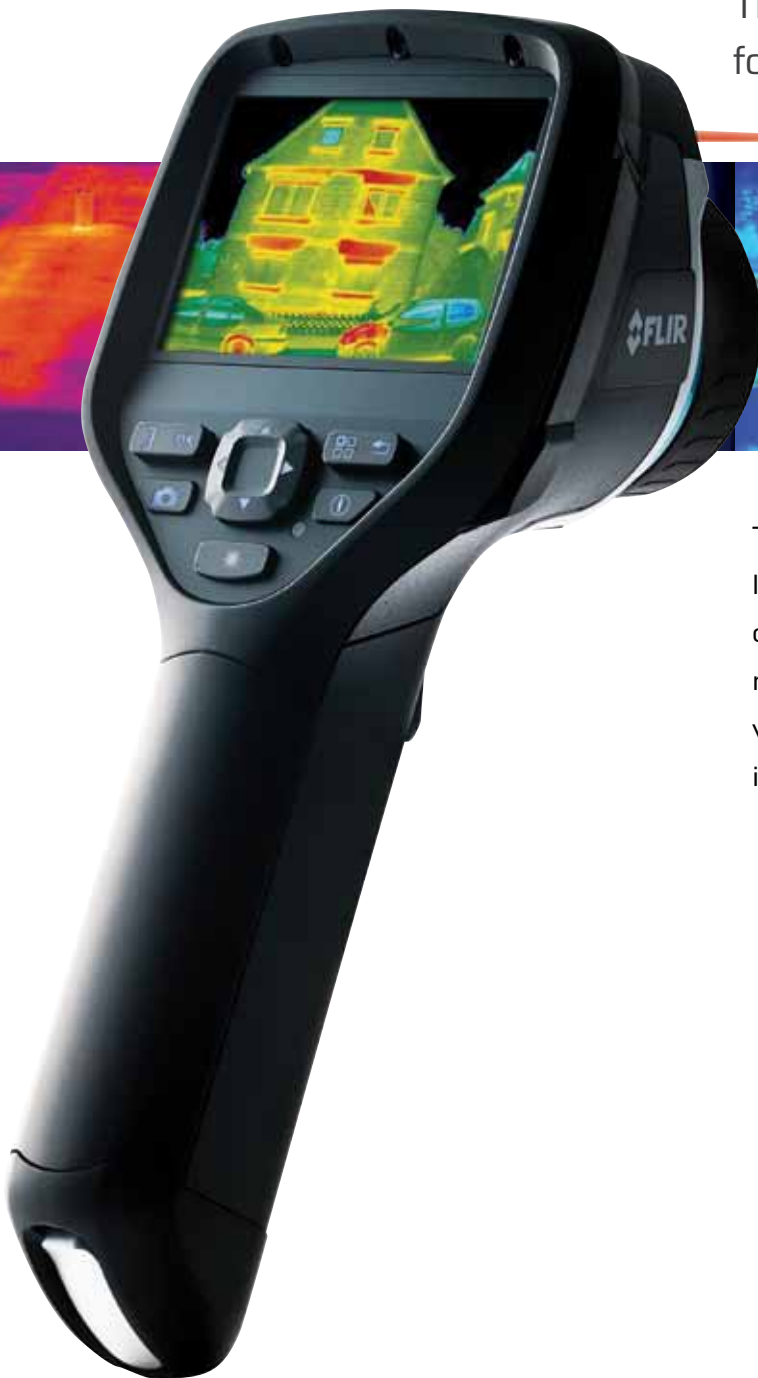




FLIR Ebx-Series

Thermal imaging cameras
for building inspections



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.

320
x
240

Up to 320x240 pixels



High quality visual camera



LCD touch screen



Built-in LED light



Laser Pointer



MeterLink™



Dew point/Insulation Alarm

FLIR Ebx-Series

Lightweight design
Heavyweight performers

The FLIR Ebx-models have an image quality of up to 320 x 240 pixels and 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.



What is MeterLink™?

FLIR MeterLink technology simplifies the work in building inspections by making it possible to transfer, via Bluetooth, the data acquired by a multi function moisture meter into the thermal imaging camera. The MeterLink technology saves time and eliminates the risk of erroneous records or notes.

In building related inspections of water intrusion or tracking of moisture, readings from a MeterLink Extech moisture meter are displayed in the FLIR camera.



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 Ebx-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 Picture-in-Picture function it is easy to locate and highlight 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

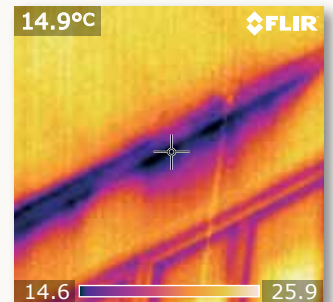
3 Megapixel visible light camera makes observing and inspecting faster and easier.



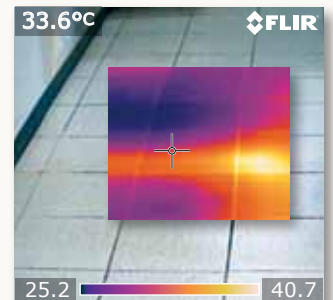
Dew point/Insulation Alarm

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.

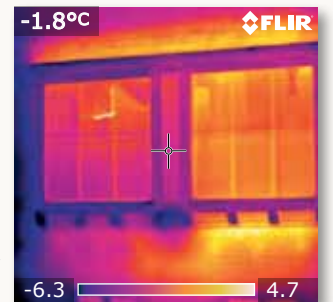
** Features dependant on camera model, please check technical specifications for more details.*



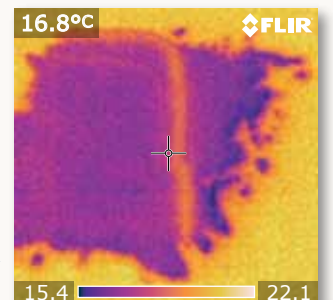
The thermal image shows a badly sealed ceiling causing cold air to leak into the building.



Thanks to the Picture-in-Picture function in the FLIR Ebx-Series it is easy to locate hidden problems. You can measure the surface temperature, find faults and document your findings.



The occupant complained about a cold spot in his living room. The thermogram on the right clearly identifies the source of the cold as an uninsulated part in the wall. By insulating this spot, the occupant improved comfort, saved energy and money.



The thermal image clearly shows moisture in a floor. Something which can not be detected by the naked eye.

FLIR Ebx-Series specifications

Camera specific

| | 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 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 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 |
|---------|--|

Measurement

| | |
|--------------------------|-------------------------|
| Object temperature range | -20 °C to +120 °C |
| Accuracy | ±2 °C or ±2% of reading |

Laser pointer

| | |
|-----------------|---------------------------------------|
| Laser alignment | Position is displayed on the IR image |
|-----------------|---------------------------------------|

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 |

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 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