TiX560, TiX520 and TiX500 Infrared Cameras

The Fluke Expert Series

Fluke Connect® compatible

Tablet-sized screen. More details. Faster decisions.

- See small details in the image and discover anomalies faster on the 5.7 inch tablet sized touchscreen—the largest touchscreen in its class

- Easily maneuver over, under and around objects with the 240 ° articulating lens while viewing the screen at a comfortable angle, unlike standard pistol grip cameras

- Capture a clear, accurate image focused throughout the field of view with MultiSharp™ Focus. Simply point and shoot—the camera automatically processes a stack of images focused near and far

- Get an instant in-focus image of your designated target with LaserSharp® Auto Focus

- Get 4x the pixel data with SuperResolution, which captures multiple images and combines them to create a 640 x 480 image

- Edit and analyze images on camera—edit emissivity, enable color alarms and markers, and adjust IR-Fusion® visual and infrared image blending

- See the details you need, even from far away, with interchangeable smart lenses—2x and 4x telephoto, wide angle, and 25 micron macro—no calibration required

- Save time—wirelessly sync images directly from your camera to an asset record or work order with Fluke Connect® assets. Having access to maintenance records simultaneously at the inspection site and the office enables faster decision making and real time collaboration

PREMIUM IMAGE QUALITY

SPATIAL RESOLUTION
TiX560, TiX520 and TiX500
1.31 mRad

RESOLUTION
TiX560, TiX520 and TiX500
320 x 240
SuperResolution mode: 640 x 480

FILTER MODE (NETD IMPROVEMENT)
TiX560
≤ 0.03 °C at 30 °C target temp (30 mK)
TiX520
≤ 0.04 °C at 30 °C target temp (40 mK)

TEMPERATURE RANGE
TiX560
-20 °C to +1200 °C (-4 °F to +2192 °F)
TiX520
-20 °C to +850 °C (-4 °F to +1562 °F)
TiX500
-20 °C to +650 °C (-4 °F to +1202 °F)

Get tough shots from any angle with a 240° degree rotating lens and the only 5.7 inch LCD.
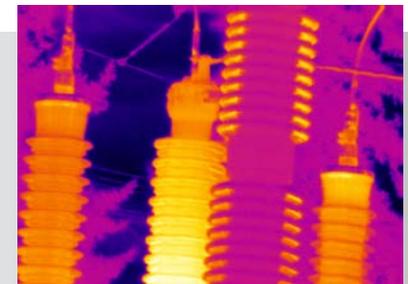
MultiSharp™ focus delivers focus on multiple objects near and far in one image.

Detailed specifications

	TiX560	TiX520	TiX500
Key Features			
Detector resolution	320 x 240 (76,800 pixels)		
SuperResolution	Yes, on camera and in software. Captures and combines 4x the data to create a 640 x 480 image		
IFOV with standard lens (spatial resolution)	1.31 mRad, D:S 753:1		
Field of view	24 °H x 17 °V		
Minimum focus distance	15 cm (approx. 6 in)		
IFOV with optional 2x telephoto smart lens	0.65 mRad, D:S 1529:1		
Field of view	12 °H x 9 °V		
Minimum focus distance	45 cm (approx. 18 in)		
IR-Fusion blending	Picture-in-picture and full screen		
IFOV with optional 4x telephoto smart lens	0.33 mRad, D:S 2941:1		
Field of view	6.0 °H x 4.5 °V		
Minimum focus distance	1.5 m (approx. 5 ft)		
IR-Fusion blending	Picture-in-picture and full screen		
IFOV with optional wide-angle smart lens	2.62 mRad, D:S 377:1		
Field of view	46 °H x 34 °V		
Minimum focus distance	15 cm (approx. 6 in)		
IR-Fusion blending	Full screen		
Optional macro smart lens	Minimum spot size: 25 microns		
Field of view	36.1° X 27.1°		
Working distance	~8 mm (0.3 in) to ~14 mm (0.6 in) with optimal at 10 mm (0.4 in)		
MultiSharp™ Focus	Yes, focused near and far, throughout the field of view		
LaserSharp® Auto Focus	Yes, for consistently in-focus images. Every. Single. Time.		
Laser distance meter	Yes, calculates distance to the target for precisely focused images and displays distance on screen		
Advanced manual focus	Yes		
Wireless connectivity	Yes, to PC, iPhone® and iPad® (iOS 4s and later), Android™ 4.3 and up, and WiFi to LAN (where available)		
Fluke Connect® app compatible	Yes*, connect your camera to your smartphone, and images taken automatically upload to the Fluke Connect® app for saving and sharing		
Fluke Connect® Assets optional software	Yes*, assign images to assets and create work orders. Easily compare measurement types in one location		
Fluke Connect® Instant Upload	Yes*, connect your camera to your building's WiFi network, and images taken automatically upload to the Fluke Connect® system for viewing on your smartphone or PC		
Fluke Connect® tool compatible	Yes*, connects wirelessly to select Fluke Connect® enabled tools and displays measurements on camera screen		
IR-Fusion® technology	Yes, adds the context of the visible details to your infrared image		
AutoBlend™ mode	100 %, 75 %, 50 %, 25 % IR plus full visible on camera; continuously variable in software		
Picture-In-Picture (PIP)	100 %, 75 %, 50 %, 25 % IR		
Continuous AutoBlend™	Set AutoBlend™ level across continuum	—	
Touchscreen display (capacitive)	5.7 inch (14.4 cm) landscape 640 x 480 LCD		
Rugged, ergonomic design	240 ° rotatable (articulating) lens		
Thermal sensitivity (NETD)	≤ 0.045 °C at 30 °C target temp (45 mK)	≤ 0.05 °C at 30 °C target temp (50 mK)	
Filter Mode (NETD improvement)	≤ 0.03 °C at 30 °C target temp (30 mK)	≤ 0.04 °C at 30 °C target temp (40 mK)	—
Level and span	Smooth auto and manual scaling		
Touchscreen adjustable level/span	Yes. Span and level can be easily and quickly set by simply touching the screen		
Fast auto toggle between manual and auto modes	Yes		
Fast auto-rescale in manual mode	Yes		
Minimum span (in manual mode)	2.0 °C (3.6 °F)		
Minimum span (in auto mode)	3.0 °C (5.4 °F)		
Built-in digital camera (visible light)	5MP		
Frame rate	60 Hz or 9 Hz versions		
Laser pointer	Yes		
LED light (torch)	Yes		
Digital Zoom	2x, 4x, 8x	2x, 4x	
Data storage and image capture			
Extensive memory options	Removable 4 GB micro SD memory card, 4 GB internal flash memory, save-to-USB flash drive capability, upload to Fluke Connect® system*		
Post-capture image editing (on camera)	Yes, edit and analyze captured images on camera		

*Fluke Connect® system is not available in all countries. Please check availability with your authorized Fluke distributor.

	TiX560	TiX520	TiX500
Data storage and image capture (continued)			
Image file formats	Non-radiometric (.bmp, .jpeg), or fully radiometric (.is2); no analysis software required for non-radiometric (.bmp, .jpg) files		
Memory review	Thumbnail and full screen review		
Software	SmartView® full analysis and reporting software and Fluke Connect® system*		
Export file formats with SmartView® software	Bitmap (.bmp), GIF, JPEG, PNG, TIFF		
Voice annotation	60 seconds maximum recording time per image; reviewable playback on camera; Bluetooth headset provided**		
IR-PhotoNotes™	Yes (5 images)		
Advanced text annotation	Yes. Including standard shortcuts as well as user programmable options		
Video recording	Standard and radiometric		
Video file formats	Non-radiometric (MPEG - encoded .avi) and fully radiometric (.is3)		
Streaming video (remote display)	Yes, see the live stream of the camera display on your PC, smartphone, or TV monitor. Via USB, WiFi hotspot, or WiFi network to SmartView® software on a PC; via WiFi hotspot to the Fluke Connect® app on a smartphone*; or via HDMI to a TV monitor		
Remote control operation	Yes, through SmartView® software or Fluke Connect® mobile app*	—	
Auto capture (temperature and interval)	Yes		
Battery			
Batteries (field-replaceable, rechargeable)	Two lithium ion smart battery packs with five-segment LED display to show charge level		
Battery life	3-4 hours per battery (Actual life varies depending on settings and usage)		
Battery charge time	2.5 hours to full charge		
Battery charging system	Two-bay battery charger or in-imager charging. Optional 12 V automotive charging adapter		
AC operation	AC operation with included power supply (100 V AC to 240 V AC, 50/60 Hz)		
Power saving	User selectable sleep and power off modes		
Temperature measurement			
Temperature measurement range (not calibrated below –10 °C)	–20 °C to +1200 °C (–4 °F to +2192 °F)	–20 °C to +850 °C (–4 °F to +1562 °F)	–20 °C to +650 °C (–4 °F to +1202 °F)
Accuracy	± 2 °C or 2 % (at 25 °C nominal, whichever is greater)		
On-screen emissivity correction	Yes (both value and table)		
On-screen reflected background temperature compensation	Yes		
On-screen transmission correction	Yes		
Color palettes			
Standard palettes	8: Ironbow, Blue-Red, High Contrast, Amber, Amber Inverted, Hot Metal, Grayscale, Grayscale Inverted		
Ultra Contrast™ palettes	8: Ironbow Ultra, Blue-Red Ultra, High Contrast Ultra, Amber Ultra, Amber Inverted Ultra, Hot Metal Ultra, Grayscale Ultra, Grayscale Inverted Ultra		
General specifications			
Color alarms (temperature alarms)	High temperature, low temperature, and isotherms (within range)		
Infrared spectral band	7.5 µm to 14 µm (long wave)		
Temperature	Operating: –10 °C to +50 °C (14 °F to 122 °F); Storage: –20 °C to +50 °C (–4 °F to 122 °F) without batteries		
Relative humidity	10 % to 95 % non-condensing		
Center-point temperature measurement	Yes		
Spot temperature	Hot and cold spot markers, individually enabled		
User-definable spot markers	3 user-definable spot markers		
Center box	Expandable-contractible measurement box with MIN-MAX-AVG temp display		
Safety	IEC 61010-1: Overvoltage Category II, Pollution degree 2		
Electromagnetic compatibility	IEC 61326-1: Basic EM Environment; CISPR 11, Group 1, Class A		
Australian RCM	IEC 61326-1		
US FCC	CFR 47, Part 15 Subpart B		
Vibration	0.03 g2/Hz (3.8 grms), 2.5g IEC 68-2-6		
Shock/Drop	25 g, IEC 68-2-29/Engineered to withstand 1 meter (3.3 feet) drop with standard lens		
Size (H x W x L)/Weight (battery included)	27.3 cm x 15.9 cm x 9.7 cm (10.8 in x 6.3 in x 3.8 in)/1.54 kg (3.4 lb)		
Enclosure rating	IEC 60529: IP54 (protected against dust, limited ingress; protection against water spray from all directions)		
Warranty/Calibration cycle	Two-years (standard), extended warranties are available/Two-years (assumes normal operation and normal aging)		
Supported languages	Czech, Dutch, English, Finnish, French, German, Hungarian, Italian, Japanese, Korean, Polish, Portuguese, Russian, Simplified Chinese, Spanish, Swedish, Traditional Chinese, and Turkish		

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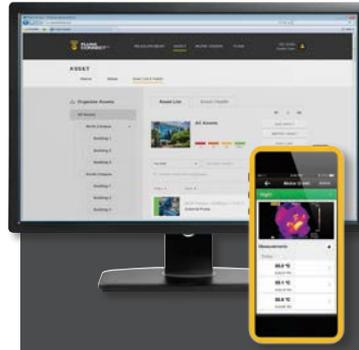
Ordering information

FLK-TiX560 60Hz Infrared Camera
FLK-TiX560 9Hz Infrared Camera
FLK-TiX520 60Hz Infrared Camera
FLK-TiX520 9Hz Infrared Camera
FLK-TiX500 60Hz Infrared Camera
FLK-TiX500 9Hz Infrared Camera

Included with product
Infrared camera with standard infrared lens; AC power supply and battery pack charger (including universal AC adapters); two rugged lithium ion smart battery packs; USB cable; HDMI video cable; rugged, hard carrying case; adjustable neck and hand strap; bluetooth headset (where available). **Available by free download:** SmartView® desktop software and user manual

Kits
FLK-TIX560/T2 60HZ Infrared Camera, Tele2 Infrared 2x Telephoto Lens
FLK-TIX560/T2 9HZ Infrared Camera, Tele2 Infrared 2x Telephoto Lens
FLK-TIX560/W2 60HZ Infrared Camera, Wide2 Infrared Wide Angle Lens
FLK-TIX560/W2 9HZ Infrared Camera, Wide2 Infrared Wide Angle Lens

Optional accessories
FLK-LENS/TELE2 Infrared Telephoto Lens (2X magnification)
FLK-LENS/4XTELE2 Infrared Telephoto Lens (4X magnification)
FLK-LENS/WIDE2 Infrared Wide Angle Lens
FLK-LENS/25MAC2 25 Micron Macro Infrared Lens
TI-CAR-CHARGER Car Charger
BOOK-ITP Introduction to Thermography Principles Book
FLK-TIX5XX-SBP4 Additional Smart Battery
FLK-TI-SBC3B Additional Smart Battery Charger
FLK-TIX5X-LENS CAP Infrared Lens Cover
FLK-TIX5XX-NECK Neck strap
FLUKE-TIX5XX HAND Hand strap
FLK-TI-BLUETOOTH Bluetooth Headset
FLK-TIX5XX-HDMI HDMI Cable

Visit www.fluke.com to get complete details on these products or ask your local Fluke representative.

Set up and sustain preventive maintenance practices with ease, using the Fluke Connect® system of wireless test tools and asset management software.

- Improve your ability to prevent or predict failures
- Make confident decisions with data you can trust and trace
- Access your infrared images from anywhere, anytime with secure cloud storage
- Connect and collaborate with your team – even when you are in different places
- Provide more complete information to your maintenance teams by generating work orders that include measurements and infrared images
- Edit and analyze images; create and send reports from your smartphone directly from the field

Find out more and take a free trial at: **flukeconnect.com**

Download the app at:

WiFi or cellular service is required to share data. Smartphone, wireless service and data plan not included with purchase. First 5 GB of storage is free. Phone support details can be viewed at fluke.com/phones. The Fluke Connect® system is not available in all countries. Please check availability with your authorized Fluke distributor.