

P/N: 63908-0905

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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

imaging and optical data			
IR resolution	320 × 240 pixels		
Thermal sensitivity/NETD	< 0.05°C (0.09°F) / < 50 mK		
Field of view (FOV)	45° × 34°		
Minimum focus distance	0.5 m (1.6 ft.)		
Spatial resolution (IFOV)	2.6 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/Manual	
Image presentation modes		
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	
Measurement		
Object temperature range	-20°C to +250°C (-4°F to +482°F)	
	10°C to 550°C (50°F to +1022°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.	
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	
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	
Wi-Fi	Peer-to-peer (ad hoc) or infrastructure (network)	
Radio		
Wi-Fi	 Standard: 802.11 b/g/n Frequency range: 2400–2480 MHz 5150–5260 MHz Max. output power: 15 dBm 	



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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.	
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	 EN 61000-6-2 (Immunity) EN 61000-6-3 (Emission) FCC 47 CFR Part 15 Class B (Emission) RCM 	
Radio spectrum	 ETSI EN 300 328 ETSI EN 301 893 FCC 47 CFR Part 15 C, E RSS-247 Issue 2 	
Hazardous substances	 WEEE 2012/19/EU RoHs 2011/65/EU 	
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.)	
Safety	Camera: IEC/EN60950-1	
	Power supply: UL, CSA, CE, PSE, CCC, and SAA	
Physical data		
Camera weight, incl. battery	0.575 kg (1.27 lb.)	
Camera size $(L \times W \times H)$	244 × 95 × 140 mm (9.6 × 3.7 × 5.5 in.)	
Color	Black and gray	
Shipping information		
Packaging, type	Cardboard box	
List of contents	 Infrared camera Hard transport case Battery (2x) USB cable Power supply/charger with EU, UK, US and Australian plugs Battery charger Printed documentation 	



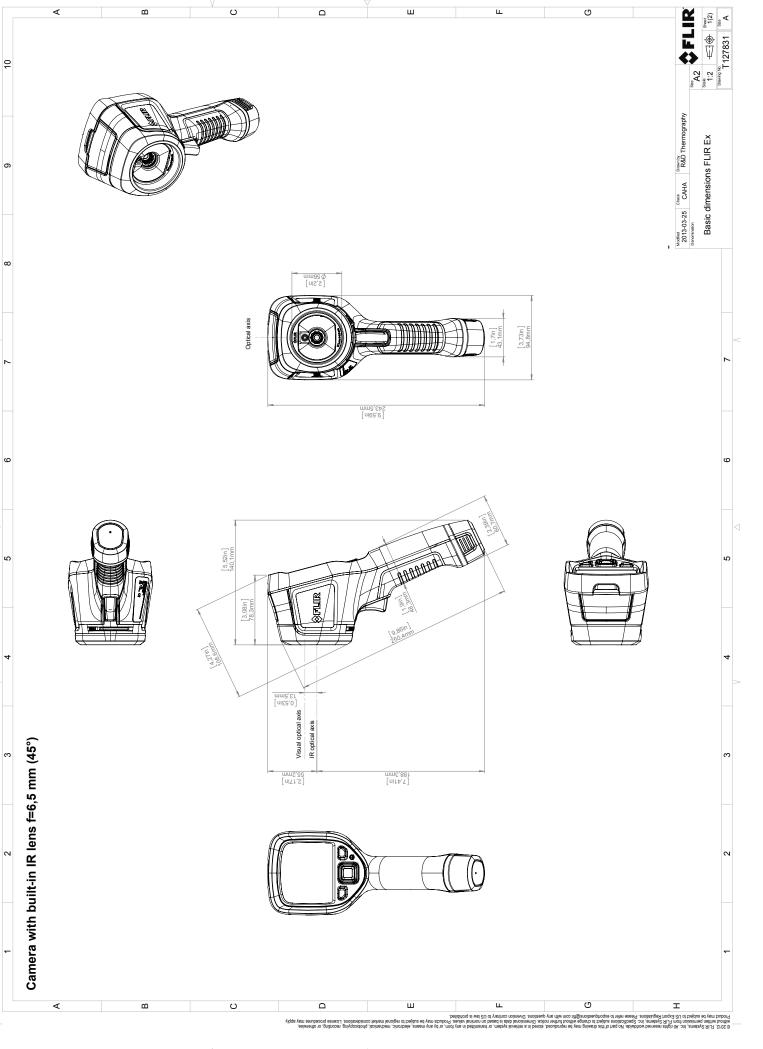
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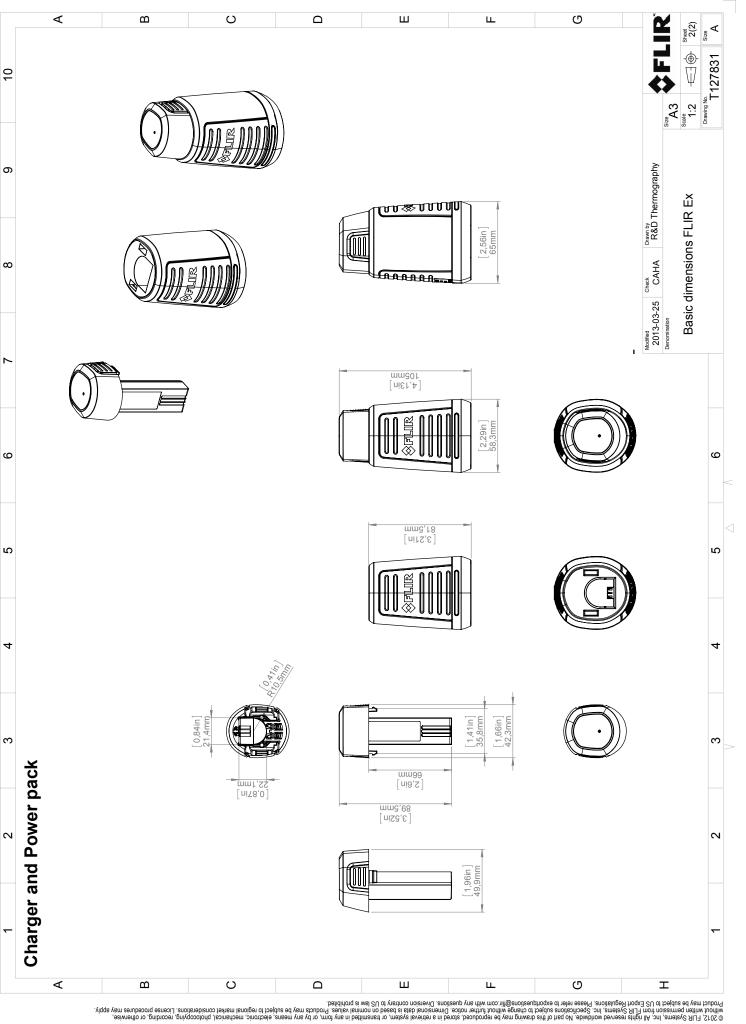
Shipping information		
Packaging, weight	3.13 kg (6.9 lb.)	
Packaging, size	$385 \times 165 \times 315$ mm ($15.2 \times 6.5 \times 12.4$ in.)	
EAN-13	4743254004023	
UPC-12	845188018801	
Country of origin	Estonia	

Supplies & accessories:

- T911093; Tool belt
- T911689ACC; Pouch for FLIR E-series
- T198528; Hard transport case FLIR Ex-series
- T198531; Battery charger incl power supply
- T198532; Car charger
- 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
- INST-EW-0125; Extended Warranty 1 Year for A5, A15, E6, E8
- INST-EWGM-0120; Premium Service Package for A5, A15, E6, E8
- INST-GM-0120; General Maintenance Package for A5, A15, E6, E8



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

FLIR Systems AB Quality Assurance

ter Abern

Lea Dabiri Quality Manager

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