

LABWAN THERMAL IMAGER Handheld Infrared Thermal Imaging Camera

Product Description

The LABWAN Thermal Imager LW-024 is a handheld infrared thermal imaging instrument designed for rapid temperature measurement and visual identification of problem areas. It provides real-time thermal imaging with a -20°C to 550°C measurement range, making it suitable for electrical inspection, maintenance, infrastructure safety and various industrial applications.

Key Features

- Wide temperature measurement range of -20°C to 550°C
- 240 × 240 pixel thermal image resolution with 25 Hz frame rate
- Visual thermography for rapid fault detection
- Simultaneous tracking of highest, lowest and center-point temperatures
- High/low temperature alarm function
- Laser infrared positioning and measurement
- Built-in 4GB memory card
- BMP image storage and computer connectivity
- 15 color palettes for different thermal display modes
- Adjustable emissivity from 0.1 to 1
- Adjustable measuring distance from 0.3 m to 3 m
- IP54 waterproof and dustproof protection
- Drop resistance up to 1.5 m
- 50° × 50° wide-angle lens
- TFT LCD display with LED backlighting

Applications & Uses

- Electrical inspection and maintenance
- Infrastructure safety inspection
- Power-line inspection
- Industrial equipment troubleshooting
- Pipeline and circuit inspection
- Electronic manufacturing
- Firefighting applications
- Transportation inspection
- Agriculture and geology
- Energy and smelting applications
- Medical applications
- Preventive maintenance and rapid fault detection



Technical Specifications

Parameter	Specification
Product Name	Thermal Imager
Model Number	LW-024
Sensor Type	Vanadium oxide (VOX) microcalorimeter
Response Band	8–14 μ m
Thermal Image Resolution	240 x 240 Pixels
NETD	≤ 60 mK (@25°C, F#1.0)
Angle of View (FOV)	50.0°(H) x 50°(V) / 72.1°(D)
Spatial Resolution (IFOV)	8.89 mrad
Frame Rate	25 Hz
Focal Length of Imaging Lens	1.35 mm
Temperature Measuring Focal Length	0.3 m–3 m, Adjustable
Temperature Range	-20°C–550°C
Temperature Measurement Accuracy	$\pm 2^\circ\text{C}$ or $\pm 2\%$ of reading, whichever is larger
Temperature Measurement Unit	Celsius, Fahrenheit, Kelvin
Temperature Resolution	0.1°C
Emissivity	0.01–1.00, Adjustable
Temperature Measurement	Center point temperature measurement, high and low temperature tracking
Display Screen	2.4-inch TFT LCD
Display Resolution	320 x 240
Laser Pointer	Yes
Temperature Alarm	Screen font color alarm
Image Storage	Built-in memory card
Number of Image Files	30,000
Image Format	BMP
Protection Level	IP54
Installation Mode	Tripod mount UNC-20
Focus Mode	Auto focusing
Hardware Interface	Type-C USB
Battery Type	Rechargeable lithium battery (3.7V/2500mAh)
Battery Working Time	>7 h @25°C
Charging Time	<3 h @25°C
Charging Voltage/Current	5V/2A
Boot Speed	8 seconds
Automatic Shutdown	Disable by default; optional 10, 20, 30, 40, 50, 60 min or Disable
Operating Temperature	-10°C–50°C
Storage Temperature	-40°C–70°C
Working Humidity	<85% RH (Non-condensing)
Drop Resistance	1.5 m
Product Dimensions	193.4 x 59.4 x 77.4 mm
Product Weight	278 g