

SPECIFICATIONS

Range: -328 to 2372 °F
-200 to 1300 °C

Resolution: 0.1° / 1°

Sampling Rate: 2.5 times/second

Waterproof Rating: IP66

TEMPERATURE MEASUREMENT

1. Insert the probe plug into the socket at the top of the meter. The plug and socket are keyed with a small and large pin. Make certain that the plug is inserted correctly. Do not insert the plug incorrectly and force the connection.
2. Press the PWR button to turn the meter on. When the PWR button is pressed, before the current temperature measurement is displayed, the display will show all segments for approximately 4 seconds and will then display "0.0" for approximately 2 seconds.
3. Press the °C/°F button to select °F or °C.
4. Place the probe in contact with the material to be measured and read the temperature on the display.
5. Press the PWR button again to turn the meter off. To conserve battery life, always turn off the meter when not in use.

After 20 minutes, the meter will automatically turn off to preserve battery life. To disable this feature, see the "Automatic Shutoff Disable" section.

PROBE SUPPLIED

The probe supplied is an ultra-fast response Type-K thermocouple naked bead probe with teflon insulation. The maximum operating temperature range for this thermocouple is 500°F (260°C). Additional probes, including a stainless steel triple purpose probe with handle, are available (see the "Accessories" section).

Longer leads and extension may be used. The lead effect for 164 feet (50 meters) is generally less than 0.2°C with a limit of error of 2.2°C. Type-K wire and Type-K connectors must be used.

DATA HOLD FUNCTION

To "freeze" the display at the current temperature reading, press and release the HOLD button ("HOLD" will appear at the top of the display).

Note: While in this mode, pressing the °C/°F button will have no affect and will not change the display.

Press and release the HOLD button a second time to return to current temperature display ("HOLD" will no longer appear on the display).

MEMORY RECORD MODE

Press the MN/MX button to activate the minimum/maximum memory record mode ("REC" will appear on the display).

While in the Record mode, the meter will record the minimum and maximum temperature readings achieved.

Note: While in this mode, pressing the °C/°F button will have no affect and will not change the display.

Note: If the Automatic Shutoff feature has not been disabled, the meter will turn off automatically after 20 minutes. For long term monitoring, disable the Automatic Shutoff feature (see the "Automatic Shutoff Disable" section).

Press and hold the MN/MX button for 3 seconds to exit the Record mode ("REC" will no longer appear on the display).

The minimum and maximum temperature recordings are automatically cleared once the Record mode has been exited.

MEMORY RECALL

1. While in the Record mode, press the MN/MX button to display the maximum temperature that has been achieved ("MAX" will appear on the display).
2. Press the MN/MX button a second time to display the minimum temperature that has been achieved ("MIN" will appear on the display).
3. Press the MN/MX button a third time to return to the current temperature display.

AUTOMATIC SHUTOFF DISABLE

The Automatic Shutoff feature will turn the meter off after 20 minutes to preserve battery life. This feature is automatically enabled each time the meter is powered on, regardless of whether the feature was disabled previously.

To disable the Automatic Shutoff feature: While the meter is turned off, press and hold the HOLD button, then press and hold the PWR button. Continue to press and hold the both buttons until "n" appears on the display. Once "n" appears on the display (indicating that the Automatic Shutoff feature has been disabled), release both buttons. The meter will then display the current temperature.

With the Automatic Shutoff feature disabled, the meter will remain on until the PWR button is pressed, or until the battery is fully drained.

RELATIVE MEASUREMENT MODE

The relative measurement mode will show a "relative zero" measurement based on the temperature that was being measured when the mode was entered. The display will then indicate the temperature difference from the "relative zero" value. To activate the relative measurement mode, press the REL button ("REL" will appear on the display).

Example--

If the temperature being measured is 25.0 °C when the relative measurement mode is entered, the meter will set 25.0 °C as the "relative zero" and the display will show 0.0 °C as long as the temperature being measured is 25.0 °C. If the temperature rises to 27.5 °C, the display will show 2.5 °C. If the temperature falls to 20.0 °C, the display will show -5.0 °C.

Note: While in this mode, pressing the °C/°F button will have no affect and will not change the display.

To exit the relative measurement mode, press the REL button ("REL" will no longer appear on the display.)

MEMORY RECORD - RELATIVE MEASUREMENT

While in the relative measurement mode, press the MN/MX button to activate the Record mode ("REC" will appear on the display).

While in the Record mode during relative measurement, the meter will record the minimum and maximum temperature difference from the "relative zero" value achieved.

Note: If the Automatic Shutoff feature has not been disabled, the meter will turn off automatically after 20 minutes. For long term monitoring, disable the Automatic Shutoff feature. (See the "Automatic Shutoff Disable/Enable" section.)

To exit the Record mode and remain in the relative measurement mode, press and hold the MN/MX button for 3 seconds ("REC" will no longer appear on the display).

The minimum and maximum temperature recordings are automatically cleared once the Record mode has been exited.

MEMORY RECALL - RELATIVE MEASUREMENT

1. While in the Record mode during relative measurement, press the MN/MX button to display the maximum temperature difference that has been achieved. ("MAX" will appear on the display.)
2. Press the MN/MX button a second time to display the minimum temperature difference that has been achieved. ("MIN" will appear on the display.)
3. Press the MN/MX button a third time to return to the current relative temperature display.


WATERPROOF FEATURE

This thermometer is waterproof with an IP (Ingress Protection) rating of IP66. ***The thermometer is not immersible.*** IP66 rating indicates total protection from dust and temporary protection from flooding of liquids. The rubber boot and top cap plug must be used to maintain this rating. The rubber boot is removable so that it may be used with additional thermocouple probes.

BACKLIGHT

Press the BKLT button to turn on the display backlight when in dim or dark conditions. The light will automatically turn off after approximately 30 seconds to preserve battery life.

DISPLAY MESSAGES


 appearing on the display indicates that the battery is low and needs replacement (see the "Battery Replacement" section).

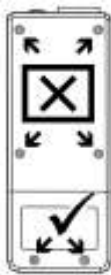
"---" appearing on the display indicates that no probe is plugged into the meter, or the probe is damaged.

ALL OPERATIONAL DIFFICULTIES

If this meter does not function properly for any reason, please replace the battery with a new, high-quality battery (see the "Battery Replacement" section). Low battery power can occasionally cause any number of "apparent" operational difficulties. Replacing the battery with a new fresh battery will solve most difficulties.

BATTERY REPLACEMENT

An erratic display, faint display, no display, or  appearing on the display are all indicators that the battery needs replacement. To replace the battery, remove the 2 battery cover screws (located on the back of the meter at the bottom). Remove the battery cover. Remove the exhausted battery and replace it with a new 9-volt alkaline battery. Replace the battery cover. Replace the battery cover screws and tighten securely.



ACCESSORIES

Cat. No. 4008 Surface Probe—

Temperature range is -73 to 760°C . Dimensions: 5-inch probe length; 0.5-inch tip diameter; $8\frac{1}{2}$ -inch overall length. Supplied with 36-inch cable.

Cat. No. 4014 Stainless Steel Probe—

Stainless-steel, triple purpose (liquids, air/gas, and semi-solids), Type-K probe. Temperature range is -50 to 700°C . Dimensions: 0.13-inch diameter; $6\frac{1}{4}$ -inch stem length; $9\frac{3}{4}$ -inch overall length. Supplied with 40-inch cable.

Cat. No. 4028 Beaded Probe—

Fast-Response, Type-K thermocouple, beaded probe. Teflon cable can withstand temperatures of -40 to 250°C continuous or 300°C short-term use. Dimensions: 0.06-inch diameter probe with cable length of 4 feet for use in liquids, air/gas, and semi solids.

Cat. No. 8039 Low-Temperature Probe—

Stainless-steel; triple purpose (liquids, air/gas, and semi-solids), Type-K probe. Temperature range is -240 to 220°C . Dimensions: diameter 0.17 inch; stem length 12 inches; overall length 17 inches. Supplied with 8-foot cable.

Cat. No. 8613 High-Temperature Probe—

Ten-foot-long, 0.19-inch diameter braided metal wire cable with smooth tip measures -73 to 982°C continuous or 1093°C short-term use. For use in liquids, air/gas, and semi-solids.

WARRANTY, SERVICE, OR RECALIBRATION

For warranty, service, or recalibration, contact:

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Control Company is ISO 9001 Quality-Certified by DNV and ISO 17025 accredited as a Calibration Laboratory by A2LA.

TRACEABLE® WATERPROOF TYPE-K THERMOMETER INSTRUCTIONS