

# Infrared Thermometer Model CA879



The Infrared Thermometer Model CA879 is a non-contact temperature measuring instrument. It incorporates a laser target feature for precision measurement

To measure the temperature of an object, simply point the gun at the surface of the object and the temperature will appear on the digital display. The thermometer has an automatic shut-off feature. Shut-off will occur approximately 10 seconds after the trigger is released.

All objects whose temperature is higher than absolute zero (-273.15 K) emit infrared energy. This energy radiates in all directions at the speed of light. When the gun is pointed at an object, the probe's lens senses this energy and focuses it onto an infrared detector comprised of a thermocouple stack. The detector produces a voltage signal proportional to the amount of energy received, and therefore proportional to the object's temperature.

Certain objects emit infrared energy, but also reflect it. Unlike matt surfaces, shiny or highly-polished surfaces tend to reflect energy. This reflection is represented by a factor called emissivity, which may vary from 0.1 for a highly reflective object to 1 for a black object. In the case of the Infrared Thermometer Model CA879, the emissivity is preset at 0.95, the most frequent value, enabling approximately 90% of all applications to be covered.

## Features

- Easy one-hand operation
- Non-contact infrared sensor
- Laser guide for precise aim
- 12:1 Field of Vision Ratio
- Measures temperature in °F and °C
- Fixed 0.95 emissivity
- Auto-HOLD function
- 2000-count backlit LCD

## Applications

- Electrical troubleshooting
- Food safety and processing
- Automotive repair and maintenance
- Marine maintenance and repairs
- Test faulty motor winding insulation
- Test overheated high voltage transformers
- Test terminals on circuit breaker panels
- Perform HVAC energy audits

## Specifications

SPECIFICATIONS	
MODEL	CA879
<b>ELECTRICAL</b>	
Measuring Range	-58° to 1022°F (-50° to 550°C)
Resolution	0.1°F from -58° to 200°F, 1°F beyond this range 0.1°C from -50° to 200°C, 1°C beyond this range
Polarity	Automatic (minus only)
Accuracy	±1.5% of the reading ±4°F of -4 to +1022°F / ±9°F of -58 to -4°F ±1.5% of the reading ±2°C of -20 to +550°C / ±5°C of -50 to -20°C
Emissivity	Preset at 0.95
Spectral Response	6 to 14µm
Response Time	400ms
Laser Target	1mW (670nm type)
Power Source	One 9V Alkaline battery included (6LR61 or 6LF22)
<b>MECHANICAL</b>	
Dimensions	9.05 x 3.93 x 2.20" (230 x 100 x 56mm)
Weight	290g
<b>ENVIRONMENTAL</b>	
Operating: Temperature Humidity	32° to 122°F (0° to 50°C) 10 to 90% RH
Storage: Temperature Humidity	-4° to 140°F (-20° to 60°C) without battery < 80% RH
<b>SAFETY</b>	
Electromagnetic Compatibility	EN 50081-1 Ed. 1992: EN 55022 EN 50082-1 Ed. 1997: EN 55024



### Field of Vision Ratio

Distance (D) to Spot Size (S)

**D:S=12:1**

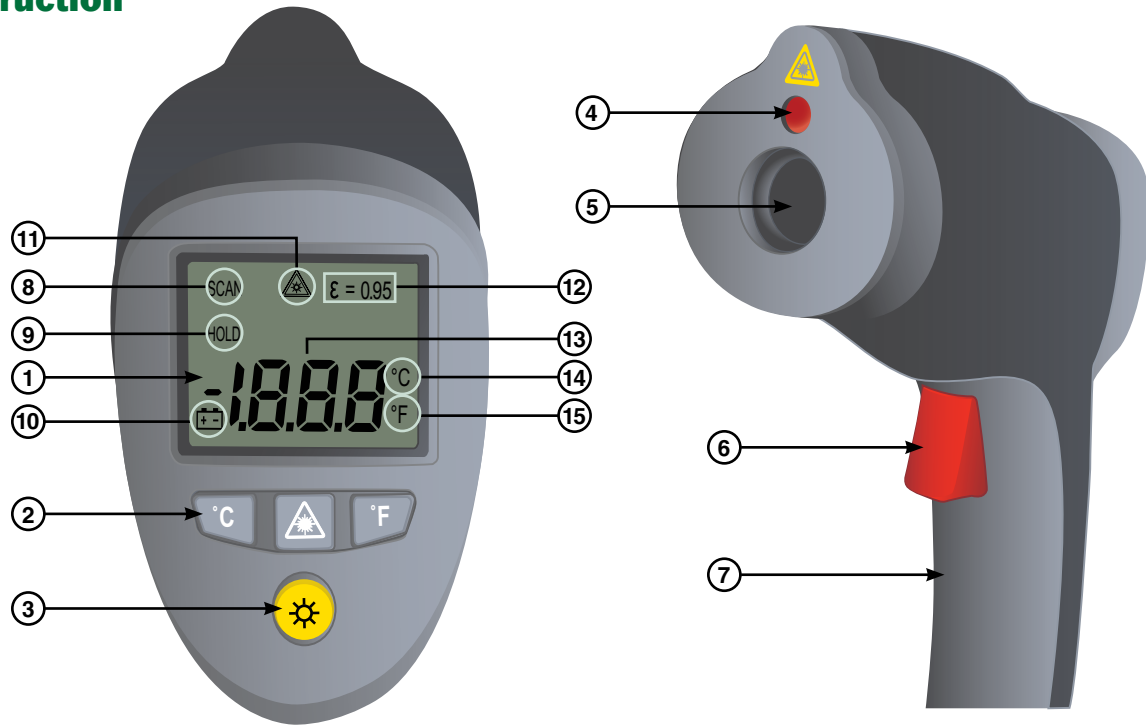
inch 5.0@60 3.0@36 1.0@12

mm 125@1500 75@900 25@300

**-58.0 to 1022°F (-50.0 to 550°C)**



## Construction



1. LCD Display
2. Temperature selection and backlight buttons
3. Laser target button
4. Laser pointer beam
5. IR Sensor
6. Measurement trigger
7. Battery cover
8. Measurement indication
9. Data hold indication
10. Low battery indication
11. Laser beam ON indication
12. Fixed emissivity  $\epsilon$  (0.95)
13. Digital temperature indication
14. Degrees in Celsius
15. Degrees in Fahrenheit

**Accessories**



*Model CA879 includes soft carrying case and user manual.*

<b>ORDERING INFORMATION</b>	<b>CATALOG NO.</b>
Infrared Thermometer Model CA879 .....	Cat. #2121.37

## Contact Us

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