

TECHNICAL DATA

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

The Fluke Performance Series



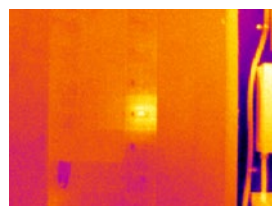
Rugged. Accurate. Built to perform.

- 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
TiS75 320 x 240 D:S 504:1	35.7 °H x 26.8 °V
TiS65/60 260 x 195 D:S 409:1	
TiS55/50 220 x 165 D:S 346:1	
TiS45/40 160 x 120 D:S 252:1	
TiS20 120 x 90 D:S 189:1	
TiS10 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
Key features								
IFOV (spatial resolution)	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)		
IR-Fusion® technology	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)
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 (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						–	
Data storage and image capture								
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
Battery						
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					
Temperature measurement						
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	–
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	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		–			
General specifications						
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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