

# **FLIR E5**

# P/N: 63905-0501

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#### **Document identity**

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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.

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	120 × 90 pixels	
Thermal sensitivity/NETD	<0.10°C (0.27°F) / <100 mK	
Field of view (FOV)	$45^{\circ} \times 34^{\circ}$	
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	$\pm 2^{\circ}$ C ( $\pm 3.6^{\circ}$ F) or $\pm 2\%$ of reading, for ambient temperature 10°C to 35°C ( $\pm 50^{\circ}$ F to 95°F) and object temperature above $\pm 0^{\circ}$ C ( $\pm 32^{\circ}$ 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	<ul> <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>		
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 $\times$ W $\times$ H)	$244 \times 95 \times 140$ mm (9.6 $\times 3.7 \times 5.5$ in.)		
Color	Black and gray		
Certifications			
Certification	UL, CSA, CE, PSE and CCC		
Shipping information			
Packaging, type	Cardboard box		
List of contents	<ul> <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>User documentation CD-ROM</li> <li>Printed documentation</li> <li>FLIR Tools download card</li> </ul>		
Packaging, weight	2.9 kg (6.4 lb.)		
Packaging, size	$385 \times 165 \times 315$ mm (15.2 × 6.5 × 12.4 in.)		
EAN-13	4743254001114		
UPC-12	845188005146		
Country of origin	Estonia		

## Supplies & accessories:

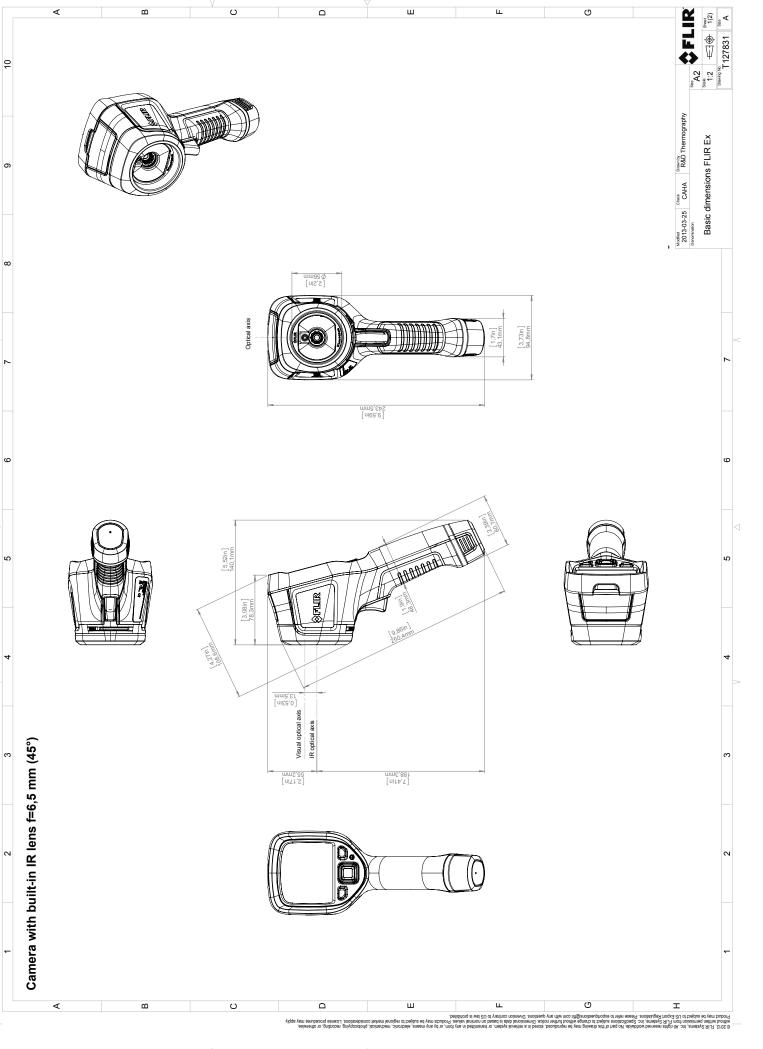
- T911093; Tool belt
- T198528; Hard transport case FLIR Ex-series
- T198530; Battery
- T198531; Battery charger incl power supply

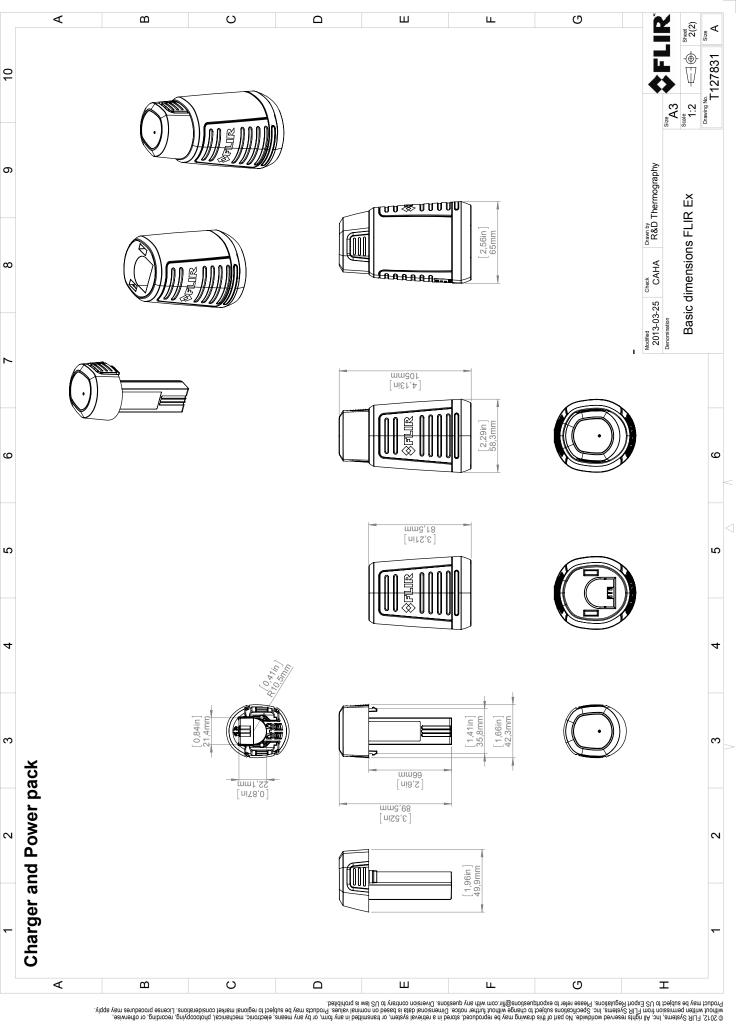


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- T198532; Car charger
- T198534; Power supply USB-micro
- T198529; Pouch FLIR Ex and ix series
- T198533; USB cable Std A <-> Micro B
- T198583; FLIR Tools+ (download card incl. license key)
- T199233; FLIR Atlas SDK for .NET
- T199234; FLIR Atlas SDK for MATLAB







August 8, 2013 A

## 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

FLIR Systems AB Quality Assurance

Björn Svensson Director