

## 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)



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.



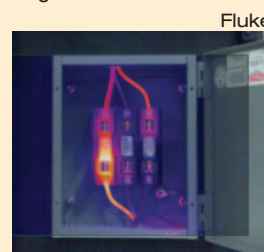
### Patented Fluke IR-Fusion® Technology

#### More than picture in picture

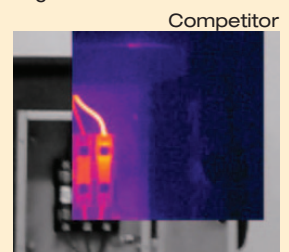
Infrared images alone can be difficult to understand, which is why Fluke pioneered IR-Fusion, a revolutionary marriage of visible and infrared images never before seen in commercial or industrial thermal imagers. Automatically capturing a visible image with every infrared image allows you to always know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



Fluke



Competitor

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

**Detailed specifications**

|   | <b>Ti25</b>  | <b>Ti10</b>                                 | <b>Ti9</b>   |
|---|--|---|--|
| <b>Temperature</b>  |  |   |  |
| 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                            |  |
| <b>Imaging performance</b>  |  |   |  |
| 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  |   |  |
| <b>Image presentation</b>   |  |   |  |
| 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)                               |  |
| <b>IR-Fusion® information</b>                                     |  |   |  |
| 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   | —   | —  |
| <b>Image capture and data storage</b>                             |  |   |  |
|   | 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-radiometric 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

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



**Fluke. Not just infrared.**  
*Infrared you can use.™*

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