

TECHNICAL DATA

Fluke Ti450 SF6 Gas Detector



Key features

- Detects and pinpoints the exact location of the SF₆ leak – without shutting down equipment
- Quick entry/exit button allowing quick toggling between gas imaging and infrared mode
- 320 x 240 resolution for gas and infrared images; SuperResolution increases to 640 x 480, only in infrared mode
- Get in-focus images in both infrared and gas modes with a touch of a button with LaserSharp® Auto Focus
- Wirelessly connect your camera to the Fluke Connect® system to make faster decisions. Team members can see the same data and collaborate on identifying the problem or authorize work before you've left the inspection site.
- No need for pencil and notebook:
 - IR PhotoNotes™ annotation system captures digital images of equipment details, e.g. serial numbers and surrounding area conditions
 - Record any additional notes with voice annotation and save them with the image
- See additional details with optional smart lenses – no calibration required when swapping them between compatible cameras
- Optimize images, perform analytics, generate quick, customizable reports and export images to the format of your choice with SmartView® desktop software, included with your purchase
- Capture clear, accurate infrared images focused throughout the entire field of view with MultiSharp™ Focus
- Small and lightweight, fits easily into your tool box
- Subject to Export Control

Product overview: Fluke Ti450 SF6 Gas Detector

Infrared for every day. SF₆ gas detection when you need it.

Increase efficiency and save money with a top performing infrared camera that delivers pinpoint, state-of-the-art SF₆ detection - conduct two critical functions with a single tool. Best of all, it's affordable enough to own, so you can conduct infrared and gas inspections whenever and wherever you want without having to pay heavy rental charges or hire expensive contractors. ***Two tools in one. At a one of a kind price.***

Designed for dependability.

Using the technology from Fluke's top performing pistol grip camera, the Fluke Ti450 SF6 easily switches from infrared to gas mode. Making it easy to change modes on the fly when you are in the field.

Two critical solutions in one remarkable IR camera.

The Ti450 SF6 Gas Leak Detector tips the scales on performance and affordability. With its pistol grip comfort and point-and-shoot convenience, even the tough spots become easy to diagnose. With the added feature of SF₆ pinpoint detection, you can get the analysis you need anytime, anywhere.

Companies are no longer stuck in the challenging position of having to perform inspections, tracking SF₆ leaks and managing the extremely high costs of buying or renting the equipment.

Specifications: Fluke Ti450 SF6 Gas Detector

SF ₆ gas detection	
< 10 lbs annual gas loss rate	Excellent outdoor conditions necessary - large temperature difference between gas and background, no wind
10 to 50 lbs annual gas loss rate	Good outdoor conditions - moderate temperature difference between gas and background, no wind
> 50 lbs annual gas loss rate	Easy detection in moderate conditions

Key features	
Detector resolution	320 x 240 (76,800 pixels)
SuperResolution on gas mode	320 x 240 (76,800 Pixels)
SuperResolution on infrared mode	640 x 480 (307,200 pixels)
Gas detection	Yes, SF ₆ gas only
IFOV with standard lens (spatial resolution)	1.31 mRad, D:S 753:1
Field of view	24 °H x 17 °V
Minimum focus distance	15 cm (approx. 6 in)
IR Fusion® technology	Yes, on camera - full screen
MultiSharp™ Focus	Yes, focused near and far, throughout the field of view
LaserSharp® Focus	Yes, in-focus images with the touch of a button
Laser distance meter	Yes, calculates distance to the target for precisely focused images and displays distance on screen
Advanced manual focus	Yes

Wireless connectivity	
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.

IR-Fusion® technology

Adds the context of the visible details to your infrared image

AutoBlend™ mode	Min, Mid, Max IR plus full visible on camera; continuously variable in software
Picture-In-Picture (PIP)	Yes
IR/Visible Alarm	Yes
Full IR	Yes
Full visible light	Yes
Ruggedized touchscreen display	3.5 inch (landscape) 640 480 LCD
Rugged, ergonomic design for one-handed use	Yes
Thermal sensitivity (NETD)	≤ 0.025 °C at 30 °C target temp (25 mK)
Filter mode (NETD improvement)	Yes

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)

Data storage and image capture

Extensive memory options	Removable 4 GB micro SD memory card, 4 GB internal flash memory, save to USB flash drive capability, upload to Fluke Connect® Cloud for permanent storage
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 and .avi) files
Memory review	Thumbnail and fullscreen review
Software	SmartView® software - full analysis and reporting software and Fluke Connect® system
Export file formats with SmartView® software	Bitmap (.bmp), GIF, JPEG, PNG, TIFF
Voice annotation	Yes

IR-PhotoNotes™	Yes (save up to 5 notes per IR image)
Text annotation	Yes
Video recording	Standard and radiometric
File formats video	Non-radiometric (MPEG - encoded .AVI) and fully-radiometric (.IS3)
Remote display viewing	Yes, see the live stream of the camera display on your PC, smartphone, or TV monitor. Via USB,WiFi hotspot, or WiFi network to SmartView® software on a PC; via WiFi hotspot to Fluke Connect® app on a smart phone ; or via HDMI to a TV monitor
Remote control operation	Yes, through SmartView® desktop software or Fluke Connect® mobile app
Auto capture (temperature and interval)	Yes

Battery

Batteries (field-replacable, rechargeable)	3-4 hours per battery (*actual life varies depending on settings and usage)
Battery charge time	2.5 hours to full charge
Charging accessories	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 (14 °F to 2192 °F)
Accuracy	±2 °C or 2% (at 25 °C nominal, whichever is greater)
On-screen reflected background temperature compensation	Yes
On-screen transmission correction	Yes
Live line marker	Yes

Color Palettes

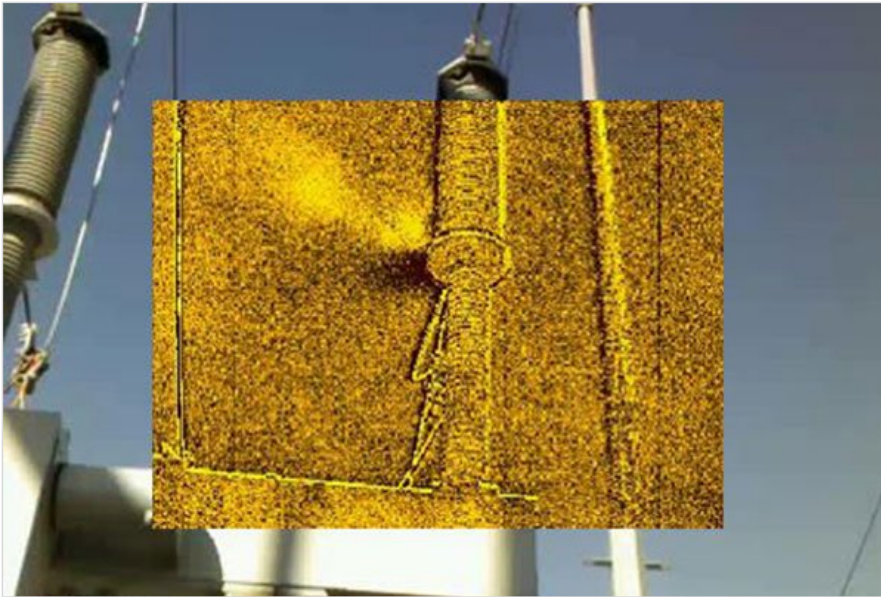
Standard palettes	8: Ironbow, Blue-Red, High Contrast, Amber, Amber Inverted, Hot Metal, Grayscale, Grayscale Inverted
Ultra Contrast™ palettes	8: Ironbow Ultra, Blue-Red Ultra, High Contrast Ultra, Amber Ultra, Amber Inverted Ultra, Hot Metal Ultra, Grayscale Ultra, Grayscale Inverted Ultra

General specifications

Color alarms (temperature alarms)	High temperature, low temperature, and isotherms (within range)
Infrared spectral band	7.5 um to 14 um (long wave)
Operating temperature	-10 °C to +50 °C (14 °F to 122 °F)
Storage temperature	-10 °C to +50 °C (14 °F to 122 °F)
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 display
Safety	IEC 61010-1: Overvoltage category II, Pollution Degree 2
Electromagnetic compatibility	EIEC 61326-1: Basic EM environmental, CISPR 11: Group 1, Class A
Australian RCM	IEC 61326-1
USFCC	CFR 47, Part 15 Subpart B
Vibration	0.03 g ² /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 x 12.2 x 16.7 cm (10.9 x 4.8 x 6.5 in)
Weight (battery not 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
*SmartView® analysis and reporting software is available in all countries but Fluke Connect is not. Please check availability with your authorized Fluke distributor.	

Ordering information



FLK-Ti450 SF6 60Hz

Fluke Ti450 SF6 Gas Detector (60 Hz)

Includes:

- Infrared camera with standard lens
- 2x Infrared Telephoto lens
- Adjustable hand strap
- AC power supply
- Battery pack charger (including universal AC adapters)
- Two rugged lithium ion smart battery packs
- USB cable
- HDMI video cable
- 4 GB micro SD card
- HDMI eye piece
- Tripod holder
- Rugged, hard carrying case

Optional accessories

Description

Fluke SBC3B Charging Base

Charging base for TiX560, TiX520, TiX500, Ti400, Ti300, Ti200, TiS75, TiS65, TiS60, TiS55, TiS50, TiS45, TiS40, TiS20, TiS10, Ti125, Ti110, Ti105, Ti100, Ti95, Ti90, TiR125, TiR110, TiR105, Ti32, TiR32, Ti29, TiR29, Ti27, and TiR27 infrared cameras.

Smart Infrared 4x Telephoto Lens

Fluke 4x Telephoto IR Smart Lens for TiX580, TiX501, Ti480 PRO, Ti401 PRO; ideal for petrochemical, electrical utilities, and metals refinement.

25* Micron Macro Infrared Smart Lens

Fluke 25* Micron Macro IR Smart Lens for TiX580, TiX560, TiX520, and TiX500; ideal for R&D and electronics design and validation; view thermal patterns on very small targets.



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.

Find out more at flukeconnect.com



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.®

Fluke Corporation
PO Box 9090, Everett, WA 98206 U.S.A.

For more information call:
In the U.S.A. (800) 443-5853
In Europe/M-East/Africa
+31 (0)40 267 5100
In Canada (800)-36-FLUKE
From other countries +1 (425) 446-5500
www.fluke.com/en-th

©2022 Fluke Corporation. Specifications subject to change without notice.
01/2022

Modification of this document is not permitted without written permission from Fluke Corporation.