

# F-Series

Thermal Security Cameras with IP and Analog Functionality  
The next level of security.



## 640 x 480 resolution - the new standard in thermal security cameras

F-Series high-resolution thermal security cameras are fixed-site cameras that give you video and control over both IP *and* analog networks. F-Series cameras define the new standard of performance with five models that provide full 640 x 480 thermal resolution to give you greater image detail, longer detection ranges, and better analytics performance than ever before.

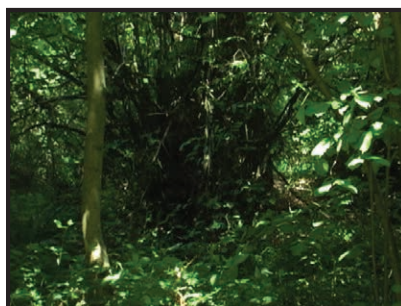
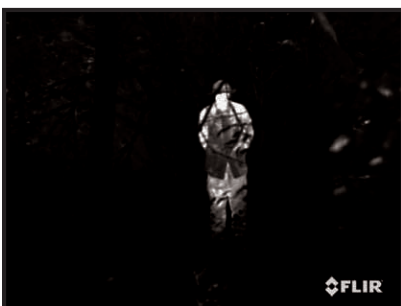
### Benefits of 640 x 480 Resolution:

High-resolution F-Series cameras have up to 16-times as many pixels as their lower-resolution counterparts, giving you:

- Sharper thermal images that provide greater scene detail; improves threat detection and alarm assessment capabilities
- Long-range threat detection; see smaller details from farther away
- Enhanced analytics performance; gives you more reliable feedback with fewer nuisance alarms
- Wider fields of view improve coverage without compromising range performance; optimize coverage efficiency while lowering overall installation cost

### Benefits of F-Series Thermal Security Cameras:

- Simultaneous IP and analog video outputs, along with IP and serial control interfaces for easy integration into IP or analog networks; use them in an existing analog environment, and migrate easily to a future IP network
- Sun-safe VOx uncooled thermal sensor technology; looking directly at the sun won't damage FLIR uncooled thermal security cameras
- Exchangeable camera cassettes allow for quick upgrade or repair of sensors and optics
- Open IP standards for plug-and-play integration; ONVIF compliant
- Streaming digital video available in H.264, MPEG-4, or M-JPEG formats



Camouflaged intruders are invisible to daylight CCD cameras, but people can't hide their heat from FLIR thermal imagers.



# Specifications

Camera Model	F-Series		
Camera Platform Type	Fixed	Fixed	Fixed
<b>Thermal Camera Specs</b>			
Array Format (NTSC)	160 x 120	320 x 240	640 x 480
Detector Type	Long-Life, Uncooled VOx Microbolometer	Long-Life, Uncooled VOx Microbolometer	Long-Life, Uncooled VOx Microbolometer
Effective Resolution	19,200	76,800	307,200
Pixel Pitch	25 µm	25 µm	17 µm
Field Of View	24° x 20° (F-124; 9 mm) 17° x 14° (F-117; 13 mm) 12° x 10° (F-112; 19 mm)	48° x 39° (F-348; 9 mm) 34° x 28° (F-334; 13 mm) 24° x 19° (F-324; 19 mm) 13° x 10° (F-313; 35 mm) 7° x 5° (F-307; 65 mm) 4.6° x 3.7° (F-304; 100 mm)	45° x 37° (F-645; 13 mm) 25° x 20° (F-625; 25 mm) 18° x 14° (F-618; 35 mm) 12° x 10° (F-612; 50 mm) 10° x 8° (F-610; 65 mm) 6.2° x 5° (F-606; 100 mm)
Zoom	2x E-zoom	2x & 4x E-zoom	2x & 4x E-zoom
Spectral Range	7.5 µm to 13.5 µm	7.5 µm to 13.5 µm	7.5 µm to 13.5 µm
Focus Range	athermalized, focus-free	athermalized, focus-free	athermalized, focus-free
<b>Outputs</b>			
Composite Video NTSC or PAL	Standard	Standard	Standard
Video over Ethernet	Two independent channels of streaming MPEG-4, H.264, or M-JPEG	Two independent channels of streaming MPEG-4, H.264, or M-JPEG	Two independent channels of streaming MPEG-4, H.264, or M-JPEG
<b>Control</b>			
Point to point (stand alone)	Yes	Yes	Yes
Ethernet	Yes	Yes	Yes
Serial	RS-232/-422; Pelco D, Bosch	RS-232/-422; Pelco D, Bosch	RS-232/-422; Pelco D, Bosch
Network Enabled	Yes	Yes	Yes
Software Developer's Kit	Optional	Optional	Optional
External Analytics Compatible	Yes	Yes	Yes
<b>General</b>			
Weight	~10.2 lb (configuration dependent)	~10.2 lb (configuration dependent)	~10.2 lb (configuration dependent)
Dimensions (L,W,H)	18.1" x 5.5" x 6.3" (460 mm x 140 mm x 160 mm)	18.1" x 5.5" x 6.3" (460 mm x 140 mm x 160 mm)	18.1" x 5.5" x 6.3" (460 mm x 140 mm x 160 mm)
Input Voltage	24 VAC (21-30 VAC) 24 VDC (21-30 VDC)	24 VAC (21-30 VAC) 24 VDC (21-30 VDC)	24 VAC (21-30 VAC) 24 VDC (21-30 VDC)
Power Consumption (Consult product manuals for details of power requirements)	24 VAC: 15 VA (max w/o heaters) 51 VA (max w/heaters)  24 VDC: 10 W (max w/o heaters) 46 W (max w/heaters)	24 VAC: 15 VA (max w/o heaters) 51 VA (max w/heaters)  24 VDC: 10 W (max w/o heaters) 46 W (max w/heaters)	24 VAC: 15 VA (max w/o heaters) 51 VA (max w/heaters)  24 VDC: 10 W (max w/o heaters) 46 W (max w/heaters)



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