

## TECHNICAL DATA

# TiS10, TiS20, TiS40, TiS45, TiS50, TiS55, TiS60, TiS65, TiS75 Infrared Cameras



Fluke Connect®  
compatible

### The Fluke Performance Series

Built for performance with features that help you easily and quickly identify problems before they become expensive failures.

Get improved resolution that delivers the right image quality you need to make the proper diagnosis:

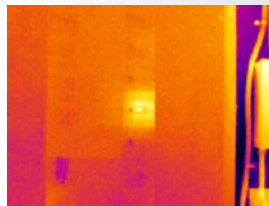
- Up to 320 x 240 resolution
- Reduce the amount of time it takes to get an in-focus image with manual or fixed focus options
- Securely store and manage your images from anywhere
  - WiFi upload to Fluke Cloud™
  - Free storage with Fluke Cloud™
  - Share images in real-time with Fluke Connect
  - Removable 4GB micro SD card
  - Voice annotation\*
- Edit and analyze images then create and send reports from your smartphone directly from the field with Fluke Connect

### 9 NEW CAMERAS. UP TO 320 X 240 RESOLUTION.

RESOLUTION	FIELD OF VIEW
<b>TiS75</b> 320 x 240 D:S 504:1	35.7 ° x 26.8 °
<b>TiS65/60</b> 260x195 D:S 409:1	
<b>TiS55/50</b> 220x165 D:S 346:1	
<b>TiS45/40</b> 160x120 D:S 252:1	
<b>TiS20</b> 120x90 D:S 189:1	
<b>TiS10</b> 80x60 D:S 128:1	

### IR-Fusion® Technology

The instant blending of visible light and infrared, along with picture-in-picture mode, easily reveal both problem and location.



Full infrared



50% blending, picture-in-picture mode



50% blending

\*Varies by model

# Detailed specifications

	TiS75	TiS65 TiS60	TiS55 TiS50	TiS45 TiS40	TiS20	TiS10	
<b>Key features</b>							
<b>IFOV (spatial resolution)</b>	2.0 mRad	2.4 mRad	2.8 mRad	3.9 mRad	5.2 mRad	7.8 mRad	
Detector resolution	320 x 240	260 x 195	220 x 165	160 x 120	120 x 90	80 x 60	
Field of view	35.7° x 26.8°						
Distance-to-Spot	504:1	409:1	346:1	252:1	189:1	128:1	
<b>Wireless connectivity</b>	Yes						
Fluke Connect compatible	Yes (where available)						
<b>IR-Fusion® technology</b>							
AutoBlend™ mode	5 presets (0%, 25%, 50%, 75%, 100%)					3 presets (0%, 50%, 100%)	–
Picture-In-Picture (PIP)	5 presets (0%, 25%, 50%, 75%, 100%)					–	
Focus system	Manual focus, Minimum focus distance, 0.15 m (6 in)	Fixed focus, Minimum focus distance 0.45 m (1.5 ft)	Manual focus, Minimum focus distance, 0.15 m (6 in)	Fixed focus, Minimum focus distance 0.45 m (1.5 ft)	Manual focus, Minimum focus distance, 0.15 m (6 in)	Fixed focus, Minimum focus distance 0.45 m (1.5 ft)	
Ruggedized display	3.5 inch (landscape) 320 x 240 LCD						
Rugged, ergonomic design for one-handed use	Yes						
Thermal sensitivity (NETD)	≤ 0.08 °C at 30 °C target temp (80 mK)			≤ 0.09 °C at 30 °C target temp (90 mK)	≤ 0.10 °C at 30 °C target temp (100 mK)	≤ 0.15 °C at 30 °C target temp (150 mK)	
Temperature measurement range (not calibrated below -10 °C)	-20 °C to +550 °C (-4 °F to 1022 °F)		-20 °C to +450 °C (-4 °F to 842 °F)		-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 automodes	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)	5MP						
Frame rate	9 Hz or 30 Hz	9 Hz	9 Hz or 30 Hz	9 Hz	9 Hz or 30 Hz	9 Hz	
Laser pointer	Yes					–	
<b>Data storage and image capture</b>							
Extensive SD memory system	Internal 4GB memory and 4GB micro SD card				Internal 4GB memory (optional 4GB micro SD card sold separately)		
Image capture, review, save mechanism	One-handed image capture, review, and save capability						
Image file formats	Non-radiometric (.bmp) or (.jpeg) or fully-radiometric (.is2); No analysis software required for non-radiometric (.bmp, .jpg) files						
Instant Upload	Upload captured images to Fluke Connect server with the use of a Wifi connection						
Memory review	Thumbnail review						
Software	SmartView® software -full analysis and reporting software and Fluke Connect® (where available)						
Export file formats with SmartView® software	BMP, DIB, GIF, JPE, JFIF, JPEG, JPG, PNG, TIF, and TIFF						
Voice annotation	Yes, Bluetooth Headset (sold separately)					–	
IR-PhotoNotes™	Yes (3 images)		Yes (1 image)		–		
Standard video recording	Yes		–				
Radiometric video recording	Yes		–				
Video file formats	Non-radiometric (MPEG - encoded .AVI) and fully radiometric (.IS3)		–				
<b>Battery</b>							
Batteries (field-replaceable, rechargeable)	Two lithium ion smart battery packs with five-segment LED display to show charge level			One lithium ion smart battery packs with five-segment LED display to show charge level			
Battery life	Four+ hours						
Battery charge time	2.5 hours to full charge						
Battery charging system	Two-bay battery charger or in- imager charging			In-imager charging (optional external charger sold separately)			
AC operation	AC operation with included power supply (100 V AC to 240 V AC, 50/60 Hz)						
<b>Temperature measurement</b>							
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	–	Yes	–	Yes	–	

## Detailed specifications

	TiS75	TiS65/TiS60	TiS55/TiS50	TiS45/TiS40	TiS20	TiS10
<b>Color palettes</b>						
Standard palettes	8: Ironbow, Blue-Red, High-Contrast, Amber, Amber Inverted, Hot Metal, Grayscale, Grayscale Inverted			7: Ironbow, Blue-Red, High-Contrast, Amber, Amber Inverted, Hot Metal, Grayscale, Grayscale Inverted	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		-			
<b>General specifications</b>						
Color alarms (temperature alarms)	High temperature, low temperature, Isotherms			High temperature, low temperature	-	
Infrared spectral band	7.5 µm to 14 µm					
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 temperature	Yes					
User-definable spot markers	3		2	1	-	
Center box	Expandable-contractible measurement box with MIN-MAX-AVG temp				-	
Safety standards	EN 61010-1: CAT none, pollution degree 2, EN 60825-1: Class 2, EN 60529, EN 62133 (lithium battery)					
Electromagnetic compatibility	EN 61326-1:2006, EN 55011: Class A, EN 61000-4-2, EN 61000-4-3					
C Tick	IEC/EN 61326-1					
US FCC	EN61326-1; FCC Part 5, EN 55011: Class A, EN 61000-4-2					
Vibration and Shock	2G, IEC 68-2-6 and 25G, IEC 68-2-29					
Drop	Engineered to withstand 2 meter (6.5 feet) drop					
Size (H x W x L)	26.7 cm x 10.1 cm x 14.5 cm (10.5 in x 4.0 in x 5.7 in)					
Weight (battery included)	Fixed Focus .72 kg (1.6 lb), Manual focus .77 kg (1.7 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-TiS75 30HZ Industrial Commercial Thermal Imager
- FLK-TiS75 9HZ Industrial Commercial Thermal Imager
- FLK-TiS65 30HZ Industrial Commercial Thermal Imager
- FLK-TiS65 9HZ Industrial Commercial Thermal Imager
- FLK-TiS60 9HZ Industrial Commercial Thermal Imager
- FLK-TiS55 30HZ Industrial Commercial Thermal Imager
- FLK-TiS55 9HZ Industrial Commercial Thermal Imager
- FLK-TiS50 9HZ Industrial Commercial Thermal Imager
- FLK-TiS45 30HZ Industrial Commercial Thermal Imager
- FLK-TiS45 9HZ Industrial Commercial Thermal Imager
- FLK-TiS40 9HZ Industrial Commercial Thermal Imager
- FLK-TiS20 9HZ Industrial Commercial Thermal Imager
- FLK-TiS10 9HZ Industrial Commercial Thermal Imager

**Included**

Infrared cameras are shipped with a universal AC power adapter, lithium ion smart battery (TiS75, TiS65/60 includes 2 each—other models 1 each), USB cable, Micro SD card (TiS75, TiS65/60, TiS55, TiS45), hard carrying case (TiS75, TiS65/60, TiS55/50, TiS45/40), soft transport bag, adjustable hand strap (TiS75, TiS65/60, TiS55/50, TiS45/40), and quick reference guide and safety sheet. Software is available via download at [www.fluke.com/smartviewdownload](http://www.fluke.com/smartviewdownload). TiS75, TiS65/60 models include a two-bay battery charger.

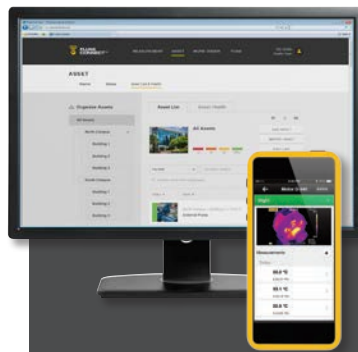
**Optional accessories**

- FLK-BLUE TOOTH Bluetooth Headset
- FLK-TI-TRIPOD3 Tripod Mounting Accessory
- BOOK-ITP Introduction to Thermography Principles Book
- FLK-TI-SBP3 Additional Smart Battery
- FLK-TI-SBC3B Smart Battery Charger
- TI-CAR CHARGER Car Charger

**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-a3003 FC DC Wireless Clamp
- FLK-a3004 FC DC Wireless Clamp
- 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.



Set up and sustain preventive maintenance practices with ease to help you oversee your complex world with the Fluke Connect® system of software and over 40 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 baseline, historical and current measurements from one location.
- Collaborate with ease by sharing your measurement data with team members with ShareLive™ video calls and emails.
- Wireless one-step measurement transfer with AutoRecord™ measurements eliminates transcription errors, clipboards, notebooks and multiple spreadsheets.
- Generate reports with multiple measurement types to provide status or next step recommendations.

Find out more and take a free trial at: [flukeconnect.com](http://flukeconnect.com)



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Fluke Connect is not available in all countries. Check with your local Fluke representative for information.

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

For a high performance, feature rich thermal imager that produces consistently in-focus images with a touch of a button EVERY, SINGLE, TIME, consider the Professional Series with LaserSharp® Auto Focus.

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