TECHNICAL DATA

Fluke Ti55FT Infrared Camera

Key features

Fluke IR-Fusion Technology

Infrared and Visible light images are fused together - enabling you to view images in a range of modes from full IR to full visible light, and see exactly what you are viewing.

See exactly what you are viewing

Fluke IR-Fusion® technology links a real world visual image with a thermal image. It merges the two images into one, with the possibility to blend between the two images or create picture-in-picture combinations. Alarm limits can be superimposed over the visible light image to exactly pinpoint the components exceeding a specified temperature limit. Both the visual images and thermal images are available for use in reports. This speeds up documentation by reducing the need to look for individual images taken with a separate digital camera. IR Fusion helps to better identify and report suspect components and enable the repair to be done right the first time.

Large, sharp thermal images

Thanks to a large five-inch display and low-noise VOx sensors, the Fluke IR FlexCam units produce exceptionally high-quality images making even the smallest temperature differences visible. This is comparable with images normally only obtained on far more expensive instruments.

A sharp image in every situation

The innovative 180 ° articulating lens makes it possible to view and capture images in areas with poor accessibility. The display remains clearly visible while viewing over high objects, under a machine or around immoveable obstructions. The SmartFocus wheel simplifies getting a stable and sharp image. No need to take your hand off the instrument to turn a focus ring.

Make anomalies visible

Thanks to built-in functions like AutoCapture, the IR FlexCam Thermal Imagers help to troubleshoot difficult problems. The instrument is easily set up to automatically capture only those images where a temperature limit is exceeded. This way, difficult to find intermittent problems can be captured and analyzed quicker by concentrating only on the images containing the anomalies.

Analysis and reporting comes standard

The SmartView™ software (supplied with the unit) includes a complete range of infrared image viewing, analysis, annotation and reporting tools. It even allows for customized reports to accommodate specific company work processes or requirements like multiple image reporting and comparisons.

Radiometric measurement – the 'data behind the picture'

Fully radiometric thermal imagers capture and store calibrated temperature data for the matrix of thousands of points that make up a thermal image. This makes it possible to perform detailed analysis and change key parameters like emissivity or temperature range either in the field on the camera or in the office using the PC software.

Product overview: Fluke Ti55FT Infrared Camera

Minimize Downtime and Take the Mystery Out of Image Analysis

The Ti55FT, an articulating thermal imaging camera offers 320 x 240 resolution with IR-Fusion® Technology – the blending of digital and infrared images into a single image and delivers crisp, quality images, helping you better identify and report issues in hard to reach places. With thermal sensitivity of ≤ 0.05 °C at 30 °C (50 mK) and a temperature range from -20 ° to 600 °C (-4 ° to 1112 °F) the Ti55 is ideal for electrical and mechanical applications, predictive maintenance, power/utilities, process monitoring and research and development.

A Sharper Image at 180 ° Angle

The innovative 180 ° articulating lens makes it possible to view and capture images in areas with poor accessibility with the display remaining clearly visible. This is ideal viewing for high objects, or for under a machine or around immoveable obstructions. The SmartFocus wheel simplifies getting a stable and sharp image, while AutoCapture automatically captures only those images where a temperature limit is exceeded and difficult to find intermittent problems can be captured and analyzed quickly, by concentrating only on images that contain anomalies.

For a non-articulating thermal imaging camera with a high temperature range and low thermal sensitivity (NETD), the Ti400 is an alternative choice. It features wireless connectivity for quick and easy sharing of images, LaserSharp® Auto Focus for consistently in-focus images -every, single, time and a ruggedized high resolution 640 x 480 capacitive touch screen for quick menu navigation..

As always, Fluke SmartView® Software is included at no additional charge.

Specifications: Fluke Ti55FT Infrared Camera

Temperature Measurement	
Calibrated temperature range	-20 °C to 600 °C (-4 to 212 °F) in 3 ranges
Range 1	-20 °C to 100 °C (-4 to 212 °F)
Range 2	-20 °C to 350 °C (-4 to 662 °F
Range 3	250 °C to 600 °C (482 to 1112 °F)
Accuracy	±2 °C or 2% (whichever is greater)
Measurement modes	Centerpoint, center box (area min/max, average), moveable spots/boxes, user defined field/text annotations, isotherms, automatic hot and cold point detection, visible color alarm above and below
Emissivity correction	0.1 to 1.0 (0.01 increments)
Imaging Performance	
Thermal Field of view (FOV)	20 mm lens 23° x 17° FOV 10.5 mm lens 42° x 32° 54 mm lens 9° x 6°
Spatial resolution (IFOV)	1.30 mrad
Thermal sensitivity (NETD)	≤ 0.05 °C (50 mK)at 30 °C
Detector data acquisition	60 Hz
Focus	SmartFocus; one finger continuous focus
IR digital zoom	2x, 4x, 8x

Detector type	320 x 240 Focal Plane Array, Vanadium Oxide (VOx) Uncooled Microbolometer with 25 micron pitch
Spectral band	8 u00b5m to 14 u00b5m
Digital image enhancement	Automatic full-time enhanced
Visual On camera operating modes	Full thermal, full visual light or merged thermal-visual images. Picture-in-picture
Visible light camera	1280 x 1024 pixels, full color
Visible light digital zoom	2x, 4x
Image Presentation	
Digital display	5 in large high-resolution digital display
LCD backlight	Sunlight readable color LCD
Video output	RS170 EIA/NTSC or CCIR/PAL composite video
Optional Lenses (Only available at time of purchase)	
54 mm Telephoto lens	High precision Germanium lens
Field of view (FOV)	9u00b0 horizontal x 6u00b0 vertical
Spatial resolution (IFOV)	0.47 mrad
Min focus distance	0.6 m
10.5 mm wide angle lens	High precision Germanium lens
Field of view (FOV)	42u00b0 horizontal x 32u00b0 vertical
Spatial resolution (IFOV)	2.45 mrad
Min focus distance	0.3 m
Image Capture and Data Storage	
Storage medium	Compact flash card stores over 1000 IR images (1 GB card standard)
File formats supported	14 bit measurement data included. Exportable JPEG, BMP, PCX, PNG, PSD.
Interfaces and Software	
Interface	Compact flash card reader included
Software	SmartView; full analysis and reporting software included
Laser	
Classification	Class II
Laser targeting	Laser dot visible on screen when blending thermal and visible image
Controls and Adjustments	
Set-up controls	Date/time, temperature units C/F/K, language, scale, LCD intensity (high/normal/low)
Image controls	Level, span, auto adjust (continuous/manual)
On-screen indicators	Baery status, target emissivity, background temperature and real time clock
Set-up controls	Date/time, temperature units C/F/K, language, scale, LCD intensity (high/normal/low)

Power, Baery Life	
Baery type	Li-Ion smart baery, rechargeable, field-replaceable
Baery operating time	3 hours continuous operation (2 hours with IR-Fusion engaged)
Baery charging	2 bay intelligent charger powered via AC outlet
AC operation	AC adapter 110/220 V AC, 50/60 Hz (Ti55 only)
Power saving	Automatic shutdown and sleep modes (user specified)
Environmental and Mechanical Design	
Operating temperature	-10u00b0C to +50u00b0C (14u00b0F to 122u00b0F)
Storage temperature	-40u00b0C to +70u00b0C (-40u00b0F to 158u00b0F)
Relative humidity	Operating and storage 10% to 95%, non-condensing
Water and dust resistant	IP54
Weight (including baeries)	1.95 kg (4.3 lbs)
Camera size (H x W x D)	162 x 262 x 101 mm (6.5" x 10.5" x 4.0")
Other	
Warranty	2 years

Ordering information

Fluke TI55FT-20

Fluke Ti55FT Infrared Camera

Includes:

- IR FlexCam Thermal Imager with IR-Fusion
- Heavy duty carrying case
- 2 rechargeable battery packs
- Battery charger
- AC adapter
- Video cable
- 512 MB compact flash card
- Compact flash card reader and USB cable
- Neck strap
- SmartView reporting and analysis software on CD
- User manual on CD
- Calibration certificate

Options:

Lens: 10.5 mm, 20 mm, and 54 mm lenses are available within the Ti5X series. Use the Product Selector tool to view the possible combinations.

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

https://www.fluke.com/en-us/product/thermal-cameras/ti55ft