**REED Instruments FS-200-NIST**

# REED Instruments FS-200 Food Service Infrared Thermometer

Model: FS-200-NIST | Brand: REED Instruments



## 1. Introduction

The REED Instruments FS-200 Food Service Infrared Thermometer is a compact, non-contact temperature measurement device designed specifically for the food service industry. It provides quick and accurate surface temperature readings, making it ideal for ensuring food safety and quality. This thermometer features high/low alarms to alert users when temperatures fall outside a specified range, enhancing efficiency and compliance with temperature regulations. The FS-200-NIST model is also compliant with NIST standards, ensuring reliable and traceable measurements.


This image displays the REED Instruments FS-200 Food Service Infrared Thermometer, a compact, handheld device. It features a digital display showing a temperature reading of 21.7°C and an emissivity setting of E=0.95. The device has a trigger for measurement and buttons for 'MODE' and other functions. A warning label for laser radiation is visible. Partially visible next to the thermometer is a calibration certificate, indicating the device's adherence to measurement standards.

## 2. Setup

### 2.1 Battery Installation

The FS-200 thermometer is powered by batteries. To install or replace batteries:

1. Locate the battery compartment cover, typically on the handle of the device.
2. Open the cover by sliding or unlatching it.
3. Insert the required batteries (e.g., AAA or 9V, refer to the battery type specified in the specifications) ensuring correct

polarity (+/-).

4. Close the battery compartment cover securely.

### 2.2 Initial Power On

After battery installation, the device is ready for use. To power on the thermometer, simply press the measurement trigger or the designated power button.

## 3. Operation

### 3.1 Taking a Measurement

To take a temperature reading:

1. Point the infrared sensor towards the target surface.
2. Press and hold the measurement trigger. The display will show the current temperature reading. The word "HOLD" may appear on the display, indicating that the last reading is being held.
3. Release the trigger to stop measuring. The last reading will typically remain on the display for a short period or until the device powers off automatically.

### 3.2 Emissivity Adjustment

Emissivity (E) is a measure of an object's ability to emit infrared energy. Different materials have different emissivity values. For accurate measurements, adjust the emissivity setting on the thermometer to match the surface being measured. The FS-200 typically has a default emissivity of 0.95, suitable for many common surfaces in food service. Consult the user manual for specific emissivity values for various materials or use the MODE button to adjust if the feature is available.

### 3.3 Distance to Spot Ratio (D:S)

The FS-200 has a Distance to Spot (D:S) ratio of 8:1. This means that at a distance of 8 units from the target, the thermometer will measure a spot size of 1 unit. For example, if you are 8 inches away from the target, the measurement will be taken from a 1-inch diameter circle on the surface. To ensure accurate readings, make sure the target spot is entirely within the thermometer's field of view.

### 3.4 High/Low Alarms

The FS-200 is equipped with high and low temperature alarms. These alarms can be set to alert you when the measured temperature exceeds a high limit or falls below a low limit. Refer to the device's specific button functions (e.g., using the MODE button) to navigate to the alarm setting menu and adjust the desired high and low temperature thresholds. An audible or visual indicator will activate when the temperature falls outside these set ranges.

### 3.5 Display Information

The digital display provides critical information during operation:

- **Temperature Reading:** The primary numerical display shows the measured temperature, typically in degrees Celsius (°C) or Fahrenheit (°F).
- **Emissivity (E):** Indicates the current emissivity setting, e.g., "E=0.95".
- **HOLD:** Appears when the trigger is released, indicating the last measured temperature is being held on the display.
- **Battery Indicator:** Shows the remaining battery life.
- **Laser Indicator:** May appear when the laser pointer is active.

## 4. Maintenance

### 4.1 Cleaning

To maintain the accuracy and longevity of your thermometer, keep it clean. Wipe the device with a clean, damp cloth. Do not use abrasive cleaners, solvents, or immerse the device in water. Pay special attention to keeping the infrared lens clean and free of dust or debris, as this can affect measurement accuracy.

### 4.2 Battery Replacement

Replace batteries when the low battery indicator appears on the display or when the device fails to power on. Refer to section 2.1 for battery installation instructions. Always dispose of used batteries responsibly according to local regulations.

### 4.3 Storage

When not in use, store the thermometer in a cool, dry place, away from direct sunlight, extreme temperatures, and high humidity. If storing for an extended period, it is recommended to remove the batteries to prevent leakage.

## 5. Troubleshooting

| Problem | Possible Cause | Solution |
|---|---|---|
| No display/Device won't turn on | Dead or incorrectly installed batteries | Replace batteries, ensuring correct polarity. |
| Inaccurate readings | Dirty lens, incorrect emissivity setting, target too far/too small, extreme ambient temperature changes | Clean lens, adjust emissivity, ensure target fills spot size, allow device to acclimate to environment. |
| Alarm not activating | Alarm limits not set correctly, alarm feature disabled | Check and adjust high/low alarm settings in the menu. Ensure alarm is enabled. |
| Laser not working | Laser feature disabled, internal issue | Check settings to ensure laser is enabled. If problem persists, contact customer support. |

## 6. Specifications

| Feature | Detail |
|---|---|
| Model Number | FS-200-NIST |
| Brand | REED Instruments |
| Special Feature | Alarm |
| Color | Green, Red |
| Display Type | Digital |
| Product Care Instructions | Wipe Clean |
| Unit Count | 1.0 Count |
| Power Source | Battery Powered |
| Reusability | Reusable |

| Feature | Detail |
|---|---|
| UPC | 800837003089 |
| Manufacturer | REED Instruments |
| Item Weight | 1 pounds |
| Product Dimensions | 4 x 8 x 2 inches |
| Specification Met | NIST |

## 7. Warranty Information

REED Instruments products are manufactured to high standards and are typically covered by a limited warranty against defects in materials and workmanship. Specific warranty terms, duration, and conditions may vary. Please refer to the warranty card included with your purchase or visit the official REED Instruments website for detailed warranty information and registration procedures. Keep your proof of purchase for warranty claims.

## 8. Customer Support

For technical assistance, troubleshooting beyond this manual, or service inquiries, please contact REED Instruments customer support. You can typically find contact information, including phone numbers, email addresses, and online support portals, on the official REED Instruments website. When contacting support, please have your product model number (FS-200-NIST) and serial number (if applicable) ready.



### Related Documents

| | |
|---|---|
|  | REED R2160 Thermal Imaging Camera Instruction Manual<br>Comprehensive instruction manual for the REED R2160 Thermal Imaging Camera, covering features, specifications, operation, safety, and product support. |
|  | REED R1640 Thermocouple Thermometer Instruction Manual<br>Comprehensive instruction manual for the REED R1640 Thermocouple Thermometer, featuring Bluetooth Smart Series connectivity. Covers product features, specifications, operating procedures, safety guidelines, and support information. |

| | |
|---|---|
|  | [REED R8075 Sound Level Meter: Features, Specifications, and Technical Data]<br>Detailed information on the REED R8075 Sound Level Meter, including its technical specifications, features, accuracy, and applications for noise level monitoring. |
|  | [REED R8005 Laser Distance Meter Instruction Manual]<br>Comprehensive instruction manual for the REED R8005 Laser Distance Meter, covering features, specifications, operating instructions, measurement modes, troubleshooting, and warranty information. |

Documents - REED Instruments – FS-200-NIST

[pdf] Specifications Datasheet Dimension Guide

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White Food Service Infrared Thermometer INSTRUMENTS Model FS-200 Features Specifically designed an ... -20 to 60C -4 to 140F 10-90 3.2 x 1.7 x 2.4 82 x 42 x 60mm 6.4oz 180g Model FS-200 CA-52A **FS-200-NIST** TECHNICAL DATA Description Food Service Infrared Thermometer Soft Carrying Case Food Se... lang:en score:20 filesize: 774.44 K page_count: 1 document date: 2016-11-08

[pdf] Specifications Datasheet Dimension Guide

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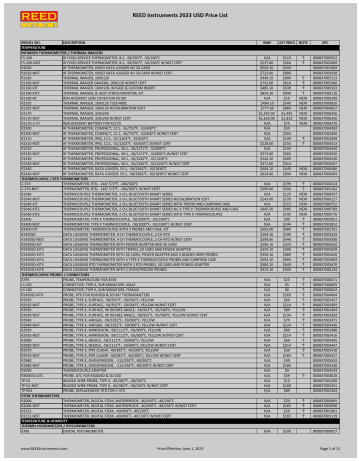
White Food Service Infrared Thermometer INSTRUMENTS Model FS-200 Features Specifically designed an ... -20 to 60C -4 to 140F 10-90 3.2 x 1.7 x 2.4 82 x 42 x 60mm 6.4oz 180g Model FS-200 CA-52A **FS-200-NIST** TECHNICAL DATA Description Food Service Infrared Thermometer Soft Carrying Case Food Se... lang:en score:14 filesize: 381.25 K page_count: 1 document date: 2016-11-08



[pdf] Price List

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REED Instruments 2023 USD Price List MODEL NO. DESCRIPTION TEMPERATURE INFRARED THERMOMETERS / THERMAL IMAGERS FS-200 IR FOOD SERVICE THERMOMETER, 8:1, -58/392F, -50/200C **FS-200-NIST** IR FOOD SERVICE THERMOMETER, 8:1, -58/392F, -50/200C W/NIST CERT R2020 IR THERMOMETER, VIDEO DATA LOGGER W/...

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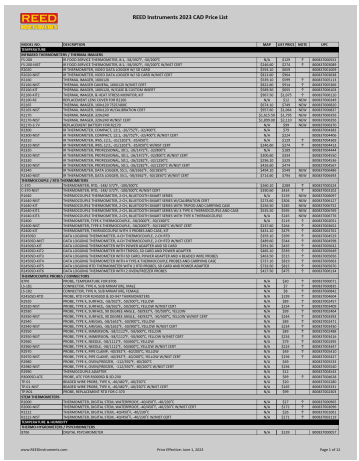

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