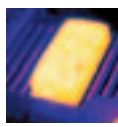
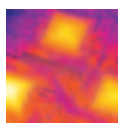
FLIR SYSTEMS

ThermaCAM™ E45

Affordable infrared camera with analysis capability

- Extremely high thermal sensitivity
- Unparalleled image quality
- Useable in all weather conditions (IP54)
- Records images at a frame rate of 50 Hz
- Standard JPEG image storage (up to 200 images)
- A wide range of accessories and lenses
- Short focus distance
- Compatible with ThermaCAM™ Reporter™ software
- ThermaCAM QuickView™ included





Infrared troubleshooting in the palm of your hand

ThermaCAM™ E45: Affordable infrared camera with analysis capability

The ThermaCAM E45 is a rugged, ultra-light, easy-to-use infrared camera. It produces fully radiometric images, allowing you to measure the temperature of objects accurately. It captures images at a speed of 50 Hz making it possible to scan moving targets.

The ThermaCAM E45 has been especially developed for those applications that need instant infrared troubleshooting.

Rugged, ergonomic and lightweight

Dust- and splashproof, the E45 meets IP54 standards and withstands harsh industrial environments. Hold the ThermaCAM E45 in your hand. Clip it to your belt or put it in your toolbox. With a weight of less than 700 grams, the E45 is the lightest infrared camera in the world.

View sensitive thermal images at real-time frame rates (50 Hz)

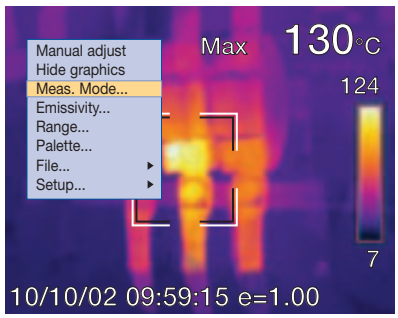
If you really want to detect subtle temperature variations that can signal significant problems on moving targets, you need to capture images at a speed of 50 Hz. Capturing images at a lower frame rate results in a disturbed image so that potential problem spots can be overlooked.

Flexible JPEG image storage

The camera stores up to 200 infrared pictures in low density JPEG format, giving you instant visibility of the images stored in the field. Since all images are in JPEG format you can easily share them with your colleagues. There is no need to use special viewing software.

Locate and analyze problems fast

Analyze problems and share results with your colleagues in the field. Movable crosshairs allow you to measure and analyze the temperature at a single point. Find the hottest spot in a defined area, highlight areas of concern with color alarms. The ThermaCAM E45 has the analysis tools you need to make instant decisions.



Movable crosshair: not just a fixed spot in the middle

The ThermaCAM E45 produces full temperature measurement capabilities on both live and saved images for each of the 19,200 pixels (120 x 160 array). A joystick allows to move the crosshairs over the image. A considerable advantage over having just one fixed spot in the middle of the image.

ThermaCAM QuickView™: basic reporting software included

The ThermaCAM E45 comes with the ThermaCAM QuickView software included. This allows you to do basic post-analysis of your captured IR images and to make simple reports in a PDF-format.

Microsoft Word® based ThermaCAM Reporter™ software is optionally available.

Smart power management

No need to worry about batteries dying and losing valuable inspection time. The lightweight, long-life Li-Ion battery ensures uninterrupted inspections. It runs up to 2 hours and the ThermaCAM™ E45 features an internal battery charger. A 2-battery charging system is also included. It features a car/truck charger adapter so that you can charge the camera on the way to your next job.

Precision temperature measurement
extraordinary image quality

The E45 delivers unmatched temperature measurement accuracy. The result is a thermal sensitivity of 0.10°C and clear, noise-free, excellent quality images, displayed on the camera's 2.5" colour LCD.

Pinpoint problems safe and with precision with the LocatIR™

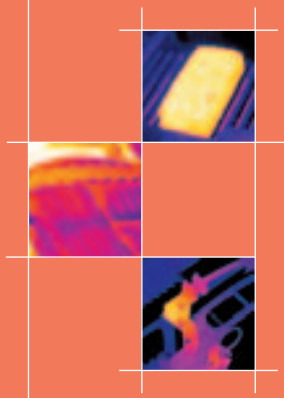
The built-in Laser LocatIR™ quickly helps you to associate a hot spot on the IR image with the real physical target. This greatly enhances user safety by eliminating the tendency to 'finger point' at problems in low- and high-voltage environments.

Easy operation

At the touch of a button you can easily change colour palettes, emissivity settings, temperature ranges and other analysis tools. Built-in menu systems provide easy access to advanced yet simple to use software.

A wide range of accessories

When doing predictive maintenance inspections, you might end up in situations where you do not have the room to step back. A wide angle range is than the perfect solution. When you are looking at objects which are a distance away you can use a telephoto lens. To ensure perfect images on the LCD display in direct sunlight a sunshield is available.



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TECHNICAL SPECIFICATIONS

IMAGING PERFORMANCE

Field of view/min focus distance	Typical 19° x 14°/0.3 m (with 17 mm lens)
Thermal sensitivity	0.10°C at 30°C
Image frequency	50/60 Hz non-interlaced
Focus	Manual
Detector type	Focal Plane Array (FPA), uncooled microbolometer 160 x 120 pixels
Spectral range	7.5 to 13 µm
Optical resolution (with 36 mm lens)	300:1

IMAGE PRESENTATION

Video output	PAL or NTSC, standard RCA composite video
External display	2.5" color LCD, 16K colors

MEASUREMENT

Temperature range	-20°C to +250°C (-4°F to +482°F) up to +900°C optional
Accuracy	±2°C, ±2%
Repeatability	±1°C, ±1%
Measurement mode	Movable spot, area max, area min, area average, isotherm
Menu controls	Palettes (iron, rainbow, B&W, B&W inverse), auto-adjust (continuous/manual)
Set-up controls	Date/time, temperature units °C/°F, language, scale, info field, LCD intensity (high/normal/low)
Measurement corrections	Emissivity variable from 0.1 to 1.0, reflected ambient

IMAGE STORAGE

Type	Built-in FLASH memory (up to 200 images)
File formats	Standard JPEG

LENSES (OPTIONAL)

2 x Telescope	Typical 9° x 7°/1,2 m (with 36 mm lens)
0.5 Wide angle	Typical 34° x 25°/0,1 m (with 9 mm lens)
0,25 Wide angle	Typical 60 x 45°/0,1 m (with 4,5 mm lens)

adapt your camera to EVERY situation

LASER LOCATIR™

Classification	Class 2
Type	Semiconductor AlGaInP Diode Laser: 1mW/635 nm red

BATTERY SYSTEM

Type	Li-Ion, rechargeable, field replaceable
Operating time	2 hours continuous operation. Display shows battery status
Charging system	In camera, AC adapter or 12 V from car (with optional Std. cable) 2 bay intelligent charger, 12 V
AC operation	AC adapter 90-260 V AC, 50/60 Hz, 12 V DC out
Voltage	11-16 V DC
Power saving	Automatic shutdown and sleep mode (user selectable)

ENVIRONMENTAL SPECIFICATION

Operating temperature range	-15°C to +45°C (+5°F to +113°F)
Storage temperature range	-40°C to +70°C (-40°F to +158°F)
Humidity	Operating and storage 20% to 80%, non-condensing
Encapsulation	IP54, IEC 359
Shock	Operational: 25G, IEC 68-2-29
Vibration	Operational: 2G, IEC 68-2-6

PHYSICAL CHARACTERISTICS

Weight	700 g (1.5 lbs.), incl. battery with 17mm lens
Size	265 mm x 80 mm x 105 mm (10.4" x 3.1" x 4.1")
Tripod Mounting	1/4" - 20
Cover case	Plastic and rubber

INTERFACES

USB	Image transfer to PC
RS-232 cable (optional)	Image transfer to PC
Video output	standard RCA composite video

THERMACAM E45 INCLUDES:

IR camera, Carrying case, Power supply, Handstrap, Lens cap, ThermaCAM QuickView™ Software, USB cable, User manual, Power cord, Battery (2), Battery charger