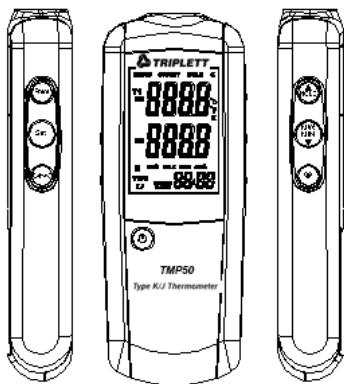


# TMP50 Type K/J Thermometer



## ***Introduction***

Congratulations on your purchase of the Triplett TMP50 Type K/J Thermometer. This single input contact thermometer offers fast response and laboratory accuracy and works with K-type or J-type thermocouples as temperature sensors and offers a 0.1 °C/0.1 °F resolution.

## Safety

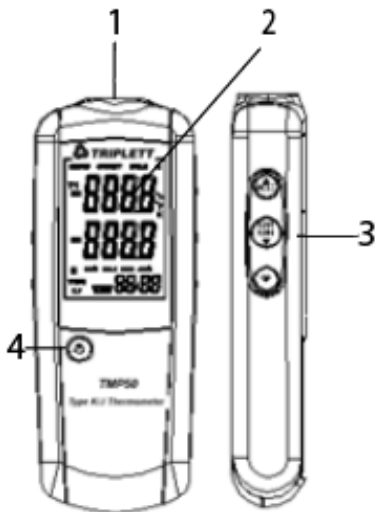
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- Do not operate the meter in environments where the following are present: explosive gases (or materials), combustible gases (or materials), steam, or dust.
- Please replace the battery immediately when the low battery symbol appears on the LCD.
- Do not touch the meter's circuit board for any reason; static electricity or contamination could damage the sensitive components.
- This instrument was designed for pollution degree 2. Operation Altitude: Up to 2000m (7000').

## Description

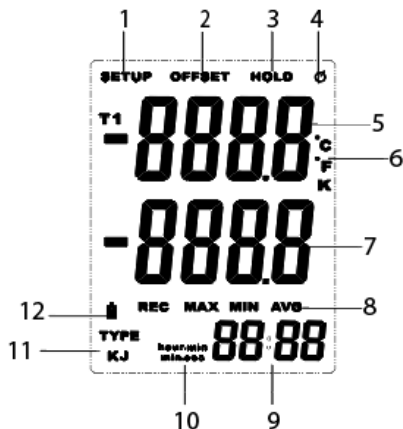
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1. Type K Thermocouple Input
2. LCD Display
3. Function Buttons
4. Power: ON/OFF Button



## Display

1. Entering/Exiting Setup Icon
2. Offset Option Icon
3. HOLD Icon
4. APO Status Icon
5. Primary Display: T1 Reading
6. Units Icon
7. Secondary Display – MAX/MIN/AVG/OFFSET
8. MIN/MAX/AVG Icon
9. Time Display
10. Min: Sec or Hour: min Display
11. Thermocouple Type Icon
12. Low Battery Indicator Icon




## Operation

### Connecting thermocouples

1. This meter accepts a K/J-type thermocouple with spade lugs (sub-miniature type with one spade wider than the other).
2. Plug the thermocouple into the meter's thermocouple input jack.

### Measuring

1. Press the  button to switch ON the thermometer on. After 1 second the thermometer will display the first temperature reading (upper display).

2. Press the **C-F-K** button to select the desired temperature unit of measure. A display icon will reflect the selection.
3. Touch the object to be measured with the probe. Read the measured temperature on the display.

Note: If the display indicates "OL" the temperature is outside the measurement range. The display shows "- - - -" when a thermocouple is not connected.

### **MAX/MIN/AVG mode**

Press **MAX/MIN** to capture and step through the maximum (MAX), minimum (MIN) and average (AVG) temperature values. These values will be shown in the lower display with an elapsed time reference below (hrs:mins, mins:secs).

1. Press **MAX/MIN** to enter this mode.
2. Press **MAX/MIN** to step through maximum, minimum and average readings.
3. Press and hold **MAX/MIN** for 3 seconds to return to normal mode.

### **Data Hold**

Press the **HOLD** button to freeze the reading in the display. **HOLD** will appear at the top right of the display. Press the **HOLD** button again to return to normal operation mode.

### **Backlight**

Press the **SETUP** button to switch the backlight OFF/ON.

### **Setup option**

The setup option is used to select the thermocouple type that matches the type that will be connected to the meter, to switch the sleep mode OFF/ON, and to adjust the thermocouple offset.

Note: In the setup mode, the upper display shows the menu items and the lower display shows the selection for a given menu item.

Press and hold the **SET** button for 3 seconds to enter or exit the Setup mode. When the thermometer is in Setup mode, the display shows the **SETUP** display icon.

### Set Type J or K thermocouple

1. Press **▲** or **▼** to scroll to the “TYPE” setting (shown on the bottom left of the display).
2. Press **ENTER** to choose the option.
3. Press **▼** to toggle between J and K.
4. Press and hold the **SET** button for 3 seconds to save the setting and return to normal mode.

### Set Sleep/Non-sleep mode

The thermometer enters sleep mode by default. The meter will automatically shut off after 20 minutes of inactivity (no buttons pressed). When the thermometer is in Setup mode, the display shows the **SETUP** display icon.

1. Press **▲** or **▼** to scroll to the **SLP** setting.
2. Press **ENTER** to choose the option; **On** or **OFF** will appear in the display.
3. Use the arrow key **▼** to select ON or OFF.
4. Press **ENTER** to store the new setting.
5. Press and hold the **SET** button for 3 seconds to return to normal mode.

### Set Offset

Use the offset option in Setup (**T1** menu item) to adjust the thermometer's readings to compensate for known temperature offset at a specific temperature. The adjustment range is  $\pm 5.0^{\circ}\text{C}$  or  $\pm 9.0^{\circ}\text{F}$ .

1. Plug the thermocouple into the input connector.

2. Place the thermocouple into the known, stable temperature environment (such as an ice bath or dry well calibrator). Allow the reading to stabilize.
3. Use the arrow keys ▲ ▼ to scroll to the “T1” option and then press **ENTER**.
4. Change the offset temperature reading (upper display) by pressing ▼ until the desired temperature is reached.
5. Press and hold the **SET** button for 3 seconds to return to normal mode.

## Replacing the Batteries

1. Switch OFF the thermometer.
2. Loosen the battery compartment screw and remove the compartment door.
3. Replace the AAA batteries.
4. Replace the battery door and tighten the screw.



Never dispose of used batteries or rechargeable batteries in household waste. As consumers, users are legally required to take used batteries to appropriate collection sites, the retail store where the batteries were purchased, or wherever batteries are sold.

**Disposal:** Do not dispose of this instrument in household waste. The user is obligated to take end-of-life devices to a designated collection point for the disposal of electrical and electronic equipment.

## Other Battery Safety Reminders

- Never dispose of batteries in a fire. Batteries may explode or leak.
- Never mix battery types. Always install new batteries of the same type.

## Specifications

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Temperature Range:

K type thermocouples                      -200°C to 1372°C (-328°F to 2501°F)

J type thermocouples                      -210°C to 1100°C (-346°F to 2012°F)

Note that thermocouple wire may be insulated with materials that cannot withstand temperatures in the ranges listed above. Check that the thermocouples used are rated for the temperature measurements to be made.

Temperature accuracy:

T1 Above -100 °C (-148 °F)              ± [0.15%rgd+1°C (1.8°F)]

T1 Below -100 °C (-148 °F)              ± [0.5%rgd+2°C (3.6°F)]

Display Resolution:                      0.1°C /°F /°K <1000, 1°C /°F /°K >1000

Power supply:                              Three (3) AAA 1.5V batteries

Operating Temperature:                0°C to 50°C (40°F to 122°F)

Storage Temperature:                10°C to 50°C (14°F to 122°F)

Dimensions:                              220 x 63 x 28mm (8.7 x 2.5 x 1.1")

Weight:                                      200g (7oz)

## Warranty Information

Triplett / Jewell Instruments extends the following warranty to the original purchaser of these goods for use. Triplett warrants to the original purchaser for use that the products sold by it will be free from defects in workmanship and material for a period of (1) one year from the date of purchase. This warranty does not apply to any of our products which have been repaired or altered by unauthorized persons in any way or purchased from unauthorized distributors so as, in our sole judgment, to injure their stability or reliability, or which have been subject to misuse, abuse, misapplication, negligence, accident or which have had the serial numbers altered, defaced, or removed. Accessories, including batteries are not covered by this warranty

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