

# IRC-110 Infrared Camera

## Check overload breakers, overheating motor/rotor and HVAC

The Amprobe IRC-110, a 20:1 distance to spot ratio infrared camera, is specifically designed for electrical, HVAC, mechanical, automotive applications with a temperature measurement range of 14 °F to 932 °F (-10 °C to 500 °C). Portable, ergonomic, and easy to operate, the IRC-110 allows for quick and accurate identification of temperature related issues for electrical connections and motors, HVAC functionality and performance, and heat loss spots on the insulation around buildings to save energy costs. It features adjustable emissivity, three different color palettes, selectable temperature units, multiple blending levels, center-point temperature measurement, hot and cold markers, and an auto off function.

## Features

- **Infrared heat map image blending** at 0 %, 25 %, 50 %, 75 %, and 100%
- **Three selectable color palettes** (grey scale, hot iron and rainbow)
- **Center-point temperature measurement** and focus free
- **IR measurement 20:1 Distance to Spot ratio**
- **Adjustable emissivity** from 0.10 to 1.00
- **Auto off function**
- **Selectable °F and °C**
- **Intuitive joystick navigation** to on-screen menu and settings
- **Hot and cold markers** instantly identify hottest and coldest spots



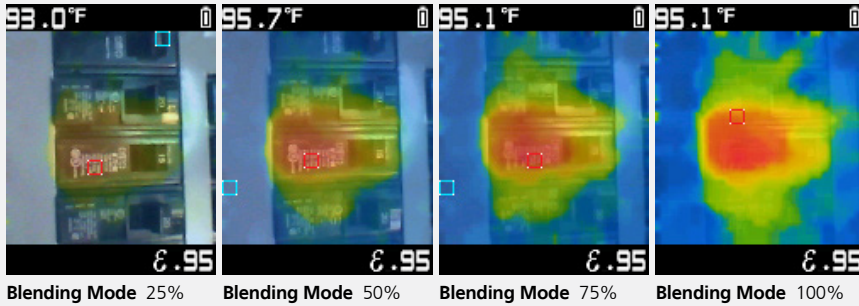
### Safety Certification

All Amprobe tools, including the Amprobe IR-110, are rigorously tested for safety, accuracy, reliability, and ruggedness in our state-of-the-art test lab. In addition, Amprobe products that measure electricity are listed by a 3rd party safety lab, either UL or CSA. This system assures that Amprobe products meet or exceed safety regulations and will perform in a tough, professional environment for many years to come.



**IR-110**  
Infrared Camera





**Applications:**

- **Electrical, HVAC, mechanical, and automotive**
- **Identify temperature related issues** for electrical connections and motors
- **Quickly verify HVAC** functionality and performance
- **Locate heat loss spots** on the insulation around buildings to save energy costs
- **Portable, ergonomic,** easy to operate

**Industries:**

- **Industrial Maintenance**
- **Heavy Commercial Facility Maintenance**
- **Oil & Gas Maintenance**
- **Reliability Inspections**
- **Heavy Building Diagnostics**
- **Electrical, Water & Gas Utilities**
- **Research & Development**

**Specifications**

Features	IR-110
Built-in digital camera	•
Infrared heat map overlay	Five blending modes: 0%, 25%, 50%, 75%, 100%
Color palettes	Grey Scale, Hot Iron, Rainbow
Field of view	33 ° x 33 °
Focus system	Focus free
IR temperature range	14 °F to 932 °F (-10 °C to 500 °C)
Distance to Spot ratio (D:S)	20:1
Emissivity	0.10 to 1.00
Display resolution	0.2 °F/0.1 °C
Hot and cold markers	•
Center point marker	•
Temperature units	Selectable °F/°C
Auto power off	•

Detailed Specifications	
Temperature measurement	Yes, center point
Temperature range	14 °F to 932 °F (-10 °C to 500 °C)
IR accuracy (calibration geometry with ambient temperature 23°C ± 2°C)	≥ 32 °F (≥ 0 °C): ± 4 °F (± 2 °C) or ± 2 % of the reading, whichever is greater < 32 °F (< 0 °C): ± 6 °F (± 3 °C)
Display resolution	0.2 °F / 0.1 °C
IR Repeatability	± 8 % of the reading or ± 2 °F (± 1 °C), whichever is greater
Temperature Coefficient	0.1 °C/°C or ± 0.1 %/°C of the reading, whichever is greater
Distance to spot	20:1
Minimum spot size	0.31 inches (8 mm)
Response time (95 %)	< 125 ms
Spectral response	8 μm to 14 μm
Emissivity	Digitally adjustable from 0.10 to 1.00 by 0.01
Visual image with infrared heat map overlay	Five blending modes (0%, 25%, 50%, 75% and 100%)
Visual to IR effective image alignment	≥ 10 inches
Image resolution	16,384 pixels (128 x 128 pixels)
Field of view	33 ° x 33 °
Thermal sensitivity	150 mK
Focus system	Focus free
Image palettes	Grey Scale (white hot), Hot Iron and Rainbow
Hot and cold marker	Yes
Display	1.77 in color TFT with 128 x 160 pixels
Operating temperature and humidity	32 °F to 122 °F (0 °C to 50 °C) 10 % to 90 % RH non-condensing at 86 °F (30 °C)
Storage temperature	-4 °F to 140 °F (-20 °C to 60 °C) without battery
Operating and storage altitude	< 6561 ft (< 2000 m)
Drop proof	4-feet (1.2 m)
Vibration and shock	IEC 60068-2-6, 2.5g, 10 to 200 Hz, IEC 60068-2-27, 50g 11ms
Power supply	Three (3) 1.5 V AA IEC LR6 alkaline batteries
Battery life	16 hours with display ON (Typical)
Auto power off	Selectable modes: OFF, 1 minute, 2 minutes, 5 minutes and 10 minutes
Certifications	
Electromagnetic Compatibility	EN 61326-1, EN 61326-2 Korea (KCC): Class A Equipment (Industrial Broadcasting & Communication Equipment) [1] [1] This product meets requirements for industrial (Class A) electromagnetic wave equipment and the seller or user should take notice of it. This equipment is intended for use in business environments and is not to be used in homes.
Size (H x W x L)	Approx. 7.3 x 2.1 x 4.1 in (185 x 54 x 104 mm)
Weight	Approx. 0.66 lb (0.3 kg)

Included: 3 x 1.5 V AA Batteries (not installed), User Manual