FLIR i-Series

FLIR i50

FLIR i50 a lightweight, highly competent and easy to use combination of infrared camera and visual digital camera. The unique FLIR LED lights make it possible to work even in dark environments. Li Ion batteries give 5 work hours without interruption of loading. The easy to use menu system in the camera helps produce and save radiometric JPEG images and visual digital images in a professional way. FLIR QuickReport™ software makes it possible to analyze, both infrared and visual pictures captured in field, back in the office.

- *IR resolution 140 x 140 pixels*
- *Digital camera 1536 x 1536 pixels*
- *Lightweight 600 g*
- *Laser Pointer*
- *Copy to USB*
- *Fusion (3 steps Picture in Picture)*
- *5 hours battery*
- *LED lights*
- *21 languages*

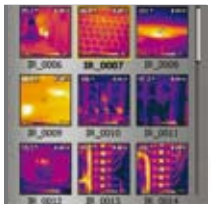
FLIR i50 Features

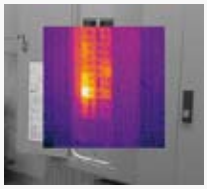
- **Digital Camera** — 2.3 Megapixels with built-in LED lights provides sharp images regardless of lighting conditions
- **Picture in Picture (PiP)** — Displays resizable IR image super-imposed over a digital image
- **Wide Temperature Range** — Measures from -20 °C to +350 °C targeting electrical and industrial applications
- **± 2% Accuracy** — Reliable temperature measurement
- **IR Window Auto-Correction** — Automatic sensitivity adjustment when inspecting high voltage through safety IR windows
- **Thumbnail Image Gallery** — Allows quick search of stored images
- **Laser Pointer** — Pinpoints the hot spot on the IR image with the real physical target
- **Micro SD Card** — Stores more than 2000 radiometric JPEG images

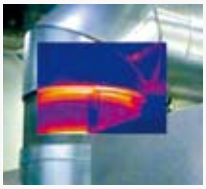

140 x 140 pixel resolution


Fusion (3 steps PiP)


Built-in LED lights


Thumbnail Image Gallery





Fusion (3 steps Picture in Picture)

Allows for easier identification and interpretation of infrared images. This advanced technology enhances the value of an infrared image by allowing you to overlay it directly over the corresponding visible image. This functionality combines the benefits of both the infrared image and visual picture at the push of a button.

FLIR i50 Specifications

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	<0.10 °C (<0.18 °F) @ +25 °C (+77 °F) / 100 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) 0 to +350 °C (+32 to +662 °F)
Accuracy	±2 °C (±3.6 °F) or ±2% of reading

Measurement analysis	
Spotmeter	Center spot
Area	1 box with min./max.
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

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

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	
Interfaces	USB-mini, USB-A

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

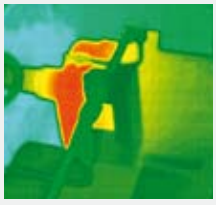
Environmental data	
Operating temperature range	–15 to +50 °C (+5 to +122 °F)
Storage temperature range	–40 to +70 °C (–40 to +158 °F)
Humidity (operating and storage)	IEC 68-2-30/24 h 95% relative humidity +25 °C to +40 °C (+77 °F to +104 °F)
Encapsulation	IP 54 (IEC 60529)
Bump	25 g (IEC 60068-2-29)
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.)

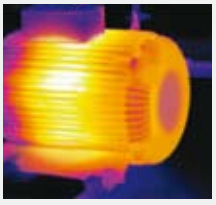
Scope of delivery
Packaging, contents: Hard transport case, Infrared camera with lens, Battery, Calibration certificate, FLIR QuickReport™ PC software CD-ROM, Memory card with adapter, Power supply, Printed Getting Started Guide, USB cable, User documentation CD-ROM, Warranty extension card or Registration card

Optional software	
QuickPlot/ ResearchIR	A software for entry to mid-level R&D applications for visualizes thermal patterns
FLIR Quick Reporter Standard/ Professional	A powerful yet easy-to-use tool to generate comprehensive and professional infrared inspection reports.

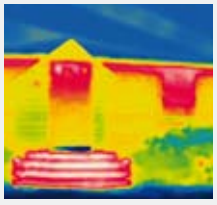
Applications




Motor: Bearing Problem




Motor: Internal Winding Problem




Building: Heat Loss

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