Solenvis
experts in energy metering

FLIR

FLIR E-Series

Thermal imaging cameras for predictive maintenance inspections

The FLIR E-Series are small and lightweight thermal imaging cameras designed for those needing higher resolution and more features and for whom documentation of findings are important.

- Up to 320x240 pixels
- High quality visual camera
- LCD touch screen
- Built-in LED light
- Laser Pointer
- MeterLink™

www.flir.com

FLIR E-Series

Lightweight design
Heavyweight performers

With an image quality of up to 320 x 240 pixels, the FLIR E-Series is ideal for predictive maintenance and planned inspection of electrical and mechanical systems to ensure they operate at maximum efficiency and safety with minimal energy consumption.

What is MeterLink™?

FLIR MeterLink technology simplifies the work in electrical inspections by making it possible to transfer, via Bluetooth, the data acquired by an Extech clampmeter into the thermal imaging camera. The MeterLink technology saves time and eliminates the risk of erroneous records or notes.

Readings of current or voltage from a MeterLink Extech clamp meter are transmitted directly into the FLIR camera and the IR image.

Large and bright LCD
Sharp thermal images and easy-to-read temperature values are presented on the touch screen LCD display.

Laserpointer and LED light
Activate the built in laser pointer and associate the hot spot you see on the LCD with the real target in the field. A LED light assures clear visual images.

Easy-to-use
The E-Series is equipped with an LCD touch screen that allows control of all functions. Easy accessible control buttons are also available.

Wifi
Transfer images wirelessly to a smart phone or tablet PC.

Thermal Fusion
Merges visual and infrared images to offer better analysis.

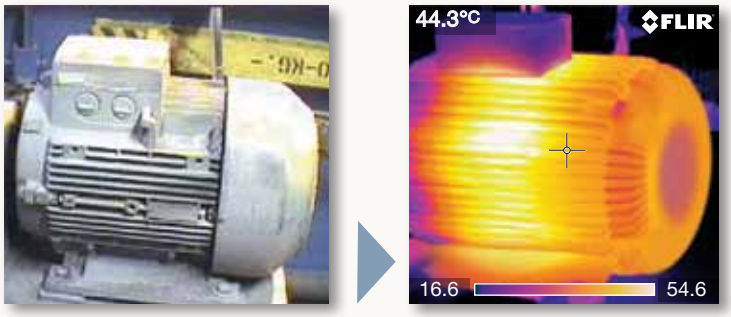
Picture-in-Picture (PiP)
With the PiP-function it is easy to locate areas of interest.

Instant reports
Create instant reports directly in camera. Easy to copy reports to USB.

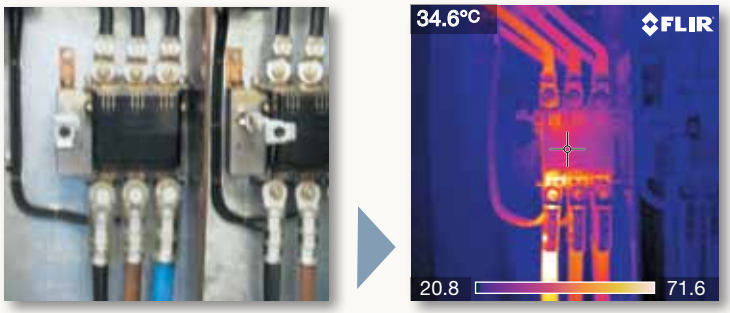
Text and voice annotations
Text comments can be made from a pre-defined list or by using the touch screen. A headset can be connected to make voice annotations.

Visual camera
3 Megapixel visible light camera makes observing and inspecting faster and easier.

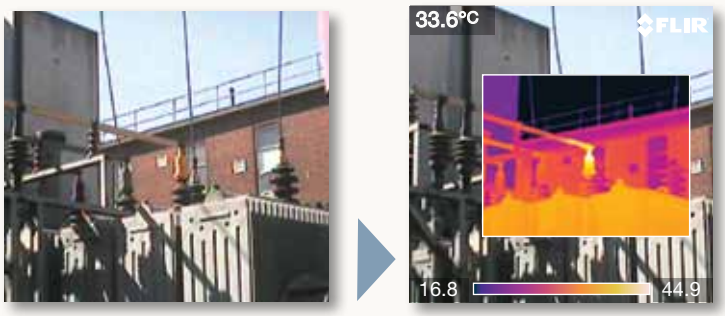
** Features dependant on camera model, please check technical specifications for more details.*



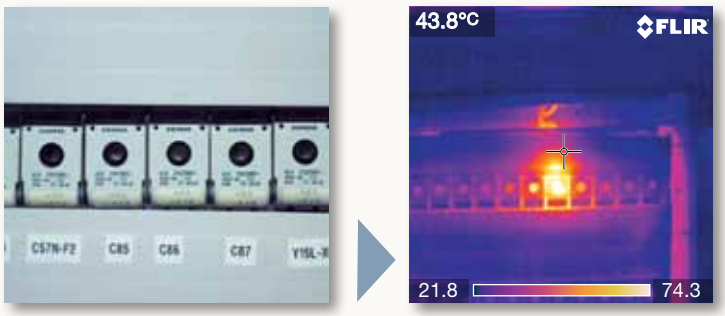
Internal winding problems and other defaults in motors and mechanical systems become clearly visible on the LCD touch screen of the FLIR E-Series.



Loose or badly connected cables start to overheat. If left unrepaired, heat can rise to a point where cables start to melt or, even worse, set the environment on fire.



The Picture-in-Picture feature helps to spot and highlight sensitive or dangerous temperature developments and makes report interpretation easy.



The thermal image clearly shows a defect or an overheated fuse. It can have very severe consequences. An entire production line can be shut down for several hours if this problem is not timely fixed.

Technical specifications

	FLIR E30	FLIR E40	FLIR E50	FLIR E60
Imaging Performance				
IR resolution	160 × 120 pixels	160 × 120 pixels	240 × 180 pixels	320 × 240 pixels
Spatial resolution	2.72 mrad	2.72 mrad	1.82 mrad	1.36 mrad
Thermal sensitivity	< 0.1 °C	< 0.07 °C	< 0.05 °C	< 0.05 °C
Zoom	N/A	1-2x continuous digital zoom	1-4x continuous digital zoom	1-4x continuous digital zoom
Image presentation				
Picture in Picture	N/A	IR area on visual image	Scalable IR area on visual image	Scalable IR area on visual image
Thermal Fusion	N/A	N/A	Yes	Yes
Measurement				
Object temperature range	–20°C to +120 °C / 0°C to +250 °C	–20°C to +120 °C / 0°C to +650 °C	–20°C to +120 °C / 0°C to +650 °C	–20°C to +120 °C / 0°C to +650 °C
Measurement analysis				
Spotmeter	1	3	3	3
Area	1 box with min./max./average	3 boxes with min./max./average	3 boxes with min./max./average	3 boxes with min./max./average
Difference temperature	N/A	Delta temperature between measurement functions or reference temperature	Delta temperature between measurement functions or reference temperature	Delta temperature between measurement functions or reference temperature
Reporting				
Instant report	N/A	N/A	N/A	Yes
Digital camera				
Built-in digital camera	N/A	3.1 Mpixels, and one LED light	3.1 Mpixels, and one LED light	3.1 Mpixels, and one LED light
Image annotations				
Voice	N/A	60 seconds via Bluetooth®	60 seconds via Bluetooth®	60 seconds via Bluetooth®
Text	N/A	Text from predefined list or soft keyboard on touch screen	Text from predefined list or soft keyboard on touch screen	Text from predefined list or soft keyboard on touch screen
External sensors	N/A	Possible to connect, via Bluetooth, Extech Moisture meter MO297 or Extech clamp meter EX845	Possible to connect, via Bluetooth, Extech Moisture meter MO297 or Extech clamp meter EX845	Possible to connect, via Bluetooth, Extech Moisture meter MO297 or Extech clamp meter EX845
Image storage				
Type	IR images	IR/visual images; simultaneous storage of visual and IR images	IR/visual images; simultaneous storage of visual and IR images	IR/visual images; simultaneous storage of visual and IR images
Data communication interfaces				
Bluetooth®, WiFi	N/A	Yes	Yes	Yes

General

Imaging Performance	
FOV / Minimum focus distance	25° × 19° / 0.4 m
Spectral range	7.5–13 µm
Image frequency	60 Hz
Focus	Manual
Focal Plane Array (FPA)	Uncooled microbolometer
Image presentation	
Display	Built-in 3.5" LCD touch screen, 320 × 240 pixels
Image modes	IR image, thumbnail gallery
Measurement	
Accuracy	±2 °C or ±2% of reading
Measurement analysis	
Automatic hot/cold detection	Auto hot or cold spotmeter markers within area
Emissivity correction	Variable from 0.01 to 1.0 or selected from list of materials
Measurement corrections	Reflected temperature, optics transmission and atmospheric transmission
Isotherm	Detect high/low temperature/interval
Set-up	
Image controls	Palettes (Arctic, Gray, Iron, Lava, Rainbow and Rainbow HC), image adjustment (auto/manual)
Set-up controls	Local adaptation of units, language, date and time formats; automatic shutdown , display intensity
Image storage	
Format	Standard JPEG - including measurement data on SD memory card
Laser pointer	
Laser	Position is displayed on the IR image
Power	
Battery type	Lithium-Ion (field replaceable) - 4 hours operating time
Charging system	In camera, AC adaptor, 2-bay charger or 12 V from a vehicle
Power management	Automatic shutdown (user selectable)
AC operation	AC adaptor, 90-260 V AC
Adaptor voltage	12 V output to camera
Environmental specifications	
Operating temperature range	-15 to +50 °C
Storage temperature range	-40 to +70 °C
Humidity	IEC 60068-2-30/24 h 95% relative humidity +25 °C to +40 °C / 2 cycles
Shock / Vibration	25 g (IEC 60068-2-29) / 2 g (IEC 60068-2-6)
Encapsulation	IP 54 (IEC 60529)
Data communication interfaces	
Interfaces	USB-mini, USB-A, Composite video
USB	USB-A: Connect external USB device - USB-mini-B: Data transfer to and from PC / Streaming MPEG 4
Physical characteristics	
Camera weight, incl. battery	0.825 kg
Camera size (L × W × H)	246 × 97 × 184 mm
Shipping size	560 x 370 x 190 mm
Shipping weight	5.3 kg

Standard package

FLIR E30, FLIR E40, FLIR E50 or FLIR E60: Hard transport case, Thermal imaging camera with lens, Battery, Hand strap, Calibration certificate, FLIR Tools Software CD-ROM, Memory card, Lens cap, Power supply incl. multiplugs, Printed Getting Started Guide, Printed Important Information Guide, USB cable, User documentation CD-ROM, Video cable, Warranty extension card or Registration card

Specifications are subject to change without notice. Weights and dimensions are indicative. Imagery used for illustration purposes only.