FLIR E-Series

Lightweight design, Heavyweight performers

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.

The cameras are 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.

Up to 320 x 240 pixels resolution
The FLIR E-Series infrared image resolution ranges from 160x120 pixels to 320x240 pixels depending on camera model. Every additional pixel means more valuable temperature information to isolate problem areas.

Small and lightweight
FLIR E-Series models weigh only 825g (battery included).

High quality visual camera
Visible light camera makes observing and inspecting faster and easier.

Thumbnail image gallery
An easy-to-access thumbnail image gallery helps you to quickly review and find your thermal images.

± 2% accuracy
High accuracy of ± 2% or ± 2 °C of reading.

LCD touch screen
Large 3.5″ LCD color touch screen.

Built-in LED light
The built-in LED lamp ensures quality visual images regardless of job site lighting levels.

Long life battery
With a 4 hour battery life its easy-to-replace Lithium Ion batteries will keep up with your demanding schedule.

Laser Pointer
A conveniently located button activates the laser pointer that will help you associate the hot or cold spot in the thermal image with the real physical target in the field.

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

Thermal Fusion*
Merges visual and thermal images to offer better analysis.

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.

Interchangeable lenses
In order to adapt the FLIR E-Series to every situation both wide angle and tele-lenses are available.

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

Large 3.5″ touchscreen

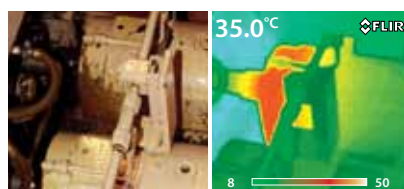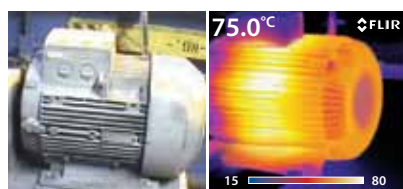Large backlit buttons fit bare hands or gloves

METER LiNK
Bluetooth

Connect to smartphone or tablet via Wi-Fi, use the FLIRViewer App (Apple) or FLIR Tools mobile (Android) for processing and sharing results
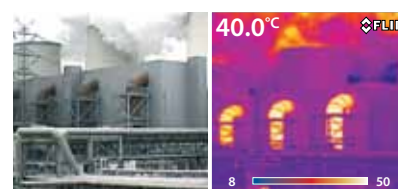
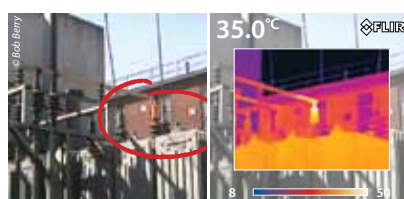*The FLIR E-Series is equipped with a digital camera, a LED lamp and a laser pointer.*

Motor: Bearing Problem.

Motor: Internal Winding Problem.

Damaged insulation.

Inspecting the tranformer using the Fusion Picture-in-Picture function.

Mechanical check-up of an electrical motor using the FLIR E-Series.

Check-up of an air conditioning installation quick and easy.

FLIR E-Series camera model comparison

FLIR E30	FLIR E40	FLIR E50	FLIR E60
Thermal image quality: 160x120 pixels	Thermal image quality: 160x120 pixels	Thermal image quality: 240x180 pixels	Thermal image quality: 320x240 pixels
Thermal sensitivity: <0.1°C	Thermal sensitivity: <0.07°C	Thermal sensitivity: <0.05°C	Thermal sensitivity: <0.05°C
Temperature range: -20°C to +350°C	Temperature range: -20°C to +650°C	Temperature range: -20°C to +650°C	Temperature range: -20°C to +650°C
Spotmeter: 1	Spotmeter: 3	Spotmeter: 3	Spotmeter: 3
1 box with min./max./average	3 boxes with min./max./average	3 boxes with min./max./average	3 boxes with min./max./average
Built-in 2 Mpixels camera	Built-in 3.1 Mpixels camera	Built-in 3.1 Mpixels camera	Built-in 3.1 Mpixels camera
	Delta temperature measurement	Delta temperature measurement	Delta temperature measurement
	Voice / text annotations	Voice / text annotations	Voice / text annotations
	MeterLink™	MeterLink™	MeterLink™
	Bluetooth® / WiFi	Bluetooth® / WiFi	Bluetooth® / WiFi
	1-2x continuous digital zoom	1-4x continuous digital zoom	1-4x continuous digital zoom
	PiP IR area on visual image	PiP Scalable IR area on visual image	PiP Scalable IR area on visual image
		Thermal Fusion	Thermal Fusion
			Instant report

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FLIR E-Series

Technical 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
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	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
Laser pointer				
Laser alignment	N/A	Position is displayed on the IR image	Position is displayed on the IR image	Position is displayed on the IR image
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
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

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

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
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 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™ 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

2 YEAR FULL PRODUCT WARRANTY *

10 YEAR DETECTOR WARRANTY *

* After product registration on www.flir.com

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