



Ti50 and Ti55 IR FlexCam[®] Thermal Imagers

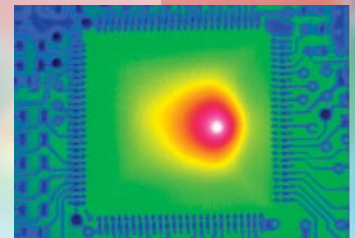
The professional's choice when demanding the highest sensitivity

Choose the Fluke Ti5x models when you need the best images. They feature 320 x 240 detectors with industry leading thermal sensitivity (≤ 0.07 °C NETD) for high resolution, ultra high-quality images. In addition, with a 60 Hz detector acquisition rate temperatures are displayed live on the large 5-inch color display.



Features

	Ti55FT	Ti55	Ti50FT	Ti50
High resolution, low noise VOx detector for high quality images	320 x 240			
Temperature range to cover broad industrial applications	-20 to +600 °C (-4 °F to 1112 °F)		-20 to +350 °C (-4 °F to 662 °F)	
High thermal sensitivity for viewing even the smallest temperature differences	≤ 0.07 °C			
180° articulating flexible lens to view images in every situation	●	●	●	●
Choice of 3 interchangeable lenses to cover every application	●	●	●	●
Large 5" high contrast color LCD for a clear picture independent of lighting conditions	●	●	●	●
Fully radiometric for detailed temperature analysis and tracking	●	●	●	●
SmartFocus for best image quality and accurate temperature measurements	●	●	●	●
Windows® CE based menu structure for ease of use	●	●	●	●
Personalized instrument set-up for multiple use	●	●	●	●
CompactFlash memory cards to store over 1000 IR images plus fully radiometric temperature data	●	●	●	●
SmartView reporting and analysis software included	●	●	●	●
AutoCapture for making intermittent problems visible	●	●	●	●
On-board analysis functions	●	●	●	●
User defined text annotations for simplified reporting	●	●	●	●
Built-in visible light (digital) camera	●	●	●	●
IR-Fusion blending thermal and visible light images to easily pinpoint suspect components	●	●	●	●
IR/Visible Alarm function	●	●	●	●
Laser pointer for easy targeting	●	●	●	●
Flash and torch light for high quality images in dark environments	●	●	●	●



Printed circuit board



Power/utilities



Electrical system

Typical applications

- Predictive maintenance – Identify electrical and mechanical problems before they cause failure
- Power/utilities – Real-time analysis of substations, transmission lines and equipment
- Process monitoring – Real-time observation to ensure efficient and safe operation
- Research and development – Quantify heat patterns to improve product designs
- Electronic design – Close up circuit board analysis

Specifications

	Fluke Ti55	Fluke Ti50
Imaging performance	Thermal	
	Field of view (FOV)* 23° horizontal x 17° vertical	
	Spatial resolution (IFOV)* 1.30 mrad	
	Min focus distance* 0.15 m	
	Thermal sensitivity (NETD) ≤ 0.05 °C at 30 °C	
	Detector data acquisition / Image frequency 60 Hz/30 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 µm to 14 µm	
	Digital image enhancement Automatic full-time enhanced	
	Visual (IR-Fusion models only)	
	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, 8x		
Temperature measurement	Calibrated temperature range	
	-20 °C to 600 °C (-4 °F to 1112 °F) in 3 ranges	
	Range 1 = -20 °C to 100 °C (-4 °F to 212 °F)	
	Range 2 = -20 °C to 350 °C (32 °F to 662 °F)	
	Range 3 = 250 °C to 600 °C (482 °F 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)		
Image presentation	Digital display 5" large high-resolution digital display	
	LCD backlight Sunlight readable color LCD	
	Video output RS170 EIA/NTSC or CCIR/PAL composite video	
	Palettes Grayscale, grayscale inverted, blue red, high contrast, hot metal, ironbow, amber, amber inverted	
Optional lenses	54 mm Telephoto lens	
	High precision Germanium lens	
	Field of view (FOV) 9° horizontal x 6° 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) 42° horizontal x 32° vertical		
Spatial resolution (IFOV) 2.45 mrad		
Min focus distance 0.3 m		
Image and data storage	Storage medium Compact flash card stores over 1000 IR images (512 MB 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 (IR-Fusion models only)	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, language, scale, LCD intensity (high/normal/low)	
	Image controls Level, span, auto adjust (continuous/manual)	
	On-screen indicators Battery status, target emissivity, background temperature and realtime clock	
Power	Battery type Li-Ion smart battery, rechargeable, field-replaceable	
	Battery operating time 3 hours continuous operation (2 hours for models with IR-Fusion)	
	Battery charging 2 bay intelligent charger powered via AC outlet	
	AC operation AC adapter 110/220 VAC, 50/60 Hz	
	Power saving Automatic shutdown and sleep modes (user specified)	
Environmental and mechanical design	Operating temperature -10 °C to +50 °C (14 °F to 122 °F)	
	Storage temperature -40 °C to +70 °C (-40 °F to 158 °F)	
	Relative humidity Operating and storage 10 % to 95 %, non-condensing	
	Water and dust resistant IP54	
	Weight (including batteries) 1.95 kg (4.3 lb)	
Camera size (HxWxD) 162 x 262 x 101 mm (6.6 in x 10.5 in x 4.0 in)		
Other	Warranty 2 years	

*standard 20 mm Germanium lens



Included accessories

- Heavy duty carrying case
- 2 rechargeable battery packs
- Battery charger
- AC adapter (for Ti55 model only)
- Video cable
- 512 MB compact flash card
- Compact flash card reader and USB cable
- PCMCIA compact flash card reader
- Neck strap
- SmartView reporting and analysis software on CD
- User manual on CD

Ordering information*

- Fluke Ti50-20 IR FlexCam Thermal Imager
- Fluke Ti50FT-20 IR FlexCam Thermal Imager with IR-Fusion
- Fluke Ti55-20 IR FlexCam Thermal Imager
- Fluke Ti55FT-20 IR FlexCam Thermal Imager with IR-Fusion

*For ordering information of optional lenses check the Fluke web



To find out more about Fluke thermal imagers go to www.fluke.com/thermography or in the United States call **1-800-760-4523**.

Fluke. Keeping your world up and running.™

Fluke Corporation
PO Box 9090, Everett, WA USA 98206

Fluke Europe B.V.
PO Box 1186, 5602 BD Eindhoven, The Netherlands

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 2675 200 or Fax +31 (0) 40 2675 222
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>

Visit the Fluke web site for complete specifications