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2-in-1 Thermometer with Penetration Probe



Operating Instructions

Ref:.. \operat(98\instructions 19\)32052.qxp 07-01-19

IR-90 User's Manual 2 IN 1

IR and Contact Infrared Thermometer



1. Introduction

This unit can provide fast, easy and accurate temperature readings.

It is a 2 in 1 thermometer with both non-contact infrared and foldable contact penetration probe; it is mainly used for measuring temperature of food and liquid.

2. Features

- Fast and precise non-contact infrared and contact measurement
- ♦Max/Min/Hold function
- ♦Non-contact continuous measuring
- ◆Adjustable emissivity: 0.1~1.0
- ◆Resolution:0.1°C (0.1°F)
- Auto data hold function
- ◆Auto power off

3. Specifications

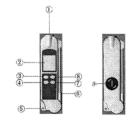
Range	IR	-35~330°C/-31~626°F	
	Probe	-20~260°C/-4~500°F	
Accuracy	IR	-35~0°C/-31~32°F:±4°C/7.2°F	
		0~330°C /32°F:±2% of reading±2°C/3.6°F	
	Probe	-20~260°C/-4~500°F:±1% of reading±1.5°C/3.6°F	
Response	IR	< 250 ms	
Time	Probe	< 10s	
Optical Resolution		4:1	
Emissivity		Adjustable: 0.1~1.0	
Resolution		0.1°C(0.1°F)	
Spectral Response		8~14um	
Polarity Display		Auto display, "-" indicates negative, positive has no sign.	
Over-range Indication		го	н
Automatic Power Off		After 3 minutes of inactivity	

Operating Temp.	0°C to 50°C / 32°F to 122°F	
Stofage Temp.	-20°C to 60°C / -4°F to 140°F	
Relative Humidity	Operating:: 10 to 95%RH Storage:: <80% RH	
Power Supply	One "CR2032" 3.0V battery	
Weight	70g	
Probe Size	Ø3.5×108mm	
Dimensions(L*W*H)	151×41×20mm	

Measurement Note: If the meter is being used in an ambient temperature environment with wide temperature change, please leave the meter for 30 minutes to adjust to the environment before taking measurements

4. Meter Description

- IR Sensor
- LCD Display
- SET Key
- TC Key
- String hole
- IR Key MODE Key
- Battery cover



10 10 10 18

5. LCD Description

- IR reading
- TC temperature symbol
- TC reading
- TC hold symbol
- Temperature units
- IR hold symbol
- Temperature units
- Battery symbol
- IR continuous measuring
- MIN symbol
- MAX symbol
- 12. IR temperature symbol

6. Operating Instruction 1. Operating steps:

- 1.1 Point the front of the meter towards the surface to be measured.
- 1.2 Press" button, infra-red temperature appears in the IR Temp area, on the top half of the LCD display.
- 1.3 Insert the steel probe into the object to be tested. Press "(Te) " button, TC temperature appears in the TC Temp area on the bottom half of the display.
- 1.4 Under "HOLD" mode, meter will power off automatically after 3 minutes of no

Notes: Under IR mode, TC readings will be held automatically Under TC mode, IR readings will be held automatically

2. Button Function

into NAX-NIN-LOCK-095r step by step, press button again to return to normal

- 2.2.1 Press* button, "MAX" appears on the LCD, meter enters into" MAX" mode. Press" (iii) " button and only the maximum temperature detected will appear on the display
- button, "MIN" appears on the LCD, meter enters into MIN mode. Press" (IR); button and only the minimum temperature detected will appear on the
- button, "LOCK" appears on the LCD, meter enters into LOCK" mode. This means the meter will continuously take an infra-red temperature without pressing the IR button
- 2.2.4 Press " to adjust the emissivity
- 2.3 (R) Button: Press *(R) " button to turn the meter on, press* (R) * button again to take an infra-red reading
- 2.4 (10) Button: Press "(10)" button to turn the meter on, press TC to take a temperature reading with the penetration probe

3. Battery Replacement

- 3.1 When the low battery icon appears, replace the battery
- 3.2 Open the battery compartment, replace the 3V battery and close the battery compartment

7. Notes

- 1) Field of View
- The smaller the target object is, the closer the meter should be to it for accurate
- ♦ When accuracy is critical, make sure the target is at least twice as large as the spot

As distance (D) from the object increases, the spot size (S) of the area measured by the unit should become larger.

- 2) Locating a hot spot
- ◆ To find a hot spot, first aim the thermometer to the outside of target area, then scan across in an up and down motion until the hot spot is located.
- 3) Notice
- ♦ Not recommend for measuring shiny or polished metal surfaces like stainless steel,

- ◆ Do not use to take measurements through transparent surfaces such as glass.
- ♦ If the surface of the object under test is covered with frost, oil, grime, etc., clean it

4) Maintenance

before taking measurement.

Do not use volatile liquids to clean the unit, wipe it with dry soft cloth

- ◆ Do not disassemble the unit
- ◆ Do not immerse it in water.
- ◆ Do not store it in high temperature or humidity.

8. Accessories

User's manual

One "CR2032" 3.0V battery







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