

MODEL 2040

HIGH ACCURACY THERMISTOR THERMOMETER

FEATURES

Easy to use low cost high accuracy microprocessor based thermistor instrument with a measurement range of -50 to +150 °C and an operating range of -30 to 50 °C.

- *** °C / °F switchable
- *** Resolution of 0.1°
- *** User configurable Auto Switch Off capability
- *** Calibration via front keypad
- *** Overrange / Open circuit sensor indication
- *** Low battery indication
- *** Supplied complete with shock resistant holster
- *** IP67 casing

SPECIFICATION

Environmental

AMBIENT OPERATING RANGE	:	-30 to 50 °C
STORAGE TEMPERATURE RANGE	:	-40 to 50 °C
HUMIDITY	:	0 to 70% R.H.

ELECTRICAL

MEASUREMENT RANGES	:	-50 to 150 °C
TEMPERATURE SCALES	:	°C / °F
ACCURACY @23°C	:	+/- 0.2 °C
CHARACTERISING ACCURACY	:	LESS THAN 0.05 °C
TEMPERATURE COEFFICIENT	:	0.01% OF READING /°C
RESOLUTION	:	0.1°

GENERAL

BATTERY	:	PP3 9V I.E.C. 6F22
BATTERY LIFE (INTERMITTENT USE)	:	GREATER THAN 200 HOURS (ALKALINE)
WEIGHT	:	155 gms
DIMENSIONS	:	130 X 70 X 33 mm

CALIBRATION PROCEDURE

EQUIPMENT REQUIRED

1. RESISTANCE BOX $\pm 0.5\Omega$

CALIBRATION PROCEDURE

The 2040 instrument has its own built in calibration sequence that is activated via a switch mounted within the battery compartment.

2. Remove the instrument from its holster.
3. Remove the battery compartment from the case.
4. Switch the unit on
5. Press the calibration button within the battery compartment. (see fig below)
6. The word 'CAL' will appear in the top right hand corner of the display.
7. Connect the resistance box and set for 25°C and allow to settle.
8. Press the 'SCL' button.
9. A solid bar will appear on the left hand of the display. This indicates that the unit is calibrating. When the calibration is complete, the bar will be deactivated.
10. Set for -25°C and allow to settle.
11. Press the 'SCL' button.
12. A solid bar will appear on the left hand of the display. This indicates that the unit is calibrating. When the calibration is complete, the bar will be deactivated.
13. Check that the calibration is in accordance with the figures shown in Table 1. If not then repeat procedure.
14. Remove the battery from the unit.
15. The unit is now fully calibrated.

NOTES

1. AUTO SWITCH OFF

Whilst the unit is in 'CAL' mode, if the calibration button is pressed again the Auto-Switch off feature will be toggled. The state of the Auto-Switch off feature is shown in the top right hand side of the display next to the 'CAL' message. If the Auto-Switch off is active the letter 'A' will be displayed if not then no character will be shown.

TEMPERATURE (°C)	LOW(°C)	HIGH(°C)
-25.0	-25.1	-24.9
0	-0.1	0.1
25.0	24.9	25.1
50.0	49.9	50.1
75.0	74.9	75.1
100.0	99.9	100.1
150.0	149.9	150.1

Table 1. Calibration limit