



# CERTIFICATE OF ACCREDITATION

## The ANSI National Accreditation Board

Hereby attests that

**National Association for Proficiency Testing**  
3470 Washington Dr., Suite 122  
Eagan, MN 55122

Fulfills the requirements of

**ISO/IEC 17043:2023**

In the field of

**PROFICIENCY TESTING PROVIDER**

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).

A handwritten signature in black ink, appearing to be 'Jason Stine', is positioned above a horizontal line.

Jason Stine, Vice President

Expiry Date: 14 July 2026

Certificate Number: AP-1873



This proficiency testing provider is accredited in accordance with the recognized International Standard ISO/IEC 17043:2023.  
This accreditation demonstrates technical competence for a defined scope and the operation of a proficiency testing provider quality management system.

**SCOPE OF ACCREDITATION TO ISO/IEC 17043:2023**

**National Association for Proficiency Testing**

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**PROFICIENCY TEST PROVIDER**

Valid to: **July 14, 2026**

Certificate Number: **AP-1873**

**Acoustics and Vibration**

Description of PT Item/Artifact	Properties Measured	Range of Property	Expanded Uncertainty of PT Item/Artifact (+/-) (Including Appropriate units)	Procedure for Establishing Assigned Value
Vibration Meters Charge, Strain & Capacitive Transducers	Vibration measurements of 10 Hz to 10 kHz (1 to 10) g <sub>n</sub>	(10 to 10 000) Hz	0.013 to 0.028 Hz	ISO 13528 Consensus values based on either expert laboratories or from participant results (Analyses based on selected dataset)
Sound Level Meter	Sound Level	(50 to 100) dB @ 100 Hz to 8 kHz	0.46 to 0.8 dB	

**Electrical-DC/Low Frequency**

Description of PT Item/Artifact	Properties Measured	Range of Property	Expanded Uncertainty of PT Item/Artifact (+/-) (Including Appropriate units)	Procedure for Establishing Assigned Value
Digital Multi Meter	DC Current	1 mA to 500 A	5.4 E-05 to 9.5 E-05 A	ISO 13528 Consensus values based on either expert laboratories or from participant results (Analyses based on selected dataset)
Digital Multi Meter	DC Current <sup>1</sup>	(1 to 5) mA	5.6 E-05 to 9.8 E-05 mA	
Digital Multi Meter	AC Current @ 50 Hz to 400 Hz	100 mA to 500 A	0.15 to 0.18 mA	
Digital Multi Meter	DC Voltage	100 mV to 1 000 V	6.8 E-06 to 4.5 E-05 V	
Digital Multi Meter	DC Voltage	10 V <sup>1</sup>	0.006 V	

**Electrical-DC/Low Frequency**

Description of PT Item/Artifact	Properties Measured	Range of Property	Expanded Uncertainty of PT Item/Artifact (+/-) (Including Appropriate units)	Procedure for Establishing Assigned Value
Digital Multi Meter	AC Voltage @ 50 Hz to 10 kHz	50 mV to 300 V	1.8 E-05 to 0.007 V	ISO 13528 Consensus values based on either expert laboratories or from participant results (Analyses based on selected dataset)
LCR	Inductance	1 mH to 10 H 100 µH to 100 mH <sup>1</sup>	5.36 E-05 to 9.51 E-05 H	
LCR	Impedance <sup>1</sup> 0.5 kHz to 1 kHz	10 Ω to 1 MΩ	0.007 Ω to 0.000 4 MΩ	
Digital Multi Meter	Capacitance @ 1kHz	(0.001 to 1) µF 100 pF to 1 000 µF	0.000 7 µF	
Capacitor Standards	Capacitance	(0.001 to 0.5) µF	1.5E-07 to 6 E-05 µF	
Digital Multi Meter	Resistance	100 Ω to 10 MΩ	0.001 7 Ω to 0.000 4 MΩ	
Standard Inductor	Inductance @ 100 Hz, 400 Hz and 1 kHz	500 µH to 200 mH	0.57 µH to 0.1 mH	
Air Resister	Resistance	1 Ω to 1 GΩ	7.57 E-06 Ω to 1.31 E-05 GΩ	
Oscilloscope	DC Gain	5 mV to 5 V	0.19 to 0.024 mV	
Oscilloscope	Analog Bandwidth	20 MHz 3.5 V/div	0.36 V	
Oscilloscope	Sample Rate & Time Delay	250 ns/Div	0.27 ns/Div	
Oscilloscope	Time Marker	25 µs/Div to 2.5 ns/Div	0.043 to 0.24 ns/Div	
Oscilloscope	Square-Wave Amplitude	5 mV to 5V	0.01 to .88 mV	
Process Calibrators	Thermocouple Temperature Types E, J, K, R, S, B, L, U, C & T	(-250 to 1 500) °C	0.43 to 0.48 °C	

### Electrical-DC/Low Frequency

Description of PT Item/Artifact	Properties Measured	Range of Property	Expanded Uncertainty of PT Item/Artifact (+/-) (Including Appropriate units)	Procedure for Establishing Assigned Value
Process Calibrators	mA output	(4 to 20) mA	0.1 to 0.13 mA	ISO 13528 Consensus values based on either expert laboratories or from participant results (Analyses based on selected dataset)

### Electrical-RF/Microwave

Description of PT Item/Artifact	Properties Measured	Range of Property	Expanded Uncertainty of PT Item/Artifact (+/-) (Including Appropriate units)	Procedure for Establishing Assigned Value
Power Meter & RF Power Sensor	Power 10 MHz to 18 GHz <sup>1</sup>	100 $\mu$ W to 2 mW	0.089 to 0.19 mW	ISO 13528 Consensus values based on either expert laboratories or from participant results (Analyses based on selected dataset)
Power Meter & RF Power Sensor	Power 50 MHz to 18 GHz	1 mW	0.006 6 mW	
RF Attenuator	dB Loss (Attenuation) (1, 10, 18, 26) GHz	20 dB	0.039 to 0.086 dB	

### Length-Dimensional Metrology

Description of PT Item/Artifact	Properties Measured	Range of Property	Expanded Uncertainty of PT Item/Artifact (+/-) (Including Appropriate units)	Procedure for Establishing Assigned Value
Gage Blocks	Length	(0.05 to 4) in (3 to 20) in	3.7 <sup>E-06</sup> to 9.4 <sup>E-06</sup> in 6.7 <sup>E-06</sup> to 4.7 <sup>E-05</sup> in	ISO 13528 Consensus values based on either expert laboratories or from participant results (Analyses based on selected dataset)
Digital Micrometers	Length	(1 to 12) in	6.7 <sup>E-05</sup> to 7.8 <sup>E-05</sup> in	
Calipers	Length	(1 to 12) in	0.000 45 to 0.000 46 in	
Dial Indicators	Length	(2.5 to 20) mm	0.008 2 to 0.008 5 mm	
Height Gage	Length	(1 to 24) in	0.000 9 to 0.001 2 in	

### Length-Dimensional Metrology

Description of PT Item/Artifact	Properties Measured	Range of Property	Expanded Uncertainty of PT Item/Artifact (+/-) (Including Appropriate units)	Procedure for Establishing Assigned Value
Class XXX Plain Plug	Diameter	(1 to 4) in	1.1 <sup>E-05</sup> to 2.4 <sup>E-05</sup> in	ISO 13528 Consensus values based on either expert laboratories or from participant results (Analyses based on selected dataset)
Thread Wire	Diameter	(20, 40, 80) TPI	1.2 <sup>E-05</sup> to 1.8 <sup>E-05</sup> in	
Plain Plug	Roundness (Top, Middle, Bottom)	(0 to 0.5) μm	0.08 to 0.092 μm	
Micrometer Length Standards	Length	(1 to 7) in	2.8 <sup>E-05</sup> to 5.3 <sup>E-05</sup> in	
Stage Micrometer	Length	(0.003 to 1.90) in	4 <sup>E-05</sup> to 0.000 19 in	
Glass Scales	Length Square Circle	(1 to 3) in (0.05 to 1) in (1 to 25) mm	8.1 <sup>E-05</sup> to 7.3 <sup>E-05</sup> in 0.002 to 8.5 <sup>E-05</sup> in 0.002 to 8.3 <sup>E-05</sup> mm	
Protractor	Angle	(0 to 135) °	0.091 to 0.099 °	
Plain Cylindrical Ring Gage	Diameter	(0.5 to 4) in	12 to 20 uin	
Thread Plug	Pitch Diameter Major Diameter Truncated Diameter	(0.5 to 1) in (0.5 to 1) in (0.5 to 1) in	8.9 <sup>E-05</sup> to 9.2 <sup>E-05</sup> in 3.4 <sup>E-05</sup> to 3.5 <sup>E-05</sup> in 3.5 <sup>E-05</sup> to 3.6 <sup>E-05</sup> in	
CMM Inspection	X-Axis Y-Axis Diameter Sphere Cone	(2 to 10) in (2 to 8) in (1 to 1.25) in (4 to 8) in (2 to 3) in	0.000 33 to 0.000 41 in 0.000 33 to 0.000 41 in 0.000 34 to 0.000 36 in 0.000 34 to 0.000 42 in 0.000 37 to 0.000 41 in	

### Mass and Mass Related

Description of PT Item/Artifact	Properties Measured	Range of Property	Expanded Uncertainty of PT Item/Artifact (+/-) (Including Appropriate units)	Procedure for Establishing Assigned Value
Mass Standards	True Mass	(0.5 to 100) g (0.001 to 0.2) lb (0.5 to 10) lb	0.000 0012 to 0.000 022 g 0.000 009 to 0.000 036 lb 0.000 11 to 0.001 4 lb	ISO 13528 Consensus values based on either expert laboratories or from participant results (Analyses based on selected dataset)

**Mass and Mass Related**

Description of PT Item/Artifact	Properties Measured	Range of Property	Expanded Uncertainty of PT Item/Artifact (+/-) (Including Appropriate units)	Procedure for Establishing Assigned Value
Pipette	Volume	(0.20 to 1000.00) $\mu$ L	0.042 to 5.4 $\mu$ L	ISO 13528 Consensus values based on either expert laboratories or from participant results (Analyses based on selected dataset)
Vacuum Gages/Transducers	Pressure, Vacuum	(-10 to 30) psi (0 to 25) inHg (1 to 900) mmHg (5 to 25) inHg	0.015 to 0.018 psi 0.014 to 0.023 inHg 0.072 to 0.15 mmHg 0.042 to 0.11 inHg	
Pressure Gauges/Transducers	Pressure	(10 to 10 000) psi	0.000 7 to 0.008 5 psi	
Torque Tools	Screwdrivers, Bending Beam, Adjustable, Digital	(6 to 34) lbf in (20 to 100) lbf ft (30 to 540) lbf in (360 to 1 800) lbf in	0.11 to 0.58 lbf in 0.089 to 0.35 lbf ft 0.53 to 2.25 lbf in 1.8 to 5.2 lbf in	
Torque Transducer	Applied Torque	(30 to 300) lbf in (180 to 1 800) lbf in	0.08 to 0.47 lbf in 0.21 to 1.56 lbf in	
Force Gage	Compression Tension	(10 to 100) lbf	0.005 to 0.072 lbf	
Load Cell	Compression Tension	(100 to 1 000) lbf	0.17 to 0.87 lbf	
		(2 500 to 25 000) lbf Up to 4.5 mV/V	0.002 1 to 0.006 7 klb 0.000 3 mV/V to 0.002 mV/V	
Durometers, Type A & D	Displacement Measurements (Force Only)	(20 to 80) points	0.75 to 0.86 points	
Rockwell Hardness Specimens (Blocks)	Hardness	(30 to 100) HRBw (25 to 65) HRC	0.85 to 1.2 HRBw 0.6 to 0.7 HRC	

**Thermodynamic**

Description of PT Item/Artifact	Properties Measured	Range of Property	Expanded Uncertainty of PT Item/Artifact (+/-) (Including Appropriate units)	Procedure for Establishing Assigned Value
Glass Thermometer	Temperature	(-7 to 150) $^{\circ}$ C	0.023 to 0.052 $^{\circ}$ C	ISO 13528 Consensus values based on either expert laboratories or from participant results (Analyses based on selected dataset)

### Thermodynamic

Description of PT Item/Artifact	Properties Measured	Range of Property	Expanded Uncertainty of PT Item/Artifact (+/-) (Including Appropriate units)	Procedure for Establishing Assigned Value
Type S Thermocouple	Temperature	(1 000 to 2 000) °F	1.3 to 1.5 °F	ISO 13528 Consensus values based on either expert laboratories or from participant results (Analyses based on selected dataset)
Thermistor Probe	Temperature	(0 to 100) °C	0.015 to 0.029 °C	
Digital Thermometer	Temperature	(-20 to 100) °C	0.04 to 0.06 °C	
Platinum Resistance Thermometer	Temperature	(-190 to 410) °C	0.1 to 0.11 °C	
Wideband Infrared Thermometers	Temperature $\lambda = (8 \text{ to } 14) \mu\text{m}$	(-20 to 750) °C	0.75 to 4.3 °C	
Humidity Sensors	Measurement of Customer Provided Environment	(10 to 97) %RH	0.56 to 1.1 %RH	
Digital RTD	Temperature	(-75 to 150) °C	0.024 to 0.048 °C	

### Time and Frequency

Description of PT Item/Artifact	Properties Measured	Range of Property	Expanded Uncertainty of PT Item/Artifact (+/-) (Including Appropriate units)	Procedure for Establishing Assigned Value
Frequency Counter	Period	100 MHz	4.1 E <sup>-06</sup> MHz	ISO 13528 Consensus values based on either expert laboratories or from participant results (Analyses based on selected dataset)
	Time	100 kHz to 10 MHz	9.2 E <sup>-05</sup> to 5.7 E <sup>-08</sup>	
	Frequency/Time Base	10 MHz	5.74 E <sup>-08</sup>	
Frequency Counter	Time Base Frequency	100 Hz to 10 MHz	7.6 E <sup>-06</sup> to 5.2 E <sup>-07</sup> MHz	
Tachometer	Rotational Speed	(500 to 40 000) RPM	0.21 to 0.58 RPM	
Stopwatch	Elapsed Time	(60 to 86 400) sec	0.028 to 0.32 sec	

Note:

1. This scope is formatted as part of a single document including Certificate of Accreditation No. AP-1873.
2. Expanded Uncertainty of PT item may vary when using Consensus values based on participant results (Analyses based on selected dataset).



Jason Stine, Vice President

