

Operating Instructions for Precision & Reference Thermometers

INSTRUMENT OPERATION - Connect a probe via the socket located on the top of the instrument (where applicable). Screw the collar of the plug, finger-tight to ensure a secure connection (do not over tighten). The instrument is switched on by pressing the ON/OFF button. Apply the tip of the probe to the substance, medium or surface 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 (where applicable) - Press the HOLD button to freeze the display. Press again to continue measuring.

MAX/MIN (where applicable) - 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.

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).

CHANGE FROM FAHRENHEIT TO CELSIUS - Press and hold the 'On/Off' button for 5 seconds when powering the meter on and the displayed temperature will change from °F and °C.

TRIM - PRECISION & PRECISION PLUS ONLY Press the MAX/MIN and ON/OFF buttons at startup for five seconds to enter (Offset is displayed). Press HOLD (up) or MAX/MIN (down) to set the trim value (maximum of ±2.00 °C). Press the ON/OFF button to save the value and exit Trim mode.

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

SENSORS - This instrument should only be used with PT100 (platinum resistance probes, 0 °C = $100~\Omega$) BS EN 60751 fitted with suitable Binder plug (where applicable). (The Precision and Precision Plus accept both 3-wire and 4-wire probes. It is recommended to use 4-wire 1/10 DIN probes when using the Precision Plus, for best accuracy.)

BATTERY REPLACEMENT - The instrument will display 'LO BAT' 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 batteries with three AAA batteries located under the rear cover that is held in place by a single screw.

GUARANTEE - This instrument carries a two-vear 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 at www.thermoworks.com. In line with our policy of continuous development, we reserve the right to amend our product specification without prior notice.

PRECISION / PRECISION PLUS SPECIFICATIONS

Range: -328 to 1562°F (-200 to 850°C) **Accuracy (Precision):** ± 0.4 °F (± 0.2 °C) meter only

Resolution (Precision): 0.1°F/°C

Sensor (Precision): 3 or 4-wire RTD Class A, 100Ω Accuracy (Precision Plus): $\pm 0.1^{\circ}$ F ($\pm 0.05^{\circ}$ C) meter only Resolution (Precision Plus): 0.01° Auto-Ranging to 0.1° above 199.9° Sensor (Precision Plus): 3 or 4-wire RTD 1/10 DIN. 100Ω

Probe: Interchangeable

Auto-Off: After 10 min. to save battery life

Battery: 3 x AAA, 2,000 hrs.

Buttons/Functions: On/Off, HOLD, Min/Max, TRIM, °C/°F Certificate: NIST-Traceable Certificate included

REFERENCE THERMOMETER SPECIFICATIONS

Range: -328 to 400°F (-200 to 200°C) **Accuracy:** ± 0.1 °F (± 0.05 °C)

 Accuracy:
 ±0.1 F (±0.05 C)

 Resolution:
 0.01°F/°C

 Sensor:
 4W RTD 1/10 DIN

Probe: Fixed

Battery: 3 x AAA, 2,000 hrs. **Buttons/Functions:** On/Off with °C/°F

Certificate: UKAS Accredited Certificate included

INSTRUMENT RECORD CARD

order code

model

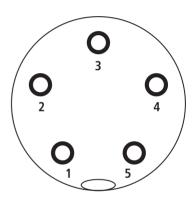
Preci		sion		222-553	
	Precision Plus			222-550	
Reference		rence		222-055	
32°F	:	212°F			
serial no					
calibrated by			_dc	ıte	

This instrument has been checked or calibrated against reference instrument(s) calibrated by a UKAS Accredited Calibration Laboratory, which are traceable, via International Agreement, to all major National Standards, including NIST.

PROBE WIRING DIAGRAM PT100 BINDER PLUG WIRING

(Precision & Precision Plus)

Pin	Function
1	+
2	+
3	- (3 Wire)
4	- (4 Wire)
5	Shield



Pin numbering as viewed from rear

Ref: 546-150 / 16.03.11

PT100 to BS EN 60751

ThermoWorks, Inc.

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