FLUKE®

TiX560 and TiX520
Infrared Cameras
The Fluke Expert Series

Technical Data

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, save and share from the field and connect to the **largest selection of wireless test and measurement tools** with Fluke Connect™
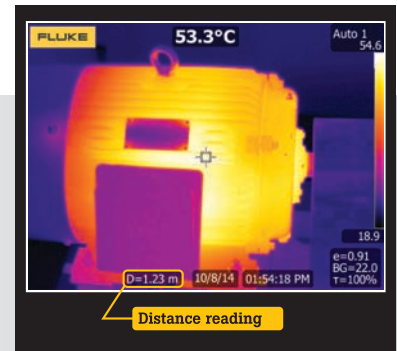
[1]Compared to industrial handheld infrared cameras with 320x240 detector resolution as of October 14, 2014.
[2]Up to 30 meters (100 feet).
[3]Compared to a 3.5 inch screen.

PREMIUM IMAGE QUALITY

SPATIAL RESOLUTION
TiX560 and TiX520
1.31 mRad

RESOLUTION
TiX560 and TiX520
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)

IMAGE SHARPENING
TiX560
Image sharpening improves image clarity and quality

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.

Built with
FLUKE CONNECT™

FLUKE®

Detailed specifications

	TiX560	TiX520
Key Features		
IFOV with standard lens (spatial resolution)	1.31 mRad	
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 telephoto lens	0.65 mRad	
Field of view	12 °H x 9 °V	
Minimum focus distance	45 cm (approx. 18 in)	
IFOV with optional wide–angle lens	2.62 mRad	
Field of view	46 °H x 34 °V	
Minimum focus distance	15 cm (approx. 6 in)	
SuperResolution*	On camera and in software	In software
Image sharpening	Yes	No
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 USB or WiFi	
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 wireless 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	No
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 easy 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
Data storage and image capture		
Extensive memory options	Removable micro SD memory card, on–board flash memory, save–to–USB capability, direct download via USB–to–PC connection	
Image capture, review, save mechanism	One-handed image capture, review, and save capability	
Post–capture Image Editing (on camera)	Yes. Conduct on camera analysis for in–field results	
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	

*Coming soon via firmware upgrade.

	TiX560	TiX520
Data storage and image capture cont.		
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 and operation (for special and advanced applications)	Yes	No
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)
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)	
Operating temperature	–10 °C to +50 °C (14 °F to 122 °F)	
Storage temperature	–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	25 *g*, IEC 68-2-29	
Drop	Engineered to withstand 1 meter (3.3 feet) drop with standard lens	
Size (H x W x L)	27.3 cm x 15.9 cm x 9.7 cm (10.8 in x 6.3 in x 3.8 in)	
Weight (battery included)	1.54 kg (3.4 lb)	
Enclosure rating	IEC 60529: IP54 (protected against dust, limited ingress; protection against water spray from all directions)	
Warranty	Two-years (standard), extended warranties are available	
Recommended calibration cycle	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.

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

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   ).

Optional accessories
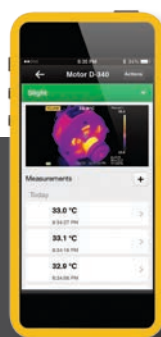**FLK-LENS/TELE2** Infrared Telephoto Lens (2X magnification)
FLK-LENS/WIDE2 Infrared Wide Angle Lens
TI-CAR-CHARGER Car Charger
BOOK-ITP Introduction to Thermography Principles Book
FLK-TI-SBP4 Additional Smart Battery
FLK-TI-SBC3 Additional Smart Battery Charger

Built with
FLUKE CONNECT™

See it. Save it. Share it.
All the facts, right in the field.

Fluke Connect™ with ShareLive™ video call is the only wireless measurement system that lets you stay in contact with your entire team without leaving the field. The Fluke Connect™ mobile app is available for Android™ versions: Galaxy S4, Nexus 5, HTC One running Android™ 4.4.x or higher and iOS (iPhone 4x and up running iOS 7 or higher, iPad (in an iPhone frame on iPad) and works with over 20 different Fluke products—the largest system of connected test tools in the world. And more are on the way. Go to the Fluke website to find out more.

Download the app at:

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Smart phone wireless service and data plan not included with purchase.

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