E50 Description

The FLIR Exx-Series is a compact and rugged infrared camera that can be used in harsh environments while still providing you with the latest technology such as a modern touchscreen and wireless connectivity. The Exx-Series is the perfect choice when you are looking for a robust but feature-rich camera at an affordable price.

Benefits:

- Robust and sophisticated: The Exx-Series has a robust and light-weight design and can withstand a 2 meter drop. Big buttons combined with a modern touch screen and broad measuring capabilities, it is the right choice for demanding inspections in the field.
- Easy communication: The Wi-Fi connectivity of the FLIR Exx allows you to connect to smart phones and tablet PCs, for the wireless transfer of images or remote control of the camera. The Bluetooth-based MeterLink® function transfers readings from external measurement instruments to the infrared image.
- Best value for money: The FLIR Exx-Series combines good performance (up to 320 × 240 pixels), a user-friendly interface, and a rugged point-and-shoot design with an affordable price.

Imaging and optical data

IR resolution	240 × 180 pixels
MSX resolution	320 x 240 pixels
Thermal sensitivity/NETD	< 0.05°C @ +30°C (+86°F) / 50 mK
Field of view (FOV) / Minimum focus distance	25° × 19° / 0.4 m (1.31 ft.)
Spatial resolution (IFOV)	1.82 mrad
Image frequency	60 Hz
Focus	Manual
Zoom	2× and 4× digital zoom, including panning
Focal Plane Array (FPA) / Spectral range	Uncooled microbolometer / 7.5–13 µm

Image presentation

Display	Touch screen, 3.5 in. LCD, 320 × 240 pixels
Auto orientation	Automatic landscape or portrait
Image modes	IR image, visual image, MSX, picture in picture, thumbnail gallery
Multi Spectral Dynamic Imaging (MSX)	IR image with enhanced detail presentation

Picture in Picture	Scalable IR area on visual image

Measurement	
Object temperature range	–20°C to +120°C (–4°F to +248°F) 0°C to +650°C (+32°F to +1202°F)
Accuracy	±2°C (±3.6°F) or ±2% of reading, for ambient temperature 10°C to 35°C (+50°F to 95°F)

Measurement analysis	
Spotmeter	3
Area	3 boxes with max./min./average
Automatic hot/cold detection	Auto hot or cold spotmeter markers within area
Difference temperature	Delta temperature between measurement functions or reference temperature
Emissivity correction	Variable from 0.01 to 1.0 or selected from materials list
External optics/windows correction	Automatic, based on inputs of optics/window transmission and temperature
Measurement corrections	Reflected temperature, optics transmission and atmospheric transmission

Alarm	
Color alarm	Red above, Blue below and Yellow interval

Set-up	
Color palettes	Arctic, Gray, Iron, Lava, Rainbow and Rainbow HC
Set-up commands	Local adaptation of units, language, date and time formats
Languages	21

Storage of images	
Image storage	Standard JPEG, including measurement data, on memory card
Image storage mode	Simultaneous storage of images in IR, visual and MSX

Image annotations	
Voice	60 seconds (via Bluetooth)

Text	Text from predefined list or soft keyboard on touch screen
Meterlink	Wireless connection (Bluetooth®) to: FLIR meters with MeterLink
Report generation	▪ Flir Tools software specifically designed to provide an easy way to create inspection reports. It is available on the major platforms – Android, Windows, MacOS and iOS.

Video recording in camera	
Non-radiometric IR-video recording	MPEG-4 to memory card

Video streaming	
Radiometric IR-video streaming	Full dynamic to PC using USB
Non-radiometric IR-video streaming	Uncompressed colorized video using USB

Digital camera	
Built-in digital camera	3.1 Mpixel (2048 × 1536 pixels), and one LED light
Built-in digital lens data	FOV 53° × 41°

Laser pointer	
Laser	Activated by dedicated button
Laser alignment	Position is automatic displayed on the IR image

Data communication interfaces	
Interfaces	USB-mini, USB-A, Bluetooth, Wi-Fi, composite video
Bluetooth	Communication with headset and external sensors
Wi-Fi	Peer to peer (adhoc) or infrastructure (network)
USB	▪ USB-A: Connect external USB device ▪ USB Mini-B: Data transfer to and from PC / Uncompressed colorized video
Video out	Composite

Radio	
Wi-Fi	Standard: 802.11 b/g Frequency range: 2412–2462 MHz Max output power: 15 dBm
Bluetooth	Frequency range: 2402–2480 MHz
Antenna	Internal

Power system	
Battery	Li Ion, 4 hours operating time
Charging system	In camera (AC adapter or 12 V from a vehicle) or 2-bay charger
Charging temperature	0°C to +45°C (+32°F to +113°F)
Power management	Automatic shutdown and sleep mode (user selectable)

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 +25°C to +40°C (+77°F to +104°F) / 2 cycles
EMC	▪ ETSI EN 301 489-1 (radio) ▪ ETSI EN 301 489-17 ▪ EN 61000-6-2 (Immunity) ▪ EN 61000-6-3 (Emission) ▪ FCC 47 CFR Part 15 B (Emission) ▪ ICES-003
Radio spectrum	▪ ETSI EN 300 328 ▪ FCC Part 15.247 ▪ RSS-210
Encapsulation	IP 54 (IEC 60529)
Bump	25 g (IEC 60068-2-29)
Vibration	2 g (IEC 60068-2-6)
Drop	2 m (6.6 ft.)
Safety	EN/UL/CSA/PSE 60950-1

Physical data

Camera weight, incl. battery	0.880 kg (1.94 lb.)
Camera size (L × W × H)	246 × 97 × 184 mm (9.7 × 3.8 × 7.2 in.)
Tripod mounting	UNC ¼"-20 (adapter needed)

Shipping information

Packaging, contents	▪ Hard transport case ▪ Infrared camera with lens ▪ Battery ▪ FLIR Tools software ▪ Handstrap ▪ Memory card ▪ Power supply, incl. multi-plugs ▪ Printed documentation ▪ USB cable ▪ User documentation CD-ROM ▪ Video cable
Packaging, weight	4.7 kg (10.36 lb.)
Packaging, size	500 × 350 × 190 mm (19.7 × 13.8 × 7.5 in.)
EAN-13	4743254001145
UPC-12	845188005177

Administration

Revision	49001-2101, 1.21