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## TM-902C portable digital thermometer manual

Thank you for using the company's products, please read the following instructions carefully before using the product to test the temperature.

### ■ Features

- Can be used with any standard K-type (NiCr-NiAl) sensor.
- Suitable for standard K-type probe sockets.
- Low power consumption of the LCD screen.
- Large scale integrated circuits with high reliability and durability.
- High accuracy and wide measurement range.
- It display decimal point when between  $-199.9^{\circ}\text{C}$  and  $199.9^{\circ}\text{C}$ , don't display when more than  $200^{\circ}\text{C}$ .
- Solid, economical, lightweight and easy to operate.

### 2 Features:

Sensor characteristics: K type thermoelectric coupling (NiCr-NiAl)

Resolution:  $0.1^{\circ}\text{C}$  ( $-199.9^{\circ}\text{C} \sim 199.9^{\circ}\text{C}$ )  $1^{\circ}\text{C}$  ( $200 \sim 1370^{\circ}\text{C}$ )

Accuracy:  $0^{\circ}\text{C} \sim 500^{\circ}\text{C}$ :  $\pm(0.75^{\circ}\text{C} + 1^{\circ}\text{C})$

$500^{\circ}\text{C} \sim 750^{\circ}\text{C}$ :  $\pm(1\% + 1^{\circ}\text{C})$

$0^{\circ}\text{C} \sim -20^{\circ}\text{C}$ :  $\pm 2^{\circ}\text{C}$   $750^{\circ}\text{C} \sim 1000^{\circ}\text{C}$  ( $-3^{\circ}\text{C} \sim 0^{\circ}\text{C}$ )

$-20^{\circ}\text{C} \sim -40^{\circ}\text{C}$ :  $\pm 3^{\circ}\text{C}$   $1000^{\circ}\text{C} \sim 1370^{\circ}\text{C}$  ( $-5^{\circ}\text{C} \sim -3^{\circ}\text{C}$ )

$-40^{\circ}\text{C} \sim -50^{\circ}\text{C}$ :  $-3^{\circ}\text{C}$

Measuring range:  $-50^{\circ}\text{C}$  to  $750^{\circ}\text{C}$  /  $-50^{\circ}\text{C}$  to  $1300^{\circ}\text{C}$

Operating temperature:  $0^{\circ}\text{C}$  to  $50^{\circ}\text{C}$ , relative temperature  $\leq 70\% \text{RH}$

Storage temperature:  $-10^{\circ}\text{C}$  to  $60^{\circ}\text{C}$ , relative temperature  $\leq 70\% \text{RH}$

Display method: LCD display (3 1/2) automatic polarity display.

Sensor open circuit display method: When the sensor circuit is open, the screen will display "1".

Power supply: 9V DC battery (6F22 or equivalent)

Size: 24x72x108mm


Impedance:  $100\text{M}\Omega$

TP-01 thermocouple probe: operating temperature up to  $250^{\circ}\text{C}$  ( $300^{\circ}\text{C}$  short-term), this sensor is a super-response bead thermocouple, generally applicable to many areas.

### 3 Measurement methods:

The plug is inserted into the socket of the sensor thermometer below, observe the correct polarity. the thermometer's sensor is a super-response bead thermocouple, generally applicable to many areas, but the maximum operating temperature don't exceed 250 degrees (300 degrees short). If you want to measure the high temperature such as surface temperature, semi solid, liquid temperature, use a hand-held thermoelectric coupling probe (such as TP-02A) or any equivalent of K (NiCr-NiAl) probe.

### 4 Battery replacement

4-1 When the lower left corner of the screen appears “”, it is battery under voltage display, please replace the battery to new.

4-2 Remove the battery back cover and remove the battery.

4-3 Put an another new battery and cover up it.

### 5 Probe selection (type K)

TP-02A (order additionally) measurement range:  $-50^{\circ}\text{C}$  to  $400^{\circ}\text{C}$  dimension: 3.2mm diameter 10cm probe length.