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## **UNI-T UT320 Series Mini Contact Type Thermometers User Manual**



#### Introduction

UT320D is a dual input thermometer that accepts Type K and J thermocouples.

#### Features:

- Wide measurement range
- High measurement accuracy
- Selectable thermocouple K/J.
- Warning: For safety and accuracy, please read this manual before use.

## Open Box Inspection

Open the package box and take out the device. Please check whether the following items are deficient or damaged and contact your supplier immediately if they are.

1. UT-T01-: 2pcs

2. Battery: 1.5V AAA: 3pcs

3. Plastic holder-: 1 set

4. User manual-: 1

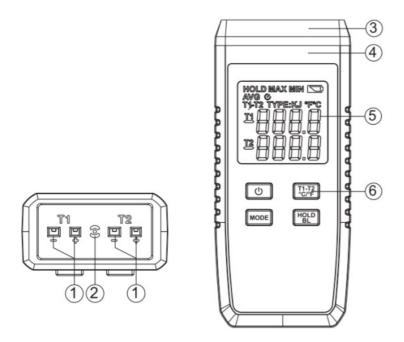
## **Safety Instructions**

If the device is used in a manner that is not specified in this manual, the protection provided by the device might be impaired.

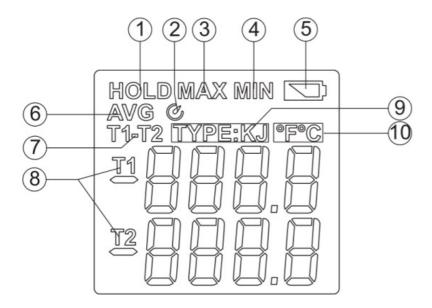
- 1. If low power symbol **\sum** appears, please replace the battery.
- 2. Do not use the device and send it to maintenance if malfunction occurs.
- 3. Do not use the device if explosive gas, steam or dust surrounding.
- 4. Do not input overage voltage (30V) between thermocouples or between thermocouple and the ground.
- 5. Replace parts with the specified ones.
- 6. Do not use the device when the rear cover is open.
- 7. Do not charge the battery.
- 8. Do not throw the battery to fire or it may explode.
- 9. Identify the polarity of the battery.

#### **Structure**

- 1. Thermocouple jacks
- 2. NTC inductive hole
- 3. Front cover
- 4. Panel
- 5. Display screen
- 6. Buttons



# **Symbols**



- 1. Data hold
- 2. Auto power off
- 3. Maximum temperature
- 4. Minimum temperature
- 5. Low power
- 6. Average value
- 7. Difference value of T1 and T2
- 8. T1, T2 indicator
- 9. Thermocouple type
- 10. Temperature unit

## **Buttons and setup**

: short press: power ON/OFF; long press: switch ON/OFF auto shutdown function.

**4** auto shutdown indicator.

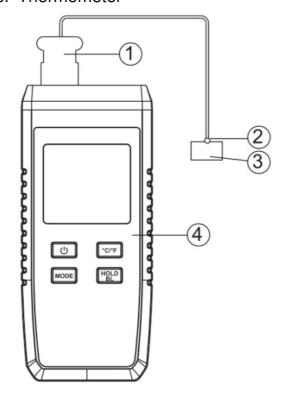
: short press: temperature difference value T1-T2; long press: switch temperature unit..

short press: switch between MAX/MIN/AVG modes. Long press: switch thermocouple type

: short press: switch ON/OFF data hold function; long press: switch ON/OFF backlight

# **Operation instructions**

- 1. Thermocouple plug 1
- 2. Thermocouple plug 2
- 3. Contact point 1
- 4. Contact point 2
- 5. Object being measured
- 6. Thermometer



### Connection

A. Insert thermocouple into input jacks

- **B**. Short press to turn on the device.
- **C**. Setup the thermocouple type (according to the type being used)

**Note**: If the thermocouple is not connected to input jacks, or in open circuit, "—-" appears on the screen. If over range occurs, "OL" appears.

## **Temperature display**

Long press to select temperature unit.

- **A.** Place the thermocouple probe on object to be measured.
- **B**. Temperature is displayed on the screen.

**Note:** It takes several minutes to steady the readings if thermocouples are just inserted or replaced. The purpose is to ensure the accuracy of cold junction compensation

## **Temperature difference**

Short press, temperature difference (T1-T2) is displayed.

#### Data hold

- **A.** Short press to hold the data displayed. HOLD symbol appears.
- **B.** Short press again to switch off data hold function. HOLD symbol disappears.

# **Backlight ON/OFF**

- **A.** Long press to turn on backlight.
- **B**. Long press again to turn off backlight.

#### MAX/MIN/AVG value

Short press to cycle switch between MAX, MIN, AVG or regular measurement.

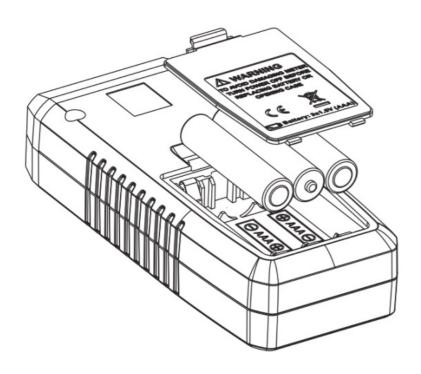
Corresponding symbol appears for different modes. E .g MAX appears when measuring maximum value.

# Thermocouple type

Long press to switch thermocouple types (K/J). TYPE:K or TYPE: J are type indicators.

## **Battery replacement**

Please replace the battery as figure 4 shown.



# **Specifications**

Range	Resolution	Accuracy	Remark	
-50^-1300°C (-58-2372°F)	0 1 °C (O 2°F)	±1. 8°C (-50°C-0° C) ±3. 2°F ( (-58-32°F )	K-type thermocouple	
		± [0. 5%rdg+1*C] ( 0°C-1000°C) + [0. 5%rdg+1. 8°F ] (-32-1832°F)		
		± [0. 8%rdg+1°C] (1000°C-1300°C) ± [0. 8%rdg+1. 8°F ](1832-2372°F)		
		-±1. 8°C (-50°C— 0°C)-±3. 2°F ( (- 58-32°F)		

-50-1200°C (-58-2152°F)	0. 1°C (0. 2°F)	± [0. 5%rdg+1°C] ( 0°C-1000°C)  ± [0. 5%rdg+1. 8°F ] (-32-1832°F)	K-type thermocouple
		± [0. 8%rdg+1°C] ( 1000°C-1300°C)  ± [0. 8%rdg+1. 8°F ] (1832-2192°F)	

**Table 1 Note:** operating temperature: -0~40°C (32~102°F) (thermocouple error is excluded in specifications listed above)

# Thermocouple specifications

Model	Range	Scope of application	Accuracy
UT-T01	-40~260°C (-40~500°F)	Regular solid	±2°C (-40~260°C) ±3.6°F (-40~500°F)
UT-T03	-50 sim 600 deg * C (-58 sim 1112 deg * F)	Liquid, gel	± C(-50 sim 333 deg * C ) ± 3.6 deg * F (-58 sim631^ F)
			±0.0075*rdg (631~1112°F) ± 0.0075 * r dg(333 sim600^ C)
			± 3.6 deg * F (-58 sim631^ F) ± (-50 sim 333C)
	-50 sim 600 deg *		
UT-T04	С	Liquid, gel (food i	
	(-58 sim 1112 deg	ndustry)	

	* F )		±0.0075*rdg (631~1112°F) pm0. 0075* r dg(333 sim 600 deg * C )
UT-T05	-50~900°C (-58~1652°F)	Air, gas	±2°C (-50~333°C) ±3.6°F (-58~ 631 F)
			±0.0075*rdg (333~900°C) ±0.0075*rdg (631~1652°F
UT-T06	-50~500°C (-58~932°F)	Solid surface	±2°C (-50~333°C) ±3.6°F (-58~631°F)
			±0.0075*rdg (333~500°C) ±0.0075*rdg (631~932 F)
UT-T07	-50~500°C (-58~932 F)	Solid surface	±2°C (-50~333°C) ±3.6°F (-58~631°F)
			±0.0075*rdg (333~500°C) ±0.0075*rdg (631~932°F)

#### Table 2

Note: Only K-type thermocouple UT-T01 is included in this package.

Please contact the supplier for more models if needed.

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# **Documents / Resources**



UNI-T UT320 Series Mini Contact Type Thermometers [pdf] User Manual UT320 Series Mini Contact Type Thermometers, UT320 Series, Mini Contact Type Thermometers, Type Thermometers, Type Thermometers

## References

- User Manual
- UNI-T

Email

• Contact Type Thermometers, Mini Contact Type Thermometers, Type Thermometers, UNI-T, UT320 Series, UT320 Series Mini Contact Type Thermometers

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