

Technical Data

FLIR b50

Part number:

39904-1401

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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

IR resolution	140 × 140 pixels
Thermal sensitivity/NETD	<0.09°C (<0.16°F) @ +25°C (+77°F) / 90 mK
Field of view (FOV) / Minimum focus distance	25° × 25° / 0.10 m (0.33 ft.)
Spatial resolution (IFOV)	3.12 mrad
Image frequency	9 Hz
Focus	Manual
Focal Plane Array (FPA) / Spectral range	Uncooled microbolometer / 7.5–13 μm
Image presentation	
Display	Built-in 3.5 in. LCD, 256k colors, 240 × 320 pixels
Image modes	IR image, visual image, Picture in Picture, thumbnail gallery
Picture in Picture	IR area (in three steps) on visual image
Measurement	
Object temperature range	-20 to +120°C (-4 to +248°F)
Accuracy	±2°C (±3.6°F) or ±2% of reading
Measurement analysis	
Spotmeter	Center spot
Area	1 box with min./max.
Isotherm	1 with above/below
Emissivity correction	Variable from 0.1 to 1.0 or selected from list of materials
Reflected apparent temperature correction	Automatic, based on input of reflected temperature
IR window auto-correction	Automatic, based on inputs of optics/window transmission and temperature
Dew point alarm	1 dew point alarm
Insulation alarm	1 insulation alarm
Set-up	
Menu commands	Palettes (Black and White, Iron and Rainbow), image adjustment (auto/manual)
Set-up commands	Local adaptation of units, language, date and time formats; automatic shutdown, display intensity

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Image storage	Standard JPEG, including measurement data, on memory card
Digital camera	
Built-in digital camera	2.3 Mpixels (1536 \times 1536 pixels), and two LED lights
Digital camera, focus	Minimum focus distance 0.4 m (1.3 ft.)
Laser pointer	
Laser	Semiconductor AlGaInP diode laser, Class 2
Data communication interfaces	
USB	USB-A: Connect external USB device (copy to memory
	stick) USB Mini-B: Data transfer to and from PC / streaming MPEG-4
Power system	
Battery	Li Ion (field replaceable), 5 hours operating time
Charging system	In camera, AC adapter, 2-bay charger or 12 V from a vehicle
Power management	Automatic shutdown (user selectable)
AC operation	AC adapter, 90-260 VAC, 50/60 Hz, 12 V output to camera
Environmental data	
Operating temperature range	-15 to +50°C (+5 to +122°F)
Storage temperature range	-40 to +70°C (-40 to +158°F)
Humidity (operating and storage)	IEC 68-2-30/24 h 95% relative humidity +25°C to +40°C (+77°F to +104°F)
Encapsulation	IP 54 (IEC 60529)
Bump	25 g (IEC 60068-2-29)
Vibration	2 g (IEC 60068-2-6)
Physical data	
Camera weight, incl. battery	0.60 kg (1.32 lb)
Camera size (L × W × H)	235 × 81 × 175 mm (9.3 × 3.2 × 6.9 in.)

Scope of delivery

- Hard transport case Infrared camera with lens

- Infrared camera with lens
 Battery
 Calibration certificate
 Downloads brochure
 FLIR Build IR Demo CD
 FLIR QuickReport™ PC software CD-ROM
 Memory card with adapter
 Power supply, incl. multi-plugs
 Printed Getting Started Guide
 Printed Important Information Guide
 Service & training brochure
 USB cable

- USB cable
- User documentation CD-ROM Warranty extension card