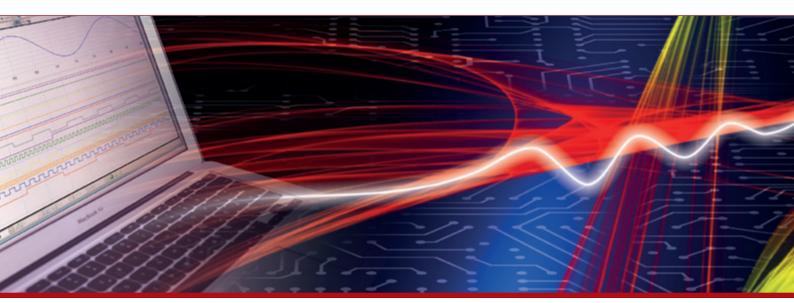


Product Datasheet - Technical Specifications



More information in our Web-Shop at ▶ www.meilhaus.com

Your contact

Technical and commercial sales, price information, quotations, demo/test equipment, consulting:

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FAX: +49 - (0)81 41 - 52 71-129

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P/N: 63908-0905

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Document identity

Publ. No.: 63908-0905 Commit: 81068 Language: Modified: 2021-11-22 Formatted: 2021-11-22

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	< 0.05°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

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



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Image modes Thermal MSX, Thermal, Picture-in-Picture, Thermal blending, Digital camera. Multi Spectral Dynamic Imaging (MSX) IR image with enhanced detail presentation IR area on visual image Measurement Camera temperature range - 20 to 250°C (-4 to 482°F) - 10 to 550°C (50 to 1022°F) Object temperature range and accuracy (for ambient temp. 10 to 35°C (30 to 95°F) and object temp. above 0°C (32°F)) - 10 to 100°C (32 to 212°F): ±2°C (±3.6°F) - 10 to 100°C (32 to 212°F): ±2°C (±5.4°F) - 10 to 100°C (50 to 1022°F): ±3°C (±5.4°F) - 10 to 100°C (50 to 1022°F): ±3°C (±5.4°F) - 10 to 550°C (212 to 1022°F): ±3°C (±5.4°F) - 10 to 550°C (212 to 1022°F): ±3°C (±5.4°F) - 10 to 550°C (212 to 1022°F): ±3°C (±5.4°F) - 10 to 100°C (30 to 212°F): ±3°C (±5.4°F) - 10 to 550°C (212 to 1022°F): ±3°C (±5.4°F) - 10 to 550°C (212 to 1022°F): ±3°C (±5.4°F) - 10 to 550°C (212 to 1022°F): ±3°C (±5.4°F) - 10 to 550°C (212 to 1022°F): ±3°C (±5.4°F) - 10 to 550°C (212 to 1022°F): ±3°C (±5.4°F) - 10 to 100°C (30 to 122°F): ±3°C (±5.4°F) - 10 to 100°C (30 to 122°F): ±3°C (±5.4°F) - 10 to 100°C (50 to 122°F): ±3°C (±5.4°F) - 10 to 100°C (50 to 122°F): ±3°C (±5.4°F) - 10 to 100°C (50 to 122°F): ±3°C (±5.4°F) - 10 to 100°C (50 to 122°F): ±3°C (±5.4°F) - 10 to 100°C (50 to 122°F): ±3°C (±5.4°F) - 10 to 100°C (50 to 122°F): ±3°C (±5.4°F) - 10 to 100°C (50 to 122°F): ±3°C (±5.4°F) - 10 to 100°C (50 to 122°F): ±3°C (±5.4°F) - 10 to 100°C (50 to 122°F): ±3°C (±5.4°F) - 10 to 100°C (50 to 122°F): ±3°C (±5.4°F) - 10 to 100°C (50 to 122°F): ±3°C (±5.4°F) - 10 to 100°C (50 to 122°F): ±3°C (±5.4°F) - 10 to 100°C (50 to 122°F): ±3°C (±5.4°F) - 10 to 100°C (50 to 122°F): ±3°C (±5.4°F) - 10 to 100°C (50 to 1022°F): ±3°C (±5.4°F) - 10 to 100°C (50 to 1022°F): ±3°C (±5.4°F) - 10 to 100°C (50 to 1022°F): ±3°C (±5.4°F) - 10 to 100°C (50 to 1022°F): ±3°C (±5.4°F) - 10 to 100°C (50 to 1022°F): ±3°C (±5.4°F) - 10 to 100°C (50 to 1022°F): ±3°C (±5.4°F) - 10 to 100°C (50 to 1022°F): ±3°C (±5.4°F) - 10 to 100°C (50 to 1022°F): ±3°C (±5.4°F) - 10 to 100°C (50	Image presentation modes	
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Picture in Picture IR area on visual image	image modes	
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Camera temperature range 20 to 250°C (-4 to 482°F) - 10 to 550°C (50 to 1022°F) Object temperature range and accuracy (for ambient temp. 10 to 550°C (50 to 95°F) and object temp. above 0°C (32°F)) - Range -20 to 250°C (-4 to 482°F): ±2°C (±3.6°F) - 100 to 250°C (212 to 482°F): ±2°C (±3.6°F) - 100 to 250°C (212 to 1022°F): ±2°C (±5.4°F) - 100 to 550°C (50 to 1022°F): ±3°C (±5.4°F) - 100 to 550°C (212 to 1022°F): ±3°C (±5.4°F) - 100 to 100°C (32 to 1022°F): ±3°C (±5.4°F) -	Picture in Picture	IR area on visual image
Page 250 C 43 Page 250 C 14 Page 25 Pa	Measurement	
ambient temp. 10 to 55°C (50 to 95°F) and object temp. above 0°C (32°F)) - 100 to 100°C (32 to 212°F): ±2°C (±3.6°F) 100 to 250°C (212 to 482°F): ±2°S 100 to 250°C (212 to 482°F): ±2°S 100 to 550°C (50 to 1022°F): 100 to 550°C (212 to 1022°F): ±3°S 100 to 100 to 550°C (212 to 1022°F): ±3°S 100 to 100	Camera temperature range	 -20 to 250°C (-4 to 482°F) 10 to 550°C (50 to 1022°F)
Spotmeter Area Box with max/min. Botherm Above alarm, Below alarm Emissivity correction Emissivity table Emissivity table Reflected apparent temperature correction Set-up Color palettes Black and white, iron and rainbow Set-up commands Local adaptation of units, language, date and toformats Storage of images File formats Standard JPEG, 14-bit measurement data included Digital camera Digital camera, resolution Bata 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	ambient temp. 10 to 35°C (50 to 95°F) and object	 0 to 100°C (32 to 212°F): ±2°C (±3.6°F) 100 to 250°C (212 to 482°F): ±2% Range 10 to 550°C (50 to 1022°F): 10 to 100°C (50 to 212°F): ±3°C (±5.4°F)
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 toformats 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 fadio) Wi-Fi Peer-to-peer (ad hoc) or infrastructure (network fadio) 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	Measurement analysis	
Sotherm	Spotmeter	Center spot
Emissivity correction 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 toformats Storage of images File formats Standard JPEG, 14-bit measurement data included Digital camera Digital camera Digital camera, resolution 640 × 480 Digital camera, FOV 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 machine) 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	Area	Box with max./min.
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Set-up Color palettes Black and white, iron and rainbow Set-up commands Local adaptation of units, language, date and t formats Storage of images File formats Standard JPEG, 14-bit measurement data included Digital camera Digital camera, resolution 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 machine) 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	Emissivity table	Emissivity table of predefined materials
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File formats Standard JPEG, 14-bit measurement data included Digital camera Digital camera, resolution Digital camera, FOV 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 machine) Radio Wi-Fi Standard: 802.11 b/g/n Frequency range: 2400–2480 MHz 5150–5260 MHz 5150–5260 MHz Max. output power: 15 dBm Power system Battery type Rechargeable Li ion battery	Color palettes	Black and white, iron and rainbow
File formats Standard JPEG, 14-bit measurement data included Digital camera Digital camera, resolution Digital camera, resolution 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	Set-up commands	Local adaptation of units, language, date and time formats
Digital camera Digital camera, resolution 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	Storage of images	
Digital camera, resolution 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	File formats	
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	Digital camera	
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	Digital camera, resolution	640 × 480
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	Digital camera, FOV	55° × 43°
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	Data communication interfaces	
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		
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	Wi-Fi	Peer-to-peer (ad hoc) or infrastructure (network)
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	Radio	
Battery type Rechargeable Li ion battery	Wi-Fi	 Frequency range: 2400–2480 MHz 5150–5260 MHz
Battery type Rechargeable Li ion battery	Power system	
	·	Rechargeable Li ion battery
Battery voltage 3.6 V		3.6 V



Packaging, weight

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Power system	
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/EURoHs 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/EN 60950-1, IEC/EN 62368-1 Power supply: • IEC/EN 62368-1 • CSA/UL/KC/SAA/PSE 60950-1
Declaration of conformity	See: https://support.flir.com/resources/DoC
Physical data	<u> </u>
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
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 FLIR Thermal Studio Starter Printed documentation
Packaging weight	3 13 kg (6 0 lb)

3.13 kg (6.9 lb.)



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Shipping information	
Packaging, size	385 × 165 × 315 mm (15.2 × 6.5 × 12.4 in.)
EAN-13	4743254004023
UPC-12	845188018801
Country of origin	Estonia

Supplies & accessories:

- 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
- T911689ACC; Pouch for FLIR E-series
- T911093; Tool belt
- T300083; FLIR Thermal Studio Pro, Perpetual license
- T300341; FLIR Thermal Studio Standard, 1 Year Subscription
- T300258; FLIR Thermal Studio Standard, Perpetual license
- 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

