Essco Calibration Laboratory
Division of Walsh Engineering Services, Inc.
27 Industrial Ave, Unit #9, Chelmsford, MA 01824-3618
Tel: 800-325-2201 978-250-0880 www.esscolab.com

Certificate of Calibration

NVLAP CALIBRATION
NVLAP LAB CODE 200972-0

Issue Date: 07/25/2024 **Certificate #: 3172733**

CUSTOMER / LOCATION
MICROTECHNOLOGIES, INC.@
128 GARDEN ST.
FARMINGTON, CT 06032

PURCHASE ORDER: 2910

EQUIPMENT INFORMATION
MANUFACTURER: TEMPERATURE GUARD
MODEL #: VM605E
SERIAL #: 0717244427
CONTROL #: 1229271
TYPE: TEMPERATURE DATA LOGGER

PERFORMED: IN LAB **AS FOUND: IN TOLERANCE**
AS LEFT: IN TOLERANCE

Remarks:

ENV: TEMP: 20.66°C REL HUMIDITY: 63.79 %RH BAR PRESSURE: 1011.68 hPa

CALIBRATION DATE: 07/25/2024 CALIBRATION DUE: 07/25/2026

Method			Description
ECP NO. 1.3.4	Rev: 3	12/7/2020	RTD THERMOMETERS/READOUTS

Standard	Description	Report No.	Last Cal. Date	Cal. Due Date
E5194	FLUKE 5560A MULTIFUNCTION CALIBRATOR	3021099	01/25/2024	01/25/2025

The ESSCO Quality System is accredited to ISO/IEC 17025:2017

Adam Vachon
Metrologist

PHILIP THAI
Releasing Authority

The results above relate only to the item(s) calibrated. This report shall not be used to claim product certification, approval, or endorsement by NVLAP, NIST, or any agency of the United States Federal Government. Any number of factors may cause a nonconformance (i.e. out of tolerance) between calibrations.
Expanded Measurement uncertainties were calculated per ISO/IEC Guide 98-3:2008 Guide to the Expression of Uncertainty in Measurement with approximately a 95% confidence level and a coverage factor of k=2.
Statements of conformity are made based on the Simple Acceptance binary decision rules as defined in ILAC G8:2019 with measurement uncertainty not taken into account. It is the responsibility of the user to consider the measurement uncertainty when determining compliance to their own processes. The measurement results are traceable to the International System of Units (SI Units) through a National Metrology Institute (NMI), such as NIST, a competent laboratory (i.e. ISO/IEC 17025), or competent producer (i.e. ISO 17034).
This calibration was performed in compliance with the ESSCO Quality System manual, ECL1 Rev 50, dated 27 June 2024, ISO/IEC 17025:2017, ISO 9001:2015, ANSI/NCSL Z540-1-1994 part 1, ISO 10012:2003, ISO 13485:2016, and when required contractually, 10 CFR 21 and 10 CFR 50 App. B.

Internal Use Only: 07/18/2024 7/24/2024 MIC975 W/BOX FEDEX 113448555 1 337921

Test #	Function Tested	Nominal	Limits	Unit of Measure	As Found	As Left	Uncertainty
1	INPUT 1, 1000 Ohm RTD	-70.0	-69.0 -71.0	°F	-69.7	-69.7	0.13°F
2	INPUT 1, 1000 Ohm RTD	-15.0	-14.0 -16.0	°F	-14.6	-14.6	0.13°F
3	INPUT 1, 1000 Ohm RTD	36.0	37.0 35.0	°F	36.2	36.2	0.14°F
4	INPUT 1, 1000 Ohm RTD	46.0	47.0 45.0	°F	46.2	46.2	0.14°F
5	INPUT 1, 1000 Ohm RTD	78.0	79.0 77.0	°F	77.8	77.8	0.14°F
6	INPUT 2, 1000 Ohm RTD	-70.0	-69.0 -71.0	°F	-69.8	-69.8	0.13°F
7	INPUT 2, 1000 Ohm RTD	-15.0	-14.0 -16.0	°F	-14.7	-14.7	0.13°F
8	INPUT 2, 1000 Ohm RTD	36.0	37.0 35.0	°F	36.2	36.2	0.14°F
9	INPUT 2, 1000 Ohm RTD	46.0	47.0 45.0	°F	46.2	46.2	0.14°F
10	INPUT 2, 1000 Ohm RTD	78.0	79.0 77.0	°F	78.0	78.0	0.14°F
11	INPUT 3, 1000 Ohm RTD	-70.0	-69.0 -71.0	°F	-69.8	-69.8	0.13°F
12	INPUT 3, 1000 Ohm RTD	-15.0	-14.0 -16.0	°F	-14.6	-14.6	0.13°F
13	INPUT 3, 1000 Ohm RTD	36.0	37.0 35.0	°F	36.2	36.2	0.14°F
14	INPUT 3, 1000 Ohm RTD	46.0	47.0 45.0	°F	46.6	46.6	0.14°F
15	INPUT 3, 1000 Ohm RTD	78.0	79.0 77.0	°F	77.6	77.6	0.14°F
16	INPUT 4, 1000 Ohm RTD	-70.0	-69.0 -71.0	°F	-69.9	-69.9	0.13°F
17	INPUT 4, 1000 Ohm RTD	-15.0	-14.0 -16.0	°F	-14.7	-14.7	0.13°F
18	INPUT 4, 1000 Ohm RTD	36.0	37.0 35.0	°F	36.2	36.2	0.14°F
19	INPUT 4, 1000 Ohm RTD	46.0	47.0 45.0	°F	46.2	46.2	0.14°F
20	INPUT 4, 1000 Ohm RTD	78.0	79.0 77.0	°F	77.7	77.7	0.14°F

Test #	Function Tested	Nominal	Limits	Unit of Measure	As Found	As Left	Uncertainty
21	INPUT 5, 1000 Ohm RTD	-70.0	-69.0 -71.0	°F	-69.8	-69.8	0.13°F
22	INPUT 5, 1000 Ohm RTD	-15.0	-14.0 -16.0	°F	-14.7	-14.7	0.13°F
23	INPUT 5, 1000 Ohm RTD	36.0	37.0 35.0	°F	36.1	36.1	0.14°F
24	INPUT 5, 1000 Ohm RTD	46.0	47.0 45.0	°F	46.1	46.1	0.14°F
25	INPUT 5, 1000 Ohm RTD	78.0	79.0 77.0	°F	77.5	77.5	0.14°F
26	INPUT 6, 1000 Ohm RTD	-70.0	-69.0 -71.0	°F	-69.8	-69.8	0.13°F
27	INPUT 6, 1000 Ohm RTD	-15.0	-14.0 -16.0	°F	-14.7	-14.7	0.13°F
28	INPUT 6, 1000 Ohm RTD	36.0	37.0 35.0	°F	36.1	36.1	0.14°F
29	INPUT 6, 1000 Ohm RTD	46.0	47.0 45.0	°F	46.2	46.2	0.14°F
30	INPUT 6, 1000 Ohm RTD	78.0	79.0 77.0	°F	77.6	77.6	0.14°F
31	INPUT 7, 1000 Ohm RTD	-70.0	-69.0 -71.0	°F	-69.6	-69.6	0.13°F
32	INPUT 7, 1000 Ohm RTD	-15.0	-14.0 -16.0	°F	-14.5	-14.5	0.13°F
33	INPUT 7, 1000 Ohm RTD	36.0	37.0 35.0	°F	36.3	36.3	0.14°F
34	INPUT 7, 1000 Ohm RTD	46.0	47.0 45.0	°F	46.2	46.2	0.14°F
35	INPUT 7, 1000 Ohm RTD	78.0	79.0 77.0	°F	77.6	77.6	0.14°F
36	INPUT 8, 1000 Ohm RTD	-70.0	-69.0 -71.0	°F	-69.9	-69.9	0.13°F
37	INPUT 8, 1000 Ohm RTD	-15.0	-14.0 -16.0	°F	-14.6	-14.6	0.13°F
38	INPUT 8, 1000 Ohm RTD	36.0	37.0 35.0	°F	36.2	36.2	0.14°F
39	INPUT 8, 1000 Ohm RTD	46.0	47.0 45.0	°F	46.3	46.3	0.14°F
40	INPUT 8, 1000 Ohm RTD	78.0	79.0 77.0	°F	77.6	77.6	0.14°F

Test #	Function Tested	Nominal	Limits	Unit of Measure	As Found	As Left	Uncertainty

End of Data

Note: A = Adjusted F = Failed L = Limited N/A = Outside Scope of Accreditation