McInturff, written in a cursive style.

Mr. Trace McInturff, Vice President, Accreditation Services
For the Accreditation Council
Certificate Number 3956.01
Valid to January 31, 2026

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