# F-Series

## Thermal Security Cameras with IP and Analog Functionality


F-Series

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 × 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.

## 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



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

The Full Spectrum Video Solution

**FLIR**

## Specifications

| Camera Model | F-Series | | |
|---|---|---|---|
| Camera Platform Type | Fixed | Fixed | Fixed |
| **Thermal Camera 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)<br>17° × 14° (F-117; 13 mm)<br>12° × 10° (F-112; 19 mm) | 48° × 39° (F-348; 9 mm)<br>34° × 28° (F-334; 13 mm)<br>24° × 19° (F-324; 19 mm)<br>13 °× 10° (F-313; 35 mm)<br>7° × 5° (F-307; 65 mm)<br>4.6° × 3.7° (F-304; 100 mm) | 45° × 37° (F-645; 13 mm)<br>25° × 20° (F-625; 25 mm)<br>18° × 14° (F-618; 35 mm)<br>12° × 10° (F-612; 50 mm)<br>10° × 8° (F-610; 65 mm)<br>6.2° × 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 |
| **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" × 5.5" × 6.3" (460 × 140 × 160 mm) | 18.1" × 5.5" × 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<br><br>(Consult product manuals for details of power requirements) | 24 VAC:<br>15 VA (max w/o heaters)<br>51 VA (max w/heaters)<br><br>24 VDC:<br>10 W (max w/o heaters)<br>46 W (max w/heaters) | 24 VAC:<br>15 VA (max w/o heaters)<br>51 VA (max w/heaters)<br><br>24 VDC:<br>10 W (max w/o heaters)<br>46 W (max w/heaters) | 24 VAC:<br>15 VA (max w/o heaters)<br>51 VA (max w/heaters)<br><br>24 VDC:<br>10 W (max w/o heaters)<br>46 W (max w/heaters) |

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