

# HANDHELD

Technicians and contractors who need quality images and feature rich affordability for quick scans and/or intermittent inspections.

### Where used

- Electrical inspections
- HVAC/R inspections
- Mechanical
- Residential home inspections
- Light commercial maintenance
- Building diagnostics
  - Building envelope
  - Commercial/industrial facilities



|                                  | TiS60+   | TiS20+   | PTi120                                  |
|----------------------------------|--|--|---|
| <b>Infrared resolution</b>       | 320 x 240 (76,800 pixels)  |  | 120 x 90 (10,800 pixels)                |
| <b>IFOV (spatial resolution)</b> | 1.86 mRad  |  | 7.6 mRad                                |
| <b>Field of view</b>             | 34.1 °H x 25.6 °V  |  | 50° H x 38° V                           |
| <b>Distance to spot</b>          | 532:1  |  | 130:1                                   |
| <b>Thermal sensitivity*</b>      | ≤ 0.045 °C at 30 °C target temp (45 mK)  |  | Target temp at or over 0 °C (60 mK)     |
| <b>Temperature range</b>         | -20 °C to 400 °C (-4 °F to 752 °F)   |  | -20 °C to 150 °C (-4 °F to +302 °F)     |
| <b>Focus system</b>              |  | Fixed Focus  |   |
| <b>level and span</b>            | Smooth auto and manual scaling   | Smooth auto and manual scaling   | —                                       |
| <b>Optional lenses</b>           |  | —  |   |
| <b>Wireless connectivity**</b>   | Fluke Connect™ app compatible. Wireless connectivity to PC, iPhone® and iPad® (iOS 4s and later), Android™ 4.3 and up, and WiFi to LAN |  |   |
| <b>IR-Fusion*</b>                | Yes, 4 levels 0%, 25%, 50%, 75%, 100%  |  | Continuous Touchscreen IR-Fusion 0-100% |
| <b>Display</b>                   |  | 3.5 inch (8.9 cm landscape) 320 x 240 LCD                              |   |
| <b>Design</b>                    | Pistol-grip design for one-handed use  |  | Pocket sized, one-handed use            |
| <b>Frame rate</b>                | < 9 Hz or 30 Hz  |  | 9Hz                                     |
| <b>Software</b>                  | Full analysis and reporting software with access to Fluke Connect Desktop  |  |   |
| <b>Voice annotation</b>          | 60 seconds maximum recording time per image; reviewable playback on camera; Bluetooth headset required (sold separately)               |  | —                                       |
| <b>Text annotation</b>           | —  | Yes. Including standard shortcuts as well as user programmable options |   |
| <b>Video recording</b>           | —  |  | —                                       |
| <b>Battery life</b>              | 4 hours continuous use per battery pack (without WiFi)   | ≥ 5 hours continuous (without WiFi)                                    | ≥ 2 hours continuous (without WiFi)     |
| <b>Remote control operation</b>  |  | —  |   |
| <b>Alarms</b>                    | High temperature, low temperature, isotherms (within range)  |  | —                                       |
| <b>Warranty</b>                  |  | 2 year warranty  |   |
| <b>Asset tagging</b>             | —  | Automatically organize and file thermal images by scanning QR codes    |   |

\*Best possible

\*\*Fluke Connect™ not available in all countries.

# HANDHELD

Professional in-house, service, and contract thermographers as well as maintenance personnel who need quality images and advanced features and specifications for use in multiple applications.

### Where used

- Industrial maintenance
- Heavy commercial facility maintenance
- Oil and gas maintenance
- Veterinary
- Reliability inspections (PdM)
- Heavy building diagnostics
  - Building envelope
  - Construction defects
- Electrical, water, gas utilities
- Chemical processing
- Machinery, instrumentation and appliances



|   | Ti480 PRO   | Ti401 PRO                  | Ti300+                                  |
|---|---|----------------------------|---|
| <b>Infrared resolution</b>              | 640 x 480 (307,200 pixels)  | 640 x 480 (307,200 pixels) | 320 x 240 (76,800 pixels)               |
| <b>Super resolution</b>                 | Yes, in software. Captures and combines 4x the data to create a 1280 x 960 image  |                            | No                                      |
| <b>IFOV (spatial resolution)</b>        | 0.93 mRad   |                            | 1.86 mRad                               |
| <b>Field of view</b>                    |   | 34° H x 24° V              |   |
| <b>Distance to spot</b>                 | 1065:1  |                            | 532:1                                   |
| <b>Thermal sensitivity*</b>             | ≤ 0.05 °C at 30 °C target temp (50 mK)  |                            | ≤ 0.075 °C at 30 °C target temp (75 mK) |
| <b>Temperature range</b>                | -10 °C to +1,000 °C (-4 °F to +1,832 °F)  |                            | -20 °C to +650 °C (-4 °F to +1,202 °F)  |
| <b>MultiSharp™ Focus</b>                | Yes   |                            | No                                      |
| <b>LaserSharp™ Auto Focus</b>           | LaserSharp™ Auto Focus for consistently in-focus images   |                            |   |
| <b>Manual focus</b>                     | Yes   |                            |   |
| <b>Laser distance meter</b>             | Yes, calculates distance to the target for precisely focused images and displays distance on screen   |                            |   |
| <b>Optional lenses</b>                  | Pre-calibrated smart optional lenses: wide angle, 2x and 4x telephoto, macro-25 micron  |                            |   |
| <b>Wireless connectivity**</b>          | Fluke Connect™ app compatible. Wireless connectivity to PC, iPhone® and iPad® (iOS 4s and later), Android™ 4.3 and up, and WiFi to LAN  |                            |   |
| <b>IR-Fusion*</b>                       | Five modes of image blending (AutoBlend™ mode, Picture-in- Picture (PIP), IR/Visible alarm, Full IR, Full visible light) add the context of the visible details to your infrared image  |                            |   |
| <b>Display</b>                          | 3.5 inch touchscreen LCD, 640 x 480 pixel resolution  |                            |   |
| <b>Design</b>                           | Pistol-grip design for one-handed use   |                            |   |
| <b>Frame rate</b>                       | 60 Hz or 9 Hz versions  |                            |   |
| <b>Software</b>                         | Full analysis and reporting software with access to Fluke Connect Desktop   |                            |   |
| <b>Voice annotation</b>                 | 60 seconds maximum recording time per image, reviewable playback on camera; Bluetooth headset optional, but not required  |                            |   |
| <b>Text annotation</b>                  | Yes. Including standard shortcuts as well as user programmable options  |                            |   |
| <b>Video recording</b>                  | Standard and radiometric  |                            | —                                       |
| <b>Streaming video (remote display)</b> | Yes, see the live stream of the camera display on your PC, smartphone, or TV monitor. Via USB, WiFi hotspot, or WiFi network to Fluke Connect Desktop software on a PC; via WiFi hotspot to the Fluke Connect™ app on a smartphone; or via HDMI to a TV monitor |                            |   |
| <b>Remote control operation</b>         | Yes, through Fluke Connect™ mobile app  |                            | —                                       |
| <b>Alarms</b>                           | High temperature, low temperature, and isotherms (within range)   |                            |   |
| <b>Warranty</b>                         | Two-years (standard), extended warranties are available   |                            |   |

\*Best possible

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# ARTICULATING

Engineers, R&D professionals and advanced thermographers who require premium image quality and an unsurpassed level of detail in every infrared image.

### Where used

- Industrial maintenance
- Oil and gas predictive maintenance
- Power generation/transmission
- Research and development
  - Electrical
  - Mechanical
  - Sciences
- Quality control
- Plus the industries included under the handheld series



|  | TIx1000   | TIx620   | TIx580  | TIx501  |
|--|---|--|---|---|
| <b>Detector resolution</b>   | 1024 x 768 (786,432 pixels)<br>SuperResolution mode: 2048 x 1536 (3,145,728 pixels)   | 640 x 480 (307,200 pixels) SuperResolution mode: 1280 x 960 (1,228,800 pixels) |   | 640 x 480 (307,200 pixels)  |
| <b>IFOV (spatial resolution)</b>   | 0.57 mRad   | 0.85 mRad  |   | 0.93 mRad   |
| <b>Field of view</b>   | 32.4° H x 24.7° V   | 32.7° H x 24.0° V  |   | 34° H x 24° V   |
| <b>Distance to spot</b>  | 1765:1  | 1065:1   |   | 1065:1  |
| <b>Thermal sensitivity*</b>  | ≤ 0.05 °C at 30 °C target temp (50 mK)  | ≤ 0.04 °C at 30 °C target temp (40 mK)   | ≤ 0.05 °C at 30 °C target temp (50 mK)  | ≤ 0.075 °C at 30 °C target temp (75 mK)   |
| <b>Temperature range</b>   | -40 °C to +1,200 °C (-40 °F to +2,192 °F) High temperature option—request at time of order: up to 2000 °C (3,632 °F)  | -40 °C to +600 °C (-40 °F to +1112 °F)   | -20 °C to +1,000 °C (-4 °F to +1,832 °F)  | -20 °C to +650 °C (-4 °F to +1,202 °F)  |
| <b>Focus systems</b>   | LaserSharp™ Auto Focus, auto focus, manual focus, and EverSharp multifocal recording  |  | MultiSharp™ Focus, LaserSharp™ Auto Focus with built-in laser distance meter and advanced manual focus  | LaserSharp™ Auto Focus with built-in laser distance meter and advanced manual focus |
| <b>Laser distance meter</b>  | Yes, Accuracy: ±1.5 mm, Range: 70 m (76.5 ft.), Wavelength: 635 nm (red), Laser class: 2  |  | Yes, calculates distance to the target for precisely focused images and displays distance on screen   |   |
| <b>Optional lenses</b>   | 2 wide angle, 2 telephoto, 3 macro and 1 standard   | 1 wide angle and 1 telephoto   | Pre-calibrated smart optional lenses: wide angle, 2x and 4x telephoto, macro—25 micron lens   |   |
| <b>Wireless connectivity**</b>   | —   |  | Fluke Connect™ app compatible. Wireless connectivity to PC, iPhone® and iPad® (iOS 4s and later), Android™ 4.3 and up, and WiFi to LAN  |   |
| <b>IR-Fusion*</b>  | Five modes of image blending (AutoBlend™ mode, Picture-in-Picture (PIP), IR/Visible alarm, Full IR, Full visible light) add the context of the visible details to your infrared image |  |   |   |
| <b>Display</b>   | 5.6 inch color TFT display, 1,280 x 800 pixel resolution, suitable for daylight operation   |  | 5.7 inch touchscreen LCD, 640 x 480 pixel resolution  |   |
| <b>Design</b>  | Camcorder with handle, Tilttable LCoS color viewfinder display, 800 × 600 pixel resolution  |  | 240° rotating (articulating) lens   |   |
| <b>Frame rate</b>  | 30 Hz or 9 Hz versions  | 30 Hz version  | 60 Hz or 9 Hz versions  |   |
| <b>Subwindowing modes available</b><br>(add-on at time of order—subwindowing options are not available on 9 Hz models) | Option 1: 640 × 480 (60 fps)<br>Option 2: 384 × 288 (120 fps)<br>Option 3: 1024 × 96 (240 fps)  | 384 × 288 (60 fps)   | —   |   |
| <b>Software</b>  | Full analysis and reporting software with access to Fluke Connect Desktop   |  |   |   |
| <b>Voice annotation</b>  | 60 seconds maximum recording time per image, reviewable playback on camera; Bluetooth headset optional, but not required  |  |   |   |
| <b>Text annotation</b>   | Yes. Including standard shortcuts as well as user programmable options  |  |   |   |
| <b>Video recording</b>   | Standard and radiometric  |  |   | Standard  |
| <b>Streaming video (remote display)</b>  | Via HDMI; GigE Ethernet available in Fluke Connect Desktop software   |  | Yes, see the live stream of the camera display on your PC, smartphone, or TV monitor. Via USB, WiFi hotspot, or WiFi network to Fluke Connect Desktop software on a PC; via WiFi hotspot to the Fluke Connect™ app on a smartphone; or via HDMI to a TV monitor |   |
| <b>Remote control operation</b>  | Yes   |  | Remote display and control operation through Fluke Connect  | Remote display through Fluke Connect  |
| <b>Alarms</b>  | High temperature, low temperature, and isotherms (within range)   |  |   |   |
| <b>Warranty</b>  | Two-years (standard), extended warranties are available   |  |   |   |

\*Best possible

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## MOUNTED

R&D professionals, scientists and engineers who require a mounted infrared camera to continuously stream, measure and analyze data

### Where used

- Research and development
  - Electrical
  - Mechanical
  - Biology/sciences
- Quality control
  - Pre- and post- production testing



|   | RSE600  | RSE300                                   |
|---|---|--|
| <b>Infrared resolution</b>              | 640 x 480 (307,200 pixels)  | 320 x 240 (76,800 pixels)                |
| <b>IFOV (spatial resolution)</b>        | 0.93 mRad   | 1.85 mRad                                |
| <b>Field of view</b>                    | 34° H x 25.5° V   |  |
| <b>Thermal sensitivity*</b>             | ≤ 0.040 °C at 30 °C target temp (40 mK)*  | ≤ 0.030 °C at 30 °C target temp (30 mK)* |
| <b>Temperature range</b>                | -10 °C to +1200 °C (14 °F to +2192 °F)  |  |
| <b>Focus systems</b>                    | Focus is adjusted in Fluke Connect Desktop software (manual or MultiSharp™)   |  |
| <b>Laser distance meter</b>             | -   |  |
| <b>Optional lenses</b>                  | Pre-calibrated smart lenses: wide angle, 2x telephoto, 4x telephoto, macro  |  |
| <b>Wireless connectivity**</b>          | -   |  |
| <b>IR-Fusion*</b>                       | Yes, in Fluke Connect Desktop software. Five modes of image blending (AutoBlend™ mode, Picture-in-Picture (PIP), IR/Visible alarm, Full IR, Full visible light) add the context of the visible details to your infrared image |  |
| <b>Display</b>                          | -   |  |
| <b>Design</b>                           | Can be mounted to a stand or wall bracket for continuous data streaming   |  |
| <b>Frame rate</b>                       | 60 Hz or 9 Hz versions  |  |
| <b>Software</b>                         | Fluke Connect Desktop software—full analysis and reporting software<br>Compatible with MATLAB® and LabVIEW® software  |  |
| <b>Voice annotation</b>                 | Yes, in Fluke Connect Desktop software  |  |
| <b>Text annotation</b>                  | Yes, in Fluke Connect Desktop software  |  |
| <b>Video recording</b>                  | Radiometric, in Fluke Connect Desktop software, with exports to standard non-radiometric formats  |  |
| <b>Streaming video (remote display)</b> | Yes, see the live stream of the camera on your PC, smartphone, or TV monitor. Via USB, WiFi hotspot, or WiFi network to Fluke Connect Desktop software on a PC; via WiFi hotspot to the Fluke Connect™ app                    |  |
| <b>Remote control operation</b>         | Yes, through ethernet or Fluke Connect Desktop software   |  |
| <b>Alarms</b>                           | Yes, in Fluke Connect Desktop software—high temperature low temperature, and isotherms (within range)   |  |
| <b>Warranty</b>                         | Two years (standard), extended warranties are available   |  |

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## GAS DETECTION

FLUKE®

Two-in-one tool capability for professional in-house, contract and service thermographers who need quality infrared images plus the added benefit of SF<sub>6</sub> gas detection

### Where used

- SF<sub>6</sub> gas detection
- Electrical Utilities
- Substation Maintenance
- Industrial maintenance
- Heavy commercial facility maintenance
- Oil and gas maintenance
- Reliability inspections (PdM)
  - Building envelope
  - Construction defects
- Electrical, water, gas utilities



|   | T1450 SF6   |
|---|---|
| <b>Infrared resolution</b>              | 320 x 240 (76,800 pixels) or 640 x 480 with SuperResolution on infrared mode only (307,200 pixels)  |
| <b>IFOV (spatial resolution)</b>        | 1.31 mRad   |
| <b>Field of view</b>                    | 24° H x 17° V   |
| <b>Distance to spot</b>                 | 753:1   |
| <b>Thermal sensitivity*</b>             | ≤ 0.025 °C at 30 °C target temp (25 mK)   |
| <b>Temperature measurement range</b>    | -20 °C to +1200 °C (-4 °F to +2192 °F)  |
| <b>Focus system</b>                     | MultiSharp™ Focus, LaserSharp™ Auto Focus with built-in laser distance meter and advanced manual focus  |
| <b>Laser distance meter</b>             | Yes   |
| <b>Optional lenses</b>                  | Pre-calibrated smart lenses: wide angle, 2x and 4x telephoto  |
| <b>Wireless connectivity**</b>          | Fluke Connect™ app compatible. Wireless connectivity to PC, iPhone® and iPad® (iOS 4s and later), Android™ 4.3 and up, and WiFi to LAN  |
| <b>IR-Fusion*</b>                       | Five modes of image blending (AutoBlend™ mode, Picture-in-Picture (PIP), IR/Visible alarm, Full IR, Full visible light) add the context of the visible details to your infrared image   |
| <b>Display</b>                          | 3.5 inch touchscreen LCD, 640 x 480 pixel resolution  |
| <b>Design</b>                           | Rugged, ergonomic design for one-handed use   |
| <b>Frame rate</b>                       | 60 Hz or 9 Hz versions  |
| <b>Software</b>                         | Full analysis and reporting software with access to Fluke Connect Desktop   |
| <b>Voice annotation</b>                 | 60 seconds maximum recording time per image, reviewable playback on camera; Bluetooth headset optional, but not required  |
| <b>Text annotation</b>                  | Yes   |
| <b>Video recording</b>                  | Standard and radiometric  |
| <b>Streaming video (remote display)</b> | Yes, see the live stream of the camera display on your PC, smartphone, or TV monitor. Via USB, WiFi hotspot, or WiFi network to Fluke Connect desktop software on a PC; via WiFi hotspot to the Fluke Connect™ app on a smartphone; or via HDMI to a TV monitor |
| <b>Remote control operation</b>         | Yes, through Fluke Connect™ mobile app  |
| <b>Alarms</b>                           | High temperature, low temperature, and isotherms (within range)   |
| <b>Warranty</b>                         | Two-years (standard), extended warranties are available   |