



ThermoProbe

### Report of Test

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

Report No.: **2015-05-28 - 1-14988**

Model: TL1-A

Unit SN: 1-14988

Calibration Date: **5/28/2015**

Ambient Temp: 77 °F +/- 2°

Calibrated By: MS

### 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 TL		Correction		Tolerance		In Tolerance	Measurement Uncertainty	
°F	°C	°F	°C	°F	°C	°F	°C	°F	°C		°F	°C
32	0	32.012	0.007	32.01	0.01	0.00	0.00	0.10	0.06	Yes	0.030	0.017
120	49	120.020	48.900	120.02	48.90	0.00	0.00	0.10	0.06	Yes	0.030	0.017
199	93	199.035	92.797	199.04	92.80	0.00	0.00	0.10	0.06	Yes	0.030	0.017
300	149	300.207	149.004	300.19	148.99	0.02	0.01	0.10	0.06	Yes	0.030	0.017

Calendar Van Dusen Coefficients:

R0: 100.00

A: 3.91400E-03

B: -6.03510E-07

C: -4.17100E-11

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**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

Nominal Temp		Bath	Fluid	Reference	Calibration Date	Next Calibration Due
(-)20.0° C	(-)4.0° F	Fluke 7340	water/glycol	TL2-0029	4/15/2015	4/15/2016
0.0° C	32.0° F	Fluke 7340	water/glycol	TL2-0016	4/15/2015	4/15/2016
48.9° C	120.0° F	PolyScience 8101	mineral oil	TL2 - 0008	4/15/2015	4/15/2016
92.8° C	199.0° F	Fluke 6330	mineral oil	Fluke 1502A - ASP WSP500	4/15/2015	4/15/2016
149.0° C	300.2° F	Fluke 6330	silicon oil	Fluke 1502A - ASP WSP500	4/15/2015	4/15/2016
290.0° C	554.0° F	PolyScience 8102	metrology well	Fluke 1502A - ASP WSP500	4/15/2015	4/15/2016

**Traceability:** This calibration is traceable to NIST through an unbroken chain of comparisons. IsoTech calibrated the references shown above using transfer standards which in turn were calibrated by their primary reference thermometer.

**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: **5/28/2015**

*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.*