



Infrared thermometer GM900



Detail-Beschreibung

A. Introduction

This infrared thermometer is used for measuring the temperature of the object's surface, which is applicable for various hot, hazardous or hard-to-reach objects without contact safely and quickly.

This unit consists of Optics, Temperature sensor signal amplifier, processing circuit and LCD display. The optics collect the infrared energy emitted by the object and focus it onto the sensor. Then the sensor translates the energy into an electrical signal. This signal will be turned out to be digital and shown on the LCD after the signal amplifier and processing circuit.

B. Functions:

1. Celsius / Fahrenheit switchable
2. Equipped with a laser for aiming
3. Temperature hold
4. LCD backlight
5. 20 seconds auto power off
6. Light weight and easy operation

C. Specification

Temperature Range	-50°C~900°C(-58°F~1652°F)
Accuracy	*0°C~900°C(32°F~1652°F): $\pm 1.5^{\circ}\text{C}(\pm 2.7^{\circ}\text{F})$ or $\pm 1.5\%$ *-50°C~0°C(-58°F~32°F): $\pm 3^{\circ}\text{C}(\pm 5^{\circ}\text{F})$ Whichever is greater
Resolution	0.1°C or 0.1°F
Repeatability	1% of reading or 1 °C
Response time	500 mSec, 95% response
Spectral response	8~14 μm
Emissivity	0.1 to 1.00 adjustable
Distance to Spot size	12:1
Operating Temperature	0°C~40°C(32°F~104°F)
Operating Humidity	10~95% RH non-condensing up to 30°C(86°F)
Storage Temperature	-20~60°C(-4°F~140°F)
Power	9V battery
Typical battery life	Non-laser mode: 22 hrs; Laser mode: 12 hrs
Weight	222g
Dimension	111x50x172mm

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Brand : BENETECH / Model: GM900

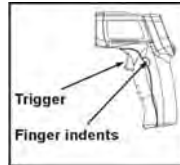
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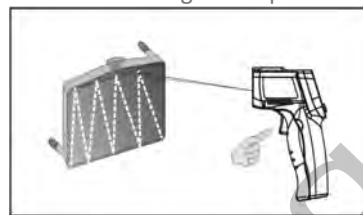


D. Operating instructions

a. Operating the unit



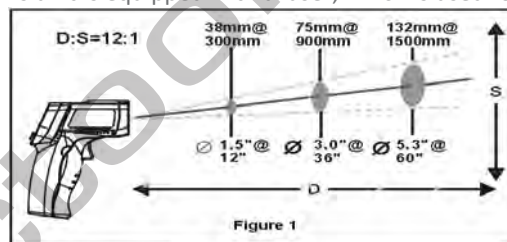
b. Locating a hot spot



c. Distance to spot size

When take measurement, pay attention to the Distance to spot size. As the Distance (D) from the target surface increases, the spot size (S) of the area measured by the unit becomes larger.

****This unit is equipped with a laser, which is used for aiming.



Make sure the target is larger than the unit's spot size. The smaller the target the closer measure distance. When accuracy is critical, make sure the target is at least twice as large as the spot size.

d. About the Emissivity:

Most organic materials and painted or oxidized surfaces have an emissivity of 0.95 (pre-set in the unit). Inaccurate readings will result from measuring shiny or polished metal surfaces. To compensate, cover the target surface with masking tape or flat black paint. Measure the tape or painted surface when the tape or painted reach the same temperature as the material underneath.

Material	Emissivity	Material	Emissivity
Aluminum	0.30	Iron	0.70
Asbestos	0.95	Lead	0.50
Asphalt	0.95	Limestone	0.98
Basalt	0.70	Oil	0.94
Brass	0.50	Paint	0.93
Brick	0.90	Paper	0.95
Carbon	0.85	Plastic	0.95
Ceramic	0.95	Rubber	0.95
Concrete	0.95	Sand	0.90
Copper	0.95	Skin	0.98
Dirt	0.94	Snow	0.90
Frozen food	0.90	Steel	0.80
Hot food	0.93	Textiles	0.94
Glass(plate)	0.85	Water	0.93
Ice	0.98	Wood	0.94

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