TECHNICAL DATA

TiX560, TiX520 and TiX500 Infrared Cameras

The Fluke Expert Series

Your view of infrared technology is about to change 180°

- Easily navigate over, under and around objects with the **180° articulating lens** and see the image before you capture it
- Premium in-field viewing experience with the **only 5.7 inch responsive touchscreen LCD in its class**[1]—150 % more viewing area[3]
- **Enhanced image quality and temperature measurement accuracy**—turn your 320 x 240 images into 640 x 480 images, that's 4x's the resolution and pixels with SuperResolution
- **Get an in-focus image with the touch of a button. LaserSharp® Auto Focus**, exclusive to Fluke, uses a built-in laser distance meter that calculates and displays the distance to your designated target with pinpoint accuracy[2]
- See the details you need with **smart lenses**—2x and 4x telephoto, wide angle, and 25 micron macro—no calibration required, interchangeable between compatible cameras
- See, save and share from the field and connect to the **largest selection of wireless test and measurement tools** with Fluke Connect®

[1]Compared to industrial handheld infrared cameras with 320x240 detector resolution as of September 1, 2015.
[2]Up to 30 meters (100 feet).
[3]Compared to a 3.5 inch screen.

PREMIUM IMAGE QUALITY

SPATIAL RESOLUTION
TiX560, TiX520 and TiX500
1.31 mRad

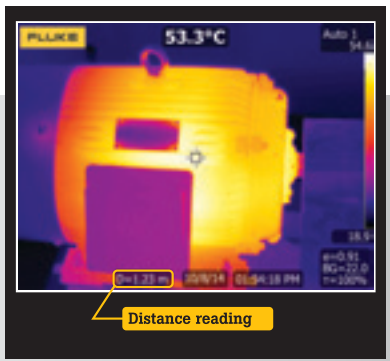
RESOLUTION
TiX560, TiX520 and TiX500
320 x 240 (76,800 pixels) and 640x480 (307,200 pixels) with SuperResolution Mode

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)

FLUKE CONNECT®

Get tough shots from any angle with a 180° degree rotating lens and the only 5.7 inch LCD.



LaserSharp® Auto Focus uses a built in laser distance meter that calculates and displays the distance to your designated target with pinpoint accuracy.

FLUKE®

Detailed specifications

	TiX560	TiX520	TiX500
Key Features			
IFOV with standard lens (spatial resolution)	1.31 mRad, D:S 764:1		
Detector resolution	320 x 240 (76,800 pixels)		
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 1528:1		
Field of view	12 °H x 9 °V		
Minimum focus distance	45 cm (approx. 18 in)		
IFOV with optional 4x telephoto smart lens	0.33 mRad, D:S 3056:1		
Field of view	6.0 °H x 4.5 °V		
Minimum focus distance	1.5 m (approx. 5 ft)		
IFOV with optional wide-angle smart lens	2.62 mRad, D:S 399:1		
Field of view	46 °H x 34 °V		
Minimum focus distance	15 cm (approx. 6 in)		
Minimum micron spot size with optional macro smart lens	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)		
SuperResolution	On camera and in software	In software	
Image sharpening	Yes	–	
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		
Streaming video (remote display)	Via HDMI or WiFi in remote control mode	Via HDMI or WiFi to SmartView	
Touchscreen display (capacitive)	14.4 cm (5.7 in) diagonal landscape color VGA (640 x 480) LCD with backlight		
Wireless connectivity	Yes		
Wireless compatibility	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 (where available)		
Fluke Connect® tool compatible	Yes (where available). Connects wirelessly to select Fluke Connect® enabled tools. Five simultaneous connections supported		
IR-Fusion® technology	Yes		
AutoBlend™ mode	Yes		
Picture-In-Picture (PIP)	Yes		
Continuous AutoBlend™	Set AutoBlend™ level across continuum	–	
Rugged, ergonomic design	Rotatable (articulating lens) >180 degrees		
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)	5 megapixel industrial performance		
Frame rate	60 Hz or 9 Hz versions		
Laser pointer	Yes		
LED light (torch)	Yes		
Digital Zoom	2x, 4x, 8x	2x, 4x	2x
Data storage and image capture			
Extensive memory options	Removable micro SD memory card, on-board flash memory, save-to-USB flash drive capability, direct download via USB-to-PC connection		
Post-capture image editing (on camera)	Yes. Conduct on camera analysis for in-field results		

	TiX560	TiX520	TiX500
Data storage and image capture (continued)			
Advanced text Annotation	Yes. Including standard shortcuts as well as user programmable options		
File formats	Non-radiometric (.bmp) or (.jpeg) or fully radiometric (.is2); no analysis software required for non-radiometric (.bmp, .jpg and .avi) files		
Memory review	Thumbnail view navigation and review selection		
Software	SmartView® software, Fluke Connect™ (where available), and SmartView® Mobile App—full analysis and reporting software		
Export file formats with SmartView® software	BMP, DIB, GIF, JPE, JFIF, JPEG, JPG, PNG, TIF, and TIFF		
Voice annotation	60 seconds maximum recording time per image; reviewable playback on camera; Bluetooth headset provided*		
IR-PhotoNotes™	Yes		
Text annotation	Yes		
Video recording	Standard and radiometric		
File formats video	Non-radiometric (MPEG - encoded .AVI) and fully radiometric (.IS3)		
Remote control operation	Yes	—	
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	Three hours continuous use per battery pack		
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 and low-temperature		
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		
User-definable spot markers	3 user-definable spot markers		
Center box	Expandable-contractible measurement box with MIN-MAX-AVG temp		
Safety	IEC 61010-1: Overvoltage Category II, Pollution degree 2		
Electromagnetic compatibility	IEC 61326-1: Basic EM Environment; CISPR11, Group 1, Class A		
Australian RCM	IE 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		

*Bluetooth not available in all countries.

FLUKE®

Ordering information

FLK-TiX560 60Hz Thermal Imager; 320x240; 60 Hz
FLK-TiX560 9Hz Thermal Imager; 320x240; 9 Hz
FLK-TiX520 60Hz Thermal Imager; 320x240; 60 Hz
FLK-TiX520 9Hz Thermal Imager; 320x240; 9 Hz
FLK-TiX500 60Hz Thermal Imager; 320x240; 60 Hz
FLK-TiX500 9Hz Thermal Imager; 320x240; 9 Hz

Included with product
Thermal imager 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), warranty registration card and calibration certificate. Flash drive includes product manuals in English, Chinese, German, Portuguese, Spanish, French, Italian, Korean, and Japanese, Russian and Turkish and SmartView® software. (Software is also available via download at **www.fluke.com/smartviewdownload**).

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-TI-SBP4 Additional Smart Battery
FLK-TI-SBC3 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

FLUKE CONNECT®

Set up and sustain preventive maintenance practices with ease to help you oversee your complex world with the Fluke Connect® system of software and wireless test tools.

- Maximize uptime and make confident maintenance decisions with data you can trust and trace.
- Save measurements to the Fluke Cloud™ and associate with an asset so your team can consult both historical and current measurements from one location.
- Collaborate with ease by sharing your data with others with ShareLive™ video calls and emails.
- Wireless one-step measurement transfer with AutoRecord™ measurements removes the need for clipboards and paperwork.
- Consult summary views of all assets over time for easy identification of correlated or periodic failures for easier prioritization of maintenance work.
- Generate reports with multiple measurement types to provide status or work recommendations.

Download the app at:

Download on the App Store ANDROID APP ON Google play

Smartphone is not included with purchase.

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