Title: Calibration Of Kane-May 3003 Digital Thermometers

Scope

Work Instruction for the internal calibration of Kane-May 3003 Digital Thermometers. 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 Datron 9100 Calibrator.
1.2 Glass Thermometer.
1.3 Haven OTB-7D Bath and Heater System.
1.4 Techne Fridge Unit.

Method

2.1 All calibration results must be entered on the results sheets (see appendix A).

2.2 Note the lab. temperature / R.H. and enter onto the results sheet.

2.3 Carry out tests 1 – 8 using item 1.1.

2.4 Carry out tests 9 to 13 using items 1.2, 1.3 and 1.4.

2.5 Complete the results sheet header and enter Pass / Fail.

- All records must be kept for audit purposes

References

Appendix A Calibration of Kane-May 3003 Digital Thermometers

Documents
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Appendix A

Calibration of Kane-May 3003 Digital Thermometers

Model ……Serial No ……..

Date ……..Result ……

Lab Temp / RH ……Operator ……

User Location ……Certificate No ……

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

Digital Thermometer: Instrument Only

Accuracy Specifications: ± (0.4% Rdg + 0.5^{0}C)

Test No	Simulator Equivalent Temperature ^{0}C	UUT Reading ^{0}C	Allowed Limits ^{0}C	Result
1	- 25		- 25.6 to – 24.4	Pass / Fail
2	- 3		- 3.5 to – 2.5	Pass / Fail
3	0		- 0.5 to + 0.5	Pass / Fail
4	3		2.5 to 3.5	Pass / Fail
5	8		7.5 to 8.5	Pass / Fail
6	63		62.3 to 63. 7	Pass / Fail
7	100		99.1 to 100.9	Pass / Fail
8	199		197.7 to 200.3	Pass / Fail

Digital Thermometer and Probe

Accuracy Specification: ± (0.4% Rdg + 0.5^{0}C + 1.5^{0}C)

Test No	Bath Temperature	Digital Thermometer and Probe Reading ^{0}C	Allowed Limits ^{0}C	Result
14	- 10		- 12 to – 8	Pass / Fail
15	- 5		- 7 to – 3	Pass / Fail
16	0		- 2 to + 2	Pass / Fail
17	25.0		22.9 to 27.1	Pass / Fail
18	50.0		47.8 to 52.2	Pass / Fail

The UUT was calibrated using the following equipment:

1. Datron 9100 Calibrator S/N _____
2. Glass Thermometer S/N _____
3. Haven OTB-7D Bath and Heater System S/N _____
4. Techne Fridge Unit S/N _____

The uncertainty in the applied value is estimated not to exceed:
Temperature: ± 0.5^{0}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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