FLIR™
The Global Leader in Infrared Cameras

ThermaCAM® E45
INFRARED CAMERA

The E45 offers a solid value for those who seek to combine good performance and affordability in our handheld E-Series line.

- Accurate Temperature Measurement
- Weighs Only 1.5 lbs.
- Interchangeable Optics
- Built-in Laser LocatIR™
- Robust Post-Processing Capabilities
- Easy-view Color LCD
- JPEG Image Storage
- Highly Affordable

Find Problems Fast

Unlike other cameras, you can use the powerful, affordable E45 in all types of harsh industrial environments to find faults in electrical and mechanical systems quickly and accurately. Store up to 200 thermal images inside the camera for post-processing and analysis on the camera or after downloading to a PC.

Most Accurate Temperature Measurement

The E45 is the most accurate lightweight, handheld IR camera on the market today. The E45 sees temperature differences as small as 0.1° C and provides 19,000 picture elements in each image.

Lightweight, Rugged & Ergonomic

The E45 is built tough for hard work in the field and in all weather conditions and industrial environments — a critical design capability. Dust and splash proof, the E45 meets IP 54 standards. Unlike other cameras that might be "lab calibrated," the E45 won't seize-up in freezing cold, extreme heat or other harsh conditions. Its exclusive Ambient Temperature Compensation (ATC) technology assures accuracy under the most challenging ambient temperature conditions.

Download and Document

Download thermal images with measurements to your PC quickly with ThermaCAM QuickView™ software and standard USB or serial cables. ThermaCAM Reporter software enables automatic report generation, capturing thermal images and text, and seamlessly integrating with standard word processing programs.

Flexible JPEG Image Storage with Post Processing

Store and recall up to 200 calibrated thermal images using the camera's on-board memory. The E45's radiometric JPEG image format allows you to go back to any image at any time to add and move spots, measure temperatures, and perform analysis you may have missed in the field.

View Sensitive Thermal Images

A maintenance-free, state-of-the-art uncooled FPA infrared detector produces crisp thermal images that reveal subtle temperature variations that can signal electro-mechanical problems. The E45 can detect problems before they become critical, helping you increase safety, reduce production downtime, and eliminate potential fires.

Pinpoint Problems with Precision

The built-in Laser LocatIR™ projects a bright red dot on the target that enables you to associate the IR image with the real physical target. This feature greatly enhances worker safety by eliminating the tendency to "finger point" at problems in potentially hazardous electrical environments.

Interchangeable Optics

Many targets in your facility cannot be imaged or measured properly without the proper optics. Optional lenses are available for the E45 to meet your application needs. A telescope lens is ideal for inspecting distant targets such as overhead power lines. A wide angle lens can more than double the standard field-of-view for evaluating large objects from a short distance, such as roofs and electrical panels.

Smart Power Management

Lightweight, longlife Li-Ion batteries assure uninterrupted inspections. The E45 includes an external 2-bay battery charger and an internal battery charger. A 12 VDC car/truck charger adapter is also available.

ThermaCAM® E45 Technical Specifications

Imaging Performance	
Field of view/min focus distance	Interchangeable; 19° x 14° / 0.3 m, 9° x 7° / 1.2m or 34° x 25° / 0.1m
Thermal sensitivity	0.1° C at 25° C
Detector type	Focal plane array (FPA) uncooled microbolometer 160 x 120 pixels
Spectral range	7.5 to 13µm
Image Presentation	
Display	Color LCD, 320 x 240 pixels in IR image
Image Controls	Palettes (Iron, Rainbow, B/W, B/W inv), Level, Span Auto adjust (continuous/manual)
Measurement	
Temperature ranges	-20° C to +250° C (-4° F to +482° F) (standard) +250° C to +900° C (+482° F to +1,652° F) (optional)
Accuracy	± 2° C or ± 2% of absolute temperature in ° C
Measurement modes	1 movable spot, area max, area min, area average, color alarm above or below
Set-up controls	Date/time, Temperature units °C/°F, Language (English, Spanish), Scale, Info field, LCD intensity (high/normal/low)
Measurement corrections	Reflected ambient. Automatic, based on user-input
Image Storage	
Digital storage functions	Freeze, Standard Calibrated JPEG images, Delete all images, Delete image, Open
Image storage capacity	Approx. 200 Calibrated JPEG Images with image gallery
Laser LocatIR ™	
Classification	Class 2
Type	Semiconductor AlGainP Diode Laser: 1mW/635 nm (red)
Power Source	
Battery type	Li-Ion; rechargeable, field replaceable
Battery operating time	2 hours. Display shows battery status
Battery charging	In camera (AC adapter or 12V from car) or 2 bay intelligent charger
AC operation	In camera, AC adapter or 12V from car with optional 12V cable. 2 bay intelligent charger included.
Voltage	11-16VDC
Power saving	Automatic shutdown and sleep mode (user-selectable)
Environmental	
Operating temperature range	-15° C to +50° C (+5° F to 122° F)
Storage temperature range	-40° C to +70° C (-40° F to 158° F)
Humidity	Operating and storage 20% to 80%, non-condensing, IEC 359
Water and dust resistant (encapsulation)	IP 54
Shock	25G, IEC 68-2-29
Vibration	2G, IEC 68-2-6
Physical Characteristics	
Weight	< 1.5 lbs. (0.7 kg) including battery (with standard lens)
Size (L x W x H)	258mm x 80mm x 105mm (10.2" x 3.2"" x 4.1")
Color	Titanium grey
Tripod mounting	Standard, 1/4" - 20

Camera includes:
IR camera with built-in Laser LocatIR™
Ruggedized transport case
Power supply and cord
Hand strap
Lens cap
ThermaCAM® QuickView™ software
USB cable
Video-out cable
User manual
Battery (2)
2-Bay battery charger
Training CD
Interchangeable lenses (optional)
2X Telescope (9° X 7° / 1.2m)
0.5X Wide angle (34° X 25° / 0.1m)
Interfaces

IrDA	Two-way data transfer from laptop, PDA

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