

**FLUKE®**

# **62 MAX/62 MAX +**

Infrared Thermometer

**Users Manual**

PN 4060712

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## ***Introduction***

The Fluke 62 MAX and 62 MAX + Infrared Thermometers (the Product) can determine the surface temperature by measuring the amount of infrared energy radiated by the target's surface. Note that the Japanese models indicate Celsius only.

### **Warning**

**Read all safety information before you use the Product.**

## ***How to Contact Fluke***

To contact Fluke, call one of the following telephone numbers:

- Technical Support USA: 1-800-44-FLUKE (1-800-443-5853)
- Calibration/Repair USA: 1-888-99-FLUKE (1-888-993-5853)
- Canada: 1-800-36-FLUKE (1-800-363-5853)
- Europe: +31 402-675-200
- Japan: +81-03-6714-3114
- Singapore: +65-6799-5655
- Anywhere in the world: +1-425-446-5500

Or, visit Fluke's website at [www.fluke.com](http://www.fluke.com).

To register your product, visit <http://register.fluke.com>.

To see, print, or download the latest manual supplement, visit <http://us.fluke.com/usen/support/manuals>.

## ***Safety Information***

A **Warning** identifies conditions and procedures that are dangerous to the user. A **Caution** identifies conditions and procedures that can cause damage to the Product or the equipment under test.

Table 1 tells you about symbols used on the Product and in this manual.



### **Warning**

**To prevent eye damage and personal injury:**

- **Read all safety Information before you use the Product.**
- **Do not use the Product if it operates incorrectly.**
- **Use the Product only as specified, or the protection supplied by the Product can be compromised.**
- **Before you use the Product, inspect the case. Do not use the Product if it appears damaged. Look for cracks or missing plastic.**






- **See emissivity information for actual temperatures. Reflective objects result in lower than actual temperature measurements. These objects pose a burn hazard.**
- **Do not look directly into the laser with optical tools (for example, binoculars, telescopes, microscopes). Optical tools can focus the laser and be dangerous to the eye.**
- **Do not look into the laser. Do not point laser directly at persons or animals or indirectly off reflective surfaces.**
- **Replace the batteries when the low battery indicator shows to prevent incorrect measurements.**
- **Do not use the Product around explosive gas, vapor, or in damp or wet environments.**
- **Use the Product only as specified or hazardous laser radiation exposure can occur.**

**Table 1. Symbols**

<b>Symbol</b>	<b>Meaning</b>	<b>Symbol</b>	<b>Meaning</b>
	Risk of danger. Important information. See Manual.		This product complies with the WEEE Directive (2002/96/EC) marking requirements. The affixed label indicates that you must not discard this electrical/electronic product in domestic household waste. Product Category: With reference to the equipment types in the WEEE Directive Annex I, this product is classed as category 9 "Monitoring and Control Instrumentation" product. Do not dispose of this product as unsorted municipal waste. Go to Fluke's website for recycling information.



**Table 1. Symbols (cont.)**

<b>Symbol</b>	<b>Meaning</b>	<b>Symbol</b>	<b>Meaning</b>
	Warning. Laser.		Conforms to European Union directives.
	Battery		Conforms to relevant Australian standards.
 沪制01120009号	Conforms to China Metrology Certification		

## ***Maintenance***

### **Caution**

**To avoid damage to the Product, do not leave the thermometer on or near objects of high temperature.**

#### ***How to Change the Battery***

To install or change the AA IEC LR06 battery, open the battery compartment and replace the battery as shown in Figure 16.

#### ***How to Clean the Product***

Use soap and water on a damp sponge or soft cloth to clean the Product case. Carefully wipe the surface with a moist cotton swab. The swab may be moistened with water. See Figure 17.

## Specifications

	<b>62 MAX</b>	<b>62 MAX +</b>
Temperature Range	-30 °C to 500 °C (-22 °F to 932 °F)	-30 °C to 650 °C (-22 °F to 1202 °F)
Accuracy (Calibration geometry with ambient temperature 23 °C ±2 °C)	<p>≥0 °C: ±1.5 °C or ±1.5 % of reading, whichever is greater (≥32 °F: ±3 °F or ±1.5 % of reading, whichever is greater)</p> <p>≥ -10 °C to &lt;0 °C: ±2 °C (≥14 °F to &lt;32 °F: ±4 °F)</p> <p>&lt; -10 °C: ±3 °C (&lt;14 °F: ±6 °F)</p>	<p>≥0 °C: ±1 °C or ±1 % of reading, whichever is greater (≥32 °F: ±2 °F or ±1 % of reading, whichever is greater)</p> <p>≥ -10 °C to &lt;0 °C: ±2 °C (≥14 °F to &lt;32 °F: ±4 °F)</p> <p>&lt; -10 °C: ±3 °C (&lt;14 °F: ±6 °F)</p>
Response Time (95 %)	<500 ms (95 % of reading)	<300 ms (95 % of reading)
Spectral Response	8 to 14 microns	
Emissivity	0.10 to 1.00	
Temperature Coefficient	±0.1 °C/°C or ±0.1 %/°C of reading (whichever is greater)	

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Optical Resolution	10:1 (calculated at 90 % energy)	12:1 (calculated at 90 % energy)
Display Resolution	0.1 °C (0.2 °F)	
Repeatability (% of reading)	±0.8 % of reading or ±1.0 °C (2 °F), whichever is greater	±0.5 % of reading or ±0.5 °C (1 °F), whichever is greater
Power	1 AA IEC LR06 Battery	
Battery Life	10 hours with laser and backlight on	8 hours with laser and backlight on
Weight	255 g (8.99 oz)	
Size	(175 x 85 x 75) mm (6.88 x 3.34 x 2.95) inches	
Operating Temperature	0 °C to 50 °C (32 °F to 122 °F)	
Storage Temperature	-20 °C to 60 °C (-4 °F to 140 °F), (without battery)	
Operating Humidity	10 % to 90 % RH non-condensing @ 30 °C (86 °F)	
Operating Altitude	2000 meters above mean sea level	
Storage Altitude	12,000 meters above mean sea level	

**Infrared Thermometer**  
**Standards and Agency Approval**

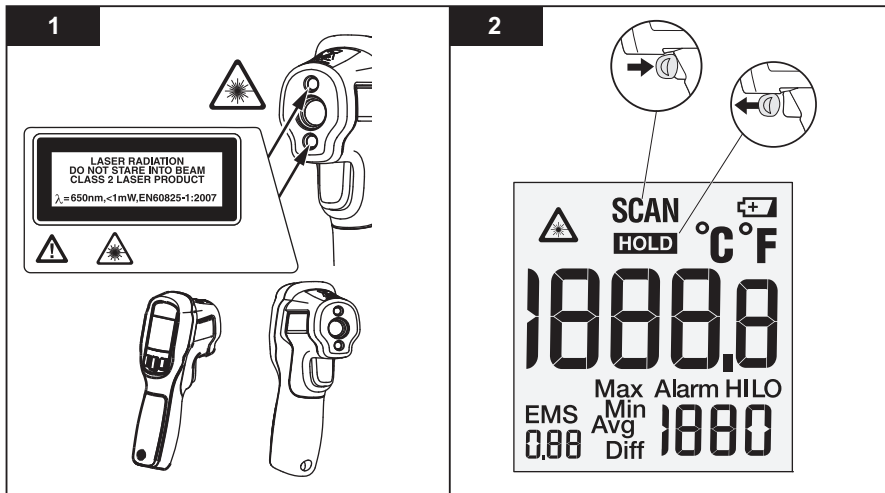
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Ingress Protection Rating	IP 54 per IEC 60529
Drop Test	3 meters
Vibration and Shock	IEC 60068-2-6 2.5 g, 10 to 200 Hz, IEC 60068-2-27, 50 g, 11 ms
EMC	EN 61326-1:2006 EN 61326-2:2006

***Standards and Agency Approval***

Compliance ..... EN/IEC 61010-1  
Laser Safety ..... EN 60825-1 Class 2  
Implement Standard ..... Q/SXAV37

## The Product



gtt01.eps

**3**

**4**

°F/°C

**5**

EMS

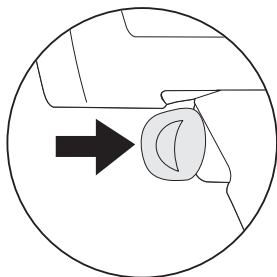
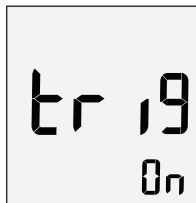
**5**

**6**

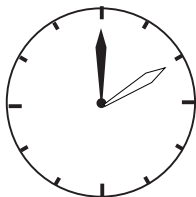
Max/Min/Avg/Diff

△ SCAN °F	△ SCAN °F	△ SCAN °F	△ SCAN °F
68.0	68.0	68.0	68.0
EMS 0.95 Max 90	EMS 0.95 Min 68	EMS 0.95 Avg 76	EMS 0.95 Diff 22
SEL	SEL	SEL	SEL

7



+



=

10 min



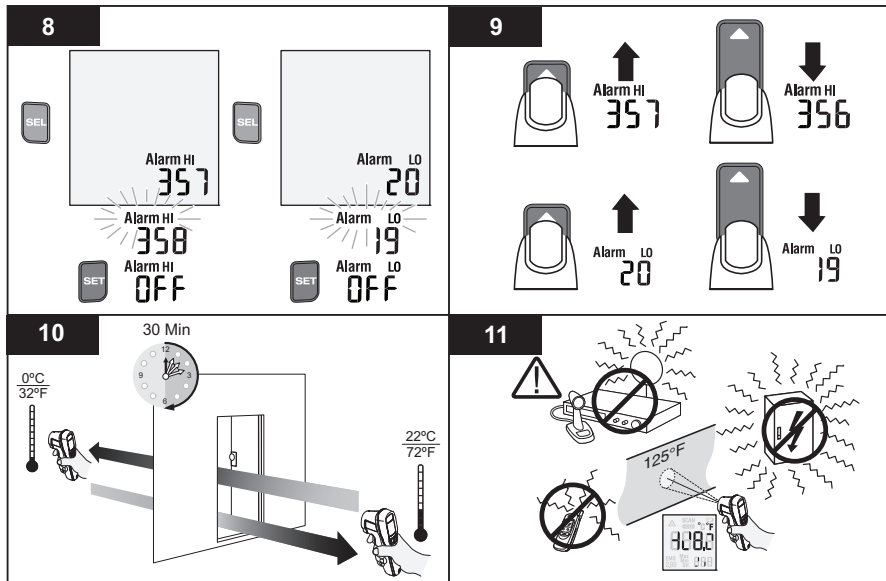
OFF

gtt16.eps



# Infrared Thermometer

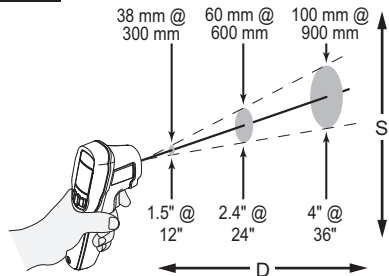
## The Product



# 62 MAX/62 MAX +

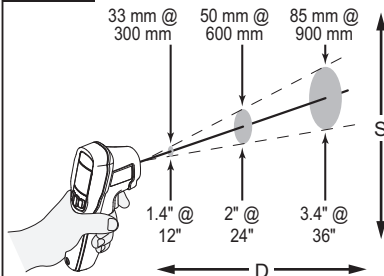
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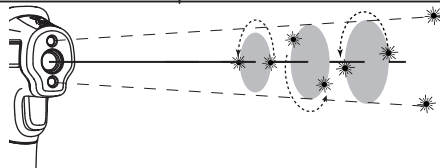


62 MAX  
D:S = 10:1

13



62 MAX +  
D:S = 12:1

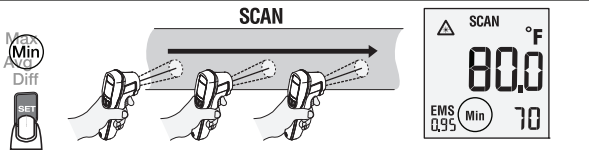
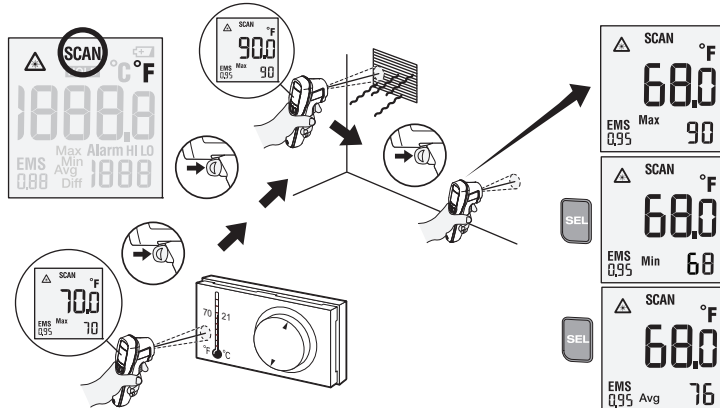


gtt08-11.eps

# Infrared Thermometer

## The Product

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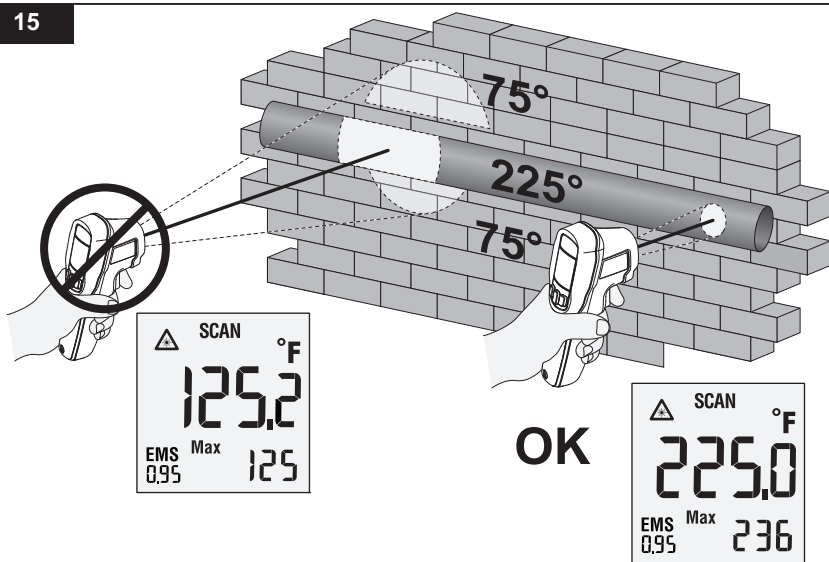
SEL

SEL

SEL

gtt03.eps

15



gtt04.eps

