



CERTIFICATE OF ACCREDITATION

The ANSI National Accreditation Board

Hereby attests that

NSI, Neal Systems Inc.
122 Terry Drive
Newtown, PA 18940

Fulfills the requirements of

ISO/IEC 17025:2017

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.

Jason Stine, Vice President

Expiry Date: 03 October 2027

Certificate Number: AC-3244



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

NSI, Neal Systems Inc.
 122 Terry Drive
 Newtown, PA 18940
 Stephen Arnold 215-968-7577

CALIBRATION

ISO/IEC 17025 Accreditation Granted: **01 October 2025**

Certificate Number: **AC-3244**

Certificate Expiry Date: **03 October 2027**

Electrical – DC/Low Frequency

Parameter/Equipment	Range	Expanded Uncertainty of Measurement (+/-)	Reference Standard, Method, and/or Equipment
DC Voltage – Source ¹	(0.1 to 100) mV (0.1 to 1) V (1 to 10) V	17 μ V 0.17 mV 1.7 mV	Comparison to Fluke 753/754 Documenting Process Calibrator
DC Voltage – Measure ¹	(0.1 to 100) mV (0.1 to 3) V (1 to 10) V	42 μ V 0.75 mV 7.5 mV	Comparison to Fluke 753/754 Documenting Process Calibrator
DC Current – Source ¹	(0 to 22) mA	6 μ A	Comparison to Fluke 753/754 Documenting Process Calibrator
DC Current – Measure ¹	(0 to 22) mA	10 μ A	Comparison to Fluke 753/754 Documenting Process Calibrator

Electrical – DC/Low Frequency

Parameter/Equipment	Range	Expanded Uncertainty of Measurement (+/-)	Reference Standard, Method, and/or Equipment	
Electrical Simulation of Thermocouple Indicating Devices – Source ¹	Type B		Fluke 753/754 Documenting Process Calibrator; AMS 2750	
	(1 112 to 1 472) °F	2.4 °F		
	(1 472 to 1 832) °F	1.9 °F		
	(1 832 to 3 308) °F	1.8 °F		
	Type E			
	(-418 to -328) °F	3.2 °F		
	(-328 to -148) °F	0.66 °F		
	(-148 to 1 112) °F	0.65 °F		
	(1 112 to 1 832) °F	0.46 °F		
	Type J			
	(-346 to -148) °F	0.72 °F		
	(-148 to 1 472) °F	0.47 °F		
	(1 472 to 2 192) °F	0.68 °F		
	Type K			
	(-328 to -148) °F	1.8 °F		
	(-148 to 752) °F	0.66 °F		
	(752 to 2 192) °F	0.66 °F		
	(2 192 to 2 502) °F	0.67 °F		
	Type N			
	(-328 to 148) °F	1.4 °F		
	(148 to 1 652) °F	1.1 °F		
	(1 652 to 2 372) °F	0.67 °F		
	Type R			
	(-4 to 32) °F	2.8 °F		
(32 to 212) °F	2 °F			
(212 to 3 212) °F	2 °F			
Type S				
(-4 to 32) °F	2.8 °F			
(32 to 392) °F	2 °F			
(392 to 2 552) °F	2 °F			
(2 552 to 3 212) °F	2.2 °F			
Type T				
(-418 to -328) °F	2.2 °F			
(-328 to 32) °F	0.89 °F			
(32 to 752) °F	0.66 °F			

Electrical – DC/Low Frequency

Parameter/Equipment	Range	Expanded Uncertainty of Measurement (+/-)	Reference Standard, Method, and/or Equipment
Electrical Simulation of Thermocouple Indicating Devices – Measure ¹	Type B		Fluke 753/754 Documenting Process Calibrator; AMS 2750
	(1 112 to 1 472) °F	2.9 °F	
	(1 472 to 1 832) °F	2.3 °F	
	(1 832 to 3 308) °F	2 °F	
	Type E		
	(-418 to -328) °F	4 °F	
	(-328 to -148) °F	0.69 °F	
	(-148 to 1 112) °F	0.71 °F	
	(1 112 to 1 832) °F	0.92 °F	
	Type J		
	(-346 to -148) °F	1.3 °F	
	(-148 to 1 472) °F	0.68 °F	
	(1 472 to 2 192) °F	1.1 °F	
	Type K		
	(-328 to -148) °F	2.1 °F	
	(-148 to 752) °F	1.2 °F	
	(752 to 2 192) °F	1.3 °F	
	(2 192 to 2 502) °F	1.6 °F	
	Type N		
	(-328 to 148) °F	2.2 °F	
	(148 to 1 652) °F	1.1 °F	
(1 652 to 2 372) °F	1.4 °F		
Type R			
(-4 to 32) °F	5 °F		
(32 to 212) °F	3.2 °F		
(212 to 3 212) °F	2.2 °F		
Type S			
(-4 to 32) °F	5 °F		
(32 to 392) °F	2 °F		
(392 to 2 552) °F	2 °F		
(2 552 to 3 212) °F	2.4 °F		
Type T			
(-418 to -328) °F	3.8 °F		
(-328 to 32) °F	1.3 °F		
(32 to 752) °F	0.69 °F		
Electrical Simulation of RTD Temperature Indicating Devices – Source ¹	Pt 385, 100 Ω		Comparison to Fluke 753/754 Documenting Process Calibrator
	(-328 to 212) °F	0.17 °F	
	(212 to 1 472) °F	0.16 °F	
	Pt 385, 1 kΩ		
(-328 to 212) °F	0.18 °F		
(212 to 1 166) °F	0.36 °F		



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Electrical – DC/Low Frequency

Parameter/Equipment	Range	Expanded Uncertainty of Measurement (+/-)	Reference Standard, Method, and/or Equipment
Electrical Simulation of RTD Temperature Indicating Devices – Measure ¹	Pt 385, 100 Ω		Comparison to Fluke 753/754 Documenting Process Calibrator
	(-328 to 212) °F	0.99 °F	
	(212 to 1 472) °F	0.99 °F	
	Pt 385, 1 kΩ		
	(-328 to 212) °F	0.41 °F	
	(212 to 1 166) °F	0.85 °F	

Mass and Mass Related

Parameter/Equipment	Range	Expanded Uncertainty of Measurement (+/-)	Reference Standard, Method, and/or Equipment
Pressure – Generate/Measure ¹	(-15 to 30) psig	0.027 psi	Comparison to Fluke Pressure Modules; Fluke 753/754 Documenting Process Calibrator
	(-15 to 300) psig	0.13 psi	
	(0.000 1 to 1) psig	0.001 3 psi	
	(0.1 to 1 000) psig	0.49 psi	
	(1 to 10 000) psig	9.6 psi	
Pressure – Generate/Measure ¹	(0.001 to 1) inH ₂ O	0.004 3 inH ₂ O	Comparison to Fluke Pressure Modules; Fluke 753/754 Documenting Process Calibrator
	(0.001 to 10) inH ₂ O	0.035 inH ₂ O	

Thermodynamic

Parameter/Equipment	Range	Expanded Uncertainty of Measurement (+/-)	Reference Standard, Method, and/or Equipment
System Accuracy Test ¹ (SAT)	Type J		Reference Thermocouple, Fluke 753/754 Documenting Process Calibrator; AMS 2750
	(32 to 1 400) °F	1.9 °F	
	Type K		
	(32 to 752) °F	1.8 °F	
	(752 to 2 192) °F	3.7 °F	
Type N			
	(32 to 1 652) °F	2 °F	
	(1 652 to 2 192) °F	3.5 °F	



Thermodynamic

Parameter/Equipment	Range	Expanded Uncertainty of Measurement (+/-)	Reference Standard, Method, and/or Equipment
Temperature Uniformity Surveys ¹ (TUS)	Type J (32 to 1 400) °F Type K (32 to 932) °F (932 to 2 192) °F Type N (32 to 932) °F (932 to 2 192) °F	2.6 °F 2.7 °F 4 °F 2.7 °F 4 °F	Reference Thermocouple, Eurotherm 6180A Graphic Recorder; AMS 2750
Temperature – Measure ¹ (Ovens, Furnaces, etc.)	Type K (32 to 2 192) °F Type N (32 to 2 192) °F	3.8 °F 3.8 °F	Comparison to Reference Thermocouple Probe, Fluke 753/754 Documenting Process Calibrator
Temperature – Measure ¹ (Ovens, Chambers, Open Room, etc.)	(14 to 662) °F	0.45 °F	Comparison to Reference PRT, Fluke 753/754 Documenting Process Calibrator
Electronic Thermometers with Built-in Sensors	(14 to 212) °F (122 to 662) °F	0.47 °F 1.3 °F	Comparison to Fluke 9009 Dual Well Drywell
Platinum Resistance Thermometers (3-wire and 4-wire)	(14 to 212) °F (122 to 662) °F	1.1 °F 1.6 °F	Comparison to Fluke 9009 Dual Well Drywell, Fluke 753/754 Documenting Process Calibrator
Thermocouple Probes	(14 to 212) °F (122 to 662) °F	1.2 °F 2.5 °F	Comparison to Fluke 9009 Dual Well Drywell, Fluke 753/754 Documenting Process Calibrator
Thermohygrometers ¹ Temperature	(20 to 50) °C	0.96 °C	Comparison to Kaymont 2000 Humidity Generator
Humidity	(10 to 50) °C (10 to 92) %RH	1.5 %RH	

Thermodynamic

Parameter/Equipment	Range	Expanded Uncertainty of Measurement (+/-)	Reference Standard, Method, and/or Equipment
Temperature/Humidity – Measure ¹			
Temperature	(20 to 50) °C	0.5 °C	Comparison to Vaisala Temp/Humidity Indicator with Probe
Humidity	(10 to 90) %RH (90 to 95) %RH	1.9 %RH 3.6 %RH	

Time and Frequency

Parameter/Equipment	Range	Expanded Uncertainty of Measurement (+/-)	Reference Standard, Method, and/or Equipment
Time Indicating Instruments ¹	Up to 3 600 s	1.1 s	Comparison to Fisher Scientific 14-649-5 Digital Stopwatch

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. Unless otherwise specified in the far-right column, the calibration method/procedure was developed internally.



Jason Stine, Vice President