

# Fluke Ti25 Thermal Imager

# **Technical Data**

# The ultimate tool for troubleshooting and maintenance

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

- Enhanced problem detection and analysis capabilities with IR-Fusion<sup>®</sup> 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 drop–When was the last time you dropped a tool?
- 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 annotations can be recorded with every image you take. Voice comments are saved along with individual images for future reference.
- Everything needed to get started is included.
- Adjustable hand strap for left-or right-handed use.



## **IR-Fusion®** Technology

See things both ways—infrared and visual (visible light) images fused together communicating critical information faster and easier—traditional infrared images are no longer enough.

IR-Fusion, a patent-pending technology that simultaneously captures a digital photo in addition to the infrared image and fuses it together taking the mystery out of IR image analysis. IR-Fusion is standard on the Fluke Ti25.





# **Detailed specifications**

Temperature	
Temperature measurement range	−20 °C to +350 °C
(not calibrated below -10 °C)	(two ranges)
Accuracy	$\pm$ 2 °C or 2 % (whichever is greater)
On-screen emissivity correction	Yes
Imaging performance	
Field of view	23° x 17°
Spatial resolution (IFOV)	2.5 mRad
Minimum focus distance	Thermal lens: 15 cm Visible (visual) light lens: 46 cm
Focus	Manual
Image frequency	9 Hz refresh rate
Detector type	160 X 120 focal plane array, uncooled microbolometer
Infrared lens type	20  mm F = 0.8  lens
Thermal sensitivity (NETD)	$\leq$ 0.1 °C at 30 °C (100 mK)
Infrared spectral band	7.5 μm to 14 μm
Visual camera	640 x 480 resolution
Image presentation	
Palettes	Ironbow, blue-red, high contrast, amber, hot metal, grey
Level and span	Smooth auto-scaling and manual scaling of level and span
Minimum span (in manual mode)	2.5 °C
Minimum span (in auto mode)	5 °C
IR-Fusion® information	Full infrared with MAX, MID, or MIN automatic blending; and picture-in-picture with MAX, MID, or MIN automatic blending (Visual and IR blending)
Picture-In-Picture (PIP)	Three levels of on-screen IR blending displayed in center 320 x 240 pixels
Full screen (PIP off)	Three levels of on-screen IR blending displayed in center 640 x 480 LCD
Voice annotation	
Voice annotation	60 seconds maximum recording time per image
Image and data storage	
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 or 3000 basic (.bmp) IR images
File formats	Non-radiometric (.bmp) or fully-radiometric (.is2) No analysis software required for non-radiometric (.bmp) files
Export file formats w/SmartView™ software included	JPEG, BMP, GIF, PNG, TIFF, WMF, EXIF, and EMF



Temperature	Operating: -10 °C to 50 °C Storage: -20 °C to 50 °C without batteries
Relative humidity	10 % to 90 % non-condensing
Display	9.1 cm (3.6 in) diagonal landscape color VGA (640 x 480) LCD with backlight (selectable bright or auto)
Controls and adjustments	User selectable temperature scale (°C/°F) Language selection Time/Date set Emissivity selection User selectable Hot Spot and Cold Spot on the image Ti25 allows user to adjust palette, automatic blend, level, span, PIP, and emissivity on a captured image before it is stored.
Software	SmartView <sup>™</sup> full analysis and reporting software included
Power	Battery: Internal rechargeable battery pack (included) Battery life: Three to four hours continuous use (assumes 50 % brightness of LCD) Battery charge time using ac adapter/charger and dc car charger: Two hours for full charge
AC operation/charging	AC adapter/charger (110 Vac to 220 Vac, 50 Hz to 60 Hz). Charges battery while imager is operating. Universal ac mains adapters included.
Power saving	Sleep mode activated after 5 minutes of inactivity, automatic power off after 20 minutes of inactivity
Safety standards	CE Directive: IEC/EN 61010-1 2nd Edition Pollution Degree 2
Electromagnetic compatibility	EMC directive: EN61326-1 C-Tick: IEC/EN 61326 US FCC: CFR 47, Part 15 Class A
Vibration	2 G, IEC 68-2-29
Shock	25 G, IEC 68-2-29
Dimensions (HxWxL)	0.27 m x 0.13 m x 0.15 m
Weight	1.2 kg
IP rating	IP54
Warranty	Two-years
Calibration cycle	Two-years (assumes normal operation and normal aging)
Supported languages	English, Italian, German, Spanish, French, Russian, Portuguese, Swedish, Turkish, Czech, Polish, Finnish, Simplified Chinese, Traditional Chinese, Korean, and Japanese

# **Ordering information**

#### **FLUKE Ti25**

5 Thermal Imager

### **Included with product**

Thermal imaging camera w/ 20 mm lens, ac power supply/battery charger (including mains adapters), SD memory card, SD card reader (USB) for downloading images into your computer, SmartView<sup>™</sup> software with free software upgrades for life, rugged hard, carrying case, soft transport bag, hand strap, users manual, warranty registration card

### **Optional accessories**

Fluke TI Charger Thermal Imager Car Charger (standard 12 V dc auxiliary power adapter)





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