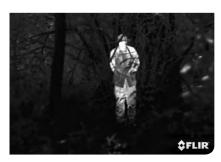




Invisible Intruder with standard daylight CCD camera



Intruder's heat signature can't be hidden from FLIR

# FLIR F-SERIES

Thermal Security Cameras with IP and Analog Functionality

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  $640 \times 480$  thermal resolution giving you up to 16 times as many pixels as their lower resolution counterparts for greater image detail, longer detection ranges, and better analytics performance than ever before.

### **KEY FEATURES**

- 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
- 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

## **Specifications**

Camera Model	F-Series		
Camera Platform Type	Fixed	Fixed	Fixed
<b>Thermal Camera</b>	Specs		
Array Format (NTSC)	160 × 120	320 × 240	640 × 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° × 20° (F-124; 9 mm) 17° × 14° (F-117; 13 mm) 12° × 10° (F-112; 19 mm)	48° × 39° (F-348; 9 mm) 34° × 28° (F-334; 13 mm) 24° × 19° (F-324; 19 mm) 13°× 10° (F-313; 35 mm) 7° × 5° (F-307; 65 mm) 4.6° × 3.7° (F-304; 100 mm)	45° × 37° (F-645; 13 mm) 25° × 20° (F-625; 25 mm) 18° × 14° (F-618; 35 mm) 12° × 10° (F-612; 50 mm) 10° × 8° (F-610; 65 mm) 6.2° × 5° (F-606; 100 mm)
Zoom	2× E-zoom	2× & 4× E-zoom	2× & 4× 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
Outputs			
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
Control			
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
General			
Weight	~10.2 lb (configuration dependent)	~10.2 lb (configuration dependent)	~10.2 lb (configuration dependent)
Dimensions (L,W,H)	$18.1'' \times 5.5'' \times 6.3''$ (460 × 140 × 160 mm)	$18.1'' \times 5.5'' \times 6.3''$ (460 × 140 × 160 mm)	18.1" × 5.5" × 6.3" (460 × 140 × 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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