

TECHNICAL DATA

Ti400, Ti300 and Ti200 Thermal Imagers with LaserSharp® Auto Focus

The Fluke Professional Series

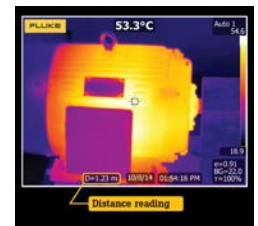


Now compatible with Fluke Connect™ Mobile App

Fluke Thermal Imagers Experience. Performance. Confidence.

- Get an in-focus image like never before with a touch of a button. **LaserSharp® Auto Focus**, exclusive to Fluke, uses a built-in laser distance meter that calculates and displays the distance from your designated target with pinpoint accuracy
- **Save Reporting Time.** Make better decisions faster than before. Organize your measurements by asset in one location with EquipmentLog™ history
- **Brilliantly detailed quality images.** Pixel for pixel the best spatial resolution available¹
- **Precisely blended visual and infrared images** with crucial details to assist in identifying potential problems—IR-Fusion® technology with AutoBlend™ mode
- **Standard and radiometric video recording and video streaming**
- **Text and voice recording/annotation** allows you to save additional details to image files
- **See the details you need** with interchangeable smart lenses—2x and 4x telephoto and wide angle—no calibration required

¹ Comparison is based on competitive models with the same detector resolution.



SUPERIOR IMAGE QUALITY

SPATIAL RESOLUTION

Ti400
1.31 mRad

Ti300
1.75 mRad

Ti200
2.09 mRad

RESOLUTION

Ti400
320 x 240 (76,800 pixels)

Ti300
240 x 180 (43,200 pixels)

Ti200
200 x 150 (30,000 pixels)

FIELD OF VIEW

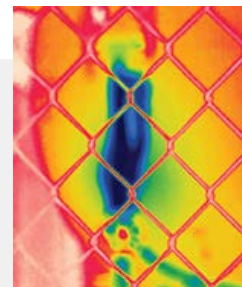
Ti400, Ti300, Ti200
24 °H x 17 °V

AutoFocus Redesigned

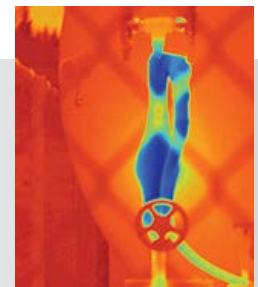
LaserSharp® Auto Focus, uses a built-in laser distance meter that calculates the distance to your designated target with pinpoint accuracy.



Many inspection sites are challenging for certain autofocus systems.



Passive autofocus systems may only capture the near-field subject (chain link fence).



LaserSharp® Auto Focus with a built-in laser distance meter clearly captures your designated target.

Detailed specifications

| | Ti400 | Ti300 | Ti200 |
|--|--|---------------------------|---|
| Key features | | | |
| IFOV with standard lens (spatial resolution) | 1.31 mRad, D:S 764:1 | 1.75 mRad, D:S 573:1 | 2.09 mRad, D:S 477:1 |
| Detector resolution | 320 x 240 (76,800 pixels) | 240 x 180 (43,200 pixels) | 200 x 150 (30,000 pixels) |
| Field of view | 24 °H x 17 °V | | |
| Minimum focus distance | 15 cm (approx. 6 in) | | |
| IFOV with optional 2x telephoto smart lens | 0.65 mRad, D:S 1528:1 | 0.87 mRad, D:S 1146:1 | 1.05 mRad, D:S 955:1 |
| Field of view | 12 °H x 9 °V | | |
| Minimum focus distance | 45 cm (approx. 18 in) | | |
| IFOV with optional 4x telephoto smart lens | 0.33 mRad, D:S 3056:1 | 0.44 mRad, D:S 2292:1 | 0.53 mRad, D:S 1910:1 |
| Field of view | 6.0 °H x 4.5 °V | | |
| Minimum focus distance | 1.5 m (approx. 5 ft) | | |
| IFOV with optional wide-angle smart lens | 2.62 mRad, D:S 399:1 | 3.49 mRad, D:S 299:1 | 4.19 mRad, D:S 249:1 |
| Field of view | 46 °H x 34 °V | | |
| Minimum focus distance | 15 cm (approx. 6 in) | | |
| LaserSharp® Auto Focus | Yes, for consistently in-focus images. Every. Single. Time. | | |
| Laser distance meter | Yes, calculates distance to the target for precisely focused images and displays distance on screen | | |
| Advanced manual focus | Yes | | |
| 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 (where available) | | |
| CNX™ Wireless System | Yes (where available) | | |
| IR-Fusion® technology | Yes | | |
| AutoBlend™ mode | Yes | | |
| Picture-In-Picture (PIP) | Yes | | |
| Ruggedized touchscreen display (capacitive) | 8.9 cm (3.5 in) diagonal landscape color VGA (640 x 480) LCD with backlight | | |
| Rugged, ergonomic design for one-handed use | Yes | | |
| Thermal sensitivity (NETD) | ≤ 0.05 °C at 30 °C target temp (50 mK) | | ≤ 0.075 °C at 30 °C target temp (75 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) | 2.0 °C (3.6 °F) | | |
| Minimum span (in auto mode) | 3.0 °C (5.4 °F) | | |
| Built-in digital camera (visible light) | 5 megapixel industrial performance | | |
| Frame rate | 60 Hz or 9 Hz versions | | |
| Laser pointer | Yes | | |
| LED light (torch) | Yes | | |
| Data storage and image capture | | | |
| Extensive memory options | Removable micro SD memory card, on-board flash memory, save-to-USB flash drive capability, direct download via USB-to-PC connection | | |
| Image capture, review, save mechanism | One-handed image capture, review, and save capability | | |
| File formats | Non-radiometric (.bmp) or (.jpeg) or fully-radiometric (.is2); no analysis software required for non-radiometric (.bmp, .jpg and .avi) files | | |
| Memory review | Thumbnail view navigation and review selection | | |
| Software | SmartView® software and Fluke Connect™—full analysis and reporting software | | |
| Export file formats with SmartView® software | BMP, DIB, GIF, JPE, JFIF, JPEG, JPG, PNG, TIF, and TIFF | | |
| Voice annotation | 60 seconds maximum recording time per image; reviewable playback on camera | | |
| IR-PhotoNotes™ | Yes | | |
| Text annotation | Yes | — | |
| Video recording | Standard and radiometric | | |
| File formats video | Non-radiometric (MPEG - encoded .AVI) and fully-radiometric (.IS3) | | |
| Streaming video (remote display) | Via HDMI or WiFi hot spot in remote control mode | Via HDMI | |
| Remote control and operation (for special and advanced applications) | Yes | — | |
| Auto capture (temperature and interval) | Yes | | |

Detailed specifications

| | Ti400 | Ti300 | Ti200 |
|---|---|-------|--|
| Battery | | | |
| Batteries (field-replaceable, rechargeable) | Two lithium ion smart battery packs 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 | | |
| 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 +1200 °C (-4 °F to +2192 °F) | | -20 °C to +650 °C (-4 °F to +1202 °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 | | |
| Color palettes | | | |
| Standard palettes | 8: Ironbow, Blue-Red, High Contrast, Amber, Amber Inverted, Hot Metal, Grayscale, Grayscale Inverted | | |
| 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 and low-temperature | | |
| Infrared spectral band | 7.5 µm to 14 µm (long wave) | | |
| 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 user-definable spot markers | | |
| Center box | Expandable-contractible measurement box with MIN-MAX-AVG temp | | |
| Safety | IEC 61010-1: Overvoltage category II, Pollution Degree 2 | | |
| Electromagnetic compatibility | IEC 61326-1: Basic EM environment. CISPR 11: Group 1, Class A | | |
| Australian RCM | IEC 61326-1 | | |
| US FCC | CFR 47, Part 15 Subpart B | | |
| Vibration | 0.03 g2/Hz (3.8 g), 2.5 g IEC 68-2-6 | | |
| Shock | 25 g, IEC 68-2-29 | | |
| Drop | Engineered to withstand 2 meter (6.5 feet) drop with standard lens | | |
| Size (H x W x L) | 27.7 cm x 12.2 cm x 16.7 cm (10.9 in x 4.8 in x 6.5 in) | | |
| Weight (battery included) | 1.04 kg (2.3 lb) | | |
| Enclosure rating | IEC 60529: 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-Ti400 9Hz Thermal Imager, 9 Hz
- FLK-Ti400 60Hz Thermal Imager, 60 Hz
- FLK-Ti300 9Hz Thermal Imager, 9 Hz
- FLK-Ti300 60Hz Thermal Imager, 60 Hz
- FLK-Ti200 9Hz Thermal Imager, 9 Hz
- FLK-Ti200 60Hz Thermal Imager, 60 Hz

Included

Thermal imager with standard infrared lens; ac power supply and battery pack charger (including universal ac adapters); two, rugged lithium ion smart battery packs; USB cable; HDMI video cable; SmartView® software available via free download; rugged, hard carrying case; soft transport bag; adjustable hand strap; warranty registration card.

Optional accessories

- FLK-LENS/TELE2 Infrared Telephoto Lens (2X magnification)
- FLK-LENS/4XTELE2 Infrared Telephoto Lens (4X magnification)
- FLK-LENS/WIDE2 Infrared Wide Angle Lens
- TI-CAR-CHARGER Car Charger
- FLK-TI-VISOR3 Sun Visor
- BOOK-ITP Introduction to Thermography Principles Book
- TI-TRIPOD3 Tripod Mounting Accessory
- FLK-TI-SBP3 Additional Smart Battery
- FLK-TI-SBC3 Additional Smart Battery Charger

Kits

- FLK-TI400 60HZ/FCA* Thermal Imager, 3000 FC DMM, a3001FC iFlex Module
- FLK-TI300 60HZ/FCA* Thermal Imager, 3000 FC DMM, a3001FC iFlex Module
- FLK-TI200 60HZ/FCA* Thermal Imager, 3000 FC DMM, a3001FC iFlex Module
- FLK-TI400 60HZ/FCC* Thermal Imager, 3-a3001FC iFlex Modules, 805 Vibration Tester
- FLK-TI400 9HZ/FCA Thermal Imager, 3000 FC DMM, a3001FC iFlex Module
- FLK-TI300 9HZ/FCA Thermal Imager, 3000 FC DMM, a3001FC iFlex Module
- FLK-TI200 9HZ/FCA Thermal Imager, 3000 FC DMM, a3001FC iFlex Module
- FLK-TI400 9HZ/FCC Thermal Imager, 3-a3001FC iFlex Modules, 805 Vibration Tester

Visit the Fluke website to get complete details on these products or kits or ask your local Fluke sales representative.

***Only available in certain countries.**

RF connection time (binding time) may take up to 1 minute.



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The Expert Series

Go expert with the Fluke TiX520 or TiX560, and get maximum flexibility with an articulating lens that rotates a full 180 degrees and a 5.7 inch touchscreen LCD. Includes in-field analysis and post-capture image processing on camera, along with other expert-level features and more lens options.



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