

# FLIR Ex-Series



## Easy-to-use point-and-shoot thermal imaging cameras

FLIR Ex-Series cameras are point-and-shoot thermal imaging cameras that give you access to a new dimension. A FLIR Ex-Series camera is an affordable replacement for a spot pyrometer. It provides a thermal image with temperature information on every pixel. The combined image storage of the new MSX<sup>®</sup>, thermal and visual formats make the cameras incomparably easy to use.



### Outstanding ease-of-use

The cameras are extremely easy to understand and operate, designed for entry-level users. The cameras are intuitive and come with a full manual.



### Fully automatic

FLIR Ex-Series produce instant, point-and-shoot JPEG thermal imagery with all required temperature data included.



### Focus free

The fixed focus free lens makes using the FLIR Ex-Series a snap.



### Compact and lightweight

FLIR Ex-Series weighs only 575 g, and is easy to store in a belt pouch.



### Visual camera

Visible light camera makes observing and inspecting faster and easier.



### Reporting and analysis software included

FLIR Tools software is available for free download for all Ex-Series users.



### Measure temperatures

Measures temperatures up to +250°C and detects temperature differences as small as 0.06°C (FLIR E6 / FLIR E8).



### Measurement functions

Spotmeter, area with max./min., color alarm; blue below / red above set temperature\*



### Picture-in-Picture (PiP)

With the PiP-function it is easy to locate areas of interest.\*



### Multi Spectral Dynamic Imaging (MSX<sup>®</sup>)

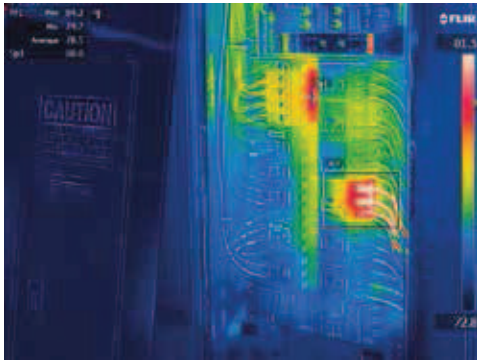
The innovative MSX<sup>®</sup> feature produces an image more rich in every detail than ever before.



### Multi Spectral Image storage

Combined image storage including MSX<sup>®</sup>, thermal, PiP and visual.

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



MSX® allows seeing even more detail on the thermal image.

## Save time and money in 3 steps:

- Detect hidden problems, make quick damage assessments and perform preventive inspections
- Identify energy losses and poor insulation
- Spot electrical faults before it is too late
- Produce instant thermal images of your findings
- Create reports, analyse and document your findings with the easy-to-use software



## FLIR Ex-Series camera model comparison

| FLIR E4  | FLIR E5   | FLIR E6  | FLIR E8  |
|--|---|--|--|
| Thermal image quality:<br>80x60 pixels             | Thermal image quality:<br>120x90 pixels                                   | Thermal image quality:<br>160x120 pixels   | Thermal image quality:<br>320x240 pixels   |
| Thermal sensitivity: 0.15°C                        | Thermal sensitivity: 0.10°C   | Thermal sensitivity:<br>0.06°C   | Thermal sensitivity:<br>0.06°C   |
| IR image, visual image,<br>MSX®, thumbnail gallery | IR image, visual image,<br>MSX®, picture in picture,<br>thumbnail gallery | IR image, visual image,<br>MSX®, picture in picture,<br>thumbnail gallery                    | IR image, visual image,<br>MSX®, picture in picture,<br>thumbnail gallery                    |
| Center spot  | Center spot, area with<br>max./min.                                       | Spotmeter, area with<br>max./min., color alarm;<br>blue below / red above set<br>temperature | Spotmeter, area with<br>max./min., color alarm;<br>blue below / red above set<br>temperature |

# FLIR Ex-Series

## Technical specifications



\* After product registration on [www.flir.com](http://www.flir.com)

### Camera specific

|                           | FLIR E4   | FLIR E5   | FLIR E6   | FLIR E8   |
|---------------------------|---|---|---|---|
| IR resolution             | 80 x 60 pixels                                  | 120 x 90 pixels   | 160 x 120 pixels  | 320 x 240 pixels  |
| MSX resolution            | 320 x 240 pixels                                | 320 x 240 pixels  | 320 x 240 pixels  | 320 x 240 pixels  |
| Thermal sensitivity       | 0.15°C  | 0.10°C  | 0.06°C  | 0.06°C  |
| Spatial resolution (IFOV) | 10.3 mrad                                       | 6.9 mrad  | 5.2 mrad  | 2.6 mrad  |
| Image modes               | IR image, visual image, MSX®, thumbnail gallery | IR image, visual image, MSX®, picture in picture, thumbnail gallery | IR image, visual image, MSX®, picture in picture, thumbnail gallery | IR image, visual image, MSX®, picture in picture, thumbnail gallery |
| Color alarm               | NA  | NA  | Blue below or red above set temperature                             | Blue below or red above set temperature                             |

### General

|   |  |
|---|--|
| <b>Imaging performance</b>  |  |
| Field of view/min focus distance  | 45° x 34° / 0.5 m  |
| Spectral range  | 7.5 - 13 µm  |
| Image Frequency   | 9 Hz   |
| Focus   | Focus free   |
| Focal Plane Array (FPA)   | Uncooled microbolometer  |
| <b>Image Presentation</b>   |  |
| Display   | 3" 320 x 240 color LCD   |
| Image adjustment  | Automatic adjust/lock image  |
| <b>Measurement</b>  |  |
| Object temperature range  | -20°C to +250°C  |
| Accuracy  | ±2 °C or ±2% of reading , for ambient temperature 10°C to 35°C and object temperature above + 0°C  |
| <b>Measurement analysis</b>   |  |
| Spotmeter   | Center spot  |
| Emissivity correction   | Variable from 0.1 to 1.0   |
| Emissivity table  | Emissivity table of predefined materials   |
| Reflected apparent temperature correction   | Automatic, based on input of reflected temperature   |
| <b>Setup</b>  |  |
| Color palettes  | Iron, Rainbow and Black/White  |
| Set-up commands   | Local adaptation of units, language, date and time formats   |
| <b>Image Storage</b>  |  |
| Image storage capacity  | Internal memory store at least 500 sets of images  |
| Image storage mode  | Simultaneous storage of images in IR, visual and MSX   |
| File formats  | Standard JPEG - 14 bit measurement data included   |
| <b>Data communication interfaces</b>  |  |
| Interfaces  | USB Micro: Data transfer to and from PC and Mac device   |
| <b>Power system</b>   |  |
| Battery Type  | Li-Ion rechargeable  |
| Battery voltage   | 3.7 V  |
| Battery operating time  | Approx. 4 hours at +25°C ambient temperature and typical use   |
| Charging system   | Battery is charged inside the camera or in specific charger  |
| Charging time   | 2.5 hours to 90% capacity in camera. 2 hours in charger  |
| Power management  | Automatic shutdown   |
| AC operation  | AC adapter, 90-260 VAC input, 5 VDC output to camera   |
| <b>Environmental specifications</b>   |  |
| Operating temperature range   | -15°C to +50°C   |
| Storage temperature range   | -40°C to +70°C   |
| Humidity  | IEC 60068-2-30/24 h 95% relative humidity  |
| EMC   | <ul style="list-style-type: none"> <li>• WEEE 2012/19/EC</li> <li>• RoHs 2011/65/EC</li> <li>• C-Tick</li> <li>• EN 61000-6-3</li> <li>• EN 61000-6-2</li> <li>• FCC 47 CFR Part 15 Class B</li> </ul> |
| Bump  | 25 g, IEC 60068-2-29   |
| Vibration   | 2 g, IEC 60068-2-6   |
| <b>Physical characteristics</b>   |  |
| Dimensions  | 244 x 95 x 140 mm  |
| Weight  | 575 g, including battery   |
| Shipping size   | 303 x 206 x 128 mm   |
| Shipping weight   | 2.7 kg (FLIR E8: 2.95 kg)  |
| <b>Standard package</b>   |  |
| FLIR thermal imaging camera, hard transport case, FLIR Tools™ download card, user documentation CD-ROM, printed documentation, battery (2x), power supply/charger with EU, UK, US and Australian plugs, USB cable, battery charger (FLIR E8 only) |  |