# FLIR E5

## P/N: 63905-0501



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**Website**

http://www.flir.com

**Customer support**

http://support.flir.com

**Disclaimer**

Specifications subject to change without further notice. Camera models and accessories subject to regional market considerations. License procedures may apply. Products described herein may be subject to US Export Regulations. Please refer to exportquestions@flir.com with any questions.


| 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.<br>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.<br>• 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.<br>• Ground breaking affordability: The FLIR Ex series cameras are the most affordable infrared cameras on the market. |

| Imaging and optical data | |
|---|---|
| IR resolution | 120 × 90 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) | 6.9 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 |

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

| **Image presentation modes** | |
|---|---|
| Image modes | Thermal MSX, Thermal, Thermal blending, Digital camera. |
| Multi Spectral Dynamic Imaging (MSX) | IR image with enhanced detail presentation |

| **Measurement** | |
|---|---|
| Object temperature range | –20°C to +250°C (–4°F to +482°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) |

| **Measurement analysis** | |
|---|---|
| Spotmeter | Center spot |
| Area | Box with max./min. |
| 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 |

| **Set-up** | |
|---|---|
| Color palettes | Black and white, iron and rainbow |
| Set-up commands | Local adaptation of units, language, date and time formats |

| **Storage of images** | |
|---|---|
| File formats | Standard JPEG, 14-bit measurement data included |

| **Digital camera** | |
|---|---|
| Digital camera, resolution | 640 × 480 |
| Digital camera, FOV | 55° × 43° |

| **Data communication interfaces** | |
|---|---|
| Interfaces | USB Micro: Data transfer to and from PC and Mac device |

| **Power system** | |
|---|---|
| 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. |
| Charging time | 2.5 hours to 90% capacity in camera. 2 hours in charger. |

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| **Power system** | |
|---|---|
| Power management | Automatic shut-down |
| AC operation | AC adapter, 90–260 VAC input, 5 VDC output to camera |

| **Environmental data** | |
|---|---|
| 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 | • WEEE 2012/19/EC<br>• RoHs 2011/65/EC<br>• C-Tick<br>• EN 61000-6-3<br>• EN 61000-6-2<br>• FCC 47 CFR Part 15 Class B |
| 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.) |

| **Physical data** | |
|---|---|
| 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 |

| **Certifications** | |
|---|---|
| Certification | UL, CSA, CE, PSE and CCC |

| **Shipping information** | |
|---|---|
| Packaging, type | Cardboard box |
| List of contents | • Infrared camera<br>• Hard transport case<br>• Battery (inside camera)<br>• USB cable<br>• Power supply/charger with EU, UK, US and Australian plugs<br>• Printed documentation |
| Packaging, weight | 2.9 kg (6.4 lb.) |
| Packaging, size | 385 × 165 × 315 mm (15.2 × 6.5 × 12.4 in.) |
| EAN-13 | 4743254001114 |
| UPC-12 | 845188005146 |
| Country of origin | Estonia |

## Supplies & accessories:

- T911093; Tool belt
- T198528; Hard transport case FLIR Ex-series
- T198530; Battery
- T198531; Battery charger incl power supply
- T198532; Car charger

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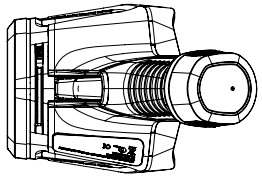
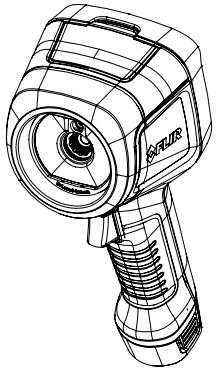
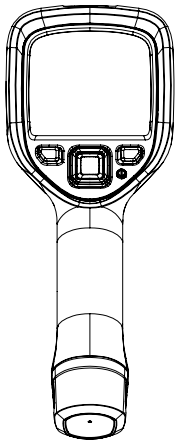
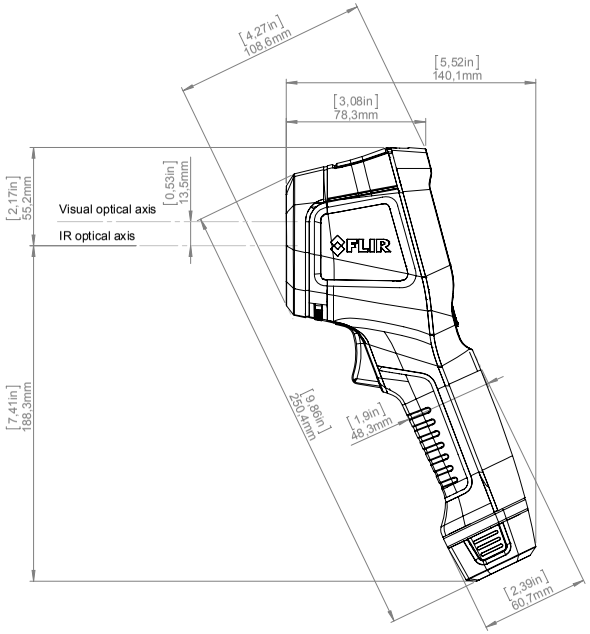
- T198534; Power supply USB-micro
- T198529; Pouch FLIR Ex and ix series
- T198533; USB cable Std A <-> Micro B
- T199362ACC; Battery Li-ion 3.6 V, 2.6 Ah, 9.4 Wh
- T198583; FLIR Tools+ (download card incl. license key)
- T199233; FLIR Atlas SDK for .NET
- T199234; FLIR Atlas SDK for MATLAB

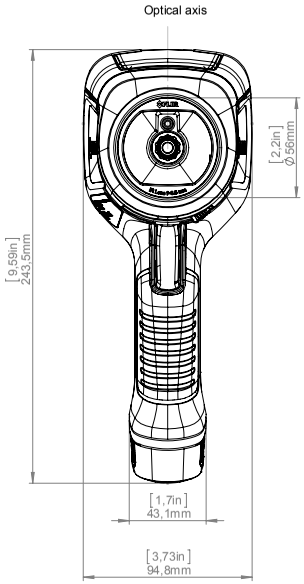
# Camera with built-in IR lens f=6,5 mm (45°)

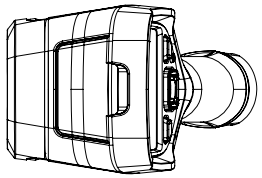








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| Modified | Check | Drawn by |
|---|---|---|
| 2013-03-25 | CAHA | R&D Thermography |

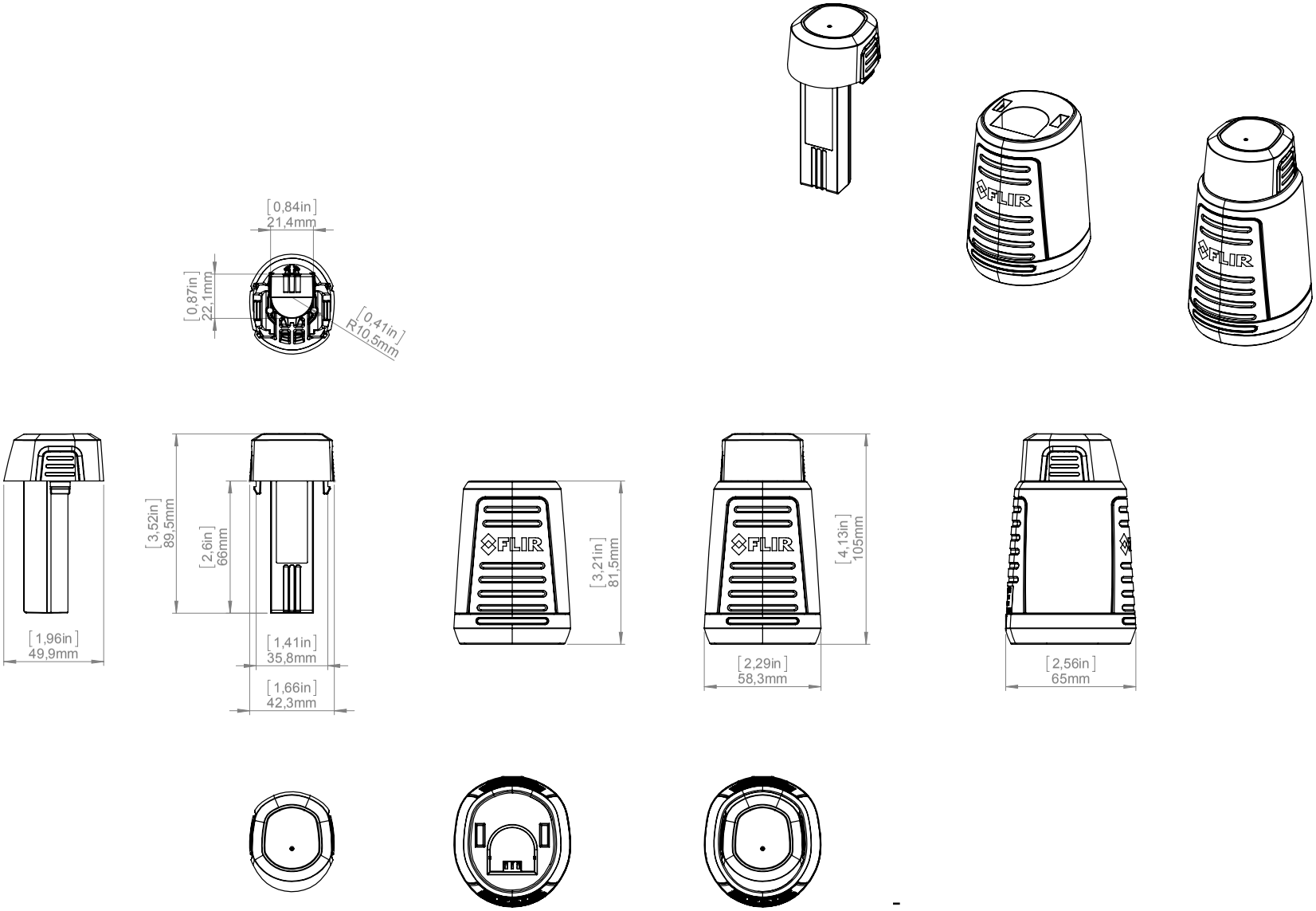
Denomination

Basic dimensions FLIR Ex

Size A2 | Scale 1:2 | Sheet 1(2)

Drawing No. T127831 | Size A

# Charger and Power pack




| Modified | Check | Drawn by | |
|---|---|---|---|
| 2013-03-25 | CAHA | R&D Thermography | |

Denomination

Basic dimensions FLIR Ex

| Size | Sheet |
|---|---|
| A3 | 2(2) |
| Scale 1:2 | |
| Drawing No. T127831 | Size A |

August 8, 2013 AQ320035

# CE Declaration of Conformity

This is to certify that the Systems listed below have been designed and manufactured to meet the requirements, as applicable, of the following EU-Directives and corresponding harmonising standards. The systems consequently meet the requirements for the CE-mark.

Directives:

| | |
|---|---|
| **Directive 2004/108/EC;** | **Electromagnetic Compatibility** |
| **Directive 2006/95/EC;** | **"Low voltage Directive"** (Power Supply) |

Standards:

| | | |
|---|---|---|
| **Emission:** | **EN 61000-6-3;** | **Electro magnetic Compatibility Generic standards - Emission** |
| **Immunity:** | **EN 61000-6-2;** | **Electro magnetic Compatibility; Generic standards - Immunity** |
| **Safety** (Power Supply): | **EN 60950** | (or other) **Safety of information technology equipment** |

Systems: **FLIR EX**

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