

# Non-Contact Thermometer 【QT-3】

## Instruction Manual



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Thank you for purchasing Optex Non-Contact Thermometer. This device is Non-Contact Thermometer with Clock function.

QT-3 is a Non-Contact Thermometer to convert the infrared energy emitted from the surface of an object into temperature value and can measure the surface temperature of solid and liquid without touching them. The temperature of gas can not be measured by this device.

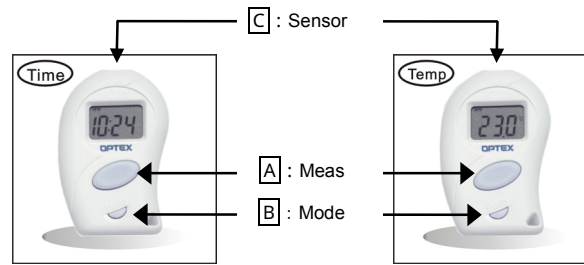
For the more accurate measurement, please keep the QT-3 as closer as possible to the target when measure a temperature.

This instruction manual contains various warnings to ensure safe usage of the product and prevent damage and injury to you and other persons. Please be sure to heed the warnings and strictly follow safety procedures.

**CAUTION : This symbol signifies that improper usage may result in injury or damage.**

- Do not use this device for medial purpose.
- Do not disassemble this device.

- 「Prohibition」
- 「Requirement」
- Do not use this device under water environment  
Not water proofed device.
- No direct sunlight, no dust or no high humidity and temperature allowed.  
It may cause serious damage or incorrect measurement.
- No sudden environment temperature drift accepted  
Leave the device for a while until device gets to stable.
- No powerful electrical circumstance accepted.  
It may cause series damage.
- No shinny target could be measured  
Shinny target reflects infrared emitted from others. Incorrect value appears on LCD display.
- No drop or violent shock accepted  
Serious damage or incorrect value takes place
- No non-standard battery allowed  
Serious damage or incorrect value takes place
- No contact to target allowed  
This device is non-contact thermometer. Contact to target is strongly prohibited.
- No touch to the filter allowed  
Do not touch the filter, otherwise incorrect value takes place.
- No electrical circumstance allowed  
Serious damages may take place



To enter the thermometer mode, press **A**.  
Clock function appears 15seconds later by releasing **A**.

### Thermometer Model

- 1: Adjust **C** in the direction of the target
- 2: Press **A** to measure a temperature. The value on LCD is the average temperature of surface measured.

(Notice)

The target's diameter should be bigger than the distance between the target and thermometer. (When 10mm in distance, target's diameter is at least 10mm)

### Clock Adjustment

To adjust clock, press **A** **B** **B**, then the digital display is flashing. Press **A** to adjust "HOUR". Press **A** again to adjust "MINUTE". To complete Clock Adjustment, press **B**. After fifteen seconds later, clock model appears on LCD.

### / °F Display Unit Conversion

QT-3 has two selectable display units / °F .

(The conversion procedure in Clock Mode)

Press **A** **B** to change the temperature display unit. Press **A** to enter the other display unit

(The conversion procedure in Temperature Mode)

Press **B** to change temperature display unit. Press **A** to enter other display unit.

### Error message

QT-3 has several error messages on LCD

Out of measurement range, <sup>o</sup>Hi<sub>a</sub> or <sup>o</sup>Lo<sub>a</sub> appear on LCD.  
<sup>o</sup>Hi<sub>a</sub> appears when out of higher temp, <sup>o</sup>Lo<sub>a</sub> appears when out of lower tem.

<sup>o</sup>Er2<sub>a</sub> appears when rapid ambient temperature change,  
<sup>o</sup>Er3<sub>a</sub> appears when ambient temperature is out of -10 or +50 . In both case, leave thermometer with ambient temperature within 0 to +40 at least 30minutes.

When <sup>o</sup>Er<sub>a</sub> appears on LCD, remove battery from battery compartment, then leave thermometer at least one minute. After that, insert battery into battery compartment, then push "Meas" bottom. <sup>o</sup>Er<sub>a</sub> still appears on LCD, please ask for local dealer for service.

### Battery

QT-3 displays battery lifetime signals as follows.



### Battery Replacement

When battery change required, please replace new battery CR2032, Lithium battery. Battery compartment is located backside thermometer.

### Maintenance

Dust, Dirt and scratches on optical lens may cause incorrect display. Please keep optical lens clean anytime. In case of cleaning, use lightly wipe the lens with cotton swab or special cleaning cloth with a little ethanol alcohol.

QT-3 is not waterproof unit. Handle with care when cleaning.

### Specification

| Type-number     | QT-3  |
|-----------------|---|
| Measuring range | -22 ~ 110   |
| Display unit    | -10 to 100°C : 0.5°C<br>~ -10°C, 100°C ~ : 1      |
| Response time   | 1 second  |
| Accuracy        | ± 2.5% of reading or ± 2.5 , whichever is greater |
| Spot ratio      | 1 0 / 1 0 mm ( D : S = 1 : 1 )                    |
| Emissivity      | 0.95 (fixed)                                      |
| Clock display   | 12 hours ( Time diviation:1min/week )             |
| Battery life    | About 40 hours ( With max load )                  |
| Battery         | CR2032, Lithium Battery                           |
| Ambient Temp    | 0 ~ 50  |
| Storage Temp    | -20 ~ 65  |
| Dimension       | HXWXD = 71X47X17mm                                |
| Weight          | Approximately 35g ( including battery )           |