

TECHNICAL DATA

# TiS75, TiS65, TiS60, TiS55, TiS50, TiS45, TiS40, TiS20 and TiS10 Thermal Imagers

## The Fluke Performance Series



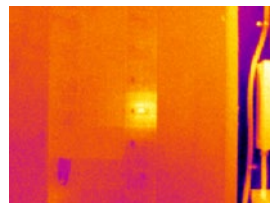
**Rugged. Accurate. Built to perform.**

- Get the context of the visual and infrared details all in one precisely blended or picture-in-picture image with **IR-Fusion® technology**
- Get precisely focused images from as close as 15 cm (6 in) with **manual focus**, or choose **fixed focus** for faster images without the need to focus from 45 cm (1.5 ft) and beyond
- Monitor your battery charge and avoid an unexpected loss of power with the **smart battery** with LED charge indicator
- Get easy access to saved images with a **removable SD card**
- Digitally document critical information such as the location of the equipment or the motor nameplate with the infrared image using **IR-PhotoNotes™** or **voice annotation\***

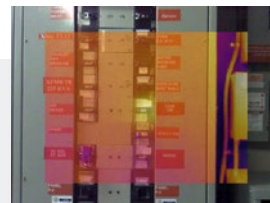
**GOOD IMAGE QUALITY WITH UP TO 320 X 240 RESOLUTION**

RESOLUTION	FIELD OF VIEW
<b>TiS75</b> 320 x 240 D:S 504:1	35.7 °H x 26.8 °V
<b>TiS65/60</b> 260 x 195 D:S 409:1	
<b>TiS55/50</b> 220 x 165 D:S 346:1	
<b>TiS45/40</b> 160 x 120 D:S 252:1	
<b>TiS20</b> 120 x 90 D:S 189:1	
<b>TiS10</b> 80 x 60 D:S 126:1	

See the problem and location in one image with IR-Fusion® technology.



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 (76,800 pixels)	260 x 195 (50,700 pixels)	220 x 165 (36,300 pixels)		160 x 120 (19,200 pixels)		120 x 90 (10,800 pixels)	80 x 60 (4,800 pixels)
Field of view	35.7 °H x 26.8 °V							
Distance to spot	504:1	409:1	346:1		252:1		189:1	126:1
Focus system	Manual focus, minimum focus distance 15 cm (~6 in)	Fixed focus, minimum focus distance 45 cm (~18 in)	Manual focus, minimum focus distance 15 cm (~6 in)	Fixed focus, minimum focus distance 45 cm (~18 in)	Manual focus, minimum focus distance 15 cm (~6 in)	Fixed focus, minimum focus distance 45 cm (~18 in)		
<b>IR-Fusion® technology</b>	Yes, adds the context of the visible details to your infrared image							–
AutoBlend™ mode	100 %, 75 %, 50 %, 25 % IR plus full visible on camera; continuously variable in software						100 %, 50 % IR and full visible on camera; continuously variable in software	100 % IR and full visible on camera; continuously variable in software
Picture-In-Picture (PIP)	100 %, 75 %, 50 %, 25 % IR; continuously variable in software						Not available on camera; continuously variable in software	
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)
<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)	2.5 °C (4.5 °F)							
Minimum span (in auto mode)	5 °C (9.0 °F)							
Built-in digital camera (visible light)	5MP							
Frame rate	30 Hz or 9 Hz versions	9 Hz	30 Hz or 9 Hz versions	9 Hz	30 Hz or 9 Hz versions	9 Hz		
Laser pointer	Yes						–	
<b>Data storage and image capture</b>								
Extensive memory options	Internal 4GB memory and 4GB micro SD card					Internal 4GB memory (includes slot for optional micro SD card)		
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							
Memory review	Dedicated memory view button for quick access to stored images; thumbnail and full screen review							
Software	SmartView® full analysis and reporting software							
Export file formats with SmartView® software	Bitmap (.bmp), GIF, JPEG, PNG, TIFF							
Voice annotation	60 seconds maximum recording time per image; reviewable playback on camera; Bluetooth headset required (sold separately)						–	
IR-PhotoNotes™	Yes (3 images)		Yes (1 image)		–			
Video recording	Standard and radiometric		–					
Video file formats	Non-radiometric (MPEG - encoded .avi) and fully radiometric (.is3)		–					
Streaming video (remote display)	Yes, see the live stream of the camera display on your PC or smartphone. Via USB, WiFi hotspot, or WiFi network to SmartView® software on a PC		–					
Auto capture (temperature and interval)	Yes							

## Detailed specifications

	TiS75	TiS65/TiS60	TiS55/TiS50	TiS45/TiS40	TiS20	TiS10
<b>Battery</b>						
Batteries (field-replaceable, rechargeable)	Two lithium ion smart battery pack 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					
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		In-imager charging. Optional two-bay battery charger or 12v automotive charging adapter sold separately			
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 +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)
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	–
<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, 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 (within range)			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) 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	2	1	–		
Center box	Expandable-contractible measurement box with MIN-MAX-AVG temp display			–		
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** Thermal Imager  
**FLK-TiS75 9HZ** Thermal Imager  
**FLK-TiS65 30HZ** Thermal Imager  
**FLK-TiS65 9HZ** Thermal Imager  
**FLK-TiS60 9HZ** Thermal Imager  
**FLK-TiS55 30HZ** Thermal Imager  
**FLK-TiS55 9HZ** Thermal Imager  
**FLK-TiS50 9HZ** Thermal Imager  
**FLK-TiS45 30HZ** Thermal Imager  
**FLK-TiS45 9HZ** Thermal Imager  
**FLK-TiS40 9HZ** Thermal Imager  
**FLK-TiS20 9HZ** Thermal Imager  
**FLK-TiS10 9HZ** Thermal Imager

### Included

Thermal imager; AC power supply (including universal AC adapters); two-bay smart battery charger (TiS75, TiS65, TiS60 only); rugged lithium ion smart battery (TiS75, TiS65/60 include 2 each—other models 1 each); USB cable; 4 GB micro SD card (TiS75, TiS65/60, TiS55/50, TiS45 only); rugged, hard carrying case (TiS75, TiS65/60, TiS55/50; TiS45/40); soft transport bag; adjustable hand strap (TiS75, TiS65/60, TiS55/50, TiS45/40). **Available by free download:** SmartView® desktop software and user manual.

### Optional accessories

**FLK-BLUETOOTH** 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



## The Professional Series

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.



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

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