

# Technical Data FLIR E50 (incl. Wi-Fi)

#### Part number:

# 49001-0401

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#### **Customer support**

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#### Legal disclaimer

Specifications subject to change without further notice. Camera models and accessories subject to regional market considerations. License procedures may apply.

Information and equipment described herein may require US Government authorization for export purposes. Diversion contrary to US law is prohibited.



#### Imaging and optical data

imaging and optical data	
Field of view (FOV) / Minimum focus distance	25° × 19° / 0.4 m (1.31 ft.)
Spatial resolution (IFOV)	1.82 mrad
Thermal sensitivity/NETD	< 0.05°C @ +30°C (+86°F) / 50 mK
Image frequency	60 Hz
Focus	Manual
Zoom	1-4× continuous, digital zoom, including panning
Focal Plane Array (FPA) / Spectral range	Uncooled microbolometer / 7.5–13 μm
IR resolution	240 × 180 pixels
Image presentation	
Display	Touch screen, 3.5 in. LCD, 320 × 240 pixels
Image modes	IR image, visual image, thermal fusion, picture in picture, thumbnail gallery
Thermal fusion	IR image shown above, below or within temp interval on visual image
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
Measurement analysis	
Spotmeter	3
Area	3 boxes with max./min./average
Automatic hot/cold detection	Auto hot or cold spotmeter markers within area
Isotherm	Detect high/low temperature/interval
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
Set-up	
Color palettes	Arctic, Gray, Iron, Lava, Rainbow and Rainbow HC
Set-up commands	Local adaptation of units, language, date and time formats



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Set-up	
Languages	21
Storage of images	
Image storage	Standard JPEG, including measurement data, on memory
	card
Image storage mode	IR/visual images; simultaneous storage of IR and visual images
Image annotations	
Voice	60 seconds (via Bluetooth)
Text	Text from predefined list or soft keyboard on touch screen
Meterlink	Wireless connection (Bluetooth®) to: Extech Moisture Meter MO297 Extech Clamp Meter EX845
Report generation	Separate PC software with extensive report generation
Video recording in camera and streaming to PC	
Radiometric IR-video streaming	Full dynamic to PC using USB
Non-radiometric IR-video streaming	MPEG-4 to PC using USB
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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	Astronomy designation for the second
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
USB	USB-A: Connect external USB device USB Mini-B: Data transfer to and from PC / streaming MPEG-4
Video out	Composite
Power system	
Battery	Li lon, 4 hours operating time
Charging system	In camera (AC adapter or 12 V from a vehicle) or 2-bay charger
Power management	
	Automatic shutdown and sleep mode (user selectable)
Environmental data	Automatic shutdown and sleep mode (user selectable)
Environmental data  Operating temperature range	
Operating temperature range	-15°C to +50°C (+5°F to +122°F)
Operating temperature range Storage temperature range	-15°C to +50°C (+5°F to +122°F) -40°C to +70°C (-40°F to +158°F)
Operating temperature range Storage temperature range Humidity (operating and storage) Encapsulation	-15°C to +50°C (+5°F to +122°F) -40°C to +70°C (-40°F to +158°F)  IEC 60068-2-30/24 h 95% relative humidity +25°C to +40°C (+77°F to +104°F) / 2 cycles  IP 54 (IEC 60529)
Operating temperature range Storage temperature range Humidity (operating and storage)	-15°C to +50°C (+5°F to +122°F) -40°C to +70°C (-40°F to +158°F)  IEC 60068-2-30/24 h 95% relative humidity +25°C to +40°C (+77°F to +104°F) / 2 cycles
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Operating temperature range Storage temperature range Humidity (operating and storage) Encapsulation Bump	-15°C to +50°C (+5°F to +122°F) -40°C to +70°C (-40°F to +158°F)  IEC 60068-2-30/24 h 95% relative humidity +25°C to +40°C (+77°F to +104°F) / 2 cycles  IP 54 (IEC 60529)  25 g (IEC 60068-2-29)
Operating temperature range Storage temperature range Humidity (operating and storage) Encapsulation Bump Vibration	-15°C to +50°C (+5°F to +122°F) -40°C to +70°C (-40°F to +158°F)  IEC 60068-2-30/24 h 95% relative humidity +25°C to +40°C (+77°F to +104°F) / 2 cycles  IP 54 (IEC 60529)  25 g (IEC 60068-2-29)
Operating temperature range Storage temperature range Humidity (operating and storage) Encapsulation Bump Vibration  Physical data	-15°C to +50°C (+5°F to +122°F)  -40°C to +70°C (-40°F to +158°F)  IEC 60068-2-30/24 h 95% relative humidity +25°C to +40°C (+77°F to +104°F) / 2 cycles  IP 54 (IEC 60529)  25 g (IEC 60068-2-29)  2 g (IEC 60068-2-6)



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## Scope of delivery

- Hard transport case
- Infrared camera with lens
- Battery Calibration certificate

- Calibration certificate
  Camera lens cap
  FLIR Tools software CD-ROM
  Handstrap
  Memory card
  Power supply, incl. multi-plugs
  Printed Getting Started Guide
  Printed Important Information Guide
  USB cable
  User documentation CD-ROM
  Video cable
  Warranty extension card or Registration card