

Please carefully read this User's Manual before you use the thermometer so that you can operate the instrument correctly and grasp the general skills for maintenance.

This Digital Thermometer is a precision instrument used for measuring the temperatures at different occasions.

The unit of measurement for this instrument is: °C (a temperature scale that registers the freezing point of water as 0° and the boiling point as 100° under normal atmospheric pressure, between which 100 divisions are equally set, and 1 division is considered as 1 °C).

I. Specialties

- Standard K temperature probe employed;
- Ambient temperature can be displayed without the involvement of temperature sensor;
- Measuring range: -40.0°C~1400°C;
- High accuracy and prompt response;
- Holding function for measured data;
- Ultra-large LCD screen, convenient for data reading.

II. Technical features:

1. Displaying: 3 1/2 digit LCD displaying, font height 19mm.

2. Sampling rate: 2.5 times/second.

3. Technical index:


Measuring range	Resolution	Accuracy
-40~0°C	1°C	±0.3%rdg+2°C
0~700°C		±0.3%rdg+1°C
700~1400°C		±0.8%rdg+2°C

4. Working temperature: 0~40°C, 0~80% Rh.
5. Storage temperature: -10~50°C, 0~85% Rh.

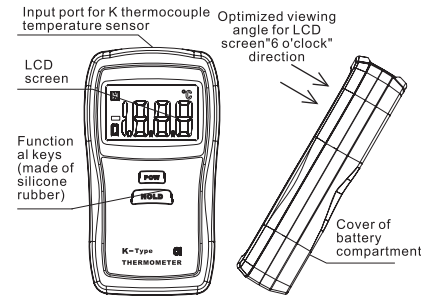
6. Power supply: one 9V layer-built battery, model: 6F22.
7. Dimensions: 135 (L) ×74 (W) ×30 (H)mm.
8. Weight: about 250g (including battery).
9. Attachments: TP-K01 thermocouple temperature sensor;

User's Manual (1 copy), a 6F22 9V layer-built battery.


10. Keys and symbols:

- (1) POW: power switch key;
- (2) HOLD: data holding key;
- (3) °C: unit for temperature measurement;
- (4) H: data holding symbol;
- (5) : icon indicating the low battery voltage.

III. Appearance



IV. Operating instructions

1. After the battery is loaded correctly, press the POW key to turn on the Thermometer and it will be in the normal working state.
2. First check whether the icon "  " is shown on LCD screen. If so, it means the battery voltage is below the normal level, and the functions and accuracy of the Thermometer will be affected due to the over low voltage. In this case, the battery should be replaced in time (refer to the section "Maintenance"). Sometimes, if the battery voltage is excessively low, the Thermometer can't be turned on.
3. Once the Thermometer has entered into the normal working state, the instrument will display the value of ambient temperature without inserting the K thermocouple temperature sensor.
4. Insert the attached K thermocouple temperature sensor into the input port on the top of the Thermometer, with the anode on the left and the cathode on the right, and make sure the contact is reliable. At the time, the Thermometer starts measuring the temperature around the probe of the temperature sensor. Once the reading is stable, the user can obtain the data. (To ensure the accuracy, the probe of the temperature sensor shall be put into the environment for at least ten minutes so as to achieve the temperature balance between the sensor and the measured environment, and then the measured data can be read).
5. In the course of measurement, if you want to keep the current data on LCD screen for reading and recording, you can press the key "HOLD". After you hear the ticking sound, the letter "H" will appear on LCD screen, and the measured data will become still. When you finish reading or recording the data, you can press the key "HOLD" again, the holding state of measured data will be cancelled and the system return back

to the measuring state.

6. When the measurement is completed, first you should take out the K thermocouple temperature sensor from its input port, then press the key POW to turn off the Thermometer.

V. Maintenance

1. To ensure the service life, the user should try not to use this precise Thermometer in harsh environment so as to avoid decreasing the accuracy of the instrument or damaging it.
2. To ensure the accuracy of measurement, the user should not randomly change the wiring inside the Thermometer. It is recommended that the Thermometer be calibrated regularly so as to guarantee the accuracy.
3. If the Thermometer is not used for a long time, the battery should be taken out so as to avoid the liquid leakage that may damage the instrument.
4. If the icon indicating the low electricity quantity in the battery appears, the battery should be immediately replaced with a new 9V 6F22 battery or layer-built battery of the same type. To do that, first use a Philip's type screwdriver to remove the M3 machine screw that is used to fastening the cover of battery compartment. Then remove the cover, take out the used battery and load the new battery with cathode on the top and anode at the bottom. After the new battery is loaded, place the cover back and tighten it with the M3 machine screw by using a Philip's type screwdriver.
5. If the surface of the Thermometer needs to be cleaned, Bilizhu or other cleaning agent with the same properties shall be used. It is prohibited to use other chemical reagents, which may damage the instrument surface.
6. If the Thermometer is wetted by water, only after the water is dried can the thermometer be used for measurement.

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Options of temperature sensor models

VI. Options of temperature sensor models

1. TP-K01 (standard model for this Thermometer):

Exposing type temperature sensor, measuring ranging from -50~200°C/-58~392°F, suitable for temperature measurement at complicated locations that are not easy to access.

2. TP-K02:

Grounding type temperature sensor, measuring ranging from -50~1000°C/-58~1832°F, suitable for measuring the temperature of liquid or semi-solid medium.

3. TP-K03:

Grounding type temperature sensor, measuring ranging from -50~750°C/-58~1382°F, suitable for measuring the temperature of surfaces.

Universal, Portable K-Type Digital Thermometer User's Manual

