FLUKE®

Fluke Industrial/Commercial Thermal Imagers

Models: Ti25, Ti10 and Ti9

Technical Data

High performance thermal imagers have never been this affordable. This rugged. Or, this easy to use ... until **now.**

The perfect tools to add to your problem solving arsenal. Built for tough work environments, these high-performance, fully radiometric imagers are ideal for troubleshooting electrical installations, electro-mechanical equipment, process equipment, HVAC/R equipment and others.

- The Fluke Ti10 and Ti25 thermal imagers come with enhanced problem detection and analysis capabilities with IR-Fusion® Technology. Simply scroll through the different viewing modes quickly to better identify trouble areas in Full IR thermal, picture-in-picture, or automatic blend visual and thermal images.
- Optimized for field use in harsh work environments
  - Engineered and tested to withstand a 2 m (6.5 ft) drop
  - Withstands dust and water—tested to an IP54 rating.
- Delivers the clear, crisp images needed to find problems fast.
- Identify even small temperature differences that could indicate problems with excellent thermal sensitivity (NETD).
- Intuitive, three-button menu is easy to use—simply navigate with the push of a thumb.
- No need to carry pen and paper—record findings by speaking into the camera. Voice comments are saved along with individual images for future reference (Ti25 only)

Fluke. *Not just infrared, infrared you can use.®*

Industrial, mechanical, electromechanical and general building maintenance.

Process, refractory insulation, tank and vessel levels, steam systems and traps, pipes and valves, etc.

Electrical, unbalanced loads, overloaded systems, wiring mistakes or component failure, etc.

IR-Fusion®

Patented Fluke IR-Fusion® Technology

More than picture in picture
Infrared images alone can be difficult to understand, which is why Fluke pioneered IR-Fusion, a revolutionary marriage of visible and infrared images never before seen in commercial or industrial thermal imagers. Automatically capturing a visible image with every infrared image allows to you always know exactly what you're looking at.

Not all fusion is created equal
Don't be fooled by imitators. No other manufacturer can boast on-camera blending. Compare the images. Only Fluke has mastered the ability to create the industry's only transparent, perfectly blended and aligned visible and infrared images.

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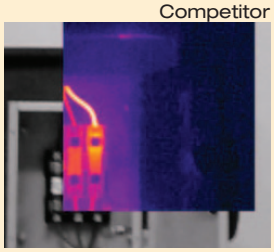
Competitor



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Detailed specifications

	Ti25	Ti10	Ti9
Temperature			
Temperature measurement range (not calibrated below –10 °C)	–20 °C to +350 °C (–4 °F to +662 °F)	–20 °C to +250 °C (–4 °F to +482 °F)	–20 °C to +250 °C (–4 °F to +482 °F)
Temperature measurement accuracy	± 2 °C or 2 % (at 25 °C nominal, whichever is greater)		± 5 °C or 5 % (at 25 °C nominal, whichever is greater)
On-screen emissivity correction	Yes, and in software	In software only	
On-screen reflected background temperature compensation	Yes, and in software	In software only	
Imaging performance			
Image capture frequency	9 Hz refresh rate		
Detector type	160 X 120 Focal Plane Array, uncooled microbolometer		
Thermal sensitivity (NETD)	≤ 0.09 °C at 30 °C target temp. (90 mK)	≤ 0.13 °C at 30 °C target temp. (130 mK)	≤ 0.20 °C at 30 °C target temp. (200 mK)
Visual (visible light) camera	Industrial performance 1.3 megapixels		No visible camera
Minimum (visible light) focus distance	46 cm (approx. 18 in)		
Infrared field of view	23 ° x 17 °		
Spatial resolution (IFOV)	2.5 mRad		
Minimum infrared focus distance	15 cm (approx. 6 in)		
Focus mechanism	Manual, one-handed Smart Focus capability		
Image presentation			
Palettes			
Standard	Ironbow, Blue-Red, High Contrast, Amber, Hot Metal, Grayscale	Ironbow, Blue-Red, High Contrast, Grayscale	
Level and span	Smooth auto-scaling and manual scaling of level and span		
Fast auto toggle between manual and auto modes	Yes		–
Fast auto-rescale in manual mode	Yes		–
Minimum span (in manual mode)	2.5 °C (4.5 °F)	5 °C (9 °F)	
Minimum span (in auto mode)	5 °C (9 °F)	10 °C (18 °F)	
IR-Fusion® information			
Automatically aligned (parallax corrected) visual and IR blending	Yes		No IR-Fusion
Picture-In-Picture (PIP)	Three levels of on-screen IR blending displayed in center of LCD (AutoBlend)	100 % IR displayed in center of LCD	
Full screen infrared	Three levels of on-screen IR blending displayed on LCD (AutoBlend)	100 % IR displayed on LCD	
Voice annotation	60 seconds maximum recording time per image; reviewable playback on imager	–	–
Image capture and data storage			
	The Ti25 allows user to adjust palette, blending, level, span, IR-Fusion® mode, emissivity, and reflected background temperature compensation on a captured image before it is stored.	–	–
Image capture, review, save mechanism	One-handed image capture, review, and save capability		
Storage medium	SD Memory Card (2 GB memory card will store at least 1200 fully radiometric (.is2) IR and linked visual images each with 60 seconds voice annotations (when available), or 3000 basic bitmap (.bmp) images transferrable to PC via included multi-format USB card reader		
File formats	Non-radiometric (.bmp) or fully-radiometric (.is2)		
	No analysis software required for non-radiometic bitmap (.bmp) files		
Export file formats w/SmartView® software	BMP, DIB, GIF, JPE, JFIF, JPEG, JPG, PNG, TIF, and TIFF		
Memory review	Sequential image navigation and review		

General specifications

Operating temperature	–10 °C to +50 °C (14 °F to 122 °F)
Storage temperature	–20 °C to +50 °C (–4 °F to 122 °F) without batteries
Relative humidity	10 % to 95 % non-condensing
Display	9.1 cm (3.7 in) diagonal landscape color VGA (640 x 480) LCD with backlight and clear protective cover
Controls and adjustments	User selectable temperature scale (°C/°F) Language selection Time/Date set Emissivity selection (Ti25 only) Reflected background temperature compensation (Ti25 only) User selectable hot spot and cold spot, and center point on the image (Ti25 only) (other custom markers and shapes in SmartView® software) User selectable backlight: "Full Bright" or "Auto"
Software	SmartView® full analysis and reporting software included
Batteries	Internal rechargeable battery pack (included)
Battery life	Three to four hours continuous use (assumes 50 % brightness of LCD)
Battery charge time	2.5 hours to full charge
AC battery charging	AC adapter/charger (110 V ac to 220 V ac, 50/60 Hz) (included), charges battery while imager is operating or turned off, ac mains adapters included.
AC operation	AC operation with included power supply (110 V ac to 220 V ac, 50/60 Hz). AC mains adapters included.
Power saving	Sleep mode activated after five minutes of inactivity, automatic power off after 30 minutes of inactivity
Safety standards	CSA (US and CAN): C22.2 No. 61010-1-04, UL: UL STD 61010-1 (2nd Edition), ISA: 82.02.01
Electromagnetic compatibility	Meets all applicable requirements in EN61326-1:2006
C Tick	IEC/EN 61326-1
US FCC	CFR 47, Part 15 Class B
Vibration	0.03 g2/Hz (3.8 grms), IEC 68-2-6
Shock	25 g, IEC 68-2-29
Drop	2 meter (6.5 feet)
Size (H x W x L)	26.7 cm x 12.7 cm x 15.2 cm (10.5 in x 5.0 in x 6.0 in)
Weight (battery included)	1.2 kg (2.6 lb)
Enclosure rating	IP54 (protected against dust, limited ingress; protection against water spray from all directions)
Warranty	Two-years (standard)
Recommended calibration cycle	Two-years (assumes normal operation and normal wear)
Supported Languages	Czech, English, Finnish, French, German, Italian, Japanese, Korean, Polish, Portuguese, Russian, Simplified Chinese, Spanish, Swedish, Traditional Chinese, and Turkish

Ordering information

FLK-Ti25 9Hz Thermal Imager
FLK-Ti10 9Hz Thermal Imager
FLK-Ti9 9Hz Thermal Imager

Included
Thermal imager, ac power supply/battery charger (including mains adapters); SD memory card; multi-format USB memory card reader for downloading images into your computer; SmartView® software with free software upgrades for life; rugged, hard carrying case; soft transport bag; adjustable hand strap; printed users manual; warranty registration card.

Optional accessories

TI-CAR-CHARGER Thermal Imager Vehicle Charger
TI-VISOR Thermal Imager Visor
BOOK-ITP Introduction to Thermography Principles Book
TI-TRIPOD Tripod Mounting Base Accessory

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