Technical Data
FLIR b50

Part number:

39904-1401

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Customer support

http://support.flir.com

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

Field of view (FOV) / Minimum focus distance	25° × 25° / 0.10 m (0.33 ft.)
Spatial resolution (IFOV)	3.12 mrad
Thermal sensitivity/NETD	<0.09°C (<0.16°F) @ +25°C (+77°F) / 90 mK
Image frequency	9 Hz
Focus	Manual
Focal Plane Array (FPA) / Spectral range	Uncooled microbolometer / 7.5–13 µm
IR resolution	140 × 140 pixels

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

Storage of images

Image storage	Standard JPEG, including measurement data, on memory card

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Digital camera

Built-in digital camera	2.3 Mpixels (1536 × 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
• Battery
• Calibration certificate
• 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
• USB cable
• User documentation CD-ROM
• Warranty extension card or Registration card