

FLUKE®



Fluke infrared tools

Experience. Performance. Confidence.

TEMPERATURE MEASUREMENT SOLUTIONS

Fluke infrared tools are on the job because THEY DO THE JOB.



EXPERIENCE is 65 years designing and building tools recognized as the industry standard in test and measurement. We understand that the demands on you and your tools are continuously evolving. This drives us to keep innovating, to learn from you what challenges you face and what you need from your tools.

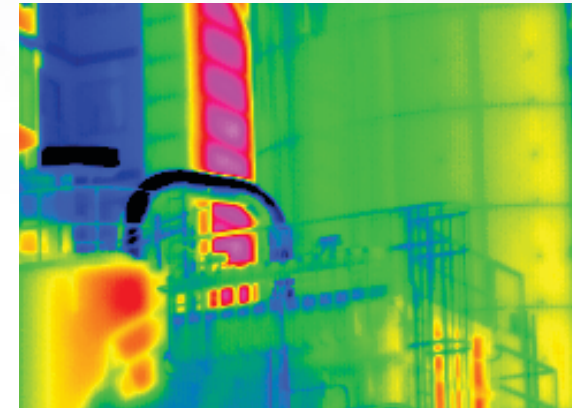
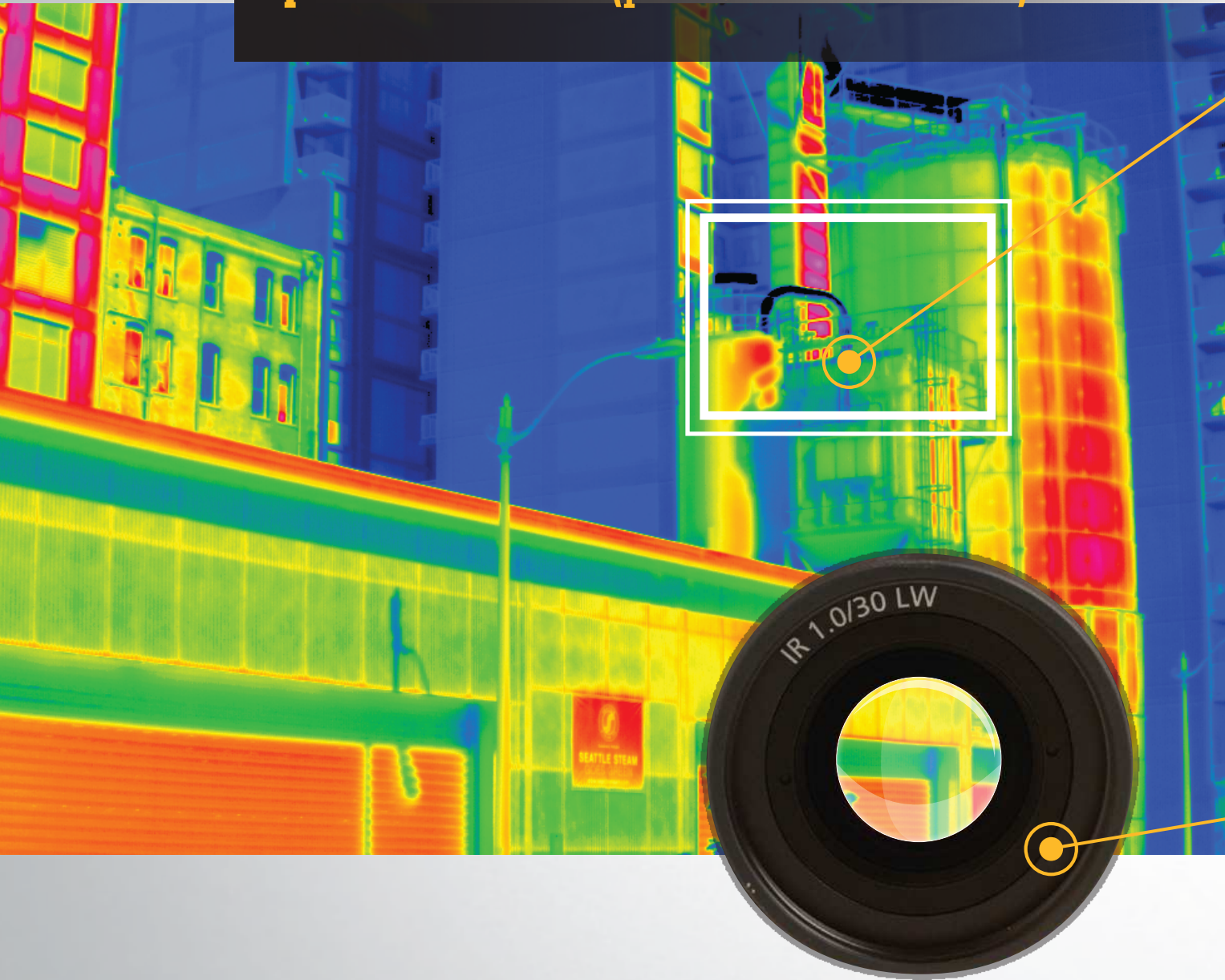
PERFORMANCE is recognizing job sites can be complex, messy and sometimes dangerous. Your tools must excel while helping to keep you safe in changing environments. You want them designed for one-handed simplicity and to deliver superb image quality and deep analytics. We call it Fit for Purpose—tools developed for industrial use; for *your* use.

CONFIDENCE is knowing that the quality, accuracy and reliability we build into every Fluke tool is the DNA of our portfolio. We know the decisions you make from your measurements are your reputation. You need tools that are accurate and trustworthy so you can make the right decision.

Look beyond PIXELS. You'll see the DIFFERENCE.

Pixels are only part of the equation that determines infrared image quality.

IMAGE QUALITY = focus + optics + spatial resolution (pixels + field of view)



Premier focus technologies

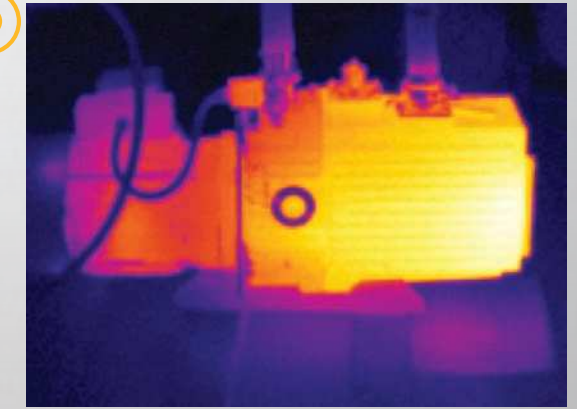
Getting in-focus images can be painstaking with manual focus systems, and some autofocus systems may not focus on your desired target. Fluke Professional and Expert Series cameras include some of the most innovative focus technologies available.

- LaserSharp® Auto Focus, only from Fluke, gives you the fastest way to precisely focused images
- EverSharp multifocal recording gives you edge-to-edge clarity of targets both near and far in one image

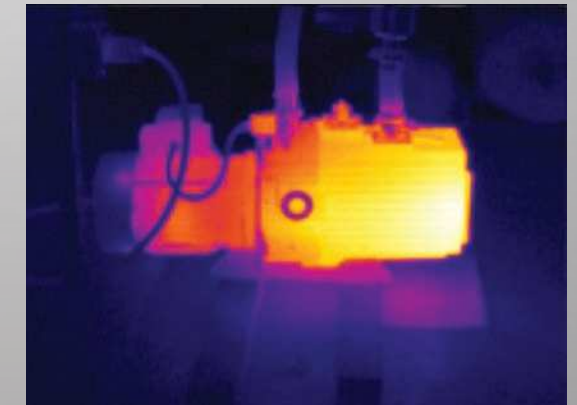


Simply the best optics

Fluke uses only 100% diamond-turned germanium lenses covered with a specialty coating. This is the most efficient material to transmit energy to the detector to produce high quality infrared images.



2.25 mRad



3.39 mRad

Spatial resolution: the best kept secret to image quality

The best spatial resolution has the largest number of detector pixels within the smallest field of view. This combination is measured in mRads, and the smaller the number, the more detailed the image. Fluke thermal imagers' mRads range from 0.6 mRad (best) to 5.6 mRad, while competitive models range up to 10.3 mRad.

The images above have the same number of detector pixels and were taken at the same distance from the motor¹, but the top image has better spatial resolution, and you can see more details, due to the tighter field of view.

¹Both images were taken with Fluke cameras

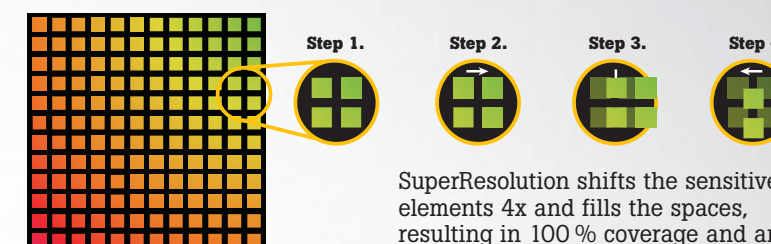
The future of infrared is here in STUNNING HD resolution.

Your work as an expert thermographer is defined by the quality of the infrared images you take and your ability to analyze what's before you. The most pressing challenge lies not in analyzing what you see, but the fear of missing something you can't.

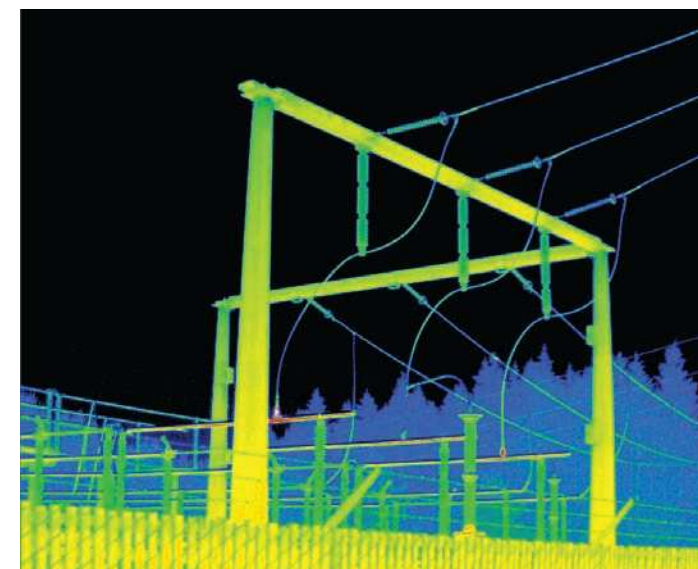
It's time to see what you're missing. Up to 3.1 million pixels with SuperResolution.

Instantly capture highly detailed images and start analyzing your images while still in the field. See incredible detail from a distance or extremely close up. On camera, you get up to 10x the pixels of a standard 320x240 camera (based on the TiX1000).

SuperResolution mode, available when viewed in SmartView® software, lets you see HD resolution with up to 3.1 million pixels—4x the on-camera standard resolution.



SuperResolution shifts the sensitive elements 4x and fills the spaces, resulting in 100% coverage and an image with 4x more resolution.



The industry's most advanced focus options.

LaserSharp® Auto Focus¹ gives you the fastest way to precisely focused images by calculating the distance to your target with a laser distance meter.²

EverSharp multifocal recording gives you edge-to-edge clarity of targets both near and far in one image, which is created by capturing multiple images from varying focal distances.

TiX1000/660/640

- Capture the tough shots with a large 5.6 inch articulating LCD display
- Optimized for outdoor inspections with viewfinder that reduces outdoor glare¹
- High temperature option up to 2000 °C¹
- Capture spectacular images close up or from a distance with your choice of seven optional lenses
- Identify rapid changes in temperature with the optional Subwindowing feature (up to 240 Hz)

¹Features vary by model; see pages 22-23 for model specifications

²Compared to industrial infrared cameras without a user-designated laser-focus feature

Your view of infrared technology is about to change 180°.

You need maximum flexibility with an ergonomic design that allows you to easily navigate over, under and around hard-to-reach objects. With an articulating lens that rotates a full 180 degrees and the largest 5.7 inch touchscreen LCD, you can aim and focus from a comfortable angle and easily capture the target that was once impossible to see.

Premium viewing with the largest 5.7 inch touchscreen LCD.

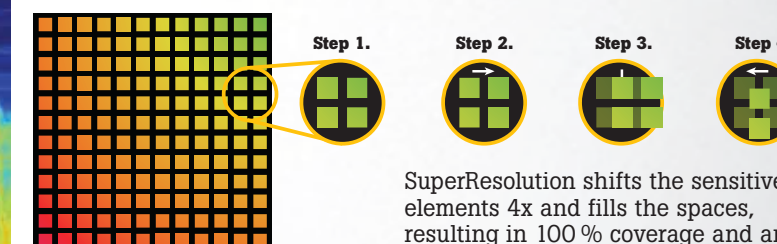
With 150% more viewing area¹, easily annotate, edit and analyze images with the largest touchscreen LCD in its class².



Get 4x the pixels with SuperResolution.

Instantly capture highly detailed images and start analyzing your images while still in the field with on camera analytics. See incredible detail from a distance or close up.

SuperResolution mode (available on camera in the TiX560) turns your 320x240 images into 640x480 images, 4x the resolution and pixels.



SuperResolution shifts the sensitive elements 4x and fills the spaces, resulting in 100% coverage and an image with 4x more resolution.

TiX560/520

- Easily navigate over, under and around objects with the 180° articulating lens
- Quick and easy in-field analysis with post-capture image processing—edit emissivity, background temperature, transmissivity, palettes, color alarms, IR-Fusion and enable/disable markers—all on camera
- Get premium image output in high temp applications by combining multiple sequential frames of data into one with Image Sharpening (TiX560)
- Find subtle temperature differences easier—instantly improve thermal sensitivity from 45 mK to 30 mK with Filter mode (TiX560)
- Monitor processes with video recording, live video streaming, remote control (TiX560 only), or auto capture

¹Compared to a 3.5 inch screen.

²Compared to industrial handheld thermal imagers with 320x240 detector resolution as of October 14, 2014.

Autofocus REDEFINED.

LaserSharp® Auto Focus.

On target and in focus. Every. Single. Time.

You're it when it comes to getting the right answers—there's no room for fuzzy, out-of-focus infrared images. Potential problems hide behind incorrect readings, which is why you need a camera with LaserSharp® Auto Focus for crisp, sharp images every, single time.

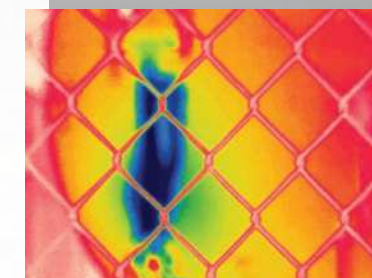


Precisely focused images

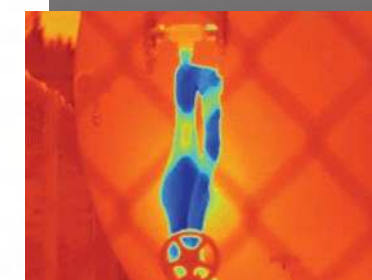
If your image is out of focus, temperature measurements could be off by up to 20 degrees or more. Getting crisp images in manual focus takes time and careful attention. With LaserSharp® Auto Focus, exclusive to Fluke, you get an in-focus image of your designated target with the push of a button. The built-in laser distance meter instantly calculates and displays the distance to your target, and the focus engine immediately adjusts the focus.



Many inspection sites are challenging for certain autofocus systems.



Passive autofocus systems may only capture the near-field subject (fence).



Red laser dot confirms LaserSharp Auto Focus captures your target.

LaserSharp® Auto Focus gives you in-focus images

Navigate easier than ever

The Professional Series cameras have a stunningly clear 3.5-inch, 640 x 480 high resolution responsive touch screen to easily spot problems, with intuitive controls to quickly navigate to the next image or switch modes. Plus, all camera features can be accessed one-handed—even with gloves—because of the large buttons.



Ti400/300/200

- Get the context of the visual and infrared details all in one precisely blended or picture-in-picture image with IR-Fusion® technology
- Inspect high-temperature components, up to 1200 °C (2192 °F)¹
- Digitally document critical information with your infrared image using IR-PhotoNotes™, voice annotation, or text annotation¹
- Monitor processes with video recording, live video streaming, remote control¹, or auto capture
- 2 in 1 tool—see the distance to your target on the screen with the included laser distance meter
- Adjust to your environment to ensure you get the detail you need with an optional telephoto or wide-angle lens (available separately)

¹Varies by model; see pages 22-23 for model specifications

Rugged, reliable PERFORMANCE from Fluke.

You need a high performance thermal imager to take along on inspections that helps you catch small details that could indicate a big problem.



Precisely blended images offer more detail

Context is everything when it comes to quickly analyzing infrared images. You need surrounding details to pinpoint specific areas of concern. Fluke Performance Series thermal imagers can instantly blend visible light and infrared images using patented IR-Fusion® technology¹. More than just outlines, IR-Fusion® technology captures a clear 2MP real-world picture of your target, while infrared is recording the heat signature. The result is an incredibly revealing hybrid image.



Power Distribution-Full visible



Mid IR AutoBlend™ Mode



Precisely blended visible details

IR-Fusion® technology captures revealing blended images¹

Designed for your environment

Easily see potential problems with the large 3.5 inch LCD, a full 32 % larger than many competitive models. And with a rugged one handed design (right or left handed) you can easily work up a ladder or in virtually any environment.



Ti125/110/105/100/95/90

- Building diagnostic models available—get 20 % better thermal sensitivity (80 mK) due to a lower temp range with TiR models (TiR125, TiR110, TiR105) compared to standard Ti125, Ti110 and Ti105 models
- See more detail in your target, even when working from a safe distance, due to the tighter field of view than what many competitive models offer
- Get easy access to saved images with a removable SD card
- Monitor your battery charge and avoid an unexpected loss of power with the smart battery with LED charge indicator
- Automatically focus from 1.2 m (4 ft) and beyond or manually focus from as close as 15 cm (6 in) with IR-OptiFlex™ Focus System (Ti125, TiR125, Ti110, TiR110 models only)

¹Not available with Ti100. IR-Fusion® execution varies by model; see pages 22-23 for model specifications

Designed to SEE IT ALL.

Say good-bye to spot-by-spot readings. An infrared heat map superimposed over a visual image provides the context you need to clearly see temperature-related issues—priced to outfit the whole team.



Blended heat map for better analysis

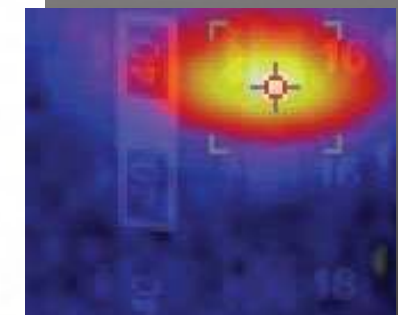
See issues in context by blending the infrared heat map with a visual image, and get the detail you need by choosing one of five on-screen blending modes. See aligned images from as close as 15 cm (6 in) in near mode or from a distance in far mode. Plus, obtain accurate temperature readings without taking your eyes off the screen. The center measurement box shows the exact area of temperature measurement. Fill that center box with your target and rest assured you're not measuring the background.



25 % blended heat map



50 % blended heat map



75 % blended heat map

These blended VT04 images show the breaker number that is hot.

Automate your inspections

Monitor equipment over time by setting up your camera to take time-lapse images automatically. Easily configure high and low temperature alarms. Then blend images and select the best palette to pinpoint issues and create quick reports with the included Fluke SmartView® software.



VT04/VT04A

- Handy when you need it; easily fits in your tool bag or pocket
- Intuitive enough to use right out of the box
- Easily access saved images with the removable SD card
- Save in .bmp format when you only want the image, or choose .is2 format so you can optimize images and create reports in SmartView® software
- Protect your visual IR thermometer with the included hard case (VT04) or soft case (VT04A)
- Choose your preferred way of powering your visual IR thermometer: a rechargeable Li-ion battery (VT04) or 4 AA batteries (VT04A)

For FAST, EASY, DEPENDABLE readings, this is the go-to tool.

For a quick temperature reading, it doesn't get much easier than an IR Thermometer from Fluke. So rugged and fast you'll always want to keep it with you.



Quick and simple measurements

With a start-up time of a mere second, you'll never have to wait on your tool. Simply pull the trigger and instantly get a spot measurement. Laser guides show where you're measuring, and dual lasers on some models indicate the area the measurement is based on.



Rugged, ready and reliable

You have a tough job. Tough on you and your tools. That's why Fluke IR thermometers are ready for action even in harsh conditions—tested to withstand dust and water with an IP54 rating¹. Some can even survive a 3 meter drop¹. For rugged reliability, it's tough to beat Fluke.



572-2/568/62 MAX+

- Measure accurately from farther away with up to a 60:1 distance to spot ratio (572-2 60:1, 568 50:1, 62 MAX+ 12:1)
- Measure temperatures up to 900 °C (1652 °F) (572-2 -30 °C to +900 °C (-22 °F to +1652 °F), 568 -30 °C to +800 °C (-22 °F to +1472 °F), 62 Max+ -30 °C to +650 °C (-22 °F to +1202 °F)
- Save time with available onboard, downloadable data storage of temperature readings (572-2 and 568 models)
- Get contact measurement with 2-in-1 IR thermometers (572-2 and 568 models)
- Intrinsically safe model available for use in hazardous environments including oil and gas (568 Ex). See 568 Ex product page on Fluke website for details
- Identify the area you're measuring with dual-laser sighting on the 572-2 and the 62 Max+ or with single-laser sighting on the 568
- Get alerts when a temperature is outside the expected range with high and low alarms on all three models and continuous monitoring on the 572-2 and 568
- Get a 3 year warranty with the 62 Max+ (572-2 and 568 have a 2 year warranty)

¹Testing was done on the 62 Max and 62 Max+

Increase the safety and speed of your electrical infrared inspections.

A company's greatest investment is not the equipment that's behind the panel door. It's the electricians, engineers and inspectors who risk their lives every day doing their jobs.



CV400/401/300/301/200/201

- Highest arc blast safety rating available—63 kA when properly installed
- Under 5 minute installation with 1 person; no need to remove panel door
- Available in 2 inch (50 mm), 3 inch (75 mm), and 4 inch (95 mm) sizes with convenient ¼ turn access or security key access options
- Clearly view equipment both visually and thermally with ClirVu® coating that protects the optic from the elements
- Corrosion and UV resistant for challenging outdoor environments—IP67 rugged

Expand the capabilities of your thermal imager.



Lenses

Capture images close up or from a distance with optional lenses, available with Expert and Professional Series cameras.

Batteries and chargers

All Fluke Professional and Performance Series cameras feature interchangeable batteries. Expand your powering capabilities with a car charger, extra battery, or charging base.

Tripod mounts

Capture images from a tripod using your Professional or Performance Series camera with a tripod mount. Expert Series models have built-in tripod mounts.

Sun visors

Reduce LCD screen glare. Available for Professional and Performance Series models.

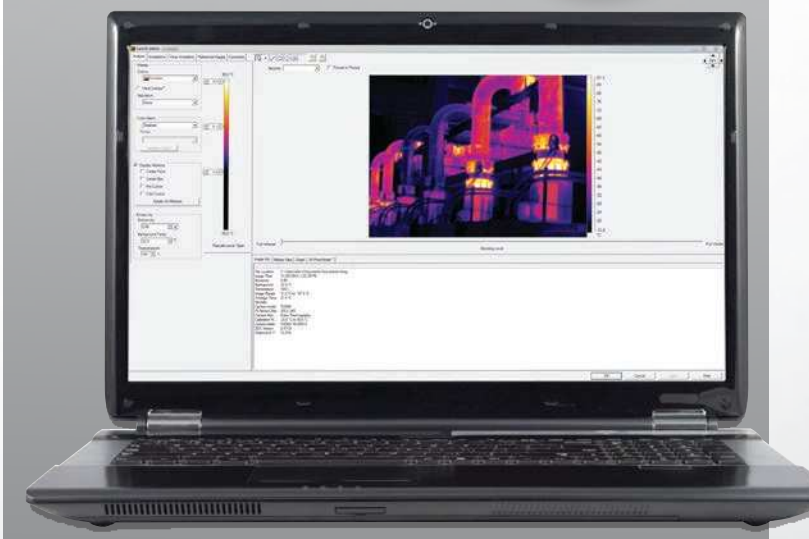
CarePlans

Gold and Silver CarePlans available for all Professional and Performance models as well as the Expert Series TiX520 and TiX560.

SmartView® software

Analyze images, adjust blending and palette, export to multiple file formats, and create professional reports with Fluke SmartView® software. Download your copy for free from the Fluke website. Compatible with all Fluke thermal imagers and visual IR thermometers.

Accessories aren't necessarily interchangeable. Please go to your product's page on the Fluke website to see which accessories are recommended for your specific product.



	Expert Series IR Cameras					Professional Series IR Cameras			Performance Series IR Cameras					Visual IR Thermometers		
	TiX1000	TiX660	TiX640	TiX560	TiX520	Ti400	Ti300	Ti200	Ti125/TiR125	Ti110/TiR110	Ti105/TiR105	Ti100	Ti95	Ti90	VT04/VT04A	
IFOV (spatial resolution)/ distance to spot (D:S)	0.6 mRad	0.8 mRad		1.31 mRad			1.75 mRad	2.09 mRad	3.39 mRad					5.6 mRad		Detection D:S – 43:1; measurement D:S – 9:1
Detector resolution	1024 x 768 (786,432 pixels) Super Resolution mode: 2048 x 1536 (3,145,728 pixels)	640 x 480 (307,200 pixels) Super Resolution mode: 1280 x 960 (1,228,800 pixels)	640 x 480 (307,200 pixels)	320 x 240 (76,800 pixels) Super Resolution mode: 640 x 480 (307,200 pixels)		320 x 240 (76,800 pixels)	240 x 180 (43,200 pixels)	200 x 150 (30,000 pixels)	160 x 120 (19,200 pixels)					80 x 80 (6,400 pixels)	80 x 60 (4,800 pixels)	31 x 31 (961 pixels)
Field of view	32.4° H x 24.7° V	30.9° H x 23.1° V		24° H x 17° V			22.5° H x 31° V					26° H x 26° V	19.5° H x 26° V	28° H x 28° V		
Optional lenses	Capture spectacular images close up or from a distance with optional lenses: 2 wide angle, 2 telephoto, and 3 macro			Optional telephoto and wide angle lenses available			–					–				
Focus system	LaserSharp® Auto Focus, autofocus, manual focus, and EverSharp multifocal recording		Autofocus, manual focus, and EverSharp multifocal recording	LaserSharp® Auto Focus with built-in laser distance meter and advanced manual focus			IR-OptiFlex™ focus system (focus free and manual focus)		Fixed focus							
IR-Fusion® technology/ visible context	IR-Fusion® AutoBlend mode and Picture-in-Picture, continuous blending			IR-Fusion® AutoBlend™ mode and Picture-in-Picture						IR-Fusion® AutoBlend™ mode (on camera mid IR only) and Picture-in-Picture	–	IR-Fusion® Picture-in-Picture (AutoBlend™ mode available in SmartView® software)	Only full visible on camera (IR-Fusion® AutoBlend™ mode available in SmartView® software)	Infrared heat map and visual image blending in 25% increments; center box to outline the temperature measurement area		
Display	Extra-large 5.6 inch color TFT display, 1280 x 800 pixel resolution, suitable for daylight operation			5.7 inch touchscreen LCD, 640 x 480 pixel resolution		3.5 inch touchscreen LCD, 640 x 480 pixel resolution			3.5 inch diagonal (portrait format)					2.2 inch portrait standard TFT LCD		
Design	Camcorder with handle, tiltable LCoS color viewfinder display, 800 x 600 pixel resolution		Camcorder	Ergonomic FlexCam design with a 180 degree articulating lens		Rugged, ergonomic design for one-handed use; IP54 rated for protection against dust, limited ingress; and protection against water spray						Slim, pocket-sized design				
Thermal sensitivity	≤ 0.05 °C at 30 °C target temp (50 mK)	≤ 0.03 °C at 30 °C target temp (30 mK)		≤ 0.045 °C at 30 °C target temp (45 mK); Filter mode (NETD improvement) ≤ 0.03 °C at 30 °C target temp (30 mK)	≤ 0.05 °C at 30 °C target temp (50 mK); Filter mode (NETD improvement) ≤ 0.04 °C at 30 °C target temp (40 mK)	≤ 0.05 °C at 30 °C target temp (50 mK)		≤ 0.075 °C at 30 °C target temp (75 mK)	Standard: ≤ 0.10 °C at 30 °C target temp (100 mK) TiR models: ≤ 0.08 °C at 30 °C target temp (80 mK)		≤ 0.10 °C at 30 °C target temp (100 mK)		≤ 0.15 °C at 30 °C target temp (150 mK)	250 mK		
Temperature measurement range	-40°C to +1200 °C (-40°F to 2192 °F) High temperature option: up to 2000°C (3632°F)		-40 °C to +1200 °C (-40 °F to 2192 °F)	-20 °C to +1200 °C (-4 °F to +2192 °F)	-20 °C to +850 °C (-4 °F to +1562 °F)	-20 °C to +1200 °C (-4 °F to +2192 °F)	-20 °C to +650 °C (-4 °F to +1202 °F)		Standard: -20 °C to +350 °C (-4 °F to +662 °F) TiR model: -20 °C to +150 °C (-4 °F to +302 °F)	Standard: -20 °C to +250 °C (-4 °F to +482 °F) TiR models: -20 °C to +150 °C (-4 °F to +302 °F)		-20 °C to +250 °C (-4 °F to +482 °F)		-10 °C to +250 °C (+14 °F to +482 °F)		
Frame rate	30 Hz or 9 Hz versions (Subwindowing options available up to 240 fps)	60 Hz or 9 Hz versions (Subwindowing options available up to 240 fps)		60 Hz or 9 Hz versions			60 Hz or 9 Hz versions		30 Hz or 9 Hz versions (TiR models: 9 Hz only)			9 Hz		8 Hz		
Software	SmartView® software															
Documentation features	Voice annotation and text annotation			IR-PhotoNotes™, voice annotation, and text annotation				IR-PhotoNotes™ and voice annotation		–						
Video recording	Standard and radiometric								Standard		–					
Streaming video (remote display)	Via HDMI; GigE Ethernet available in SmartView® software			Via USB to PC or via HDMI to HDMI compatible screen				Via USB to PC		–						
Remote control	Yes. Available in 2015			Yes	–	Yes	–									
Alarms	High-temperature, low-temperature, and isotherm								High temperature and low temperature	High temperature	–			High/low temperature alarms, time-lapse image capture, auto-monitor alarm		
Warranty	Two-years (standard), extended warranties are available														2 years	

Fluke infrared tools are on the job because they do the job.



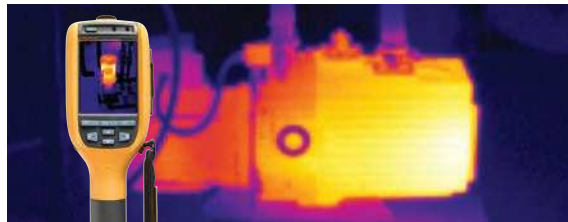
Expert Series

When you cannot be wrong, the Expert Series offers extremely detailed images. Plus, view images on a large articulating display—up to 5.7 inches.



Professional Series

Focus with laser speed and accuracy on your designated target with LaserSharp® Auto Focus. Get highly detailed images and advanced features.



Performance Series

Get detailed images in an affordable thermal imager that's rugged and reliable. The perfect tool for a quick inspection.



Visual IR Thermometer

An infrared heat map with hot and cold markers reveals potential areas of concern. See issues in context by blending the heat map with a visual image.

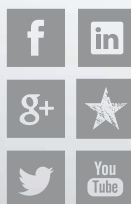


IR Thermometer

Get a quick temperature reading, even from a distance, with up to a 60:1 distance to spot ratio and a start-up time of a mere second.

Visit the Fluke website for more information.

Fluke. *Keeping your world up and running.®*



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