



ThermoWorks

Therma Waterproof Therma Differential



Operating Instructions

INSTRUMENT OPERATION - Connect probes via the socket(s) located at the top of the instrument. (The Therma Waterproof and Therma Differential use a miniature type K thermocouple connector/s). Switch the instrument on and apply the tip of the probe to the substance or medium to be measured. The instrument reading may take a few seconds to stabilize, depending on the nature of the measurement and sensitivity of the probe.

HOLD - Press the HOLD button to stop measurements and freeze the display temporarily, press again to continue measuring.

AUTO-OFF - The unit will switch off automatically after 10 minutes. To disable auto-off press the HOLD button while switching on the instrument (this is reset when the instrument is switched off).

OPEN CIRCUIT/FAULTY PROBE - If the probe has developed an 'Open Circuit' fault the instrument will display 'Err'.

SENSORS - Therma Waterproof and Therma Differential should only be used with type K (Nickel Chromium/Nickel Aluminium) thermocouple probes (to BS EN 60584-2) fitted with miniature type K thermocouple plugs (to BS EN 50212). This instrument is designed to be compatible with ThermoWorks manufactured probes.

BATTERY REPLACEMENT - The instrument will display a low battery symbol to warn that the batteries will need changing soon. The instrument continues to measure accurately but after further usage the instrument will display 'flat bat' and shutdown. Replace the three AAA batteries located under the rear case half that is held in place by six screws. Check the seal for damage and carefully replace the rear case half, re-fit and tighten the screws.

MAX/MIN - Press the MAX/MIN button to display the values. The instrument retains the max/min values when switched off. To reset, press the MAX/MIN button for three seconds, 'rst' will be displayed.

BACKLIGHT - Press the HOLD button for two seconds. **Please Note:** the backlight will not operate if the low battery symbol is being displayed. (Backlight timeout = 20 seconds).

CALIBRATION TRIM - THERMA WATERPROOF ONLY
Press the MAX/MIN and ON/OFF buttons at start-up for five seconds to enter ('Offset' is displayed). MAX/MIN then cycles (continuous loop) the trim value in 0.1 steps up to $\pm 2.0^{\circ}\text{C}$ (3.6°F). Press ON/OFF to save the value and exit Trim mode. (Instrument should not require trim adjustment. Should only be performed by qualified person with appropriate calibration standards.)

MODE - THERMA DIFFERENTIAL ONLY - Press the MODE button to scroll through T1, T2 or T1 - T2. Press the MODE button for three seconds to reset the differential reading to 0.0°F/°C; null will flash on the display.

CHANGE FROM FAHRENHEIT TO CELSIUS - Press and hold ON/OFF button for five seconds at start-up.

GUARANTEE - This instrument carries a two-year warranty against defects in either components or workmanship. During this period, products that prove to be defective will, at the discretion of ThermoWorks, be either repaired or replaced without charge. This warranty does not apply to probes, where a six-month period is offered. The product warranty does not cover damage caused by fair wear and tear, abnormal storage conditions, incorrect use, accidental misuse, abuse, neglect, misapplication or modification. Full details of liability are available within ThermoWorks' Terms & Conditions of Sale at www.thermoworks.com. In line with our policy of continuous development, we reserve the right to amend our product specification without prior notice.

SPECIFICATION - Full specification details of all products are available at www.thermoworks.com.

SPECIFICATIONS

(Therma Waterproof) Range 0.1°: -148 to 572°F (-99.9 to 299.9°C)
(Therma Waterproof) Range 1°: 572 to 2,502°F (300 to 1372°C)
(Therma Waterproof) Resolution: 0.1° to 572°C (299.9°C) thereafter 1°
(Therma Waterproof) Accuracy: ±0.7°F (±0.4°C) ±0.1% of reading

(Therma Differential) Range: -148 to 2501.6°F (-100 to 1372°C)
(Therma Differential) Resolution: 0.1° to 299.9° thereafter 1°
(Therma Differential) Accuracy: ±0.72°F (±0.4°C) ±1% of reading

Auto-off: after 10 minutes
Battery: 3x 1.5V AAA, 10,000 hours
Sensor Type: K Thermocouple (Therma Waterproof)
K thermocouple, 2 channels (Therma Differential)
Display: 0.6 inches (15 mm) LCD
Water Resistance: IP66/67 rated
Dimensions: 5.6 H x 2.8 W x 1.26 D inches
(141 H x 71 W x 32 D mm)
Weight: 0.49lb. (220g)
Calibration: NIST-Traceable certificate included

INSTRUMENT RECORD CARD

Model

Order Code

Therma Waterproof

232-101

Therma Differential

231-022

CALIBRATION

	32°F (0°C)	212°F (100°C)
Thermocouple		

Serial no. _____

Calibrated by _____ Date _____

This instrument has been checked or calibrated against reference instrument(s) calibrated by a UKAS Accredited Calibration Laboratory.



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