

Title: Calibration Of Robin 3228K Digital Thermometer

Scope

Work Instruction for the internal calibration of Robin 3228K Digital 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 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 temp / relative humidity and enter on calibration results sheet.
- 2.3 Carry out tests 1 – 28 using item 3.1.1. and note results.
- 2.4 Carry out tests 29 – 33 using items 3.1.2, 3.1.3 and 3.1.4 and note the results.
- 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 Robin 3228K Digital Thermometer

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Appendix A

Calibration Results for Robin 3228K Digital Thermometer

ModelSerial No

DateResult

Lab Temp / RHOperator

User LocationCertificate No

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

Digital Thermometer ($^{\circ}\text{C}$)

Accuracy $\pm 0.2\%$ RDG $\pm 0.5^{\circ}\text{C}$

Test No	Simulator Equivalent Temperature $^{\circ}\text{C}$	UUT Range $^{\circ}\text{C}$	UUT Reading $^{\circ}\text{C}$	Allowed Limits $^{\circ}\text{C}$	Result
1	- 25	0.1		- 25.6 to - 24.4	Pass / Fail
2	- 25	1		- 26 to - 24	Pass / Fail
3	- 3	0.1		- 3.5 to - 2.5	Pass / Fail
4	-3	1		- 4 to - 2	Pass / Fail
5	0	0.1		- 0.5 to + 0.5	Pass / Fail
6	0	1		1 to + 1	Pass / Fail
7	5	0.1		4.5 to 5.5	Pass / Fail
8	5	1		4 to 6	Pass / Fail
9	8	0.1		7.5 to 8.5	Pass / Fail
10	8	1		7 to 9	Pass / Fail
11	63	0.1		62.3 to 63.6	Pass / Fail
12	63	1		62 to 64	Pass / Fail
13	100	0.1		99.3 to 100.7	Pass / Fail
14	100	1		99 to 101	Pass / Fail
15	199	0.1		198.1 to 199.9	Pass / Fail
16	199	1		198 to 200	Pass / Fail

Digital Thermometer ($^{\circ}\text{F}$)

Accuracy $\pm 0.2\%$ RDG $\pm 1^{\circ}\text{F}$

Test No	Simulator Equivalent Temperature $^{\circ}\text{F}$	UUT Range $^{\circ}\text{F}$	UUT Reading $^{\circ}\text{F}$	Allowed Limits $^{\circ}\text{F}$	Result
17	- 13.0	0.1		-14.1 to - 11.9	Pass / Fail
18	- 13.0	1		- 14 to - 12	Pass / Fail
19	- 0.4	0.1		- 1.4 to + 0.6	Pass / Fail
20	-0.4	1		- 2 to + 1	Pass / Fail
21	32.0	0.1		30.9 to 33.1	Pass / Fail
22	32.0	1		31 to 33	Pass / Fail
23	46.4	0.1		45.3 to 47.5	Pass / Fail
24	46.4	1		45 to 48	Pass / Fail
25	145.4	0.1		144.1 to 146.7	Pass / Fail
26	145.4	1		144 to 147	Pass / Fail
27	212.0	1		210 to 214	Pass / Fail
28	390.2	1		388 to 392	Pass / Fail