

TECHNICAL DATA

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

The Fluke Performance Series



Fluke Connect®
compatible

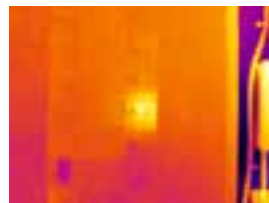
Rugged. Accurate. Built to perform.

- Save time - wirelessly sync images directly from your camera to the **Fluke Connect® system**, and attach to an asset record or work order. Having access to maintenance records simultaneously at the inspection site and from the office or an off-site location enables faster decision making and real time collaboration between team members
- 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) | | | |
| Wireless connectivity | Yes, to PC, iPhone® and iPad® (iOS 4s and later), Android™ 4.3 and up, and WiFi to LAN (where available) | | | | | | | | |
| Fluke Connect® app compatible | Yes*, connect your camera to your smartphone, and images taken automatically upload to the Fluke Connect® app for saving and sharing | | | | | | | | |
| Fluke Connect® Assets optional software | Yes*, assign images to assets and create work orders. Easily compare measurement types—whether mechanical, electrical or infrared images—in one location | | | | | | | | |
| Fluke Connect® Instant Upload | Yes*, connect your camera to your building's WiFi network, and images taken automatically upload to the Fluke Connect® system for viewing on your smartphone or PC | | | | | | | | |
| Fluke Connect® tool compatible | Yes*, connects wirelessly to select Fluke Connect® enabled tools and displays measurements on camera screen. Five simultaneous connections supported | | | | | | | | |
| 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 and Fluke Connect® system* | | | | | | | | |
| 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; or via WiFi hotspot to the Fluke Connect® app on a smartphone | | | — | | | | | |
| Auto capture (temperature and interval) | Yes | | | | | | | | |

*Fluke Connect® system is not available in all countries. Please check availability with your authorized Fluke distributor.

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) | |
| 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 | | | | | |

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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

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.

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.



Preventive maintenance simplified. Rework eliminated.

Save time and improve the reliability of your maintenance data by wirelessly syncing measurements using the Fluke Connect® system.

- Eliminate data-entry errors by saving measurements directly from the tool and associating them with the work order, report or asset record.
- Maximize uptime and make confident maintenance decisions with data you can trust and trace.
- Access baseline, historical and current measurements by asset.
- Move away from clipboards, notebooks and multiple spreadsheets with a wireless one-step measurement transfer.
- Share your measurement data using ShareLive™ video calls and emails.
- The Fluke Performance Series is part of a growing system of connected test tools and equipment maintenance software. Visit the Fluke website to learn more about the Fluke Connect® system.



All trademarks are the property of their respective owners. WiFi or cellular service required to share data. Smartphone, wireless service and data plan not included with purchase. First 5 GB of storage is free. Phone support details can be viewed at fluke.com/phones.

Smart phone wireless service and data plan not included with purchase. Fluke Connect is not available in all countries.

Fluke. Keeping your world up and running.®

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