

# 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 in inspection capability. 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 575g, 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*



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

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## 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
Drop	2 m
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)