

Perfect Prime

TC41-Thermocouple Thermometers **User Manual**



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Product Introduction

This thermometer can be used to measure up to 4 different temperatures simultaneously, and with useful feature of 20 storage space for each probe measurements (Total 80 measured temperature values).

The product package comes with:

1. Thermocouple Thermometer X 1 pcs
2. K Type Thermocouple Probe (4 pcs)

Operating Preparation

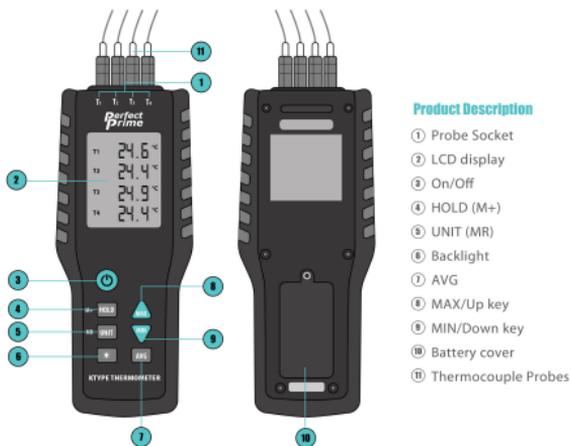
1. Put in a 9V battery by opening the battery compartment cover using a screwdriver.
2. Insert the thermocouple probes to measure temperatures. This instrument cannot function without probes.

-->The probes have + and – terminals. Please insert them into sockets with correctly according to their signs.

Product Feature and Functions

1. *Probe socket*
--> T1 to T4 on the top of the product.
2. *Thermocouple probes*
3. *LCD Display*
4. *POWER ON/OFF button*

5. **HOLD (M+)**
-->Suspend measurement and hold the current data.
6. **UNIT (MR)**
-->Switch among °C ; °F and K temperature units.
7. **Backlight**
-->Turn ON / OFF the display backlight.
8. **MAX / UP Key**
-->Display the max. temp./ Scroll up stored temp. values.
9. **MIN / DOWN**
-->Display the min. temp. / Scroll down stored temp. values.
10. **AVG**
-->Turn ON / OFF the average temp. values.
11. **Battery compartment**



Product Features

1. 4 X K-Type Thermocouple Temperature measurement slots
2. LCD display with backlight
3. MAX / MIN / Average values hold
4. Selectable temperature units °C ; °F or K
5. Auto Power off with no operation within 10 minutes

Operation Procedures

1. Insert thermocouple probes to corresponding sockets.
 - >There are maximum 4 channels of temp. Measurement.
 - >User does not need to use all 4 probes at once if not required
2. Press POWER ON / OFF button to turn on / off the product.
3. Place the probes into places where measurement is required.
4. The LCD display shows each individual channel's temperature.
5. Press UNIT to switch among temperature units of °C ; °F and K.
6. Press HOLD to freeze the displayed temp. values, press again to return to normal state.
7. The meter will constantly update the temperature in real time.
8. During measurements, the min. / max. measured temperature values are stored and can be recalled by pressing MAX / MIN buttons.
9. Press AVG button to see averages between max. & min. values.
10. Press MAX / MIN and AVG buttons to return to normal state.

Memory / Measurement Storage Operation

TC41 has 20 storage memory for each 4 channel temperature values.

Memory Store

1. To store measured values, press HOLD/M+ for more than 2 seconds, temperature will be stored into the memory locations.
2. Memory location number will be displayed (e.g. “ - 01-”) and then resume to normal state.
3. When all memory locations are used up, pressing above key sequence will show “FULL” on screen.

Memory Read

- In normal measurement/display mode, press “UNIT/MR” for about 2 seconds. Stored memory’s temperature will be shown (Starting from the last stored location) :
 - a. e.g. “ - 01 -“ (1st Memory location)
 - b. T1 – T4 icons flash and display the measured temp.
 - c. Press Max (Up)/Min (Down) to scroll through the stored temperatures sequentially.
 - d. Press UNIT/MR during memory display mode to exit and enter normal temperature measurement mode.
 - e. Press HOLD/M+ continuously to clear all stored values, and “0000” will be displayed.

Always-ON Feature

1. TC41 would turn off after a while when no buttons are pressed.
2. To run continuously (Always-ON):
 - >press HOLD button together with POWER button to turn on TC41.
 - >TC41 will not turn off automatically, press "Power" button to turn it off.

Calibration (Calibrated accurately in factory)

1. Place TC41 at a stable room temperature for over 30 minutes.
2. Take out all batteries then Press " Power" button while re-installing the battery.
3. "CAL" and current temp./Calibration factor displayed and "C" icons are flashing on the screen.
4. Press MAX/UP or MIN/DOWN buttons to calibrate the current temp. to a known reference temperature value.
5. Press HOLD button, then POWER button to turn off TC41.

Product Specifications

Measurement Temp. range : -200°C~1372°C (-328°F~2501°F)

Thermocouple Accuracy :

> -100°C (-148°F) : ±1°C (±1.8°F)

< -100°C (-148°F) : ±2°C (±3.6°F)

K Type Temperature accuracy :

< 1000°C : 0.1°C/°F / K

> 1000°C : 1°C/°F / K

Size : 200 X 85 X 38 mm

Weight : 230g (Without battery / probes)

Battery Replacement and Notes

- ❖ Do not use the device in explosive, flammable or corrosive environments.
- ❖ Since the product is a precision electronic and sensitive optical device, do not drop it or allow impacts to occur to prevent damage.
- ❖ Do not dismantle the product, doing so can damage it and revoke the warranty.
- ❖ When battery reaches a low battery level, please replace the 9V battery by opening the battery cover using a screwdriver.
- ❖ Please use a damp cloth or gentle soap to clean the enclosure of the device. Do not use abrasant, isopropanol or solvent to clean.
- ❖ The thermometer is neither waterproof nor drop resistant, so please take good care of it
- ❖ Put it in a place where children cannot access.