Fluke Thermal Imaging
Find it, fix it, fast

Fluke Ti32

Superior image quality
Just pick up a Fluke imager and you'll immediately see the difference. Fluke delivers the clear, crisp images needed to find and fix problems fast.
- Industry leading thermal sensitivity (NETD) enables you to identify the small temperature differences that could indicate big problems
- Even the smallest details become visible with the large, wide-screen full VGA color LCD display
- Patented IR-Fusion®

Easy to use
When you pick up a tool, you need it to operate and deliver results without having to read a heavy manual
- Intuitive, three-button menu is easy to use… simply navigate with the push of a thumb
- Add comments quickly and easily with voice annotation feature
- Easy, manual focus allows for precise image viewing control

Fluke FlexCam Series

Rugged
Tools are meant to be used, and Fluke thermal imagers are designed to reliably operate in the toughest environments.
- Engineered and tested to withstand a 2 m (6.5 ft) drop—when was the last time you dropped a tool? See the proof at **www.fluke.com/rugged**

- Use in ambient temperatures as low as –10 °C (14 °F) and high as +50 °C (122 °F)
- Protected by two-year warranty, with one- or two-year extended warranties available

Ask your Fluke representative for more details.
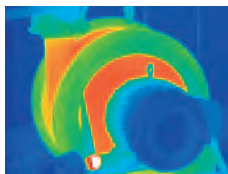
IR-Fusion® Technology
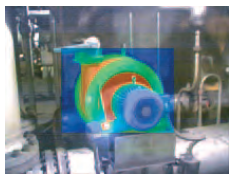## Not all fusion is created equal

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.

Don't be fooled by imitators. Patented IR-Fusion is the only solution with physical parallax correction, enabling the perfect alignment and smooth blending of both infrared and visible images. While many manufacturers have attempted to duplicate Fluke IR-Fusion, none have been able to match it. Turn to Fluke IR-Fusion to deliver the industry's best thermal images.
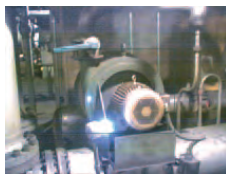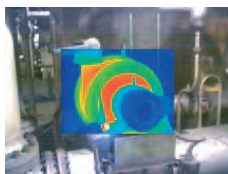
IR-Fusion viewing modes

Full IR

Alpha Blending
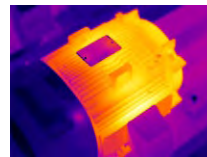

Full Visible Light

Picture in Picture

IR/Visible Alarm

For more information, go to **www.fluke.com/thermal_imaging**

Fluke SmartView® Software
Analysis and reporting software

Fluke palette options (six of 16 available, varies by model)

Amber

Blue-red

Grey

High contrast

Ironbow

Hot metal
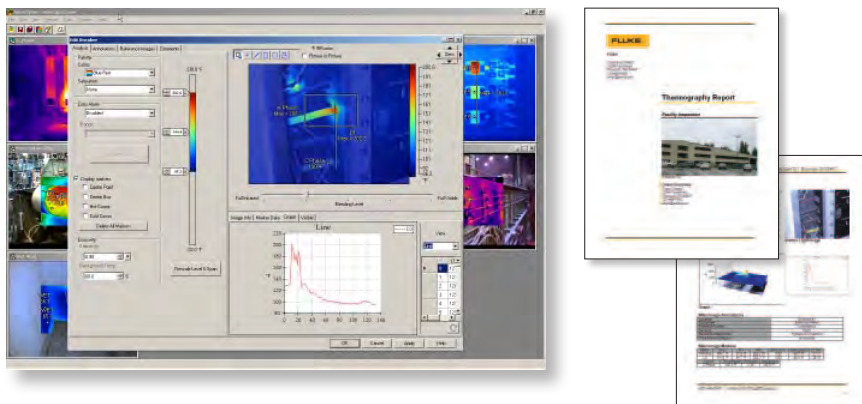
Powerful
Everything you need for analysis and reporting.
- Extensive annotation, editing and viewing options with full IR-Fusion® capabilities
- Multiple reporting options and templates and 3D-IR™ for unique 3D analysis

Easy to use
- SmartView tools and controls allow easy access to editing functions and its easy drag and drop text annotation feature
- Report Wizard guides you through automatic, professional report generation

Included with every imager
Fluke includes SmartView software with unlimited licenses and lifetime upgrades with every thermal imager
- No need to pay extra for a professional software solution

SmartView® system requirements
Software requirements
- Windows® XP SP2/Vista/7
- A web browser for product registration and web updates
- Internet Explorer 5.0 or newer
- 512 MB of RAM minimum (1 GB for Vista or 7)
- 360 MB of hard disk space for product installation
- Microsoft® Word 2007 for report template modification (optional)

Hardware requirements
- Memory card reader to transfer images to computer (included)
- 512 MB RAM (1GB for Vista), not including the space requirements for web browser and Microsoft® Word
- 16-bit color, 1024x768 resolution video or better
- CD-ROM drive for installing SmartView software

Fluke Training Solutions
Getting started with Fluke Ti Thermal Imagers

Unsure where to begin with your new thermal imager?
Don't worry. Fluke utilizes an extensive network of industry experts to deliver a full portfolio of training solutions.
- **Free in-box training DVD:** This convenient training solution provides a general introduction to thermal imaging, product information, and common applications.
- **Free online webinars:** Fluke offers both pre-recorded and live webinars to meet the needs of busy professionals. Visit **www.fluke.com/titraining** for course listings and schedules.
- **Hands-on training seminars:** Join us for one of our many local seminars where Fluke Thermography experts will teach basic thermography with hands-on demonstrations. Go to **www.fluke.com/titraining** for schedules.
- **Advanced training:** For advanced thermography (Level I to Level III) and application specific training either online, in the classroom or at your site, sign up through Fluke authorized, independent training partners. Visit **www.fluke.com/titraining** for training options and schedules.

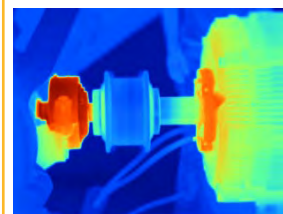Fluke authorized training is provided by our partner,

The **Snell** Group™
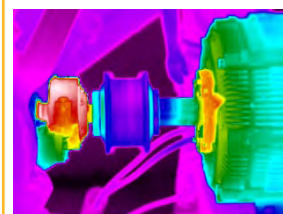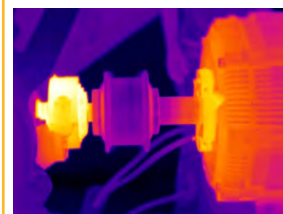
Check price and availability at **www.fluke.com/wtb**

Ti Series Industrial Thermal Imagers
The ultimate tools for troubleshooting and maintenance

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—only available from Fluke
- 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 IP 54 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

See page 44 for IR-Fusion Technology—only available from Fluke.

See page 48 for recommended accessories.

Ti32 shown with optional telephoto lens

Specialty models

Find problems faster with Fluke thermal imagers.
Turn to the high performance Fluke FlexCam® line when you need a 5 inch high-contrast LCD and superior on-imager analysis capabilities. Images stored on a 1 GB compact flash card can be downloaded to a computer with included USB cable or card reader. Offers video out for live sharing of thermal images. Additional lenses are available. Fluke puts powerful technology within your reach.

Fluke Ti50FT, Ti55FT

Resources

Hands-on training, Webinars, virtual demos and more.
www.fluke.com/titraining

This tool will help determine the return on investment of a Fluke Thermal Imager.
www.fluke.com/roi

Specifications

Features	Ti32	Ti25	Ti10
Temperature measurement range (not calibrated below –10 °C)	–20 °C to +600 °C (–4 °F to + 1112 °F)	–20 °C to +350 °C (–4 °F to + 662 °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		
On-screen reflected background temperature compensation	Yes		
On-screen transmission correction	Yes		
Image capture frequency	60 Hz or 9 Hz refresh rate depending on model		
Detector type	320 X 240 Focal Plane Array, uncooled microbolometer	160 X 120 Focal Plane Array, uncooled	
Thermal sensitivity (NETD)	≤ 0.05 °C at 30 °C target temp. (50 mK)	≤ 0.1 °C at 30 °C target temp. (100 mK)	≤ 0.2 °C at 30 °C target temp. (200 mK)
Field of view (standard lens)	Field of View: 23 ° x 17 °; Minimum Focus Distance: 15 cm (approx. 6 in)		
Spatial resolution (IFOV)	1.25 mRad	2.5 mRad	
Optional telephoto infrared lens	Yes		
Optional wide-angle infrared lens	Yes		
Standard palettes	Ironbow, Blue-Red, High Contrast, Amber, Amber Inverted, Hot Metal, Grayscale, Grayscale Inverted	Ironbow, blue-red, high contrast, amber, hot metal, grey	Ironbow, blue-red, high contrast, grey
Ultra contrast palettes	Ironbow Ultra, Blue-Red Ultra, High Contrast Ultra, Amber Ultra, Amber Inverted Ultra, Hot Metal Ultra, Grayscale Ultra, Grayscale Inverted Ultra		
IR Fusion®	Yes		
Color alarms (user selectable)	High-temperature alarm		
Voice annotation	60 seconds maximum recording time per image; reviewable playback on imager		
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 bitmap (.bmp) images, or 3000 jpeg (.jpeg) images; transferrable to PC via included multi-format USB card reader		
Export file formats w/included SmartView® Software	BMP, DIP, GIF, JFIF, JPE, JPEG, JPG, PNG, TIF, and TIFF		
Batteries	Two Lithium Ion rechargeable smart battery packs with 5-segment LED Display to show charge level. Battery life: 4+ hours; Battery charge: 2.5 hours to full charge	Internal rechargeable battery pack (included) Battery life: 3-4 hours Battery charge: 2.5 hours to full charge	
AC battery charging	Two-bay AC battery charger (110 V ac to 220 Vac, 50/60 Hz) (included), or in-imager charging, ac mains adapters included	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		
Enclosure rating	IP54		
Drop tested	2 m (6.5 ft)		
Warranty	Two-year		

To download detailed specifications for these products go to **www.fluke.com/tispecs**

Ordering information

Included accessories	Models	
In-box training DVD, SmartView® analysis and reporting software, 2 GB SD memory card, multi-function memory card reader, hard carry case, soft carry case, hand strap, two external smart rechargeable batteries, ac charger/power supply.* *Included accessories vary by model.	FLK-Ti25 9HZ	Thermal Imager
	FLK-Ti10 9HZ	Thermal Imager
	FLK-Ti32 9HZ	Industrial-Commercial Thermal Imager
	FLK-Ti32 60HZ	Industrial-Commercial Thermal Imager
AC adapter, video cable, 1 GB compact flash card, compact flash card reader and USB cable, PCMCIA compact flash card adapter, SmartView reporting and analysis software, two rechargeable battery packs, battery charger, neck strap, heavy duty carrying case and users manual on CD.	FLK-Ti40FT-20	IR FlexCam Thermal Imager
	FLK-Ti45FT-20	IR FlexCam Thermal Imager
	FLK-Ti50FT-20	IR FlexCam Thermal Imager
	FLK-Ti55FT-20	IR FlexCam Thermal Imager

Check price and availability at
www.fluke.com/wtb

Ti Series Buildings Thermal Imagers
Optimized for energy audits and moisture detection

The ultimate tools for energy audits, building maintenance, restoration and remediation.

- Enhanced problem detection and analysis capabilities with patent-pending IR-Fusion® Technology—only available from Fluke
- Optimized for field use
  - Engineered and tested to withstand a 2 m (6.5 ft) drop
  - Withstands dust and water—tested to an IP 54 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

See page 44 for IR-Fusion Technology—only available from Fluke.

See page 48 for recommended accessories.

TiR32 shown with optional wide angle lens

Specialty models

FlexCam® Thermal Imagers The experts' choice for building diagnostics
The Fluke TiR3FT and TiR4FT Thermal Imagers are for professionals demanding the best and most thorough solutions in building diagnostics applications. The Fluke TiR-Series provides the industry's largest LCD to view on-camera images, augmented with the innovative IR-Fusion® Technology to better pinpoint building problems. IR-Fusion is the overlay of IR and visible images, allowing one to clearly identify critical points within the thermal image.

Fluke TiR3/FT, TiR4/FT

Fluke TiS Building Diagnostics Thermal Imaging Scanner
The new Fluke TIS is the top-performing imager in its price class and meets the proposed RESNET infrared inspection standards.
- 120 x 120 resolution
- Largest display in price class, 30 % larger than comparable models
- Award winning design, built rugged to withstand 2 m (6.5 ft) drop

Fluke TiS

Specifications

Features	TiR32	TiR1	TiR
Temperature measurement range (not calibrated below –10 °C)	–20 °C to +150°C (–4 °F to + 302 °F)	–20 °C to +100 °C (–4 °F to + 212 °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		
On-screen reflected background temperature compensation	Yes		
On-screen transmission correction	Yes		
Image capture frequency	60 Hz or 9 Hz refresh rate depending on model		
Detector type	320 X 240 Focal Plane Array, uncooled microbolometer	160 X 120 Focal Plane Array, uncooled	
Thermal sensitivity (NETD)	≤ 0.05 °C at 30 °C target temp. (50 mK)	≤ 0.07 °C at 30 °C target temp. (70 mK)	≤ 0.1 °C at 30 °C target temp. (100 mK)
Field of view (standard lens)	Field of view: 23 ° x 17 °; minimum focus distance: 15 cm (approx. 6 in)		
Spatial resolution (IFOV)	1.25 mRad	2.5 mRad	
Optional telephoto infrared lens	Yes		
Optional wide-angle infrared lens	Yes		
Standard palettes	Ironbow, Blue-Red, High Contrast, Amber, Amber Inverted, Hot Metal, Grayscale, Grayscale Inverted	Ironbow, blue-red, high contrast, amber, hot metal, grey	Ironbow, blue-red, high contrast, grey
Ultra contrast palettes	Ironbow Ultra, Blue-Red Ultra, High Contrast Ultra, Amber Ultra, Amber Inverted Ultra, Hot Metal Ultra, Grayscale Ultra, Grayscale Inverted Ultra		
IR Fusion®	Yes		
Color alarms (user selectable)	Dew point-temperature alarm		
Voice annotation	60 seconds maximum recording time per image; reviewable playback on imager		
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 bitmap (.bmp) images, or 3000 jpeg (.jpeg) images; transferrable to PC via included multi-format USB card reader		
Export file formats w/included SmartView® Software	BMP, DIP, GIF, JFIF, JPE, JPEG, JPG, PNG, TIF, and TIFF		
Batteries	Two Lithium Ion rechargeable smart battery packs with 5-segment LED Display to show charge level. Battery life: 4+ hours; Battery charge: 2.5 hours to full charge	Internal rechargeable battery pack (included) Battery life: 3 to 4 hours Battery charge: 2.5 hours to full charge	
AC battery charging	Two-bay ac battery charger (110 V ac to 220 V ac, 50/60 Hz) (included), or in-imager charging, ac mains adapters included	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		
Enclosure rating	IP54		
Drop tested	2 m (6.5 ft)		
Warranty	Two-year		

To download detailed specifications for these products go to **www.fluke.com/tispecs**

Ordering information

Included accessories	Models	
In-box training DVD, SmartView® analysis and reporting software, 2 GB SD memory card, multi-function memory card reader, hard carry case, soft carry case, hand strap, two external rechargeable batteries, ac charger/power supply and users manual.* *Included accessories vary by model.	FLK-TiR32 9HZ	Building Diagnostics Thermal Imager
	FLK-TiR32 60HZ	Building Diagnostics Thermal Imager
	FLK-TIR1 9HZ	Thermal Imager
	FLK-TIR 9HZ	Thermal Imager
AC adapter (TiR4FT only), video cable, 1 GB compact flash card, compact flash card reader and USB cable, PCMCIA compact flash adapter, SmartView reporting and analysis software on CD, two rechargeable battery packs, battery charger, neck strap, heavy duty carrying case and users manual on CD.	FLK-TiR3/FT-20	IR FlexCam BD Thermal Imager
	FLK-TiR4/FT-20	IR FlexCam BD Thermal Imager
	FLK-TiS 9HZ	IR BD Thermal Imager

Resources

Thermal imaging equipment solution center
These tools can help you find out more about thermal imaging whether you currently own a thermal imager or are considering a purchase.
www.fluke.com/tisolutions

Got Questions? Get Answers.
Choose your application

Check price and availability at
www.fluke.com/wtb

Thermal imaging resources from Fluke
Everything you need to use a Fluke thermal imager

Product demos

**Building Inspection with a Fluke thermal imager—a video**

If you currently own a Fluke thermal imager or are considering a purchase, please visit the Fluke Thermal Imaging Resource site at **www.fluke.com/titools**.

Learn more about the value of thermal imaging and why Fluke thermal imagers and SmartView® software are the best solutions on the market today.

Watch a video, take a virtual demo, and view or download other useful information and tools.

Find the thermal imager that best fits your application
Go to **www.fluke.com/select**. Use our online product selection guide to find out the best Fluke thermal imager for your application.
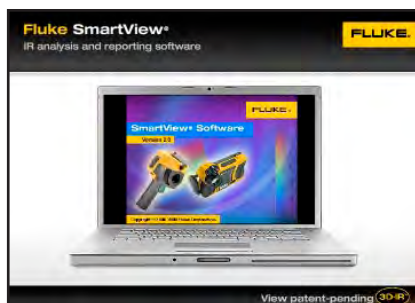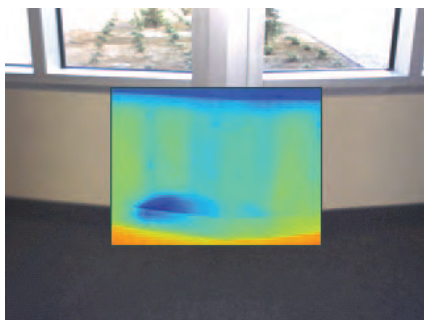

SmartView software demo
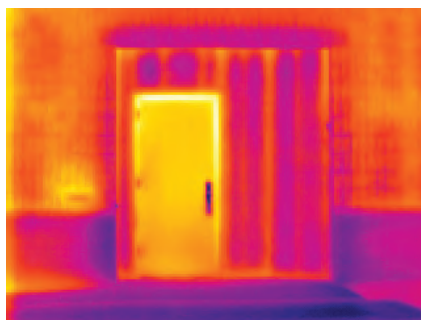
Sample applications
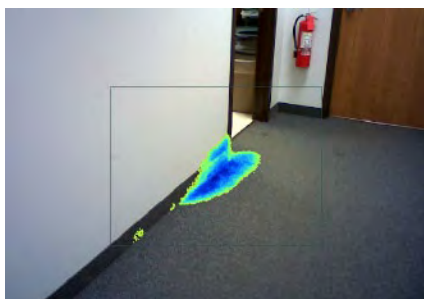
Moisture detection: Accurately detect moisture behind interior walls, in ceilings, and under carpets.
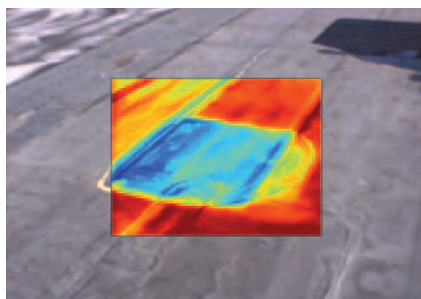
Roofing: Detect water-saturated insulation in flat-roof systems to locate damaged portions of roofing structure.

Mold remediation: Control mold by revealing undetected sources of moisture.

Energy audits: Perform residential and commercial energy audits by scanning for heating or cooling (energy) loss, moisture invasion, and HVAC/R problems.

Check price and availability at **www.fluke.com/wtb**