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FLIR B Series

FLIR B660

Ideal for building inspections

FLIR B660 is a high performance infrared inspection system specially developed for building applications including automatic humidity and insulation defects alarm. With its state of the art technology, including a 640x480 detector with less than 45 mK sensitivity, it produces sharp detailed images. Its unique ergonomic design makes it convenient to work with during inspections. The camera is equipped with the standard 24° lens.



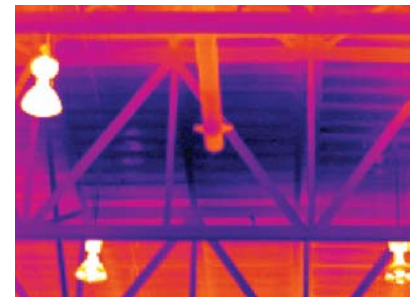
- Image resolution 640 x 480
- Sensitivity 30 mK
- Automatic Humidity alarm
- Automatic Insulation defects alarm
- Large high resolution 5.6" flip-out LCD
- Tilttable high resolution viewfinder
- High performance lenses with USM technology
- 1-8 times continuous zoom with pan
- Contrast optimization
- Rotatable handle for convenient operation
- Built-in 3.2 Mpixel digital camera with target illuminator
- Standard temperature range -40 °C to 120 °C
- 1%, 1°C accuracy
- Real time radiometric storage to built-in RAM
- Periodic storage
- Panorama
- Voice and text annotation
- Built-in GPS
- MPEG-4 streaming to PC using USB or FireWire
- Programmable buttons

Residential and Commercial Construction

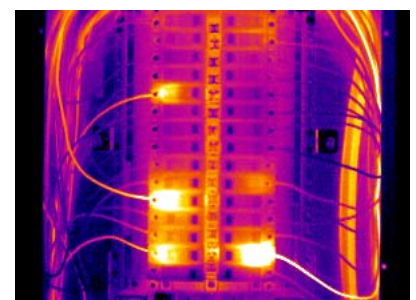
Building insulation needs are similar in residential and commercial construction. The roof, floor, and walls, are the common places for insulating against heat loss or for heat containment. With correctly installed insulation, businesses with large facilities or multiple facilities can make significant savings on energy bills.

Locating the source of the inefficiency in energy use is the first step in cutting energy costs

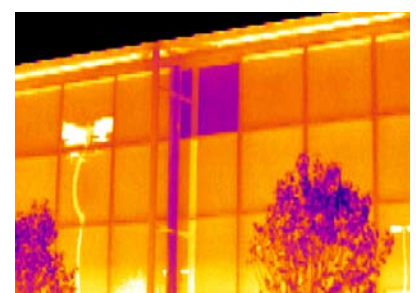
Energy audits of buildings are becoming increasingly popular as more companies look to establish their green credentials and save money at the same time. Infrared Thermography for building inspections shows what the eye cannot see.



Roofing



Electrical



Building insulation

FLIR B660 Technical Specifications

Imaging and optical data	
Field of view (FOV) / Minimum focus distance	12° × 9° / 1.2 m
Spatial resolution (IFOV)	0.33 mrad
Thermal sensitivity / NETD	30 mK @ +30°C
Image frequency	30 Hz
Focus	Automatic or manual (electric or on the lens)
Zoom	1–8× continuous, digital zoom, including panning
Focal Plane Array (FPA) / Spectral range	Uncooled microbolometer / 7.5–13 µm
IR resolution	640 × 480 pixels
Image presentation	
Display	Built-in widescreen, 5.6 in. LCD, 1024 × 600 pixels
Viewfinder	Built-in, tiltable LCD, 800 × 600 pixels
Automatic image adjustment	Continuous / manual; linear or histogram based
Manual image adjustment	Level / span / max / min
Contrast optimization	Automatic, adjustable DDE
Image modes	IR-image, visual image, thumbnail gallery
Reference image	Shown together with live IR image
Measurement	
Temperature range	–40°C to +120°C
Accuracy	±1°C or ±1% of reading for limited temperature range, ±2°C or ±2% of reading
Measurement analysis	
Spotmeter	10
Area	5 boxes or circles with max. / min. / average
Automatic hot / cold detection	Max / Min temp. value and position shown within box, circle or on a line
Isotherm	2 with above / below / interval
Profile	1 live line (horizontal or vertical)
Difference temperature	Delta temperature between measurement functions or reference temperature
Reference temperature	Manually set or captured from any measurement function
Emissivity correction	Variable from 0.01 to 1.0 or selected from editable materials list
Measurement corrections	Reflected temperature, optics transmission, atmospheric transmission and external optics
Measurement function alarm	Audible/visual alarms (above / below) on any selected measurement function
Humidity alarm	1 humidity alarm, including dew point alarm
Insulation alarm	1 insulation alarm
Set-up	
Set-up commands	Configurable measurement tools menu; configure information to be shown in image; 2 Programmable buttons; user profiles; local adaptation of units, language, date and time formats
Storage of images	
Image storage	Standard JPEG, including measurement data, on memory card Built-in RAM for burst recording
Image storage mode	IR/visual images; simultaneous storage of IR and visual images Visual image is automatically associated with corresponding IR image
Periodic image storage	Every 10 seconds up to 24 hours
Panorama	For creating panorama images in FLIR Reporter Building software
Image annotations	
Voice	60 seconds stored with the image
Text	Predefined text or free text from PDA (via IrDA) stored with the image
Image marker	4 on IR or visual image
GPS	Location data automatically added to every image from built-in GPS
Video recording and streaming	
Radiometric IR-video recording	Real-time to built-in RAM, transferable to memory card.
Non-radiometric IR-video recording	MPEG-4 to memory card
Non-radiometric IR-video streaming	MPEG-4 to PC using USB, FireWire or WLAN (optional)
Digital camera	
Built-in digital camera	3.2 Mpixel, auto focus, and video lamp
Laser pointer	
Laser	Activated by dedicated button
Data communication interfaces	
Interfaces	Firewire, USB-mini, USB-A, IrDA, composite video, headset connection
Power system	
Battery	Li Ion, 3 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	
Operating temperature range	–15°C to +50°C
Storage temperature range	–40°C to +70°C
Humidity (operating and storage)	IEC 68-2-30/24 h 95% relative humidity +25°C to +40°C
Encapsulation	IP 54 (IEC 60529)
Bump	25 g (IEC 60068-2-29)
Vibration	2 g (IEC 60068-2-6)
Physical data	
Camera weight, incl. lens and battery	2.18 kg
Cameras size, incl. lens (L × W × H)	355 × 144 × 147 mm
Tripod mounting	UNC ¼"-20

Camera includes:	
Hard transport case	
Infrared camera with lens	
Battery (2 ea., one inserted in camera, one outside camera)	
Battery charger	
Calibration certificate	
FLIR QuickReport™ PC software CD-ROM	
FireWire cable, 4/6	
FireWire cable, 6/6	
Headset	
Lens cap (mounted on lens)	
Lens cap (2 ea.)	
Mains cable	
Memory card-to-USB adapter	
Memory card with adapter	
Power supply	
Printed Getting Started Guide	
Shoulder strap	
USB cable	
User documentation CD-ROM	
Video cable	
Warranty extension card or Registration card	
Supplies & Accessories	
IR lens f = 76 mm, 12°, incl. case for FLIR 600 series	
IR lens, f = 131 mm, 7°, incl. case for FLIR 600 series	
IR lens f = 19 mm, 45°, incl. case for FLIR 600 series	
IR lens f = 38 mm, 24°, incl. case for FLIR 600 series	
Macro lens 1x (25 µm) with case	
High temperature option +2000°C	
High temperature option +1500°C	
Battery	
Battery charger, incl. power supply and cable	
Battery charger, incl. power supply and cable	
Battery charger, incl. power supply and cable	
Battery charger, incl. power supply with multi plugs	
Power supply, incl. multi plugs	
SD memory card, 1 GB	
Adapter, SD memory card to USB	
Memory card micro-SD with adapters	
USB cable Std A <-> Mini-B, 2 m	
FireWire cable 6/6, 2.0 m	
FireWire cable 4/6, 2.0 m	
Video cable, RCA <-> RCA, 2.0 m	
Cigarette lighter adapter kit, 12 VDC, 1.2 m	
Hard transport case for FLIR B/P/SC640	
Headset, 3.5 mm plug	
Remote Control Unit	
FLIR Reporter Ver. 8.3 Professional (Sec. device)	
FLIR Reporter Ver. 8.3 Professional	
FLIR Reporter Ver. 8.3 Standard (Sec. device)	
FLIR Reporter Ver. 8.3 Standard	
FLIR BuildIR	
FLIR Reporter Ver. 8.5 Standard	
FLIR Reporter Ver. 8.5 Professional	
Cover Visual Camera mkII	



Optional Wireless Local Area Network remote control and display.



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