FLIR®

F-Series

F-Series
Network-Ready fixed mount cameras

Thermal imaging cameras are becoming more and more popular for security and surveillance applications. Many users require thermal imaging cameras that can seamlessly be integrated in new or existing TCP/IP networks. The new FLIR F-Series thermal imaging cameras are an answer to their demands.

F-Series thermal security cameras let you see intruders and other threats to your facility clearly in total darkness and in bad weather. There is no need for the expense or complication of added lighting infrastructure. They can easily be installed in a TCP/IP network. Analog configuration for use in legacy networks is also possible.

Crisp thermal images – choice of image quality
F-Series thermal imaging cameras incorporate an advanced uncooled Vanadium Oxide microbolometer detector. Different versions are available. F-Series exist with a high-resolution 640 × 480 pixels detector, providing up to four times the image clarity and longer range performance than systems with a 320 x 240 pixels detector. It is no less than sixteen times the image quality of a system that incorporates a 160 x 120 pixels detector.

More pixels allow the user to see more detail and to detect more and smaller objects. Advanced internal camera software delivers a crisp image without the need for user adjustments. It provides high quality thermal imaging in any night- or daytime environmental condition.

Different resolutions and lens solutions
Equipped with a 160 x 120 pixels detector, the F-Series come in the following models with the following lens options:

- F-124: 9 mm lens – Field of view: 24°(H) × 20°(V)
- F-117: 13 mm lens – Field of view: 17°(H) × 14°(V)
- F-112: 19 mm lens – Field of view: 12°(H) × 10°(V)

The user that chooses for a version of the F-Series equipped with a 320 x 240 pixels detector has even more choice:

- F-348: 9 mm lens - Field of view: 48°(H) x 39°(V)
- F-334: 13 mm lens - Field of view: 34°(H) x 28°(V)
- F-324: 19 mm lens - Field of view: 24°(H) x 19°(V)
- F-313: 35 mm lens - Field of view: 13°(H) x 10°(V)
- F-307: 65 mm lens - Field of view: 7°(H) x 5°(V)
- F-304: 100 mm lens - Field of view: 4.6°(H) x 3.7°(V)

The 640 x 480 pixels versions has the following lens options:

- F-641: 21.5 mm lens – Field of view: 41°(H) × 33° (V)
- F-626: 35 mm lens – Field of view: 26° (H) × 21°(V)

Revolutionary system of exchangeable camera cassettes
FLIR Systems has invented a revolutionary cassette system. No need anymore to buy a completely new camera if you want to upgrade your existing one.

Exchangeable camera cassettes allow for quick upgrade or repair of sensors and optics. There is no need to send your camera back to the factory if you want to upgrade to better image quality or more range performance. This can easily be done in the field. Changing the cassette and upgrading is just a matter of minutes.

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Digital Detail Enhancement

The F-Series provide high contrast imagery optimized to get the most out of video analytics software. Digital Detail Enhancement ensures clear, properly contrasted thermal images in all weather conditions.

Excellent range performance

Equipped with a 100 mm lens, the F-304 is designed for mid-range security and surveillance applications. The F-304 has a 4° field of view. With the F-304 you will be able to detect a man-sized target at a distance of over 2 km.

Easy to use

Equipped with an "athermal lens", all F-Series are able to maintain focus no matter what the environmental temperature is. There is no need for user adjustments.

No maintenance needed

The absence of a motorized focus mechanism prevents mechanical break downs. The F-Series does not need any maintenance whatsoever. This guarantees an extremely low total cost of ownership.

Multiple installation options

Various options exist to connect the F-Series and integrate them in your existing CCTV infrastructure providing early detection and visibility 24/7 all year round. They can be configured for stand alone use, as part of a network or in a hybrid configuration with local and network based control:

-   *Analog configuration:*
    Simply connect the F-Series over RS-232, RS-422 or RS-485 to a remote control panel. Pelco D or Bosch commands are used for common functions. A video cable can be connected to any existing multi-function display that accepts composite video.

-   *TCP/IP configuration:*
    The F-Series can be integrated in any existing TCP/IP network and controlled over a PC. No additional cables are required. Using this configuration, you can monitor all activity over the network, even when you are thousands of kilometers away.

Video Streaming

Multiple channels of streaming digital video available are available in H.264, MPEG-4, or M-JPEG formats. Simultaneous digital and composite video output is standard.

FLIR Sensors Manager

Each F-Series camera comes with a single sensor copy of FLIR Sensors Manager. This intuitive software allows managing and controlling a F-Series camera in a TCP/IP network.

Easy-to-install

The F-Series can be easily connected to common power and video interfaces found in existing and new security systems. It can be easily integrated into any existing CCTV infrastructure providing early detection and visibility 24/7 all the year round. The video can be displayed on virtually any existing display that accepts composite video.

Designed for use in harsh environments

The F-Series are extremely rugged systems. Their vital core is well protected, meeting IP66 requirements, against dust and water. The F-Series operate between -40°C and +55°C. They have a built-in heater which ensures a clear lens and perfect infrared images displayed on your monitor even in extremely cold environments.

F-Series

About thermal imaging

Thermal imaging is the use of cameras constructed with specialty sensors that "see" thermal energy emitted from an object. Thermal, or infrared energy, is light that is not visible to the human eye because its wavelength is too long to be detected. It's the part of the electromagnetic spectrum that we perceive as heat. Infrared allows us to see what our eyes can not.

Thermal imaging cameras produce images of invisible infrared or "heat" radiation. Based on temperature differences between objects, thermal imaging produces a clear image. In contrast with other technologies, such as light amplification, thermal imaging needs no light whatsoever to produce an image on which the smallest of details can be seen. Thermal imaging provides full visibility irrespective of the prevailing light level and weather conditions.

It can see in total darkness, in the darkest of nights, through fog, in the far distance, through smoke and is able to detect anyone hiding in the shadows. It is used for security and surveillance, maritime, automotive, firefighting and many other applications.

About FLIR Systems
FLIR Systems is the world leader in the design and manufacturing of thermal imaging cameras for a wide variety of applications. It has over 50 years of experience and thousands of thermal imaging cameras currently in use worldwide for security and surveillance, maritime, automotive and other night-vision applications. FLIR Systems has six manufacturing plants located in the USA (Portland, Boston, Santa Barbara and Bozeman), Stockholm, Sweden and near Paris, France. It operates offices in the Belgium, Brazil, China, France, Dubai, Germany, Italy, Japan, the Netherlands, Spain, UK and the USA. The company has over 1,900 dedicated infrared specialists, and serves international markets through an international distributor network providing local sales and support functions.

If you would like more information about the F-series or about FLIR Systems and its wide range of thermal imaging cameras for a wide range of applications, please contact:

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