

Title: Calibration Of RS Digital Pocket Thermometer

Scope

Work Instruction for the internal calibration of RS Digital Pocket Thermometer. To be used in the absence of a manufacturers calibration instruction.

Preparation

Calibration must be carried out using Category A Master instruments as required.

Equipment required;-

- 1.1 Glass Thermometer.
- 1.2 Haven OTB-7D Bath & heater System.
- 1.3 Techne Fridge Unit.

Method

- 2.1 All calibration results must be entered on Appendix A.
- 2.2 Note lab temp / R.H. and enter on the results sheet.
- 2.3 Suspend the probes of the UUT in the bath using the special aluminium mounting bracket.
- 2.4 Carry out tests 1 to 7 using items 1.1, 1.2 and 1.3.
- 2.5 Complete the results sheet header and enter Pass / Fail.

- All records must be kept for audit purposes

References

Appendix A Calibration Results for RS Digital Pocket Thermometer

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Appendix A

Calibration Results for RS Digital Pocket Thermometer

ModelSerial No

DateResult

Lab Temp / RHOperator

User LocationCertificate No

Accuracies quoted are from the manufacturer's specification or relevant British Standard.

Digital Thermometer and Probe

UUT Accuracy Specification: $\pm 1^{\circ}\text{C}$, 0° to 40°C ; $\pm 2^{\circ}\text{C}$, -10° to 0° and 40° to 110°C

Test No	Bath Temperature $^{\circ}\text{C}$	UUT Indication $^{\circ}\text{C}$	Allowed Limits	Result
1	- 10		- 8 to - 12	Pass / Fail
2	- 5		- 3 to - 7	Pass / Fail
3	0		- 1 to + 1	Pass / Fail
4	5		4 to 6	Pass / Fail
5	10		9 to 11	Pass / Fail
6	25		24 to 26	Pass / Fail
7	50		48 to 52	Pass / Fail

The UUT was calibrated using the following equipment:

1. Glass Thermometer.
2. Haven OTB-7D Bath & Heater System.
3. Techne Fridge Unit.

The uncertainty in the applied values is estimated not to exceed:

Temperature: $\pm 0.5^{\circ}\text{C}$

The uncertainty limits quoted refer to the applied values only and do not relate to the stability of the UUT.

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