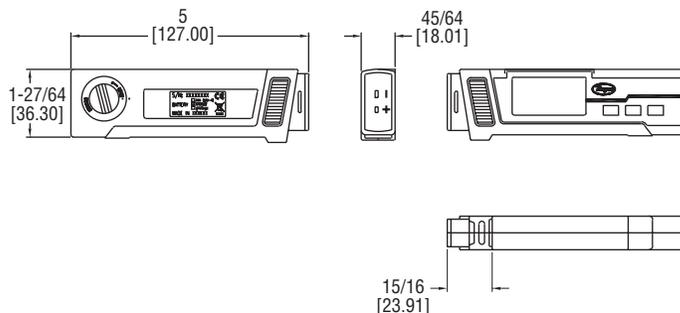




Series TP2 Thermocouple Thermometers

Specifications - Installation and Operating Instructions



The Series TP2 Thermocouple Thermometers can accurately measure a large temperature range for a wide range of applications including food safety inspection, lab testing, and HVAC. This hand-held thermometer offers three models that measure the probe temperature, ambient temperature, and relative humidity. Additional features include a data hold function, high/low audible alarm, and auto power off. Device includes a K type probe and battery.

FEATURES

1. Auto power off with disable feature (15 minutes).
2. Data hold function freezes readings on display.
3. Complete with type K bead wire temperature probe and CR2032 battery.
4. °C/°F select function.
5. High/low alarm threshold setting is available.

OPERATING INSTRUCTIONS

Please read the manual completely before using this device.

KEY FUNCTION

1. **PWR:** Turn on/off the meter or holds current readings.
2. **MX/MI/AVG:** Cycles between minimum, maximum, and average measurement.
3. **MODE:** Cycles between probe temperature, ambient temperature and humidity (depending on model) (TP2-20/TP2-30 only), RH (TP2-30 only). Press and hold for 3 seconds to change the thermocouple type between K, J, and T (depending on model) (TP2-10/TP2-20 only).

OPERATION

Power On/Off

Before powering on the meter, plug the thermocouple probe into the meter. Press the PWR button to turn on the meter. It will make a beep sound and the full screen of LCD icons will briefly show on the display. The meter is now in normal measurement mode. While the meter is on, press and hold the PWR button to turn off the meter.

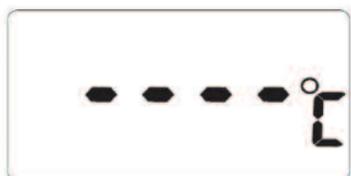
Sleep Mode (Auto Power Off)

The meter will turn off automatically after 15 minutes if no buttons are pressed. To disable the auto power off function, when the meter is off, press and hold the MX/MI/AVG button then press the PWR button to turn on the meter. When the LCD display shows the following, sleep mode is disabled.



Taking Measurement

Make sure you have plugged the K sensor probe in the meter. If the probe is not plugged in appropriately, the LCD will show "----" on the display.



SPECIFICATIONS

Range:

- K: -328 to 2372°F (-200 to 1300°C);
- J: -202 to 1652°F (-130 to 900°C);
- T: -328 to 662°F (-200 to 350°C).

Accuracy:

- K: ±0.3% of reading + 1°C;
- J/T: ±0.1% of reading + 0.7°C.

Display: 4 digit LCD.

Resolution:

- K: 0.1°F/C: -328 to 1202°F (-200 to 650°C); 2°F/1°C (others); Over 1000°C 1°F/C.
- J: 0.1°F/C: -202 to 932°F (-130 to 500°C); 2°F/1°C (others);
- T: 0.1°F/C: -328 to 662°F (-200 to 350°C).

Temperature Limits: Ambient -4 to 122°F (-20 to 50°C).

Power Requirements: One CR-2032 lithium battery.

Weight: 3.2 oz (91 g).

Agency Approvals: CE.

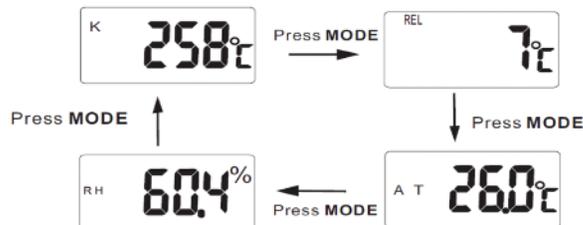
Data Hold

Press and release the PWR button to freeze the reading. Press and release the PWR button shortly again, the meter will return to normal measurement.



Change Mode

Press the MODE button to select probe temperature or ambient, air temperature (TP2-20 & TP2-30) and probe temperature, ambient air temperature or relative humidity (TP2-30).



Select Probe Type

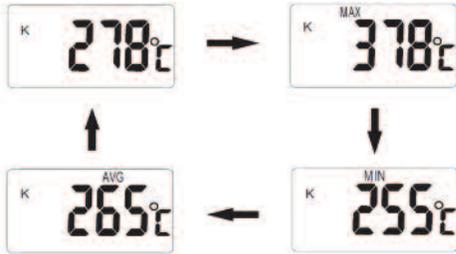
Press and hold the MODE button more than 3 seconds to select probe type K/J/T (TP2-10 & TP2-20).



Note: Please check your probe type before selecting this function to ensure a correct reading.

MAX/MIN/AVG

Press the MX/MI/AVG button, MAX icon with the highest reading appears on LCD. Press the MX/MI/AVG button again, MIN icon with the lowest reading appears on the LCD. Press the MX/MI/AVG button again, AVG icon appears with average reading on the LCD. Press the MX/MI/AVG button again, then the meter will return to normal measurement.



Change Unit

When the device is off press the MODE and PWR button at the same time to enter the setting function. Press the MODE button to select °C or °F. Press the PWR button again to save the unit.

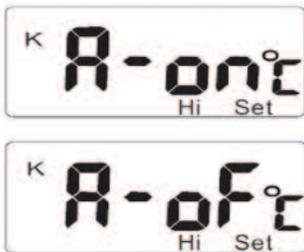


Alarm Setting

Step 1. Hi Temp. Alarm Select

When the meter is off, press the MODE and PWR button at the same time. Pass through unit select by pressing power, then press the MODE button to select Hi Temp. alarm ON or OFF.

- a. When Hi Temp. alarm function is on, Press the PWR button to enter Hi Temp. alarm setting. (Move to Step 2)
- b. When alarm function is off, press the PWR button to set Lo Temp. alarm setting. (Step 3)



Step 2. Hi Temp. Alarm Setting

When Hi Temp. alarm is on, "Hi Set" icons with the default value 50°C (122°F) or the last setting will appear on the LCD. Keep pressing the MODE button to increase digit sequentially and release the button when you reach the number desired. (Please refer to #Example 1). Press the PWR button to save Hi temperature alarm settings and go to Lo temperature alarm setting.

Note: The default Hi/Lo alarm is off.



Step 3. Lo Temp. Alarm Select

- Press the MODE button to select Lo Temp. alarm ON or OFF.
- a. When Lo temperature alarm function is on, press the PWR button to enter Lo Temp. Alarm Setting. (Move to Step 4)
- b. When Lo alarm function is off, press the PWR button to go back to normal measurement.

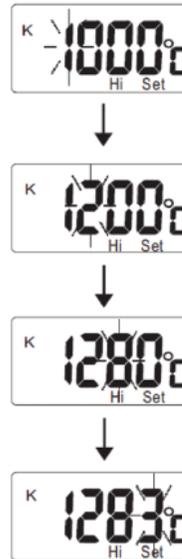


Step 4. Lo Temp. Alarm Setting

The meter will display a "Lo Set" icon with the default value 0°C (32°F) or the last setting on the LCD. Keep pressing the MODE button to increase digit sequentially until you have reached the number desired. (Please refer to #Example 1). Press the PWR button to save Lo Temp. settings, and go back to normal measurement.



Example 1 - Set Hi Temp. Alarm at 1283°C



Step 1:

Keep pressing the MODE button, the numbers will cycle from 0 to 9. It will jump to the next digit to the right when the desired number (0 to 9) is reached. So for this example, we need a "1" in the thousand unit column. When the number desired is reached, it will jump to the next digit to the right.

Step 2:

Keep pressing the MODE button, the same action as before until the hundreds digit shows "2". Then release the MODE button.

Step 3:

Keep pressing the MODE button, the same action as before until the tens digit shows "8". Then release the MODE button.

Step 4:

Keep pressing the MODE button, the same action as before until the last unit digit shows "3". Then release the MODE button.

Error Messages

E-2	Humidity sensor is failed.
E-3	Temperature sensor is failed.
E-4	Operation temperature is too high.
E-5	Operation temperature is too low.
E-6	Some hardware has failed.

Note: If above error messages appear on your display, please contact Dwyer Instruments, Inc. for technical service.

MAINTENANCE/REPAIR

Upon final installation of the Series TP2, no routine maintenance is required. The Series TP2 is not field serviceable and should be returned if repair is needed. Field repair should not be attempted and may void warranty.

WARRANTY/RETURN

Refer to "Terms and Conditions of Sales" in our catalog and on our website. Contact customer service to receive a Return Goods Authorization number before shipping the product back for repair. Be sure to include a brief description of the problem plus any additional application notes.