



# CERTIFICATE OF ACCREDITATION

**The ANSI National Accreditation Board**

Hereby attests that

**Antibus Scales & Systems, Inc.**  
**1919 Research Drive**  
**Fort Wayne, IN 46808**

Fulfills the requirements of

**ISO/IEC 17025:2017**

and national standard

**ANSI/NCSL Z540-1-1994 (R2002)**

In the field of

**CALIBRATION**

This certificate is valid only when accompanied by a current scope of accreditation document.  
The current scope of accreditation can be verified at [www.anab.org](http://www.anab.org).

R. Douglas Leonard Jr., VP, PILR SBU

Expiry Date: 11 May 2024  
Certificate Number: L2253



This laboratory is accredited in accordance with the recognized International Standard ISO/IEC 17025:2017.  
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).

**SCOPE OF ACCREDITATION TO ISO/IEC 17025:2017  
AND ANSI/NCSL Z540-1-1994 (R2002)**

**Antibus Scales & Systems, Inc.**

1919 Research Drive  
Fort Wayne, IN 46808  
Lynn Billiard  
260-432-3591

**CALIBRATION**

Valid to: **May 11, 2024**

Certificate Number: **L2253**

**Electrical – DC/Low Frequency**

Parameter / Equipment	Range	Expanded Uncertainty of Measurement (+/-)	Reference Standard, Method and/or Equipment
Electrical Simulation of Thermocouple Indicating Devices	Type K (-195 to 1 260) °C	0.87 °C	Fluke Process Calibrator
	Type J (0 to 760) °C	0.87 °C	

**Length – Dimensional Metrology**

Parameter / Equipment	Range	Expanded Uncertainty of Measurement (+/-)	Reference Standard, Method and/or Equipment
Calipers	(0 to 6) in	290 µin	Gage Blocks
Micrometer	(0 to 6) in	570 µin	Gage Blocks
Height Gage	(0 to 12) in	60 µin	Gage Blocks

**Mass and Mass Related**

Parameter / Equipment	Range	Expanded Uncertainty of Measurement (+/-)	Reference Standard, Method and/or Equipment
Force Gages & Cells: UUTs with accuracies $\leq 0.1\%$ <sup>1,6</sup>	(0 to 10 000) lbf	1d + 0.033% load	Class F/6 Weights
Force Gages & Cells: UUTs with accuracies $> 0.1\%$ <sup>1,6</sup>	(0 to 30 000) lbf	1d + 0.10% load	Class F/6 Weights
Force – Tension and Compression <sup>1,6</sup>	(0 to 100 000) lbf	1d + 0.20% load	Load Cells
Class F/6 and lower Mass Standards	20 lb 25 lb 50 lb 500 lb 1 000 lb 10 kg 20 kg 25 kg	0.000 42 lb 0.000 52 lb 0.001 0 lb 0.011 lb 0.021 lb 0.23 g 0.41 g 0.51 g	Modified Substitution
Lab Balances <sup>1,6</sup> (Five & Six Place Balances)	(0 to 500) g	1d + 0.0041% of load	Class 1 Weights and NIST Handbook 44 utilized for the Calibration of Weighing Systems
(Four Place and Class 1 Equivalent Balances)	(0 to 5 300) g	1d + 0.000 3% of load	
(Class 2 & High Precision Scales)	(0 to 5 300) g	0.6d + 0.000 07% of load	
Lab Balances and High Precision Scales <sup>1,6</sup>	(0 to 35) kg	1d + 0.001 2% of load	Class 2 & 3 Weights and NIST Handbook 44 utilized for the Calibration of Weighing Systems
Lab Balances and High Precision Scales <sup>1,6</sup>	(0 to 150) kg	1d + 0.000 7% of load	Class 1 and Class 2 Weights with Substitution to range of use
High Resolution Unmarked Scales <sup>1,6</sup>	(0 to 5 000) kg (0 to 50 000) lb	1d + 0.012% of load 1d + 0.012% of load	Class F,6 Weights with Substitution to range of use

**Mass and Mass Related**

Parameter / Equipment	Range	Expanded Uncertainty of Measurement (+/-)	Reference Standard, Method and/or Equipment
Industrial and Commercial Scales <sup>1,3,6</sup>	(0 to 5 000) kg (0 to 200 000) lb	1d + 0.004% of load 1d + 0.004% of load	Class F,6 Weights with Substitution to range of use
Torque Analyzers – Fixed Points	(1 to 10) ozf·in (10 to 50) ozf·in (4 to 50) lbf·in (30 to 400) lbf·in (80 to 1 000) lbf·in (20 to 250) lbf·ft (60 to 600) lbf·ft (200 to 2 000) lbf-ft	0.096 % of reading 0.061 % of reading 0.076 % of reading 0.062 % of reading 0.071 % of reading 0.062 % of reading 0.070 % of reading 0.074 % of reading	Torque Arm and Class F/6 Weights
Torque Wrench With Accuracies of 0-to-1.5% With Accuracies > 1.5%	(1 ozf·in to 2 000 lbf·ft) (1 ozf·in to 2 000 lbf·ft)	1.2 % of reading 2.6 % of reading	Torque Analyzer

**Thermodynamic**

Parameter / Equipment	Range	Expanded Uncertainty of Measurement (+/-)	Reference Standard, Method and/or Equipment
Temperature Chamber <sup>1</sup> (ovens/freezers)	(-195 to 1 260) °C	1.3 °C	Fluke Series Process Calibrator

Calibration and Measurement Capability (CMC) is expressed in terms of the measurement parameter, measurement range, expanded uncertainty of measurement and reference standard, method, and/or equipment. The expanded uncertainty of measurement is expressed as the standard uncertainty of the measurement multiplied by a coverage factor of 2 ( $k=2$ ), corresponding to a confidence level of approximately 95%.

Notes:

1. On-site calibration service is available for this parameter, since on-site conditions are typically more variable than those in the laboratory, larger measurement uncertainties are expected on-site than what is reported on the accredited scope.
2. High Resolution Unmarked Scales include high resolution scales not complying with the accuracy class parameters of Table 3 of NIST Handbook 44.
3. Industrial Scales include but are not limited to lab balances, bench scales, floor scales, tank and hopper scales, and vehicle scales.
4. Antibus Scales & Systems, Inc has resident technicians located in Bowling Green, OH.
5. This scope is formatted as part of a single document including Certificate of Accreditation No. L2253.
6. When the uncertainty of measurement is significantly impacted by the UUT's resolution, then the uncertainty may be expressed as a formula using the UUT's resolution, represented by "d" above.



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