+ Thermometer

Calibration Report
Traaeable lo Nl9T and DKDI?TO
The instrument described below has been examined and tested in H-B Instrument Company's Calibration Laboratory using controlled constant temperature equipment and NIST and DKD/PTB Traceable Reference Thermometers in accordance with our calibration procedure LAB-20 which is based in part on NBS Monograph 150, ASTM Method E-72 3.1.2,3.1.3,3.1.4, and 7.2 only, NIST Special publication 819, and the International Temperature Scale ITS-90. Calibration is traceable to NIST and DKD/PTB. For a discussion of accuracy obtainable with such thermometers, see NIST SP 250-23. The results stated relate only to the instrument bearing the serial number identified.

This instrument is in good working order and is suitable for calibration. The capillary of the thermometer has been examined under magnification and no discernable capillary irregularities were noted. Strains in the glass revealed by examination under a polarized lens, if any, were judged to be minimal and of no detriment to the function of the instrument.
16-Mar-09

VWR International bvba/sprl

Geldenaaksebaan 464
Leuven BELGIUM 8-3001

Tel: Fax: ltem

Refercnce No: 4504355707 l41H Range

ReportNo. 322837
Serial No 3357
Part No 82021-206
Distributor VWR lnternational

Manufacturer H-B Instrument Company Thermometer, Totalmmersion

- 'l 1101"C, 0.1'Div., SP, 61Omm Lgth

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t,,\,s' catibration cert. # 244a.oL
This laboratorv is accredited in accordance with
the recognized International Standard
ISO/IEC 17O25:2005 General Requirements
for the Competence of Testing and Calibration
Laboratories. This laboratory also meets the
requirements of ANSUNCSL 2549-1-1994 and
any additional program requirements in the field
of calibration. This accreditation also

demonstrates technical competence for a defined
scope and the operation of a laboratory
quality management system (refer to joint
ISO-ILAC-IAF Communique dated 18 June 2005).

Since 1903
ISO 9O01:2OO0 Registered

N.I.S.T.
Standard

Instrument
Tested

Correction

(rTs-90)*

Standard
Serial No. Traceability

Emer. Stem**
Temperature

0.00. c

50.00" c

100.00" c

0.11 . C

50.28. C

100.17. C

- 0.11
- 0.28

- 0.17

5537C-01

5537C-01

5537C-01

cALO79226

cALO79226

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Ambient Air Temperature: 23" C Relative Humidity: 36%

* Observed instrument readingshould be increased by positive numbers or reduced by negative numbers indicated by a minus (-) sign.
xx Emergent Stem Temperature relates to PARTIAL IMMERSION thermometers ONLY.

The expanded measurement uncertainties associated with our calibration system are *0.074oC from -80 to -1oC, +0,041'C at the ice point in melting ice bath, *0.045oC from 1 to 100oC, +0.05loc from 101 to 200oC, +0.047oC from 201 to 300oC, and +0,052oC from 301 to 400oC. These unceftainties have been calculated using our Wor Instruction WI-19 to 22 that utilizes methods found in NIST Technical Note 1297. The reported uncertainty represents an expanded uncetainty expressed at approximately the 95olo confidence level using a coverage factor of k=2.

sident H-B Instrument Company

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Website Address: www. hbinstrument.com

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t't*Production Mana
Checked

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