TiR125, TiR110, TiR105 Building Diagnostic and the Ti100 General Use Thermal Imagers

FLUKE ®

Technical Data

Ti100

TiR125

TiR110

TiR105

New

Made in the U.S.A. of U.S. and non U.S. parts

The lightest, most-rugged, easiest–to-use professional thermal imagers around.

Whether you're searching for air leaks, hidden moisture, construction defects, or other building issues, a Fluke thermal imager delivers a huge competitive advantage—it allows you to work faster and more efficiently, and document your findings.

Key features

- Exclusive IR–OptiFlex™ focus system—ensures that images are in good focus from 1.2 m (4 ft) and beyond for optimum image clarity and scanning convenience. For shorter distances change to manual mode with the touch of a finger (TiR110 and TiR125).
- Always have references handy—IR-PhotoNotes™ annotation system—Quickly identify and keep track of inspection locations by adding digital images of important information and surrounding areas (TiR110 and TiR125).
- Find problems faster and easier with Fluke IR–Fusion® technology (TiR125, TiR110, TiR105). Accurately identify potential issues by combining digital and IR images.
- Get further clarification with AutoBlend™ mode - the blending of a digital and partially transparent IR image into a single information–filled image (TiR125 only).
- Multi–mode video recording—focus-free video in visible light and infrared with full IR-Fusion (TiR110 and TiR125 only).
- Easily communicate the location of problems with the Electronic 8-Point Cardinal Compass (TiR125 and TiR110 only).

Spend less time in the field and more time growing your business with these new Fluke thermal imagers.

Building problems, defects and general maintenance

Energy audit, building inspection, and weatherization

Restoration, water damage, and roofing

IR·Fusion ®

Patented Fluke IR-Fusion® Technology

Enjoy the industry's only point-and-shoot IR-Fusion camera. Fluke patented technology provides the user with both a digital and an infrared image in one to precisely document problem areas.

IR-OptiFlex™ focus system

Scan for issues significantly faster than before with Fluke's revolutionary, ultra-rugged focus system. The IR-OptiFlex focus system gives you optimum focus by combining focus-free, ease-of-use with the flexibility of manual focus on the same camera.

Detailed specifications

	TiR125	TiR110	TiR105	Ti100
	Building diagnostics			**General use**
IR resolution (FPA size)	160 x 120 FPA Uncooled Microbolometer			
Spectral band	7.5 µm to 14 µm (long wave)			
Capture or refresh rate	9 Hz			
NETD (Thermal sensitivity)	≤ 0.08 °C at 30 °C target temp (80 mK)			≤ 0.10 °C at 30 °C target temp (100 mK)
FOV (Field of view)	22.5 °H x 31 °V			
IFOV (Spatial resolution)	3.39 mRad			
Temperature measurement range (not calibrated below -10 °C)	-20 °C to +150 °C (-4 °F to +302 °F)			-20 °C to + 250 °C (-4 °F to 482 °F)
Temperature measurement accuracy	± 2 °C or 2 % (at 25 °C nominal, whichever is greater)			
Focus mechanism	IR-OptiFlex™ focus system		Focus-free 1.2 m (4 ft) and beyond	
IR-Fusion® technology	PIP, FULL IR, FULL VISIBLE, AutoBlend™	PIP, FULL IR, FULL VISIBLE	PIP (1.2 m (4 ft) to 4.6 m (15 ft)), FULL IR, FULL VISIBLE	No, full IR only
Color alarms	High termperature, low temperature (dewpoint), and isotherm	Low temperature (dewpoint)	–	
Standard palettes	Blue–Red, Grayscale, Inverted Grayscale, High-contrast, Hot Metal, Ironbow, Amber, Inverted Amber		Blue–Red, Ironbow, Grayscale, Amber	
Ultra Contrast™ palettes	Blue–Red, Grayscale, Inverted Grayscale, High-contrast, Hot Metal, Ironbow, Amber, Inverted Amber	Blue–Red, Grayscale, Ironbow	–	
Hot/cold markers	Yes	–		
User definable spot markers	Three on camera and in SmartView®		in SmartView® only	
Centerpoint	Yes			
Centerbox (MIN/AVG/MAX)	Yes	–		
Level and span control	Manual and auto			
Minimum span in auto mode	2.5 °C			5 °C
Minimum span in manual mode	2.0 °C			2.5 °C
Minimum IR focus distance	15.25 cm (6 in)		122 cm (48 in)	
Weight	0.726 kg (1.6 lb)			
Size	28.4 x 8.6 x 13.5 cm (11.2 x 3.4 x 5.3 in)			
LCD display	3.5 inch diagonal (portrait format)			
Visible camera	2 megapixel industrial-grade			N/A
Minimum parallax	~45.7 – 55.9 cm (~ 18 in – 22 in)		~122 cm (48 in)	N/A
IR-PhotoNotes™ annotation system	Yes (3 images)		–	
Laser pointer	Yes			
Torch	Yes			–
Electronic (cardinal) compass	Yes		–	
Emissivity correction	Yes			
Transmission correction	Yes		–	
Background (reflected) compensation	Yes			
Voice annotation (audio)	Yes (60 seconds) per image		–	
Multi-mode video output	Streaming USB video output	–		
Multi-mode video recording (standard AVI with MPEG encoding)	Yes (AVI with MPEG encoding)		–	
Multi-mode video recording (radiometric .is3)	Yes, radiometric .is3 for approx. 2.5 to 5 minutes de-pending upon thermal scene	–		
Memory review	thumbnail review			
Battery (field-replaceable, rechargeable)	Two	One		
Battery life	4+ hours (each)*			
External battery charging base	Included	Optional (accessory)		
Charging power supply	Yes			

*Assumes 50% brightness of LCD

	TiR125	TiR110	TiR105	Ti100
	Buidling diagnostics			General use
Drop test	2 meter (6.5 feet)			
Ingress protection (IP) rating (IEC 60529)	IP 54			
Est. calibration cycle	Two–years			
Multifunction card reader	Included	—		
Memory storage	2 GB SD memory card			
Direct download capability	mini USB direct download			
Operating temperature range	–10 °C to +50 °C (14 °F to 122 °F)			
Storage temperature range	–20 °C to +50 °C (-4 °F to 122 °F)			
Operating humidity	Operating and storage 10 % to 95 %, non-condensing			
Vibration and shock	2G, IEC 68-2-26 and 25G, IEC 68-2-29			
Safety standards	CSA (US and CAN): C22.2 No. 61010-1-04, UL: UL STD 61010-1 (2nd Edition), ISA: 82.02.01			
C Tick	IEC/EN 61326-1			
EMI, RFI, EMC	EN61326-1; FCC Part 5			
User manuals	Czech, English, Finnish, French, German, Italian, Japanese, Korean, Polish, Portuguese, Russian, Simplified Chinese, Spanish, Swedish, Traditional Chinese, Turkish, Dutch, and Hungarian			
Standard warranty period	Two–years			
Extended warranty and service plans	Yes			

Ordering information

FLK-TiR105 9HZ   Building Diagnostics Thermal Imager
FLK-TiR110 9HZ   Building Diagnostics Thermal Imager
FLK-TiR125 9HZ   Building Diagnostics Thermal Imager
FLK-TI100 9HZ   General Use Thermal Imager

Included with product
Thermal imagers are shipped with ac power adapter, lithium ion smart battery (TiR125 includes two each—other models one each), USB cable, SD memory card, hard carrying case, soft transport bag, adjustable hand strap (left- or right-handed use), printed users manual in English, Spanish, French, German and Simplified Chinese, all other manuals on CD—total of 18, SmartView® software and warranty registration card. TiR125 model also includes a two–bay charging base and a multi-format USB memory card reader.

Optional:
FLK-TI-VISOR2   Sun visor
FLK-TI-TRIPOD2   Tripod mounting accessory
BOOK-ITP   Introduction to Thermography Principles Book
FLK-TI-SBC3   External charging base and power supply
FLK-TI-SBP3   Extra lithium-ion rechargeable smart battery
TI-CAR CHARGER   Thermal imager vehicle charger