

## TECHNICAL DATA

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



Compatible with Fluke Connect® Mobile App

### 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 2.5<sup>1</sup> times more pixels and 70%<sup>1</sup> better D:S
- 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<sup>3</sup>
  - WiFi upload to Fluke Cloud™
  - Free storage<sup>2</sup> with Fluke Cloud™
  - Share images in real-time with Fluke Connect®
  - Removable 4GB micro SD card
  - Voice annotation
- Create and email reports from the jobsite with Fluke Connect®, eliminating the need to go back to the office to process reports

## 8 NEW CAMERAS. UP TO 2.5 TIMES<sup>1</sup> MORE PIXELS.

### RESOLUTION

#### TiS65/60

260x195

D:S 417:1

#### TiS55/50

220x165

D:S 353:1

#### TiS45/40

160x120

D:S 257:1

#### TiS20

120x90

D:S 193:1

#### TiS10

80x60

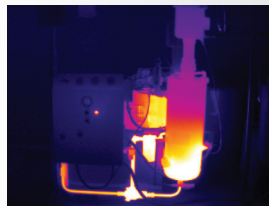
D:S 128:1

### FIELD OF VIEW

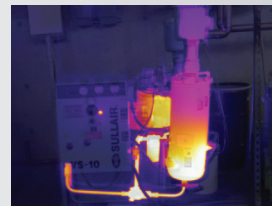
35.7 ° x 26.8 °

### IR-Fusion® Technology

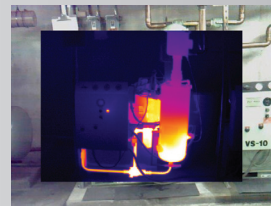
The instant blending of visible light and infrared along with Picture-in-Picture mode, easily reveal both problem and location.



Full infrared



75 % blending



Full infrared picture-in-picture

<sup>1</sup>Compared to the Fluke Ti125 infrared camera.

<sup>2</sup>5GB of free storage.

<sup>3</sup>Within your provider's wireless service area; Fluke Connect® is not available in all countries.

	TiS65/TiS60		TiS55/TiS50		TiS45/TiS40		TiS20	TiS10	
<b>Key features</b>									
<b>IFOV (spatial resolution)</b>	2.4 mRad		2.8 mRad		3.9 mRad		5.2 mRad	7.8 mRad	
Detector resolution	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	417:1		353:1		257:1		193:1	128:1	
<b>Wireless connectivity</b>	Yes								
Fluke Connect® app 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								

	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-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**

Thermal imagers are shipped with a universal AC power adapter, lithium ion smart battery (TiS65/60 includes 2 each—other models 1 each), USB cable, Micro SD card (TiS65/60, TiS55, TiS45), hard carrying case (TiS65/60, TiS55/50, TiS45/40), soft transport bag, adjustable hand strap (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). TiS65/60 models include a two-bay battery charger.

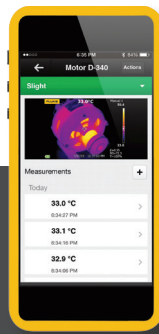
**Optional accessories**

- 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

**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.



**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:**



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 Professional Series with LaserSharp® Auto Focus.

All trademarks are the property of their respective owners. Smart phone, wireless service, and data plan not included with purchase. The first 5GB of storage is free. Compatible with Android™ (4.3 and up) and iOS (4s and later). Apple and the Apple logo are trademarks of Apple Inc., registered in the U.S. and other countries. App Store is a service mark of Apple Inc. Google Play is a trademark of Google Inc.

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

**Fluke Corporation**  
 PO Box 9090, Everett, WA 98206 U.S.A.  
**Fluke Europe B.V.**  
 PO Box 1186, 5602 BD Eindhoven, The Netherlands

Modification of this document is not permitted without written permission from Fluke Corporation.

**For more information call:**  
 In the U.S.A. (800) 443-5853 or Fax (425) 446-5116  
 In Europe/M-East/Africa +31 (0)40 267 5100 or Fax +31 (0)40 267 5222  
 In Canada (800)-36-FLUKE or Fax (905) 890-6866  
 From other countries +1 (425) 446-5500 or Fax +1 (425) 446-5116  
 Web access: <http://www.fluke.com>

©2015 Fluke Corporation. Specifications subject to change without notice. 6/2015 6005299b-en