

## Ti400, Ti300 and Ti200 Infrared Cameras with LaserSharp® Auto Focus The Fluke Professional Series

### Technical Data

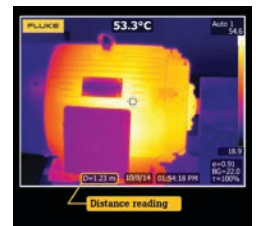


Now compatible with Fluke Connect™ Mobile App

#### Fluke Infrared Cameras Experience. Performance. Confidence.

- Get an in-focus image like never before with a touch of a button. **LaserSharp® Auto Focus**, exclusive to Fluke, uses a built-in laser distance meter that calculates and displays the distance from your designated target with pinpoint accuracy.
- **Save Reporting Time.** Make better decisions faster than before. Organize your measurements by asset in one location with EquipmentLog™ history.
- **Brilliantly detailed quality images.** Pixel for pixel the best spatial resolution available.<sup>1</sup>
- **Precisely blended visual and infrared images** with crucial details to assist in identifying potential problems—IR-Fusion® technology with AutoBlend™ mode
- **Standard and radiometric video recording and video streaming**
- **Text and voice recording/annotation** allows you to save additional details to image files
- **Extensive memory options**—Removable micro SD memory card, on-board flash memory, save-to-USB capability, direct download via USB-to-PC connection

<sup>1</sup> Comparison is based on competitive cameras with the same detector resolution.

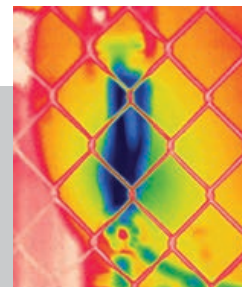


#### AutoFocus Redesigned

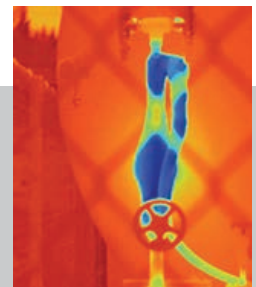
LaserSharp® Auto Focus, uses a built-in laser distance meter that calculates the distance to your designated target with pinpoint accuracy.



A difficult inspection site for auto focus systems.



This auto focus system only captures, the near field subject—the chain link fence.



LaserSharp® Auto Focus with a built-in laser distance meter, clearly captures your designated target.

#### SUPERIOR IMAGE QUALITY

##### SPATIAL RESOLUTION

Ti400  
1.31 mRad  
Ti300  
1.75 mRad  
Ti200  
2.09 mRad

##### RESOLUTION

Ti400  
320x240 (76,800 pixels)  
Ti300  
240x180 (43,200 pixels)  
Ti200  
200x150 (30,000 pixels)

##### FIELD OF VIEW

Ti400, Ti300, Ti200  
24 °H x 17 °V

	Ti400	Ti300	Ti200
<b>Key features</b>			
<b>IFOV with standard lens (spatial resolution)</b>	1.31 mRad	1.75 mRad	2.09 mRad
Detector resolution	320x240 (76,800 pixels)	240X180 (43,200 pixels)	200X150 (30,000 pixels)
Field of view	24 °H x 17 °V		
Minimum focus distance	15 cm (approx. 6 in)		
<b>IFOV with optional telephoto lens</b>	0.65 mRad	0.87 mRad	1.05 mRad
Field of view	12 °H x 9 °V		
Minimum focus distance	45 cm (approx. 18 in)		
<b>IFOV with optional wide-angle lens</b>	2.62 mRad	3.49 mRad	4.19 mRad
Field of view	46 °H x 34 °V		
Minimum focus distance	15 cm (approx. 6 in)		
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		
<b>Wireless connectivity</b>	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)		
CNX™ Wireless System	Yes (where available)		
<b>IR-Fusion® technology</b>	Yes		
AutoBlend™ mode	Yes		
Picture-In-Picture (PIP)	Yes		
Ruggedized touchscreen display (capacitive)	8.9 cm (3.5 in) diagonal landscape color VGA (640 x 480) LCD with backlight		
Rugged, ergonomic design for one-handed use	Yes		
Thermal sensitivity (NETD)	≤ 0.05 °C at 30 °C target temp (50 mK)		≤ 0.075 °C at 30 °C target temp (75 mK)
<b>Level and span</b>	Smooth auto and manual scaling		
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		
<b>Data storage and image capture</b>			
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		
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		
IR-PhotoNotes™	Yes		
Text annotation	Yes		
Video recording	Standard and radiometric		
File formats video	Non-radiometric (MPEG - encoded .AVI) and fully-radiometric (.IS3)		
Streaming video (remote display)	Via USB or WiFi hot spot		
Remote control and operation (for special and advanced applications)	Yes	—	
Auto capture (temperature and interval)	Yes		

	Ti400	Ti300	Ti200
<b>Battery</b>			
Batteries (field-replaceable, rechargeable)	Two lithium ion smart battery packs with five-segment LED display to show charge level		
Battery life	Four+ 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		
<b>Temperature measurement</b>			
Temperature measurement range (not calibrated below -10 °C)	-20 °C to +1200 °C (-4 °F to +2192 °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		
<b>Color palettes</b>			
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		
<b>General specifications</b>			
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. 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 g), 2.5 g IEC 68-2-6		
Shock	25 g, IEC 68-2-29		
Drop	Engineered to withstand 2 meter (6.5 feet) drop with standard lens		
Size (H x W x L)	27.7 cm x 12.2 cm x 16.7 cm (10.9 in x 4.8 in x 6.5 in)		
Weight (battery included)	1.04 kg (2.3 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		

**Ordering information**

- FLK-Ti400 9Hz Thermal Imager, 9 Hz
- FLK-Ti400 60Hz Thermal Imager, 60 Hz
- FLK-Ti300 9Hz Thermal Imager, 9 Hz
- FLK-Ti300 60Hz Thermal Imager, 60 Hz
- FLK-Ti200 9Hz Thermal Imager, 9 Hz
- FLK-Ti200 60Hz Thermal Imager, 60 Hz

**Included**

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; SmartView \* software available via free download; rugged, hard carrying case; soft transport bag; adjustable hand strap; warranty registration card.

**Optional accessories**

- FLK-LENS/TELE2 Infrared Telephoto Lens (2X magnification)
- FLK-LENS/WIDE2 Infrared Wide Angle Lens
- TI-CAR-CHARGER Car Charger
- FLK-TI-VISOR3 Sun Visor
- BOOK-ITP Introduction to Thermography Principles Book
- TI-TRIPOD3 Tripod Mounting Accessory
- FLK-Ti-SBP3 Additional Smart Battery
- FLK-Ti-SBC3 Additional Smart Battery Charger

**Kits**

- FLK-TI400 60HZ/FCA\* Thermal Imager, 3000 FC DMM, a3001FC iFlex Module
- FLK-TI300 60HZ/FCA\* Thermal Imager, 3000 FC DMM, a3001FC iFlex Module
- FLK-TI200 60HZ/FCA\* Thermal Imager, 3000 FC DMM, a3001FC iFlex Module
- FLK-TI400 60HZ/FCC\* Thermal Imager, 3-a3001FC iFlex Modules, 805 Vibration Tester
- FLK-TI400 9HZ/FCA Thermal Imager, 3000 FC DMM, a3001FC iFlex Module
- FLK-TI300 9HZ/FCA Thermal Imager, 3000 FC DMM, a3001FC iFlex Module
- FLK-TI200 9HZ/FCA Thermal Imager, 3000 FC DMM, a3001FC iFlex Module
- FLK-TI400 9HZ/FCC Thermal Imager, 3-a3001FC iFlex Modules, 805 Vibration Tester

**Visit the Fluke website to get complete details on these products or kits or ask your local Fluke sales representative.**

**\*Only available in certain countries.**

RF connection time (binding time) may take up to 1 minute.



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**The Expert Series**

The Fluke Expert Series offers the best flexibility of the entire Fluke infrared camera portfolio to capture spectacular images close up or from a distance. The TiX1000, TiX660 and TiX640 are compatible with 8 lens options (2x and 4x telephoto lenses, 2 wide angle lenses, 3 macro lenses and 1 standard lens) so great images can be captured despite certain obstacles.



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

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11/2014 6002304e-en