

Infrared Thermometer Instruction Manual

OPERATION MANUAL

DigitalIR Thermometer MU - TC034 -R.1.0.

2025-12

I. Overview

This infrared thermometer uses non-contact infrared sensing technology to perform safe, accurate, fast, and reliable measurements of targets. This product is suitable for close-range, non-contact measurement of quartz glass products. The application scenario is indoors at altitudes below 2000m.

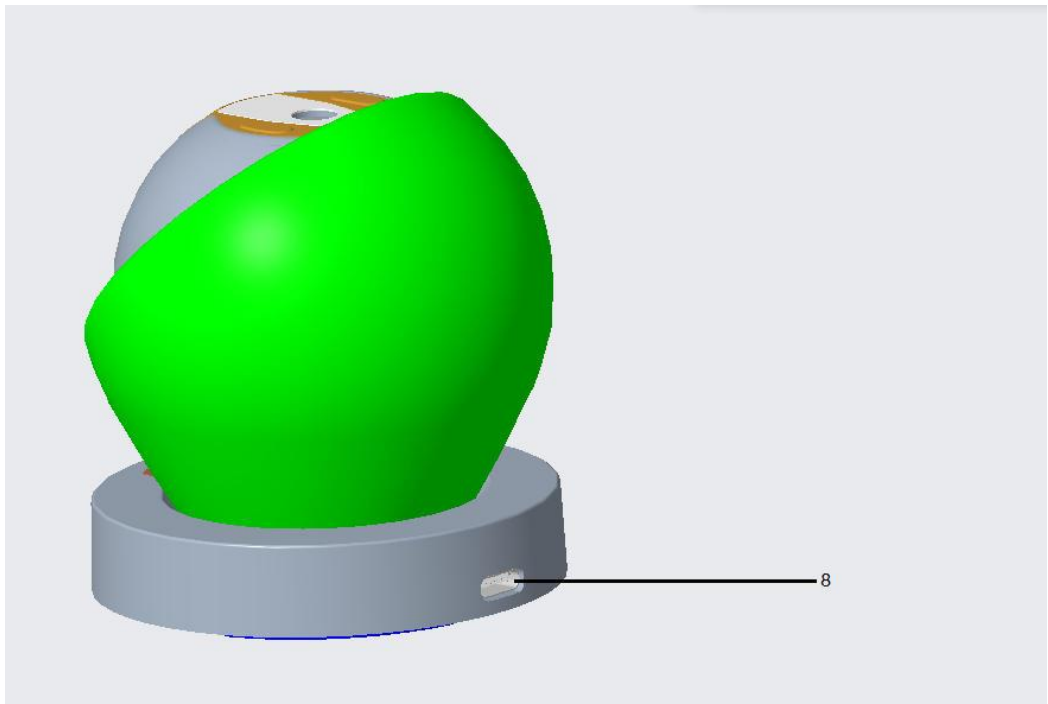
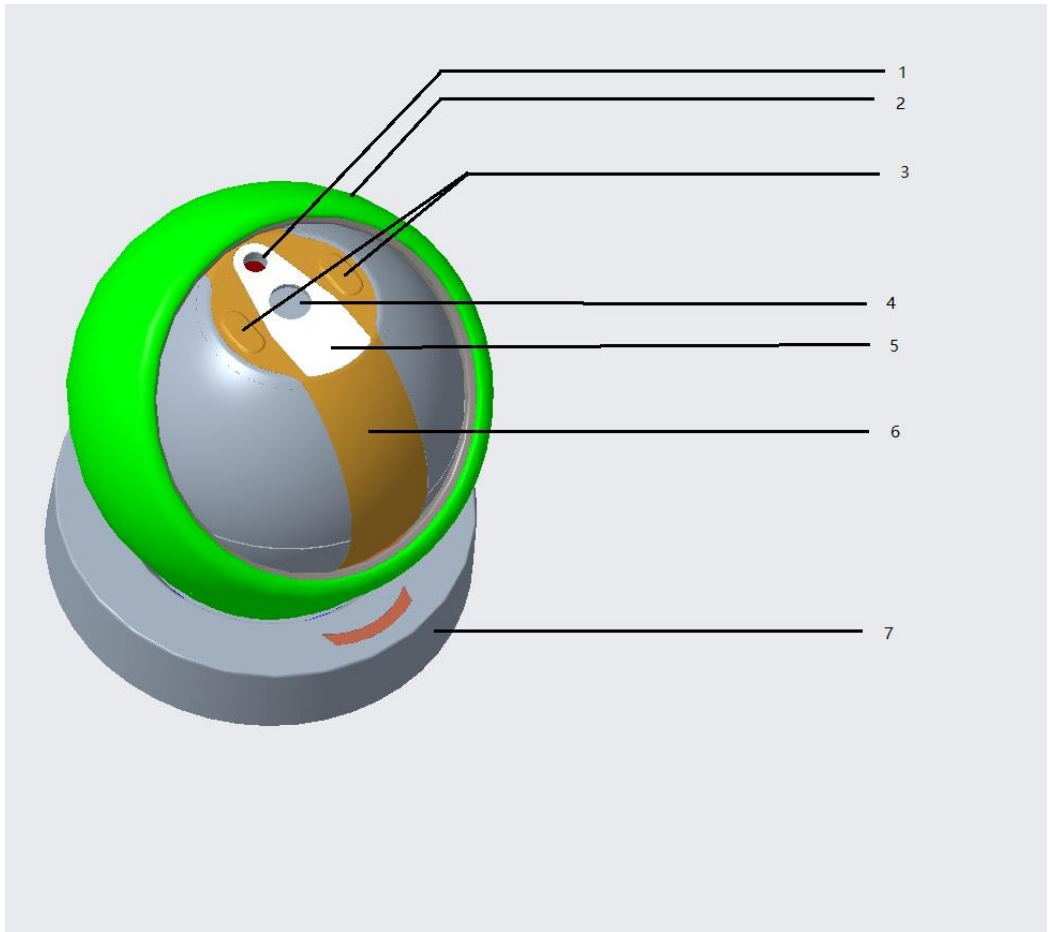
II: Working Principle

Any object with a temperature above absolute zero radiates infrared energy, which travels outward at the speed of light. The lens of an infrared thermometer collects and gathers the infrared energy onto the sensor, which generates a low voltage output. This voltage is proportional to the temperature of the target object, and the voltage is processed and displayed as a temperature value.

III. Main Technical Parameters and Functions

1. Temperature measurement range: 94°C--371°C (201.2°F -700°F),
2. Accuracy: $\pm 3^{\circ}\text{C}$ or $\pm 3\%^{\circ}\text{C}$
3. °C/°F conversion selection function
4. Display resolution: 1°C or 1°F
5. Working environment: 0-40°C, relative humidity: 10%-90%RH
6. Storage temperature: -10°C to 40°C
7. Detection time: ≤ 0.5 seconds
8. Sensing distance between the sensor probe and the measuring point: 2-30cm
9. Screen resolution: 60*32 0.32" OLED
10. Lithium-ion polymer battery: 3.7Vdc, 2600mAh, 9.62Wh
11. TYPE C charging voltage: DC 5V 2A MAX
12. Wireless charging: Supports Qi protocol
13. Wireless charging dock with Type-C port: Supports QC2.0/3.0 and PD2.0/3.0 protocols.
14. Battery standby time is approximately 16 hours.
15. Automatic shutdown function (5 minutes).

Four-function diagram



1. LED indicator lights

2. Silicone soft shell
3. Left and right function buttons
4. Left and right function buttons
5. Screen
6. Silicone soft band
7. Wireless charging dock
8. Wireless charging dock charging port



(Main Interface)



1. Battery icon.



3. LED switch.



2. The top square indicates the on/off status of the internal RGB light, and the bottom square indicates the on/off status of the audible alarm.



4. LO/MD/HI represent the preset alarm temperature ranges, respectively.

5. Operating Instructions

Temperature test

1. Press the left measurement button to power on the instrument for self-test and preparation.
2. Align the instrument probe with the target according to the range indicated by the LED light. If the target is within the measurement range, the screen will display the specific value. If the target is below the measurement range, it will display "LOW"; if it is above the measurement range, it will display "HOT". When the measured temperature exceeds the set value, an alarm will not sound immediately. The alarm will only sound when the temperature drops back to the set point, accompanied by three flashes of blue light. The alarm will stop when the temperature is 20° F below the set value and then exceeds it again.
3. After powering on, if the infrared measuring instrument is not operated for more than approximately 5 minutes, the instrument will automatically shut down.
4. When the low voltage symbol appears on the screen (the last line turns red), the instrument should be charged

immediately. The input voltage is 5VDC and the current is 2000mA. The instrument will not operate while charging, and there will be no backlight display of the large charging icon.

(The operating system manual is attached for reference.)

5. RGB lights:

The RGB LEDs display different colors depending on the tested temperature range. Refer to the product details.

Six: Cleaning

1. Use 91% or higher concentration isopropyl alcohol to clean the machine body. First apply it to a towel/cloth, making sure not to use too much.
2. Gently wipe the sensor lens with a cotton swab soaked in isopropyl alcohol .

7. Precautions

1. Do not allow the sensor to come into contact with the surface of a hot object;
2. Ensure the sensor is facing the bottom or side of the Banger;
3. The thermometer cannot measure through a transparent glass surface; it will measure the surface temperature of the glass.
4. Steam, dust, smoke, etc., can all affect the accuracy of the measurement.
5. Before using the thermometer, please inspect the casing. Never use a damaged instrument; check for any damage or missing plastic parts.
6. Never use the thermometer near explosive gases, vapors, or dust.
7. If the instrument is not used in accordance with the methods specified in this manual, the protective functions provided by the equipment may be ineffective.
8. Avoid exposure to electromagnetic fields generated by arc welding machines and induction heaters.
9. Avoid the effects of thermal shock (If a large change or sudden change in ambient temperature causes a large measurement error, wait 20-30 minutes before using the thermometer again to allow it to stabilize).
10. Do not place the thermometer near or on hot objects.

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FCC warning statements:

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

Caution: Any changes or modifications to this device not explicitly approved by manufacturer could void your authority to operate this equipment.

This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

The device has been evaluated to meet general RF exposure requirement This equipment complies with FCC radiation exposure limits set forth for an uncontrolled environment.

This equipment should be installed and operated with minimum distance 20cm between the radiator & your body.

IC warning statements:

-English Warning Statement:

RSS-GEN ISSUE 5, 8.4 User manual notice

This device contains licence-exempt transmitter(s)/receiver(s) that comply with Innovation, Science and Economic Development Canada's licence-exempt RSS(s). Operation is subject to the following two conditions:

- (1) This device may not cause interference.
- (2) This device must accept any interference, including interference that may cause undesired operation of the device.

The digital apparatus complies with Canadian CAN ICES-3 (B)/NMB-3(B).

-French Warning Statement:

RSS - Gen version 5, 8.4 avis du manuel de l'utilisateur

Cet appareil contient un émetteur / récepteur sans licence conforme au RSS sans licence d'innovation, science et développement économique Canada. L'opération doit satisfaire aux deux conditions suivantes:

Cet équipement peut ne pas causer d'interférence.

L'équipement doit accepter toute interférence, y compris toute interférence qui pourrait entraîner un fonctionnement indésirable de l'équipement.

This equipment complies with IC radiation exposure limits set forth for an uncontrolled environment and meets RSS-102 of the IC radio frequency (RF) Exposure rules. This equipment has very low levels of RF energy that are deemed to comply without testing of specific absorption ratio (SAR). Cet équipement est conforme aux limites d'exposition aux rayonnements énoncées pour un environnement non contrôlé et respecte les règles d'exposition aux fréquences radioélectriques (RF) CNR-102 de l'IC. Cet équipement émet une énergie RF très faible qui est considérée conforme sans évaluation du débit d'absorption spécifique (DAS).

This equipment should be installed and operated with minimum distance 20cm between the radiator & your body.

Lors de l'installation et du fonctionnement de cet équipement, la distance minimale entre le radiateur et le corps doit être de 20 cm.