FLUKE ®

Ti125, Ti110, Ti105, Ti100, Ti95 and Ti90 Industrial-Commercial Infrared Cameras

Technical Data

Now compatible with Fluke Connect™ Mobile App

Fluke Infrared Cameras
Experience. Performance. Confidence.

The Fluke Ti125, Ti110, Ti105, Ti100, Ti95 and Ti90 Infrared Cameras can save you time and money by finding potential problems before they become costly failures.

- **Fluke Connect™ ShareLive™ video call** lets you collaborate with others, so they see what you see. Get approvals without leaving the field
- **Brilliantly detailed quality images.** Up to **84 % better** spatial resolution than other competitive models* and view on a 32 % larger screen
- **Precisely blended visual and infrared images** with crucial details to assist in identifying potential problems – IR-Fusion® technology with AutoBlend™ mode (Ti125, Ti110, Ti105 (Mid–IR Mode))
- **Automatically focus** from 1.2 m (4 ft.) and beyond with IR-OptiFlex™ Focus System and as close as 15 cm (6 in) in manual mode
- Instantly **improve thermal sensitivity from 100 mK to 80 mK** when industrial, electrical and building application flexibility is needed with TiR™ mode—2 cameras in 1
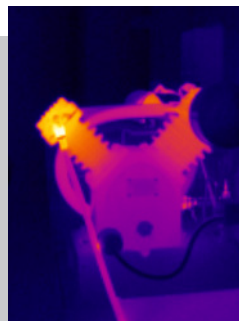
SUPERIOR IMAGE QUALITY

SPATIAL RESOLUTION
Ti125, Ti110, Ti105, Ti100
3.39 mRad

Ti95, Ti90
5.6 mRad

RESOLUTION
Ti125, Ti110, Ti105, Ti100
160x120 (19,200 pixels)

Ti95
80x80 (6,400 pixels)

Ti90
80x60 (4,800 pixels)

FIELD OF VIEW
Ti125, Ti110, Ti105, Ti100
22.5 °H x 31 °V

Ti95
26 °H x 26 °V

Ti90
19.5 °H x 26 °V

EXTENSIVE SD MEMORY SYSTEM
Removable 8Gb SD memory card and 8 Gb wireless SD Card (where available)

IR-Fusion® Technology with AutoBlend™ Mode

IR·Fusion®

Precisely blended visual and infrared images with crucial details to assist in identifying potential problems.

Air Compressor – Full Visible

Air Compressor – Full Infrared

Air Compressor – AutoBlend™ Mode

*Compared to industrial hand-held infrared cameras in the same price range, based on MSRP as of May 1, 2014.

	Ti125	Ti110	Ti105	Ti100	Ti95	Ti90
Key features						
IFOV (spatial resolution)	3.39 mRad				5.6 mRad	
Resolution	160x120 (19,200 pixels)				80x80 (6,400 pixels)	80x60 (4,800 pixels)
Field of view	22.5 °H x 31 °V				26 °H x 26 °V	19.5 °H x 26 °V
Wireless connectivity	Yes					
Fluke Connect™ App compatible	Yes, with included wireless SD card (where available)					
CNX™ Wireless System	Yes (where available)				—	
IR-Fusion® technology						
AutoBlend™ mode	Yes		Yes (Mid IR Mode)	—		
Picture-In-Picture (PIP)	Yes		PIP (1.2 m (4 ft) to 4.6 m (15 ft))	—	PIP (46 cm (18 in) and beyond)	—
Focus system	IR-OptiFlex™ focus system 15 cm (6 in) and beyond		Fixed focus 122 cm (48 in) and beyond		Fixed focus 46 cm (18 in) and beyond	
Ruggedized display	3.5 inch diagonal (portrait format)					
Rugged, ergonomic design for one-handed use	Yes					
Thermal sensitivity (NETD)	≤ 0.10 °C at 30 °C target temp (100 mK)					≤ 0.15 °C at 30 °C target temp (150 mK)
Enhanced Sensitivity w/TiR™ mode	≤ 0.08 °C at 30 °C target temp (80mK)			—		
Temperature measurement range (not calibrated below –10 °C)	–20 °C to +350 °C (–4 °F to +662 °F)	–20 °C to +250 °C (–4 °F to +482 °F)				
Level and span	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)	2.5 °C					
Minimum span (in auto mode)	5 °C					
Built-in digital camera (visible light)	2 megapixel industrial performance			None – IR Only	2 megapixel industrial performance	
Frame rate	9 Hz or 30 Hz versions				9 Hz only	
Laser Pointer	Yes				—	
Torch	Yes				—	
Data storage and image capture						
Extensive SD memory system	Removable 8 Gb SD memory card and 8 Gb wireless SD card (where available); direct download via USB-to-PC connection					
Image capture, review, save mechanism	One-handed image capture, review, and save capability					
File formats image	Non-radiometric (.bmp) or (.jpeg) or fully-radiometric (.is2); No analysis software required for non-radiometric (.bmp, .jpg) files					
Memory review	Thumbnail view navigation and review selection					
Software	SmartView® software, Fluke Connect™, 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 (3 images)		—			
Standard video recording	Yes (AVI with MPEG encoding, up to 5 minutes)		—			
Radiometric video recording	Yes	—				
Streaming video	Streaming via USB to PC	—				
File formats video	Non-radiometric (MPEG – encoded .AVI) and fully-radiometric (.IS3)	Non-radiometric (MPEG – encoded .AVI)	—			
Battery						
Batteries (field-replaceable, rechargeable)	Two lithium ion smart battery packs with five-segment LED display to show charge level	One lithium ion smart battery pack with five-segment LED display to show charge level				
Battery life	Four+ hours continuous use per battery pack (assumes 50 % brightness of LCD and average usage)					
Battery charge time	2.5 hours to full charge					

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	Ti125	Ti110	Ti105	Ti100	Ti95	Ti90
Battery						
AC battery charging system	Two-bay ac battery charger (110 V AC to 220 V AC, 50/60 Hz) (included), or in-imager charging. AC mains adapters included in 9 Hz versions. Optional 12 V automotive charging adapter	In-imager charging. AC mains adapters included in 9 Hz versions. Optional two-bay ac battery charger (110 V AC to 220 V AC, 50/60 Hz) or optional 12 V automotive charging adapter.				
AC operation	AC operation with included power supply (110 V AC to 220 V AC, 50/60 Hz). AC mains adapters included.					
Power saving	User selectable sleep and power off modes					
Temperature measurement						
Accuracy	± 2 °C or 2 % (at 25 °C nominal, whichever is greater)					
On-screen emissivity correction	Yes (both number 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		7: Ironbow, Blue-Red, High-Contrast, Amber, Hot Metal, Grayscale, Grayscale Inverted	4: Ironbow, Blue-Red, Amber, Grayscale	6: Ironbow, Blue-Red, High-Contrast, Amber, Hot Metal, Grayscale	3: Ironbow, Blue-Red, Grayscale
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	3: Ironbow Ultra, Blue-Red Ultra, Grayscale Ultra	–			
General specifications						
Color alarms (temperature alarms)	High temperature, low temperature, isotherm	High temperature, low temperature	High temperature	–		
Infrared spectral band	7.5 µm to 14 µm (long wave)				9 µm to 15 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)					
Relative humidity	10 % to 95 %, non-condensing					
Center-point temperature measurement	Yes					
Spot markers	User selectable hot spot and cold spot markers, 3 user definable spot markers on camera and in Smartview® Software	3 user definable spot markers on camera and in Smartview® Software		–	Hot and cold spot markers	–
Center box (MIN-MAX-AVG)	Expandable-contractable measurement box with MIN-MAX-AVG temp				Fixed-size measurement box with MIN-MAX-AVG temp	
Safety standards	CSA (US and CAN): C22.2 No. 61010-1-04, UL: UL STD 61010-1 (2nd Edition), ISA: 82.02.01					
Electromagnetic compatibility	EN 61326-1:2006 IEC 61326-1:2005					
C Tick	IEC/EN 61326-1					
US FCC	EN61326-1; FCC Part 5					
Vibration	2G, IEC 68-2-6					
Shock	25G, IEC 68-2-29					
Drop	Engineered to withstand 2 meter (6.5 feet) drop					
Size (H x W x L)	28.4 cm x 8.6 cm x 13.5 cm (11.2 in x 3.4 in x 5.3 in)					
Weight (battery included)	0.726 kg (1.6 lb)					
Enclosure rating	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-Ti125 30HZ Industrial-Commercial Thermal Imager
FLK-Ti125 9HZ Industrial-Commercial Thermal Imager
FLK-Ti110 30HZ Industrial-Commercial Thermal Imager
FLK-Ti110 9HZ Industrial-Commercial Thermal Imager
FLK-Ti105 30Hz Industrial-Commercial Thermal Imager
FLK-Ti105 9HZ Industrial-Commercial Thermal Imager
FLK-Ti100 9HZ General Use Thermal Imager
FLK-Ti95 9HZ General Use Thermal Imager
FLK-Ti90 9HZ General Use Thermal Imager

Included with product
Thermal imagers are shipped with ac power adapter, lithium ion smart battery (Ti125 includes 2 each—other models 1 each), USB cable, SD memory card, hard carrying case (Ti125, Ti110, Ti105, Ti100 only), soft transport bag, adjustable hand strap (except Ti90), printed users manual in English, Spanish, French, German and Simplified Chinese, others on CD, SmartView® software and warranty registration card. Ti125 model also include a two-bay charging base and a multi-format USB memory card reader. Fluke Connect wireless SD card is included with purchase in certain countries, but shipped separately.

Optional
FLK-FC-SD 8GB Fluke Connect Wireless SD Card
FLK-TI-VISOR2 Sun Visor
FLK-TI-TRIPOD2 Tripod Mounting Accessory
BOOK-ITP Introduction to Thermography Principles Book
FLK-TI-SBP3 Additional Smart Battery
FLK-TI-SBC3 Additional Smart Battery Charger
TI-CAR CHARGER Car Charger

Fluke Connect Kits
FLK-TI125 30HZ/FCB Ti125 Thermal Imager, (3) a3001 FC iFlex Modules, 805 FC
FLK-TI105 30HZ/FCA Ti105 Thermal Imager, 3000 FC DMM, a3001 FC iFlex Module
FLK-TI95 9HZ/FCA Ti95 Thermal Imager, 3000 FC DMM, a3001 FC iFlex Module
FLK-TI95 9HZ/FCC Ti95 Thermal Imager, (1) a3001 FC iFlex Module

Fluke Connect modules
FLK-a3000 FC AC Current Clamp Module
FLK-a3001 FC iFlex™ AC Current Clamp Module
FLK-a3002 FC AC/DC Current Module
FLK-v3000 FC AC Voltage Module
FLK-v3001 FC DC Voltage Module
FLK-t3000 FC K-Type Temperature Module

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

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™ (4.3 and up) and iOS (4s and later) 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:

Download on the App Store
ANDROID APP ON Google play

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

For a high performance, feature rich infrared camera that produces consistently in-focus images with a touch of a button EVERY, SINGLE, TIME, consider the Ti400 series with LaserSharp® Auto Focus.

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