

# ThermaCAM® E4

*The ThermaCAM® E4 is still the smallest, smartest infrared camera on the market today.*

*Now with post-processing capabilities and the world's most powerful infrared detector, the E4 offers unmatched temperature measurement accuracy and the best image quality.*

*Interchangeable optics and calibrated for harsh environments, the E4 is rugged yet flexible, feature rich and affordable.*



- MOST ACCURATE TEMPERATURE MEASUREMENT
- BEST IMAGE QUALITY
- INTERCHANGEABLE OPTICS
- BUILT-IN LASER LOCATIR™
- ROBUST POST PROCESSING CAPABILITIES
- WORLD'S BEST INFRARED DETECTOR
- EASY-VIEW 2.5" COLOR LCD
- EASY-TO-USE



## FIND PROBLEMS FAST

Unlike other cameras, you can use the E4 in all types of harsh industrial environments to find faults in electrical and mechanical systems fast, easy and accurately. Store images inside the camera for post-processing and analysis later.

## MOST ACCURATE TEMPERATURE MEASUREMENT

Using the world's best infrared detector material, vanadium oxide, the E4 delivers unmatched temperature measurement accuracy. The E4 lets you measure any one of 19,000 picture elements in each image and is the most accurate lightweight, handheld IR camera on the market today.

## LIGHTWEIGHT, RUGGED & ERGONOMIC

Designed to work where you work, the E4 is calibrated to work in the field and in all weather conditions or industrial environments — a critical design element. Dust and splash proof, the E4 meets IP 54 standards and outperforms other cameras that might be "lab calibrated." The E4 won't seize-up in freezing cold, extreme heat or other harsh conditions.

## DOWNLOAD AND DOCUMENT

Download thermal images with measurements to your PC quickly with ThermaCAM Connect™ software and standard USB or serial cables. Document your findings simply by inserting JPEGS into your favorite word processing programs.

## FLEXIBLE JPEG IMAGE STORAGE WITH POST PROCESSING

Store and recall up to 100 calibrated thermal images using the camera's on-board memory. The E4's robust infrared post-processing software allows you to go back to any image at any time to fix spot temperatures or perform all types of temperature measurement analysis you may have missed in the field.

## VIEW SENSITIVE THERMAL IMAGES AT STANDARD TV RATES

A maintenance-free, state-of-the-art uncooled FPA infrared detector produces highly sensitive thermal images that highlight subtle temperature variations that can signal significant electro-mechanical problems. TV rate imaging (60hz) allows you to quickly scan bus ducts or fast moving targets.

## PINPOINT PROBLEMS WITH PRECISION

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

## INTERCHANGEABLE OPTICS

Many targets in your facility can not be imaged or measured properly without the proper optics. Optional lenses are available to meet your application needs. A telescope lens is ideal for inspecting distant targets such as overhead power lines. A wide angle lens nearly doubles the E4's standard field-of-view making it perfect for evaluating large objects from a short distance, such as roofs and electrical panels.

## SMART POWER MANAGEMENT

Lightweight, longlife Li-Ion battery assures uninterrupted inspections. E4 includes an internal battery charger and car/truck charger adapter.

## IMPROVE PLANT SAFETY

Poor electrical connections are the leading cause of fires. The E4 detects electrical problems before they become critical, helping you increase safety, reduce production downtimes, and eliminate potential fires.

# THERMACAM® E4 TECHNICAL SPECIFICATIONS

## IMAGING PERFORMANCE

Field of view/min focus distance	25° x 19° / 0.3 m
Thermal sensitivity	0.12°C
Detector type	Focal plane array (FPA) uncooled microbolometer
Spectral range	7.5 to 13 µm

## IMAGE PRESENTATION

Display	2.5" color LCD, 16K colors
Video Output	NTSC, standard RCA composite video
Image Controls	Palettes (Iron, Rainbow, B/W, B/W inv), Level, Span Auto adjust (continuous/manual)

## MEASUREMENT

Temperature range	-20°C to +250°C (-4°F to +482°F)
Accuracy	± 2 °C or ± 2% of absolute temperature in °C
Measurement modes	3 movable spots, 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	100 Calibrated JPEG Images

## LASER LOCATIR™

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

## POWER SOURCE

Battery type	Li-Ion
Battery operating time	1.5 hours. Display shows battery status
Battery charging	In camera, AC adapter or 12V from car with optional 12V cable. Optional 2 bay intelligent charger
AC operation	AC adapter, 90-260VAC, 50/60Hz/12VDC out
Voltage	11-16VDC
Power saving	Automatic shutdown and sleep mode (user-selectable)

## ENVIRONMENTAL

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, 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
Size (L x W x H)	265mm x 80mm x 105mm (10.4" x 3.2" x 4.1")
Color	Titanium grey
Tripod mounting	Standard, 1/4" - 20
Cover case	Plastic and rubber

## INTERFACES

USB	Image transfer to PC
RS 232 cable (optional)	Image transfer to PC

## SOFTWARE

Compatible with ThermoCAM® Reporter BASIC

## THERMACAM® E4 SYSTEM INCLUDES:

- IR camera
- Ruggedized transport case
- Power supply
- Hand strap
- Lens cap
- ThermoCAM® Connect™ Software
- USB cable
- User manual
- Power cord
- Battery
- Training CD

## INTERCHANGEABLE LENSES

2X Telescope (12" X 9°/1.2m)  
0.5X Wide angle (45° X 34°/0.1m)

SMART  
VALUE  
OPTION



*Infrared is the only technology that can accurately and quickly locate faults before failures, shutdowns, or even fires occur.*



The Global Leader in Infrared Cameras

1-800-GO-INFRA  
www.flirthermography.com/E4data

FLIR SYSTEMS, BOSTON  
Americas Thermography Center  
16 Esquire Road  
North Billerica, MA 01862  
Telephone: +1 (978) 901-8000  
Toll Free: +1 (800) GO-INFRA

FLIR SYSTEMS, AB  
Worldwide Thermography Center  
Rinkebyvagen 19  
SE-182 11  
Danderyd, SWEDEN  
Telephone: +46 (0) 8 753 25 00

FLIR SYSTEMS, LTD  
5230 South Service Road, Suite 125  
Burlington, ON L7L 5K2  
CANADA  
Telephone: +1 800 613 0507