

Report of Test

This report is to certify that the instrument listed below has been calibrated by *Thermo*Probe, Inc. to NIST traceable criteria.

Report No.: 2025-01-23 - 0163 CHANNEL 1

Model: TL2-A Unit SN: **TL2-0163**

Probe SN: $\underline{F24A9F}$ Calibration Date: $\underline{1/23/2025}$

Ambient Temp: 23°C +/- 2°C Calibrated By: MC

Calibration Data As Found

New Unit or no "As Found" data available

Calibration Data As Left

This device has been adjusted to read as closely as possible to actual temperature.

Tested temperatures and corrections are as follows:

Nominal Value		Actual Test Temp.		Reading of TL2		Correction		Tolerance		In Tolerance	Measurement Uncertainty	
° F	° C	° F	°C	° F	°C	° F	° C	° F	°C		° F	°C
-4	-20	-4.022	-20.012	-4.024	-20.013	0.002	0.001	0.050	0.030	Yes	0.030	0.017
32	0	32.005	0.003	31.990	-0.006	0.015	0.008	0.050	0.030	Yes	0.030	0.017
120	49	120.011	48.895	120.009	48.894	0.002	0.001	0.050	0.030	Yes	0.030	0.017
199	93	198.992	92.773	198.984	92.769	0.008	0.004	0.050	0.030	Yes	0.030	0.017
300	149	300.209	149.005	300.217	149.009	-0.008	-0.004	0.050	0.030	Yes	0.030	0.017

Callendar Van Dusen Coefficients:

R0: 100.01

A: 3.90342E-03

B: -5.74374E-07

C: -4.59595E-11

Traceability:

This calibration and the following references are traceable to NIST through an unbroken chain of comparisons.

Nomina	l Temp	Bath	Fluid	Reference	Calibration Date	Next Calibration Due	
(-)20.0° C	(-)4.0° F	Fluke 7340	water/glycol	TL2-0029	11/1/2024	11/1/2025	
0.0° C	32.0° F	Fluke 7340	water/glycol	TL2-0358	11/1/2024	11/1/2025	
48.9° C	120.0° F	Polyscience PD15HCAL	distilled water TL2 - 0359		11/1/2024	11/1/2025	
92.8° C	199.0° F	Fluke 6330	silicon oil	TL2-0360	11/1/2024	11/1/2025	
149.0° C	300.2° F	Fluke 6330	silicon oil	TL2 - 0361	11/1/2024	11/1/2025	
290.0° C	554.0° F	Fluke 9172	metrology well	SSP500	6/7/2024	6/7/2025	

Test Method: The calibration procedures used were *ThermoProbe, Inc. Calibration Procedures* based on ASTM E-644-06. This probe was immersed in a constant temperature bath with a reference thermometer which determined the actual test temperature. The readings were compared and correction factors for the probe were calculated. The As Left readings reflect the TL's readings after calibration.

Uncertainty Statement: Uncertainties were computed using the concepts, methods and techniques of the ISO Guide to the Expression of Uncertainty in Measurement (the GUM). The calculated uncertainty is an expanded uncertainty (k=2). It does not consider errors due to possible damage to the TL from shipping, temperature drift, or thermal hysteresis effect. To maintain the accuracy of the TL, users should take care to protect it during shipping, avoid using it to measure temperatures significantly above the highest calibrated temperature, and have the TL recalibrated annually.

Calibrator's Signature:	
Test Results Approved by:	

Date: <u>1/23/2025</u>

The results stated on this report relate only to the items specifically identified.

This test report or calibration certificate shall not be reproduced except in full, without written approval of the laboratory.