

P/N: 63908-0805

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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	320 × 240 pixels
Thermal sensitivity/NETD	<0.06°C (0.11°F) / <60 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

Image presentation	
Display	3.0 in. 320 × 240 color LCD
Image adjustment	Automatic/Manual

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Image presentation modes	
<u> </u>	
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)
Accuracy	$\pm 2^{\circ}$ C ($\pm 3.6^{\circ}$ F) or $\pm 2^{\circ}$ 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/below/interval
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
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.

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Power system		
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	 WEEE 2012/19/EC RoHs 2011/65/EC C-Tick EN 61000-6-3 EN 61000-6-2 FCC 47 CFR Part 15 Class B 	
Radio spectrum	ETSI EN 300 328 FCC 47 CSR Part 15 RSS-247 Issue 2	
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 × 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 Hard transport case Battery (2x) USB cable Power supply/charger with EU, UK, US and Australian plugs Battery charger Printed documentation	
Packaging, weight	3.13 kg (6.9 lb.)	
Packaging, size	$385 \times 165 \times 315 \text{ mm} (15.2 \times 6.5 \times 12.4 \text{ in.})$	
EAN-13	4743254002890	
UPC-12	845188014148	
Country of origin	Estonia	

Supplies & accessories:

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

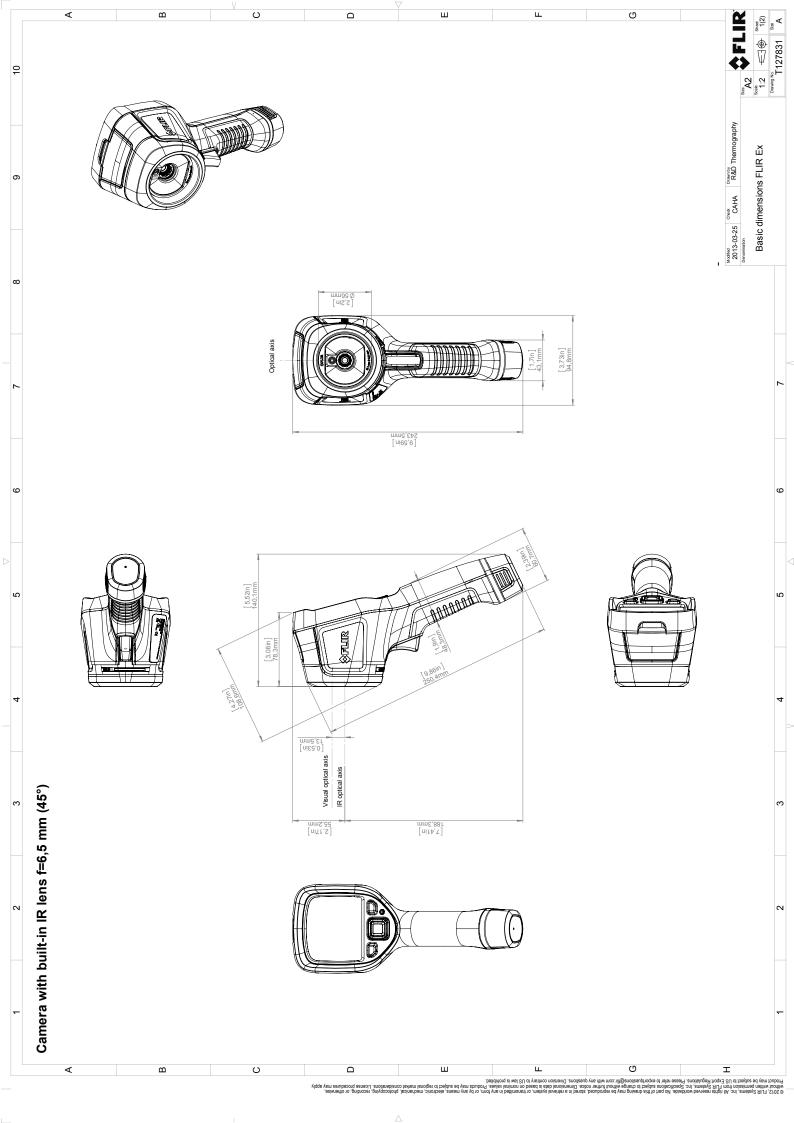
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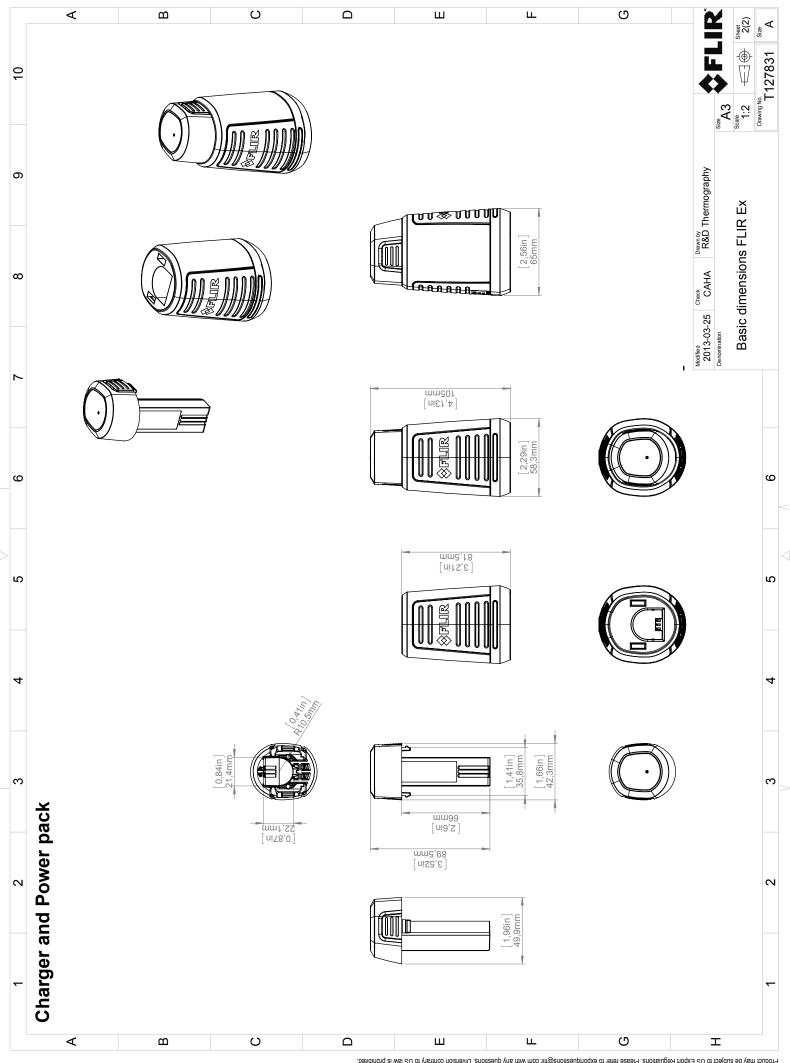


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- T198532; Car charger
- T198534; Power supply USB-micro
- T198529; Pouch FLIR Ex and ix series
- T198533; USB cable Std A <-> Micro B
- T199362ACC; Battery Li-ion 3.6 V, 2.6 Ah, 9.4 Wh
- T198583; FLIR Tools+ (download card incl. license key)
- T199233; FLIR Atlas SDK for .NET
- T199234; FLIR Atlas SDK for MATLAB







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)
Waste electrical and electric equipment

Directive:

2012/19/EU 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

LN 30361.2012

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

Lea Dabiri

Quality Manager