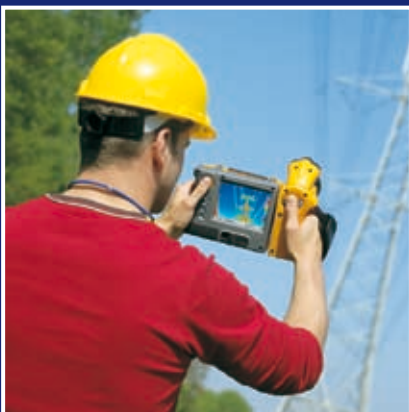


# Thermal Imagers

Temperature changes can indicate problems in many everyday applications and a thermal imager makes it quick and easy to visually check surface temperatures. Often problems can be discovered before contact measurements even need to be made. Fluke offers a complete range of handheld thermal imagers for both industrial and building diagnostic applications. Models are available for any budget.



# Ti Series Thermal Imagers

## Find it, fix it, fast!

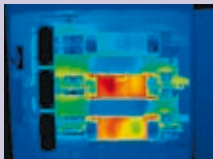
Temperature changes can indicate problems in many areas you see everyday, some include:

- **Inside electrical distribution and service** (Switch gear, panels, controls, fuses, transformers, receptacles, lighting, conductors, bus bars, motor control centers)
- **Motors, pumps and mechanical** (Electric motors and generators, pumps, compressors, evaporators, bearings, couplings, gearboxes, gaskets/seals, belts, rollers, disconnects)
- **Process** (Tanks and vessels, pipes, valves and traps, reactors, process insulation)
- **HVAC/R** (air conditioning, heating, air handlers, refrigeration)
- **Outside electrical distribution - utilities** (Transformers, bushings, insulators, transmission lines, other exterior conductors, service connections, disconnects, capacitor banks)

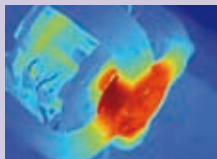
[www.fluke.eu/ti](http://www.fluke.eu/ti)



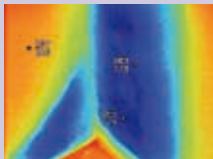
Overheating bearing cap



Three-phase switch-gear load imbalance



Overheated motor

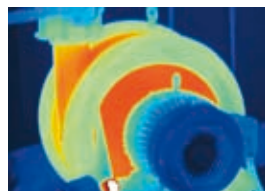


Cool corner in a building

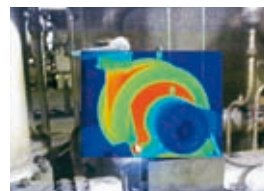
## IR-Fusion® Technology: Infrared and visual images fused together in one image

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. Patent-pending IR-Fusion® Technology, only available from Fluke, simultaneously captures a digital photo and the infrared image and fuses them

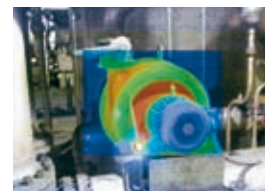
together taking the mystery out of IR image analysis.



Full IR



Picture-in-Picture



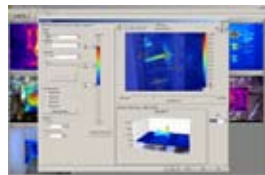
Alpha Blending



IR/Visible Alarm



Full Visible Light



## SmartView™ Software

Fluke SmartView™ software is included with each Fluke IR FlexCam® Thermal Imager. This powerful software is a modular suite of tools that annotates, views, edits and analyzes IR images.

It also generates fully customizable and professional-looking reports in a few easy steps. The IR-Fusion technology is fully supported.

## Selection Table Industrial Applications

	Ti10	Ti25	Ti40FT/Ti45FT	Ti50FT/Ti55FT
Detector type	160 x 120	160 x 120	160 x 120	320 x 240
IR-Fusion	●	●	●	●
Field of View (FOV)	23° x 17°	23° x 17°	23° x 17°	23° x 17°
Optional lenses			●	●
180° articulating lens			●	●
Thermal sensitivity	≤ 0.2 °C	≤ 0.1 °C	down to ≤ 0.08 °C	down to ≤ 0.05 °C
Temperature range	250 °C	350 °C	up to 600 °C*	up to 600 °C
Digital display	3.6" LCD	3.6" LCD	5" LCD	5" LCD
Video output			●	●
Choice of palettes	4	6	8	8
Voice annotation		●		
Software	SmartView	SmartView	SmartView	SmartView
Storage capacity	>3000 IR images	>3000 IR images	>1000 IR images	>1000 IR images

\*1200 °C option available

## FREE thermal imaging application DVD

This DVD covers the principles of thermal imaging and looks at using this powerful troubleshooting technology in electrical, electro-mechanical and process control applications. Order your copy at [www.fluke.co.uk/DVD](http://www.fluke.co.uk/DVD) or [www.fluke.eu/DVD](http://www.fluke.eu/DVD).



# Ti10/Ti25 Thermal Imagers



Fluke Ti10/Ti25



Complete package

## Included Accessories

- SmartView™ software
- 2 GB SD card
- SD card reader
- Rugged hard carrying case
- Soft carrying case
- Hand strap
- Rechargeable battery
- AC charger/power supply
- User manual

## Ordering Information

- Fluke Ti10 Thermal Imager
- Fluke Ti25 Thermal Imager

## The ultimate tools for troubleshooting and maintenance

The Fluke Ti10/Ti25 are 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 systems, electro-mechanical equipment, process equipment, HVAC/R equipment and others.

- Enhanced problem detection and analysis capabilities with patent-pending IR-Fusion® Technology
- Optimized for field use in harsh work environments
  - Engineered and tested to withstand a 2 meter drop
  - Withstands dust and water – tested to an IP54 rating
  - Innovative protective lens cover protects the lens when not in use
- Delivers the clear, crisp images needed to find problems fast
  - Identify even small temperature differences that could indicate problems with excellent thermal sensitivity (NETD)
  - Even the smallest details become visible with the large, widescreen full color LCD display
- 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 – comments are saved with the image (Ti25 only)
- Store more than 3,000 screen images (.bmp format) or 1,200 IR-Fusion images on included 2 GB SD memory card

## Specifications

(Check the Fluke web for detailed specifications)

	Ti10	Ti25
<b>Thermal imaging performance</b>		
Field of view (FOV)	23 ° horizontal x 17 ° vertical	
Spatial resolution (IFOV)	2.5 mrad	
Min focus distance	15 cm	
Thermal sensitivity (NETD)	≤0.2 °C at 30 °C	≤0.1 °C at 30 °C
Minimum span (Auto/Manual)	10 °C / 5 °C	5 °C / 2.5 °C
Focus	Manual	
Detector type	160 x 120 Focal Plane Array, uncooled microbolometer	
<b>Visual imaging performance</b>		
Min focus distance	46 cm	
On camera operating modes	Full Picture-in-Picture and full screen IR	Picture-in-Picture and full screen IR plus Blending
Visible light camera	640 x 480 pixels, full color	
<b>Temperature measurement</b>		
Temperature range	-20 °C to 250 °C	-20 °C to 350 °C
Accuracy	± 5 °C or 5%	± 2 °C or 2%
Measurement modes	Center point	"Center point and hot and cold markers"
On screen emissivity correction		●
<b>Image presentation</b>		
Digital display	9.1 cm (3.6") landscape color VGA (640x480) LCD"	
LCD backlight	Selectable bright or auto	
Palettes	Ironbow, blue-red, high contrast, grey	Ironbow, blue-red, high contrast, amber, hot metal, grey
<b>Image and data storage</b>		
Storage medium	2GB SD Card (3000 .bmp IR images/1200 .IS2 IR-Fusion images)	
File formats supported	JPEG, BMP, GIF, PNG, TIFF, WMF EXIF and EMF	
Voice memo recorder	●	
<b>Controls and adjustments</b>		
Set-up controls	Date/time, °C/°F, language	Date/time, °C/°F, language, emissivity, hot spot and cold spot on image
Language selection	Eng, ger, fre, spa, por, ita, swe, fin, rus, cze, pol, tur	
Image controls	Smooth auto scaling and manual scaling	
On-screen Indicators	Battery status, real time clock and center point temperature, range and span indication and high and low alarm settings	

**Battery life:** 3 to 4 hours continuous operation

**Water and dust resistant:** IP54

**Size (HxWxD):** 267 x 127 x 152 mm

**Weight:** 1.2 kg

**Two Years Warranty**

## Recommended Accessories



Ti-Visor Sun Visor



Ti20-RBP Rechargeable Battery Pack



Ti-Car Charger

# TiR Series Thermal Imagers



Fluke TiR/TiR1



Fluke TiR2/FT, TiR3/FT, TiR4/FT

## Locate building problems quickly and easily

The affordable rugged Fluke TiR1 and TiR Thermal Imagers are workhorse tools for the demands of building envelope, restoration and remediation, inspection and roofing applications. Whether to locate the origins of construction problems, to find roof leaks or to perform energy audits, the TiR1 and TiR offer an economical solution for complete detection, analysis and documentation.

capture images in areas with poor accessibility. Built-in AutoCapture, alarm and analysis functions help you locate intermittent problems (TiR2 and TiR4 only).

The TiR2, TiR3 and TiR4 IR Flexcam® Thermal Imagers are the expert's choice for building diagnostics. They feature the highest levels of thermal sensitivity available to identify even small temperature differences that could indicate problems. A 180° articulating lens makes it possible to view and

## Specifications

(Check the Fluke web for detailed specifications)

	TiR	TiR1	TiR2	TiR3	TiR4
Detector type	160 x 120	160 x 120	160 x 120	320 x 240	320 x 240
Field of View (FOV)	23° x 17°	23° x 17°	23° x 17°	23° x 17°	23° x 17°
Optional 10.5 mm lens			●	●	●
180° articulating lens			●	●	●
Spatial resolution (IFOV)	2.5 mrad	2.5 mrad	2.6 mrad	1.3 mrad	1.3 mrad
Thermal sensitivity (NETD)	≤ 0.1 °C	≤ 0.07 °C	≤ 0.07 °C	≤ 0.07 °C	≤ 0.05 °C
Temperature range	-20 to 100 °C	-20 to 100 °C	-20 to 100 °C	-20 to 100 °C	-20 to 100 °C
Digital display	3.6" LCD	3.6" LCD	5" LCD	5" LCD	5" LCD
Video output			●	●	●
Choice of palettes	4	6	8	8	8
IR-Fusion	●	●	●	●	●
Fully radiometric	●	●	●	●	●
Voice annotation		●			
SmartView Software	●	●	●	●	●
Storage medium	>3000 IR images on SD card	>3000 IR images on SD card	>1000 IR images on compact flash card	>1000 IR images on compact flash card	>1000 IR images on compact flash card

### TiR/TiR1

**Battery life:** 3 to 4 hours continuous use  
**Water and dust resistant:** IP54  
**Size (HxWxD):** 162 x 262 x 101 mm  
**Weight:** 1.2 kg  
**Two Years Warranty**

### TiR2/TiR3/TiR4

**Battery life:** 2 hours continuous use  
**Water and dust resistant:** IP54  
**Size (HxWxD):** 267 x 127 x 152 mm  
**Weight:** 1.85 kg  
**Two Years Warranty**

### Included Accessories

Fluke TiR/TiR1: SmartView software, 2 GB SD card, SD card reader, rugged hard carrying case, soft carrying case, hand strap, rechargeable battery, AC charger/power supply, user manual

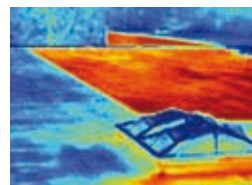
Fluke TiR2/TiR3/TiR4: SmartView software, AC adapter (TiR2 and TiR4), video cable, 1 GB compact flash card, compact flash card reader and USB cable, PCMCIA compact flash card adapter, 2 rechargeable battery packs, battery charger, neck strap, heavy duty carrying case, user manual on CD

### Ordering Information

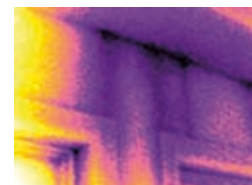
Fluke TiR Thermal Imager  
 Fluke TiR1 Thermal Imager  
 Fluke TiR2/FT-20 IR FlexCam Thermal Imager  
 Fluke TiR3/FT-20 IR FlexCam Thermal Imager  
 Fluke TiR4/FT-20 IR FlexCam Thermal Imager



**Missing insulation:**  
Quickly locate voids in building insulation.



**Roofing:**  
Detect water saturated insulation in flat-roof systems to locate damaged portions of roofing structure.



**Moisture detection:**  
Accurately detect moisture behind interior walls, in ceilings, and under carpets.

## Recommended Accessories



**Ti Visor**  
Sun Visor (TiR/TiR1)



**Ti-Car Charger**



**103232**  
Anti-glare Hood  
(TiR2/3/4)



**104543**  
Car charger  
(TiR2/3/4)



**Ti-SBC**  
Battery Charger  
(TiR2/3/4)