FLIR T-Series

320 x 240

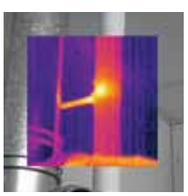
FLIR T425

Infrared Camera with Picture-in-Picture and Thermal Fusion



The FLIR T425 offers an outstanding solution for professional thermographers conducting electrical and mechanical inspections. The camera measures temperatures up to 1200ºC and is jammed with useful features such as instant reports, periodic storage and digital camera video recording.

- 50 mK thermal sensitivity
- IR resolution 320 x 240 pixels
- Digital camera, 3.1 Mp with LED lights
- Temperature range -20°C to +1200°C
- Picture-in-Picture
- Text and voice annotations
- MeterLink™
- 8x Digital Zoom
- Periodic Storage
- Panorama Support
- Instant Reports



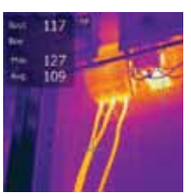
Picture-in-Picture (P-i-P) Fusion



Multifunction 3.5" Touch-Screen



120˚ Lens Rotation



Delta T-Differential Temperature

FLIR T425 Features

- **High Resolution IR Images** - 320 x 240 pixels infrared resolution, NETD 50 mK
- **Digital Camera** - 3.1 Megapixels with built-in LED lights provides sharp images regardless of lighting conditions
- **Wide Temperature Range** - Measures from -20°C to +1200°C targeting electrical and industrial applications
- **Zoom** - 8x continuous digital zoom for capturing small details
- **Picture-in-Picture (P-i-P)** - Displays resizable IR image superimposed over a digital image
- **Thermal Fusion** - Merging visual and infrared images allows for easier indentification and interpretation of infrared images
- **Laser Pointer** - Pinpoints the hot spot on the IR image with the real physical target
- **Annotations** - Add text and voice comments via touch-sceen or headset
- **± 2% Accuracy** - Reliable temperature measurement
- **Thumbnail Image Gallery** - Allows quick search of stored images
- **MeterLink™** - Wirelessly transmit data from clamp or moisture meter to infrared camera
- **Delta Temperature** - Automatic calculation of temperature difference between two measurements tools
- **Panorama** - Take sequential images and combine to large single image with FLIR BuildIR SW
- **Periodic Storage** - Store images automatically at preset intervals
- **Copy to USB** - Upload images and measurement findings to USB stick
- **IR Window Auto-Correction** - Automatic sensitivity adjustment when inspecting high voltage through safety IR windows
- **Li-Ion Rechargable Battery** - Replaceable battery lasts > 4 hours of continuous use
- **Interchangeable Optics** - Standard 25° lens and optional 6°, 15°, 45˚ and 90°, close-up lens 4x and 2x
- **Standard SD Card** - Stores more than 1000 radiometric JPEG images
- **Includes** - SD Memory Card, Li-Ion rechargeable battery with 100-260V AC adaptor/charger, 2-bay battery charger, QuickReport software, USB Mini-B cable, video cable, sun shield, stylus pen & headset, camera lens cap, and transport case

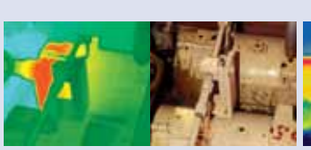
Applications



Electrical: Hot Fuses



Motor: Internal Winding Problem



Motor: Bearing Problem



Building: Heat Loss

FLIR T425 Specifications

Imaging and optical data	
Field of view (FOV) / Minimum focus distance	25° × 19° / 0.4 m (1.31 ft.)
Spatial resolution (IFOV)	1.36 mrad
Thermal sensitivity/NETD	< 0.05°C @ +30°C (+86°F) / 50 mK
Image frequency	9 Hz
Focus	Automatic or manual
Zoom	1–8× continuous, digital zoom, including panning
Focal Plane Array (FPA) / Spectral range	Uncooled microbolometer / 7.5–13 µm
IR resolution	320 × 240 pixels
Image presentation	
Display	Built-in touch-screen, 3.5 in. LCD, 320 × 240 pixels
Image modes	IR image, visual image, thermal fusion, picture-in-picture, thumbnail gallery
Thermal fusion	IR image shown above, below or within temp interval on visual image
Picture-in-picture	Resizable and movable IR area on visual image
Measurement	
Object temperature range	–20°C to +120°C (–4°F to +248°F), 0°C to +350°C (+32°F to +662°F) +200°C to +1200°C (+392°F to +2192°F)
Accuracy	±2°C (±3.6°F) or ±2% of reading
Measurement analysis	
Spotmeter	5
Area	5 boxes with max./min./average
Automatic hot/cold detection	Auto hot or cold spotmeter markers within area
Isotherm	Detect high/low temperature/interval
Difference temperature	Delta temperature between measurement functions or reference temperature
Emissivity correction	Variable from 0.01 to 1.0 or selected from materials list
External optics/windows correction	Automatic, based on inputs of optics/window transmission and temperature
Measurement corrections	Reflected temperature, optics transmission and atmospheric transmission
Measurement function alarm	Audible/visual alarms (above/below) on spotmeters, boxes and difference temperature
Screening	Difference temperature alarm, audible
Set-up	
Color palettes	BW, BW inv, Iron, Rain, RainHC, Bluered
Set-up commands	Local adaptation of units, language, date and time formats
Digital camera	
Built-in digital camera	3.1 Mpixel (2048 × 1536 pixels), and video lamp
Built-in digital lens data	FOV 53° × 41°
Digital camera video recording	Video clip to memory card
Laser pointer	
Laser	Activated by dedicated button
Laser alignment	Position is automatic displayed on the IR image
Data communication interfaces	
Interfaces	USB-mini, USB-A, composite video, headset connection
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, 4 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 (+5°F to +122°F)
Storage temperature range	–40°C to +70°C (–40°F to +158°F)
Humidity (operating and storage)	IEC 60068-2-30/24 h 95% relative humidity +25°C to +40°C (+77°F to +104°F)
Encapsulation	Camera housing and lens: IP 54 (IEC 60529)
Bump	25 g (IEC 60068-2-29)
Vibration	2 g (IEC 60068-2-6)
Physical data	
Camera weight, incl. battery	0.88 kg (1.94 lb.)
Camera size (L × W × H)	106 × 201 × 125 mm (4.2 × 7.9 × 4.9 in.), with built-in lens pointing forward
Tripod mounting	UNC ¼"-20
Optional lens	
	• IR lens f = 30 mm, 15° incl. case , • IR lens f = 10 mm, 45° incl. case • Close-up 4× (100 µm) incl. case , • Close-up 2× (50 µm) incl. case • Lens 76 mm (6°) with case and mounting support for T/B-300/400 • Lens 4 mm (90°) with case and mounting support for T/B-300/400



90° Lens | 45° Lens | 25° Lens | 15° Lens | 6° Lens

METERLINK Bluetooth



What is MeterLink™?

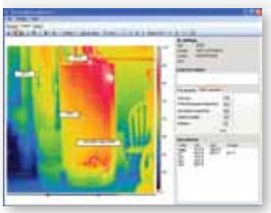
MeterLink displays and documents readings from your Extech moisture or clamp meter directly on your infrared image using Bluetooth wireless connection. MeterLink, a FLIR industry-first technology, will greatly improve your diagnostics, save time annotating readings, eliminate data errors, and add more customer value to your reports.

itc INFRARED TRAINING CENTER

Training

The center offers a wide variety of infrared courses from entry-level thermography to advanced IR training. ITC infrared thermography certifications are globally recognized and are designed to exceed the requirements of international certification standards.

Check the ITC course schedule in the Asia Pacific region: www.flir.com/thg/itc



Optional Software

FREE FLIR QuickReport™

Allows the user to organize, analyze and present infrared image data in a report. Delivered with your FLIR camera.

FLIR Reporter™

A powerful yet easy-to-use tool to generate comprehensive and professional infrared inspection reports.

FLIR QuickPlot/ FLIR ResearchIR

Infrared cameras are successfully used in R&D applications to speed up and verify the design process, as well as enabling non-invasive and precise detection of deficiencies.

With this software, the benefits and use of an infrared camera can be further extended and allow more in depth analyses to be made.

FLIR BuildIR™

Software designed to carry out advanced analysis of building structures. It is used to analyze images taken with an infrared camera and create inspection reports based on these images.

Accessories

Pouch
Extra battery
Battery charger
Car charger
Selection of lenses

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