

FLIR Ebx-Series



Lightweight design, Heavyweight performers

The FLIR Ebx-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 FLIR Ebx-models include the features you need to make well informed building decisions like built-in insulation and dew point alarms. The cameras are specifically designed for building inspections such as, HVAC heating and cooling issues, air flow, moisture detection, insulation problems, and much more.

320
x
240

Up to 320 x 240 pixels resolution

The FLIR Ebx-Series thermal 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 Ebx-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 IR 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.*



Humidity / Insulation Alarm

The Relative Humidity Alarm alerts you to the areas where there is a risk of condensation. An Insulation Alarm shows the insulation performance of the building structure.



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 Ebx-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



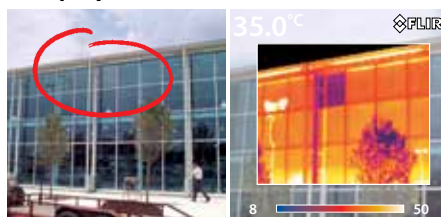
The FLIR Ebx-Series is equipped with a digital camera, a LED lamp and a laser pointer.

Inspect photovoltaic cells



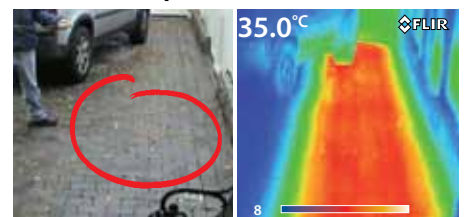
Defects in photovoltaic cells are clearly visible on a thermal image.

Verify repairs and installations



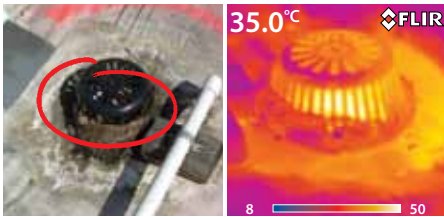
The thermal inspection reveals an incorrect window installation.

Locate hidden problems



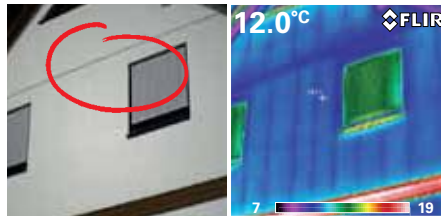
Heated pavement, but only a part of it is working.

Find and assess water damage



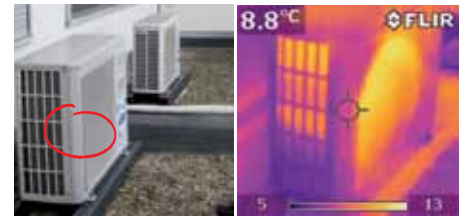
The thermal image shows water leakage in the roof.

Identify energy losses and poor insulation



The thermal inspection locates missing insulation in the wall.

Locate HVAC problems



Check-up of a heat, ventilation or air conditioning installation quick and easy.

FLIR Ebx-Series camera model comparison

FLIR E30bx



Thermal image quality:
160x120 pixels
Thermal sensitivity: <0.1°C

Spotmeter: 1
1 box with min./max./average

Built-in 2 Mpixels digital camera

FLIR E40bx



Thermal image quality:
160x120 pixels
Thermal sensitivity: <0.045°C

Spotmeter: 3
3 boxes with min./max./average
Delta temperature measurement

Built-in 3.1 Mpixels digital camera
Voice / text annotations

MeterLink™

Bluetooth® / WiFi

1-2x continuous digital zoom

PiP IR area on visual image

FLIR E50bx



Thermal image quality:
240x180 pixels
Thermal sensitivity: <0.045°C

Spotmeter: 3
3 boxes with min./max./average

Delta temperature measurement

Built-in 3.1 Mpixels digital camera
Voice / text annotations

MeterLink™

Bluetooth® / WiFi

1-4x continuous digital zoom

PiP Scalable IR area on visual image

Thermal Fusion

FLIR E60bx



Thermal image quality:
320x240 pixels
Thermal sensitivity: <0.045°C

Spotmeter: 3
3 boxes with min./max./average

Delta temperature measurement

Built-in 3.1 Mpixels digital camera
Voice / text annotations

MeterLink™

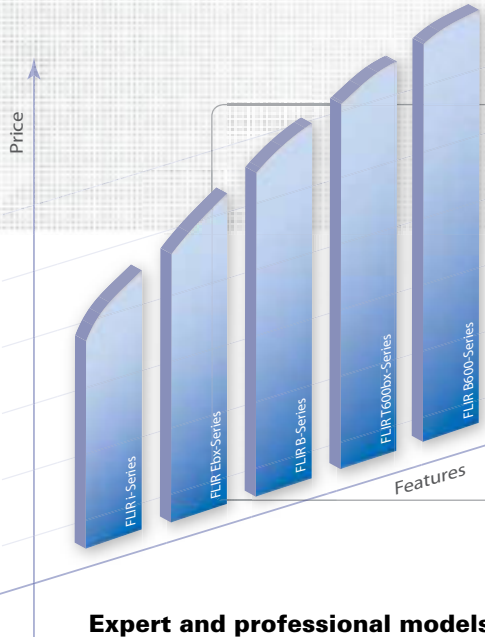
Bluetooth® / WiFi

1-4x continuous digital zoom

PiP Scalable IR area on visual image

Thermal Fusion

Instant report



A full product range

At FLIR Systems we realize that different users have different needs. Therefore we have developed a full product range of thermal imaging cameras. More advanced models contain more features and allow to do your work faster and more efficient. They are the ideal tools for the expert and professional users.

Expert and professional models: better image quality

Just like in photography, having an image which is composed of more pixels means that the camera produces higher quality images. But there is more. A thermal imaging camera with 640 x 480 pixels has 307,200 temperature measurement points in one image which is four times more than a camera with 320 x 240 pixels and 76,800 temperature measurement points. When looking at the same target from the same distance, more pixels will cover the target. This will result in much better measurement accuracy

Thermal images, with different resolutions, of a wall

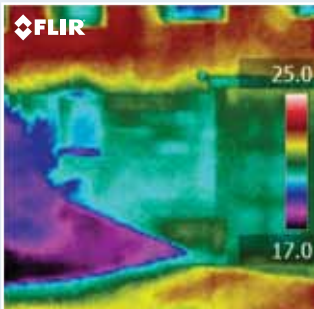


Image taken with 120 x 120 pixels resolution.

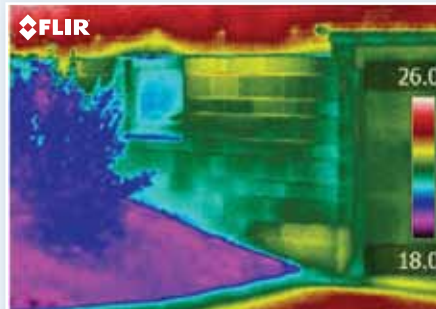


Image taken with 320 x 240 pixels resolution.

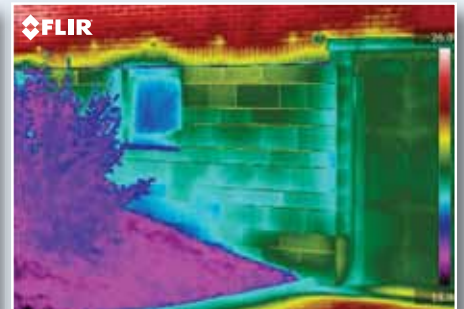


Image taken with 640 x 480 pixels resolution. The increased number of pixels will result in a much clearer picture where small details are very visible.

Ergonomics

When you are an expert or professional and using your camera several hours per day you need an ergonomic tool. No matter where the area to be inspected is located, you need to be able to handle your camera in an easy, ergonomic way. This will not only increase your analysis capabilities in the field but it will also increase your productivity.



FLIR Ebx-Series

Technical specifications

Camera specific



FLIR E30bx

FLIR E40bx

FLIR E50bx

FLIR E60bx

	FLIR E30bx	FLIR E40bx	FLIR E50bx	FLIR E60bx
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	< 0.045 °C	< 0.045 °C	< 0.045 °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
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 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
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 M0297 or Extech clamp meter EX845	Possible to connect, via Bluetooth, Extech Moisture meter M0297 or Extech clamp meter EX845	Possible to connect, via Bluetooth, Extech Moisture meter M0297 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	
Object temperature range	-20 °C to +120 °C
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
Humidity alarm	1 humidity alarm including dew point alarm
Insulation alarm	1 insulation alarm
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
Laser pointer	
Laser alignment	Position is displayed on the IR image
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 E30bx, FLIR E40bx, FLIR E50bx or FLIR E60bx: 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	



* After product registration on www.flir.com

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