

ThermaCAM® B400 Technical Specifications

Imaging Performance	
Field of view/min focus distance	25°x18.8° / 0.4 m (1.31 ft.)
Thermal sensitivity (N.E.T.D)	< 0.07°C (< 0.14°F) @ +30°C (+86°F)
Detector type	Focal Plane Array (FPA), uncooled microbolometer
Spectral range	7.5 to 13 µm
Digital zoom	1-8X continuous
Spot size ratio (with 15° lens)	1.4 mRad
Image Presentation	
Image modes	Thermal/Visual, Simultaneous, Video, Fusion
Display	Built-in display, 3.5 in. (320 x 240 pixels)
Image Controls	Touch screen LCD
Measurement	
Temperature range	-20°C to +120°C (-4°F to +248°F), Optional up to 350°C (662°F)
Accuracy	±2°C (±3.6°F) or ±2% of reading
Measurement modes	Spotmeters, Box areas, Isotherm, Difference temperature function, Reference temperature
Humidity & insulation alarm	Yes
Set-up controls	Mode selector, color palettes, configure info to be shown in image, local adaptation of units, language, date, and time formats, image gallery, image markers
Measurement corrections	Reflected ambient temperature correction
Image Storage	
Digital storage functions	Removable SD Memory Card
Image storage capacity	1000+ JPEG images
Image annotation	Digital photo, Text (from list or Touch Screen), Voice and Sketch
Laser LocatIR™	
Classification	Class 2
Type	Semiconductor AlGaInP Diode Laser: 1mW/635 nm (red)
Power Source	
Battery type	Rechargeable Lithium-Ion battery
Battery operating time	4 hours
Battery charging	2 bay charging system, 10-16 V input. Charging status indicated by LED's
AC operation	AC adapter, 90-260 VAC input. 12 V output to camera
Voltage	11-16 VDC
Power saving	Power management, automatic shut down and sleep mode after settable time
Environmental	
Operating temperature range	-15°C to +50°C (5°F to 122°F)
Storage temperature range	-40°C to +70°C (-40°F to +158°F)
Humidity	10% to 95%, IEC 359
Water and dust resistant (encapsulation)	IP 54, IEC 529
Shock	25G, IEC 68-2-29
Vibration	2G, IEC 68-2-6
Physical Characteristics	
Weight	0.88 kg (1.94 lb.)
Size (L x W x H)	106 x 201 x 125 mm (4.2 x 7.9 x 4.9 in.), with built-in lens pointing forward
Color	Titanium Grey
Tripod mounting	1/4" - 20
Interfaces	
USB (cable included)	Image transfer to PC
Video output	NTSC Video
Software	
QuickReport™	Included
Reporter™ 8.2	Optional

Camera includes:	
Transport case	
Camera lens cap	
Battery	
2-bay battery charger, incl. power supply with local plug	
Headset, 3.5 mm plug	
Video Cable	
USB cable Std A <-> Mini B, 2 m/6.6 ft.	
SD Memory Card	
Sun Shield	
Stylus Pen	
CD-ROM documentation	
Operators Manual, Quick reference guide	
Interchangeable lenses (optional)	
Optional Add-on optics, Telephoto lens, 15°	
Optional Add-on optics, Wide angle lens, 45°	



From Left to right: USB mini for PC image download, 4 pole audio for voice annotation, NTSC video, USB-A for memory stick image transfer



ThermaCAM® B400

INFRARED CAMERA

ThermaCAM® B400

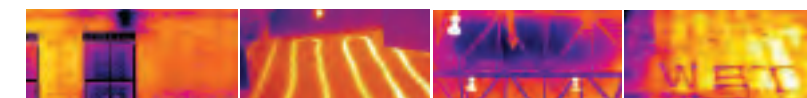
NEW!
The most affordable, feature rich infrared camera available!



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The Best in Infrared
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At Under 2 pounds, this remarkable camera is no lightweight

Holster for Portability and Easy Access to Camera



Target Illuminator and 1.3 Mega Pixel Visual Camera



Tilttable Optics Reduces Back and Arm Strain



Touch Screen Text/Sketch Functionality



- Thermal Fusion Functionality
- Interchangeable Optics
- 1.3 MegaPixel Visual Camera
- Automatically Associates the Visual and Thermal JPEG Images
- Includes FREE QuickReport Software for Analysis & Reporting
- Compatible with Optional Microsoft Word®-Based ThermaCAM Reporter Software w/Spell Check
- Removable SD/Memory Card, USB & Video Out
- Onscreen Thumbnail Image Gallery
- 5 Temperature Spots & Delta T Functionality
- Touch Screen Technology Adds Markers, Draws Sketches
- Auto or Manual Focus with 8x Continuous Digital Zoom
- Auto Hot/Cold Spot & Audible/Visual Alarms
- Large 3.5" Color LCD Display
- High Thermal Sensitivity for Maximum Temperature Accuracy
- Voice Annotation
- Built-in LaserLocatIR™
- Long 4-hour Battery with In-Camera Charging or Car Charger
- Optics head & display screen are independently rotatable for optimum viewing

Razor-Sharp Image Quality

The B400's high-resolution 320 x 240 infrared detector delivers 76,800 pixels. This, combined with FLIR's exclusive Advanced Signal Processing, reduces image "noise" and produces razor-sharp thermal images four times the resolution of competing brands that use a 160 x 120 array. Image, as they say, is everything!

Advanced Optics

The B400 offers both Auto and Manual Focus, making it easy for anyone to take razor-sharp thermal images and helping those new to infrared from taking out-of-focus images. A powerful one-touch 8x continuous digital zoom lets you zero-in to the optimal view, whereas other cameras deliver only preset zooms.

Interchangeable Lenses

The B400 comes with a built-in standard 25° lens with the option of adding on a 45° wide angle or 15° telephoto lens.

Thumbnail Image Gallery

An easy-to-access thumbnail image gallery is available to help you quickly review your saved thermal images to find the one you want – a massive convenience and time saver!

Touch Screen Technology

Touch Screen technology lets you save text, markers or even sketches right with your thermal images, directly on the camera right from the work site. It's like having a note and sketch pad with you every time you turn on the camera – increasing your productivity and the quality of your reports.

1.3 Mega Pixel Visual Camera

Capture visible images at the same time you capture your thermal image with a built-in 1.3 mega pixel digital camera. Includes a target illuminator for low light situations. You can draw markers using Touch Screen technology that works directly on the visual image.

Maximum Connectivity Options: SD/Memory Card, Audio, Video & USB

Thousands of images can be stored to a standard removable SD Memory Card. Use the Audio port to connect a headset and record voice comments while you work with the camera. Voice comments are stored with the IR image and can be played back using ThermaCAM® QuickReport or ThermaCAM® Reporter. A standard Video port lets you display your images in real-time with any number of off-the-shelf video displays – ideal when working with a team or showing thermal output to customers, clients or superiors. A standard USB port allows for automatic image download from the camera using ThermaCAM QuickReport.

In-Camera Radiometric JPEG Image Format

The infrared image is more than just a picture. All temperature data, object parameters, analysis is tools, voice and text comments are stored with the infrared image, allowing for advanced post-processing and report writing using ThermaCAM QuickReport (included) or FLIR's Microsoft Word-Based ThermaCAM Reporter. Add voice comments in the field using a headset. The B400 JPEG image format combined with FLIR's versatile PC software creates a powerful and unique Thermography system that eases data collection in the field.

Radiometric JPEG/Word®-compatible Software with Spell Check

The B400 comes with FREE QuickReport analysis and reporting software. Simply drag-and-drop thermal images to create reports quickly and easily. Optional Reporter software allows you to transfer fully radiometric – or "live" – images into Word so you can go back and edit reports, adjust temperature span or change color palettes at any time – critical functionality if you intend to email reports to peers, customers or superiors or simply if you want to run Spell Check!

Up To 5 Temperature Spots & Delta T Functionality

Temperature difference is the most frequently used measurement parameter for assessing the condition of electrical components and other plant assets. Accurate temperature difference information could determine if the color variation detected with the camera represents a normal operating condition or a problem that is about to start a fire.

The B400 makes this information easy to see and communicate with the Delta Temperature mode. Just place a reference spot on a target operating at normal temperature and another on the target with elevated temperature. The Delta Temperature Function immediately displays the difference between these two targets on the image making it easy for you to diagnose the severity of the problem. The image can then be stored with these measurements and incorporated into the report. It's the easiest and fastest way to diagnose and report your IR findings.

Auto Hot/Cold Spot & Audible/Visual Alarms

Seeing the hottest or coldest spot on the thermal image is often a critical requirement. FLIR's advanced in-camera algorithms make this normally time-consuming task a breeze. You can even pre-set temperature triggers to sound audible or show visible alarms, and the advanced in-camera tools can identify overheating circuits, missing insulation, mechanical failures, water intrusion leaks and literally "sound off" to alert you to a potential problem with the target you are scanning.

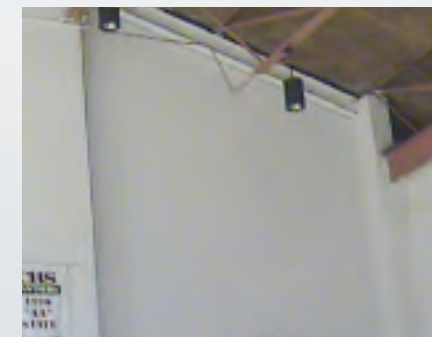
Best Image Quality Plus More Features Equals Better Value!

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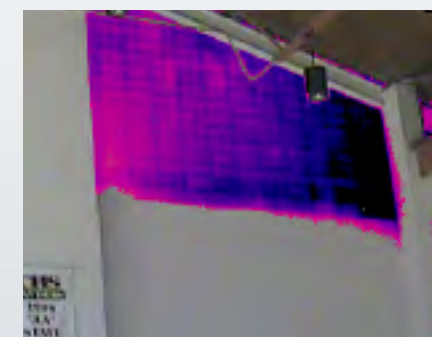


Now with FLIR FUSION!

FLIR's new FUSION functionality 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. The B400 camera does this in real-time and the overlay function can be easily adjusted to suit any application such as electrical surveys, building diagnostics, and mechanical inspections.



Visual Image of Wall



Fusion Image Showing Missing Insulation



Infrared Image