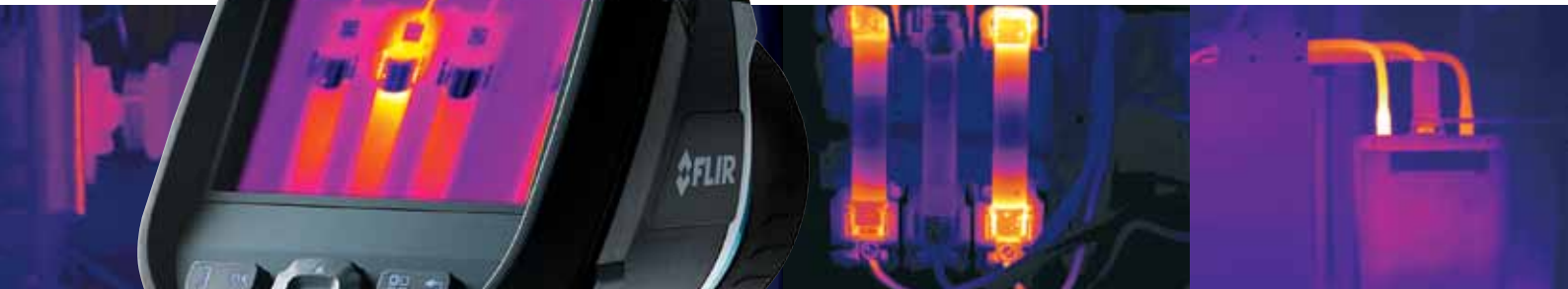




FLIR E-Series

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™

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

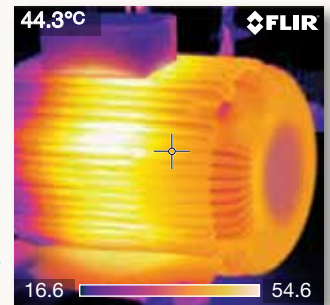
Text comments can be made from a pre-defined list or by using the touch screen. A headset can be connected to make voice annotations.



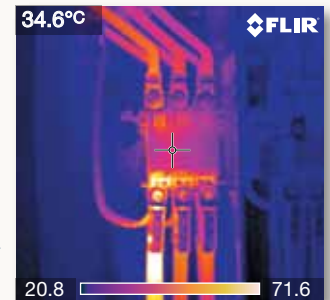
Visual camera

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

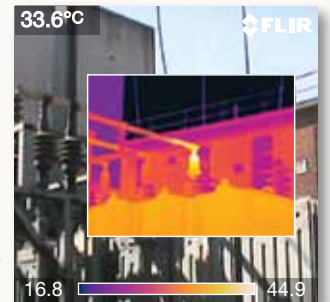
** Features dependant on camera model, please check technical specifications for more details.*



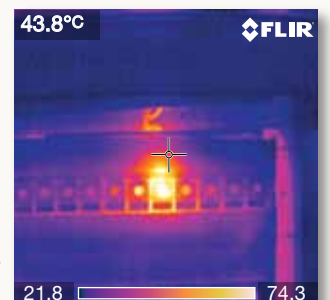
Internal winding problems and other defaults in motors and mechanical systems become clearly visible on the LCD touch screen of the FLIR E-Series.



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.

FLIR E-Series specifications

Camera specific

	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, incl. panning	1-4x continuous digital zoom, incl. panning	1-4x continuous digital zoom, incl. panning

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
Image modes	IR image, visual image, thumbnail gallery	IR image, visual image, thumbnail gallery	IR image, visual image, thermal fusion, picture-in-picture, thumbnail gallery	IR image, visual image, thermal fusion, picture-in-picture, thumbnail gallery

Measurement

Object temperature range	-20°C to +120 °C / 0°C to +350 °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
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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
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Digital camera

Built-in digital camera	2 Mpixels, and one LED light	3.1 Mpixels, and one LED light	3.1 Mpixels, and one LED light	3.1 Mpixels, and one LED light
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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
MeterLink	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

Data communication interfaces

Bluetooth®, WiFi	N/A	Yes	Yes	Yes
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Video streaming/recording

Non-radiometric IR-video recording	N/A	MPEG4 to memory card	MPEG4 to memory card	MPEG4 to memory card
Radiometric IR-video streaming	N/A	Full dynamic to PC using USB	Full dynamic to PC using USB	Full dynamic to PC using USB
Non-radiometric IR-video streaming	N/A	Uncompressed colorized video using USB	Uncompressed colorized video using USB	Uncompressed colorized video using USB

General specifications

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
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Measurement

Accuracy	±2 °C or ±2% of reading
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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

Laser pointer

Laser alignment	Position is displayed on the IR image
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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
Type	IR/visual images; simultaneous storage of visual and IR images

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 and sleep mode (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 × 370 × 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™ PC 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