

## P/N: 63909-1004

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### Website

<http://www.flir.com>

### Customer support

<http://support.flir.com>

### Disclaimer

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### General description

The FLIR Ex series cameras are point-and-shoot infrared cameras that give you access to the infrared world. A FLIR Ex series camera is an affordable replacement for an infrared thermometer, providing a thermal image with temperature information in every pixel. The new MSX and visual formats make the cameras incomparably easy to use.

The FLIR Ex series cameras are user-friendly, compact, and rugged, for use in harsh environments. The wide field of view makes them the perfect choice for building applications.

#### Benefits:

- Easy to use: The FLIR Ex series cameras are fully automatic and focus-free with an intuitive interface for simple measurements in thermal, visual, or MSX mode.
- Compact and rugged: The FLIR Ex series cameras' low weight of 0.575 kg and the accessory belt pouch make them easy to bring along at all times. Their rugged design can withstand a 2 m drop test, and ensures reliability, even in harsh environments.
- Ground breaking affordability: The FLIR Ex series cameras are the most affordable infrared cameras on the market.

### Imaging and optical data

|                           |                              |
|---------------------------|------------------------------|
| IR resolution             | 160 × 120 pixels             |
| Thermal sensitivity/NETD  | < 0.10°C (0.27°F) / < 100 mK |
| Field of view (FOV)       | 45° × 34°                    |
| Minimum focus distance    | 0.5 m (1.6 ft.)              |
| Spatial resolution (IFOV) | 5.2 mrad                     |
| F-number                  | 1.5                          |
| Image frequency           | 9 Hz                         |
| Focus                     | Focus free                   |

### Detector data

|                |  |
|----------------|--|
| Detector type  | Focal plane array (FPA), uncooled microbolometer |
| Spectral range | 7.5–13 μm  |

### Image presentation

|                  |                             |
|------------------|-----------------------------|
| Display          | 3.0 in. 320 × 240 color LCD |
| Image adjustment | Automatic adjust/lock image |



## FLIR E5xt (incl. Wi-Fi)

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| <b>Image presentation modes</b>           |   |
|---|---|
| Image modes                               | Thermal MSX, Thermal, Picture-in-Picture, Thermal blending, Digital camera.   |
| Multi Spectral Dynamic Imaging (MSX)      | IR image with enhanced detail presentation  |
| Picture-in-Picture                        | IR area on visual image   |
| <b>Measurement</b>                        |   |
| Object temperature range                  | -20°C to +250°C (-4°F to +482°F)<br>10°C to 400°C (50°F to +752°F)  |
| Accuracy                                  | ±2°C (±3.6°F) or ±2% of reading, for ambient temperature 10°C to 35°C (+50°F to 95°F) and object temperature above +0°C (+32°F)   |
| <b>Measurement analysis</b>               |   |
| Spotmeter                                 | Center spot   |
| Area                                      | Box with max./min.  |
| Isotherm                                  | Above alarm, Below alarm  |
| 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>Set-up</b>                             |   |
| Color palettes                            | Black and white, iron and rainbow   |
| Set-up commands                           | Local adaptation of units, language, date and time formats  |
| <b>Storage of images</b>                  |   |
| File formats                              | Standard JPEG, 14-bit measurement data included   |
| <b>Digital camera</b>                     |   |
| Digital camera, resolution                | 640 × 480   |
| Digital camera, FOV                       | 55° × 43°   |
| <b>Data communication interfaces</b>      |   |
| Interfaces                                | USB Micro: Data transfer to and from PC and Mac device  |
| Wi-Fi                                     | Peer-to-peer (ad hoc) or infrastructure (network)   |
| <b>Radio</b>                              |   |
| Wi-Fi                                     | <ul style="list-style-type: none"> <li>• Standard: 802.11 b/g/n</li> <li>• Frequency range:               <ul style="list-style-type: none"> <li>◦ 2400–2480 MHz</li> <li>◦ 5150–5260 MHz</li> </ul> </li> <li>• Max. output power: 15 dBm</li> </ul> |
| <b>Power system</b>                       |   |
| Battery type                              | Rechargeable Li ion battery   |
| Battery voltage                           | 3.6 V   |
| Battery operating time                    | Approx. 4 hours at +25°C (+77°F) ambient temperature and typical use  |
| Charging system                           | Battery is charged inside the camera or in specific charger.  |



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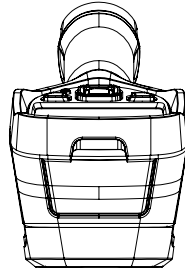
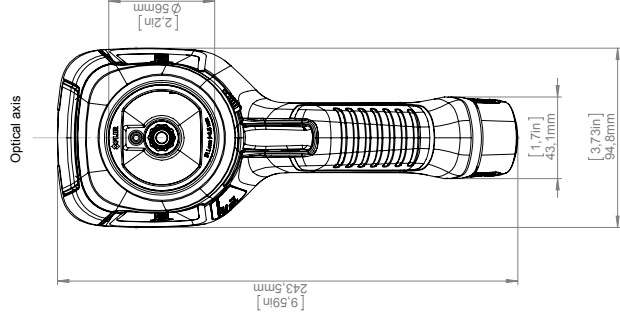
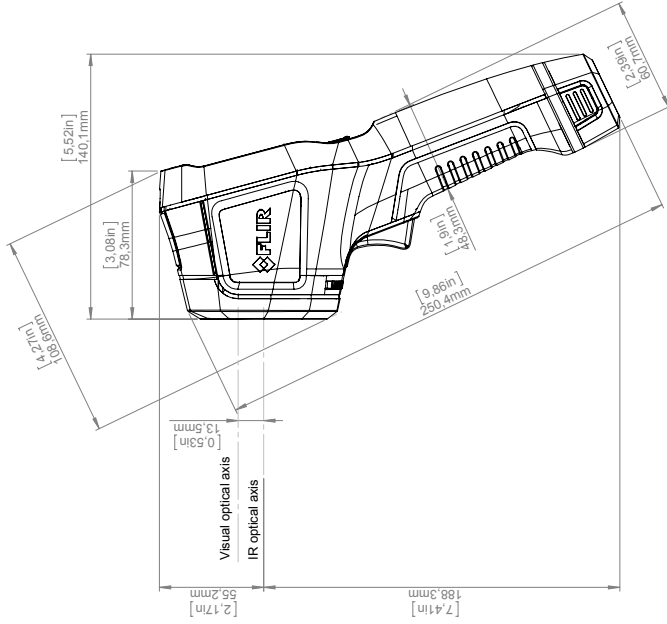
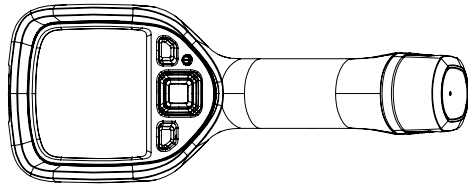
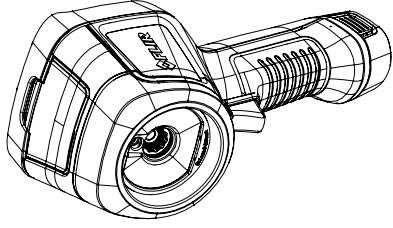
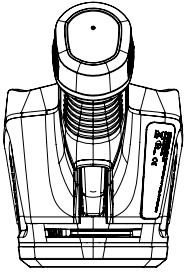
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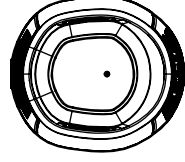
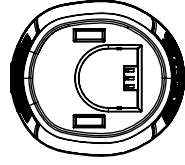
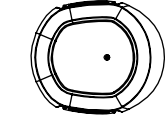
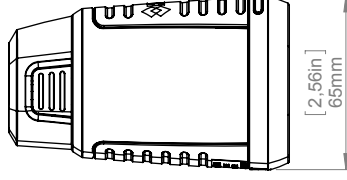
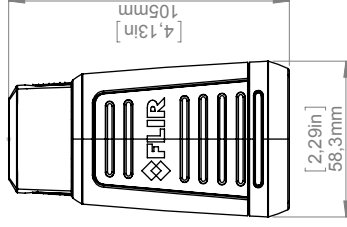
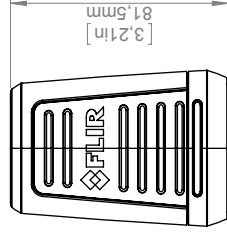
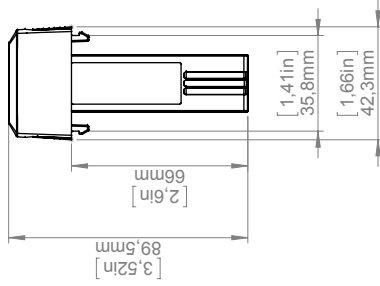
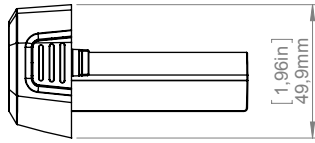
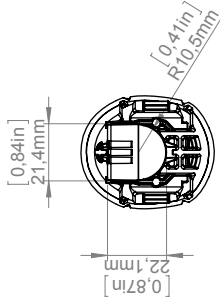
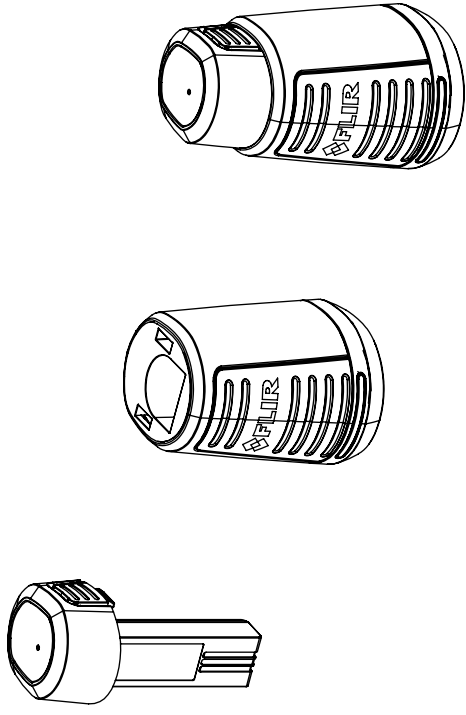
| <b>Power system</b>              |   |
|----------------------------------|---|
| Charging time                    | 2.5 hours to 90% capacity in camera. 2 hours in charger.  |
| Power management                 | Automatic shut-down   |
| AC operation                     | AC adapter, 90–260 VAC input, 5 VDC output to camera  |
| <b>Environmental data</b>        |   |
| Operating temperature range      | –15°C to +50°C (+5°F to +122°F)   |
| Storage temperature range        | –40°C to +70°C (–40°F to +158°F)  |
| Humidity (operating and storage) | 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>   |
| Radio spectrum                   | <ul style="list-style-type: none"><li>• Standard: 802.11 b/g/n</li><li>• Frequency range:<ul style="list-style-type: none"><li>◦ 2400–2480 MHz</li><li>◦ 5150–5260 MHz</li></ul></li><li>• Max. output power: 15 dBm</li></ul>                            |
| Encapsulation                    | IP 54 (IEC 60529)   |
| Shock                            | 25 g (IEC 60068-2-27)   |
| Vibration                        | 2 g (IEC 60068-2-6)   |
| Drop                             | 2 m (6.6 ft.)   |
| <b>Physical data</b>             |   |
| Camera weight, incl. battery     | 0.575 kg (1.27 lb.)   |
| Camera size (L × W × H)          | 244 × 95 × 140 mm (9.6 × 3.7 × 5.5 in.)   |
| Color                            | Black and gray  |
| <b>Certifications</b>            |   |
| Certification                    | UL, CSA, CE, PSE and CCC  |
| <b>Shipping information</b>      |   |
| Packaging, type                  | Cardboard box   |
| List of contents                 | <ul style="list-style-type: none"><li>• Infrared camera</li><li>• Hard transport case</li><li>• Battery (inside camera)</li><li>• USB cable</li><li>• Power supply/charger with EU, UK, US and Australian plugs</li><li>• Printed documentation</li></ul> |
| Packaging, weight                | 2.9 kg (6.4 lb.)  |
| Packaging, size                  | 385 × 165 × 315 mm (15.2 × 6.5 × 12.4 in.)  |
| EAN-13                           | 4743254004009   |
| UPC-12                           | 845188018788  |
| Country of origin                | Estonia   |

### Supplies & accessories:

Camera with built-in IR lens f=6,5 mm (45°)



# Charger and Power pack



|   |                      |   |
|---|----------------------|---|
|   |                      | Drawing No. <b>T127831</b><br>Size <b>A</b> |
| Modified<br><b>2013-03-25</b><br>Denomination | Check<br><b>CAHA</b> | Drawn by<br><b>R&amp;D Thermography</b>     |
| Size <b>A3</b><br>Scale <b>1:2</b>            |                      | Sheet <b>2(2)</b><br>Size <b>A</b>          |
| <b>Basic dimensions FLIR Ex</b>               |                      |   |

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The World's Sixth Sense™

February 24, 2017 Täby, Sweden

AQ320224

## CE Declaration of Conformity – EU Declaration of Conformity

Product: FLIR EX -series

Name and address of the manufacturer:

FLIR Systems AB

PO Box 7376

SE-187 15 Täby, Sweden

This declaration of conformity is issued under the sole responsibility of the manufacturer.

The object of the declaration: FLIR EX -series.

The object of the declaration described above is in conformity with the relevant Union harmonisation legislation:

### Directives:

|            |            |   |
|------------|------------|---|
| Directive  | 2014/30/EU | Electromagnetic Compatibility                   |
| Directive  | 2014/35/EU | Low Voltage Directive (Power Supply)            |
| Directive  | 2012/19/EU | Waste electrical and electric equipment         |
| Directive: | 2011/65/EU | RoHS  |
| Directive  | 1999/5/EC  | Radio and Telecommunications Terminal Equipment |

### Standards:

|                               |                                    |   |
|-------------------------------|------------------------------------|---|
| Emission:                     | EN 61000-6-3/A1:2011               | Electromagnetic Compatibility<br>Generic standards – Emission           |
| Immunity:                     | EN 61000-6-2:2005                  | Electromagnetic Compatibility<br>Generic standards – Immunity           |
| Restricted substances (RoHS): | EN 50581:2012                      | Technical documentation   |
| Radio:                        | ETSI EN 300 328<br>ETSI EN 301 893 | Harmonized EN covering essential<br>requirements of the R&TTE Directive |
| Safety (Power supply):        | EN 60950                           | Information technology equipment  |

**FLIR Systems AB**  
Quality Assurance

Lea Dabiri  
Quality Manager