

Choose the right tool for the job.

EXPERT SERIES

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

PROFESSIONAL SERIES

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

PERFORMANCE SERIES

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

Where used

- Industrial maintenance
- Oil and gas predictive maintenance
- Power generation/transmission
- Research and development
 - Electrical
 - Mechanical
 - Biology/sciences
- Quality control
- Plus the industries included under the professional and performance series

- 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
- Plus the industries included under the performance series

- Electrical inspections
- HVAC/R inspections
- Mechanical
- Residential home inspections

- Light commercial maintenance
- Building diagnostics
 - Building envelope
 - Commercial/industrial facilities



	TiX560 SKU 38RX06	TiX520 SKU 38RX05	TiX500 SKU 45PC80	Ti450 SKU 48TA30	Ti400 SKU 23NT33	Ti300 SKU 23NT32	TiS75 SKU 46MN75	TiS65 SKU 40PC48	TiS60 SKU 40PC47	TiS55 SKU 40PC46	TiS50 SKU 40PC45	TiS45 SKU 40PC44	TiS40 SKU 40PC43	TiS20 SKU 40PC42	TiS10 SKU 44ZC52
Detector resolution	320 x 240, 640 x 480 Super Res.	320 x 240, 640 x 480 Super Res.	320 x 240, 640 x 480 Super Res.	320 x 240, 640 x 480 Super Res.	320 x 240	240 x 180	320 x 240	260 x 195	260 x 195	220 x 165	220 x 165	160 x 120	160 x 120	120 x 90	80 x 60
Spatial resolution	1.31 mRad	1.31 mRad	1.31 mRad	1.31 mRad	1.31 mRad	1.75 mRad	2.0 mRad	2.4 mRad	2.4 mRad	2.8 mRad	2.8 mRad	3.9 mRad	3.9 mRad	5.2 mRad	7.8 mRad
Field of view	24° x 17°	24° x 17°	24° x 17°	24° x 17°	24° x 17°	24° x 17°	35.7° x 26.8°	35.7° x 26.8°	35.7° x 26.8°	35.7° x 26.8°	35.7° x 26.8°	35.7° x 26.8°	35.7° x 26.8°	35.7° x 26.8°	35.7° x 26.8°
Distance to spot	753:1	753:1	753:1	753:1	753:1	565:1	504:1	409:1	409:1	346:1	346:1	252:1	252:1	189:1	126:1
Thermal sensitivity	45 mK, 30 mK Filter Mode	50 mK, 40 mK Filter Mode	50 mK	50 mK, 30 mK Filter Mode	50 mK	50 mK	80 mK	80 mK	80 mk	80 mk	80 mk	90 mK	90 mK	100 mK	150 mK
Temperature range	-20 °C to +1200 °C (-4 °F to +2192 °F)	-20 °C to +850 °C (-4 °F to +1562 °F)	-20 °C to +650 °C (-4 °F to +1202 °F)	-20 °C to +1200 °C (-4 °F to +2192 °F)	-20 °C to +1200 °C (-4 °F to +2192 °F)	-20 °C to +650 °C (-4 °F to +1202 °F)	-20 °C to +550 °C (-4 °F to +1022 °F)	-20 °C to +550 °C (-4 °F to +1022 °F)	-20 °C to +550 °C (-4 °F to +1022 °F)	-20 °C to +450 °C (-4 °F to +842 °F)	-20 °C to +450 °C (-4 °F to +842 °F)	-20 °C to +350 °C (-4 °F to +662 °F)	-20 °C to +350 °C (-4 °F to +662 °F)	20 °C to +350 °C (-4 °F to +662 °F)	-20 °C to +250 °C (-4 °F to +482 °F)
Focus systems	MSF, LS, AMF	MSF, LS, AMF	MSF, LS, AMF	MSF, LS, AMF	LS, AMF	LS, AMF	MF	MF	FF	MF	FF	MF	FF	FF	FF
Laser distance meter	Yes	Yes	Yes	Yes	Yes	Yes	-	-	-	-	-	-	-	-	-
Image enhancement	IRF, PIP, SR	IRF, PIP, SR	IRF, PIP, SR	IRF, PIP, SR	IRF, PIP	IRF, PIP	IRF, PIP	IRF, PIP	IRF, PIP	IRF, PIP	IRF, PIP	IRF, PIP	IRF, PIP	IRF	-
Annotation	IRPN, VA, TA	IRPN, VA, TA	IRPN, VA, TA	IRPN, VA, TA	IRPN, VA, TA	IRPN, VA, TA	IRPN, VA	IRPN, VA	IRPN, VA	IRPN, VA	IRPN, VA	VA	VA	-	-
Standard video rec.	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	-	-	-	-	-	-
Radiometric video rec.	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	-	-	-	-	-	-
Optional lenses	4	4	4	3	3	3	-	-	-	-	-	-	-	-	-

Compare Fluke thermal imager models

	Expert Series Thermal Imagers			Professional Series Thermal Imagers			Performance Series Thermal Imagers											
	TiX560 SKU 38RX06	TiX520 SKU 38RX05	TiX500 SKU 45PC80	Ti450 SKU 23NT33	Ti400 SKU 23NT32	Ti300 SKU 23NT31	TiS75 SKU 46MN75	TiS65 SKU 40PC48	TiS60 SKU 40PC47	TiS55 SKU 40PC46	TiS50 SKU 40PC45	TiS45 SKU 40PC44	TiS40 SKU 40PC43	TiS20 SKU 40PC42	TiS10 SKU 44ZC52			
IFOV (spatial resolution)	1.31 mRad					1.75 mRad	2.0 mRad	2.4 mRad		2.8 mRad		3.9 mRad		5.2 mRad	7.8mRad			
Detector resolution	320 x 240 (76,800 pixels) SuperResolution mode: 640 x 480 (307,200 pixels)			320 x 240 (76,800 pixels)	240 x 180 (43,200 pixels)	320 x 240 (76,800 pixels)	260 x 195 (50,700 pixels)		220 x 165 (36,300 pixels)		160 x 120 (19,200 pixels)		120 x 90 (10,800 pixels)	80 x 60 (4,800 pixels)				
Field of view	24° H x 17° V						35.7° H x 26.8° V											
Optional lenses	Capture spectacular images close up or from a distance with pre-calibrated smart optional lenses: Wide angle, 2x and 4x telephoto, 25 micron macro			Optional 2x and 4x telephoto and wide angle pre-calibrated smart lenses available			-											
Wireless connectivity	Fluke Connect® app compatible. Wireless connectivity to PC, iPhone® and iPad® (iOS 4s and later), Android™ 4.3 and up, and WiFi to LAN ¹																	
IR-Fusion*	AutoBlend™ mode, continuous blending	AutoBlend™ mode			5 presets (0 %, 25 %, 50 %, 75 %, 100 %)					3 presets (0 %, 50 %, 100 %)		-						
Picture-In-Picture (PIP)	Picture-in-Picture						5 presets (0 %, 25 %, 50 %, 75 %, 100 %)									-		
Focus system	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		Manual focus		Fixed focus	Manual focus	Fixed focus	Manual focus	Fixed focus					
Display	5.7 inch touchscreen LCD, 640 x 480 pixel resolution			3.5 inch touchscreen LCD, 640 x 480 pixel resolution			3.5 inch (landscape) 320 x 240 LCD											
Design	Ergonomic FlexCam design with a 240 degree articulating lens			Rugged, ergonomic design for one-handed use			Rugged, lightweight, ergonomic design for one-handed use											
Thermal sensitivity	≤ 0.045 °C at 30 °C target temp (45 mK); Filter Mode (NETD improvement) ≤ 0.03 °C at 30 °C target temp (30 mK)	≤ 0.05 °C at 30 °C target temp (50 mK); Filter Mode (NETD improvement) ≤ 0.04 °C at 30 °C target temp (40 mK)	≤ 0.05 °C at 30 °C target temp (50 mK)	≤ 0.05 °C at 30 °C target temp (50 mK); Filter Mode (NETD improvement) ≤ 0.03 °C at 30 °C target temp (30 mK)	≤ 0.05 °C at 30 °C target temp (50 mK)		≤ 0.08 °C at 30 °C target temp (80 mK)					≤ 0.09 °C at 30 °C target temp (90 mK)		≤ 0.10 °C at 30 °C target temp (100 mK)	≤ 0.15 °C at 30 °C target temp (150 mK)			
Temperature measurement range	-20 °C to +1200 °C (-4 °F to +2192 °F)	-20 °C to +850 °C (-4 °F to +1562 °F)	-20 °C to +650 °C (-4 °F to +1202 °F)	-20 °C to +1200 °C (-4 °F to +2192 °F)		-20 °C to +650 °C (-4 °F to +1202 °F)	-20 °C to +550 °C (-4 °F to +1022 °F)			-20 °C to +450 °C (-4 °F to +842 °F)		-20 °C to +350 °C (-4 °F to +662 °F)		-20 °C to +350 °C (-4 °F to +662 °F)	-20 °C to +250 °C (-4 °F to +482 °F)			
Frame rate	60 Hz or 9 Hz versions						30 Hz or 9 Hz versions		9 Hz	30 Hz or 9 Hz versions	9 Hz	30 Hz or 9 Hz versions		9 Hz				
Subwindowing modes available: (add-on at time of order—subwindowing options are not available on 9 Hz models)	-																	
Software	SmartView® software—full analysis and reporting software and Fluke Connect® system ¹																	
Voice annotation	60 seconds maximum recording time per image, reviewable playback on camera; Bluetooth headset provided (where available)			60 seconds maximum recording time per image; reviewable playback on camera; optional bluetooth headset available but not required			60 seconds maximum recording time per image, reviewable playback on camera; Bluetooth headset available separately (where available)									-		
Text annotation	Yes						-											
Video recording	Standard and radiometric																	
Streaming video (remote display)	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 the Fluke Connect® app on a smartphone; or via HDMI to a TV monitor						Yes, to SmartView® software on a PC or to the Fluke Connect® app on a smartphone											
Remote control operation	Yes, through SmartView® software or Fluke Connect® mobile app	-			Yes, through SmartView® software or Fluke Connect® mobile app		-											
Alarms	High temperature, low temperature, and isotherms (within range)											High temperature, low temperature		-				
Warranty	Two-years (standard), extended warranties are available																	

¹Fluke Connect® not available in all countries.

For more information contact your Grainger Representative or visit Grainger.com®

