



## FLIR A f-/A pt-SERIES

**Thermal imaging cameras able to measure temperatures.  
Monitor critical equipment and protect your perimeter with the same camera**

FLIR A-Series can be installed almost anywhere to monitor your critical equipment and other valuable assets. They will safeguard your plant and measure temperature differences to assess the criticality of the situation. This allows you to see problems before they become costly failures, preventing downtime and enhancing worker safety. They can also be used for Security & Surveillance.

Although most of the thermal imaging cameras that are being used in a Security & Surveillance environment do not need to measure temperatures there are some cases in which the ability to measure temperature offers advantages. Definitely when Security & Surveillance needs to be combined with temperature monitoring of critical installations.

A typical example is substation monitoring. With a thermal imaging camera that is able to measure temperatures you can monitor transformers and other substation equipment during daytime. At night, the same thermal imaging camera can be used for perimeter security.

Other examples include waste bunker or coal pile monitoring and any other application where fire prevention needs to be combined with security and surveillance.



### **Built-in extensive analysis functions**

Spot, area measurement and difference temperature functions.



### **Built-in alarm functions**

As function of analysis, internal temperature or digital input.



### **Ethernet/IP and Modbus TCP compliance (only FLIR A310 f)**

Easy sharing of analysis, alarm results to PLC's.



### **Messaging functionality (only FLIR A310 f)**

The camera automatically sends analysis results, IR images and more as an e-mail on schedule or at alarm. Autonomous dispatch of files or e-mails, acting as an FTP- or SMTP-client.



### **Image masking functionality (only FLIR A310 f)**

Select only the relevant part of the image for your analysis.



### **MPEG-4 streamed video**

MPEG-4 streamed video output over Ethernet to show live images on a PC, 640x480 with overlay up to 30 Hz, system dependent.



### **PoE (Power over Ethernet, only FLIR A310 f)**

Communication and power supplied with only one cable.



### **Digital inputs/outputs (only FLIR A310 f)**

For alarms and control of external equipment.



### **Video output**

Composite video output, PAL and NTSC compatible.



### **Lens**

The FLIR A310 f and FLIR A310 pt come standard with a built-in 25 degree lens with both motorized focus and autofocus. Optional lenses are available.



### High sensitivity < 50 mK

< 50 mK thermal sensitivity captures the finest image details and temperature difference information.



### Remote control

Remote control of the camera over the Web and TCP/IP protocol.



### 16 bit image (only FLIR A310 f)

16 bit radiometric image streaming to PC for analysis.



### Built-in 100 Mb Ethernet connection

100 Mb Ethernet.



### FLIR Sensors Manager

Each FLIR A310 f and FLIR A310 pt comes with a single sensor copy of FLIR Sensors Manager. This intuitive software allows users to manage and control the cameras in a TCP/IP network.

#### FLIR A310 f

The A310 f is a fixed mounted camera. Once installed it always looks in the same direction. It is ideal for monitoring critical installations and to protect the perimeter at the same time.



#### FLIR A310 pt

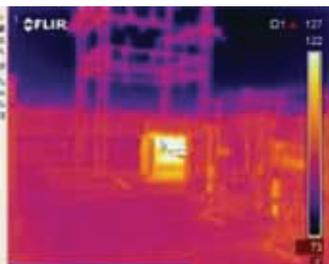
The FLIR A310 pt pan/tilt has all the necessary features and functions to build single- or multi-camera solutions. The FLIR A310 pt can pan +/- 360° continuous and tilt +/- 45°. It is ideal to cover large areas. Typical application examples are coal pile, waste bunker and sub-station monitoring.



The FLIR A310 pt is a multi-sensor and includes a lowlight 36x zoom color CCD camera.

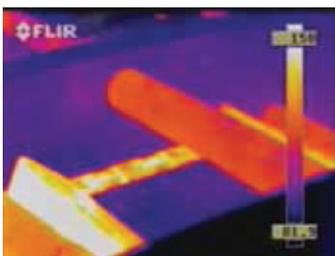
## Who can benefit from FLIR thermal imaging cameras with temperature measurement capabilities?

Anyone that has an application where temperatures need to be monitored and for whom perimeter security is also important. Typical examples are:



Digital photo and thermal image of a substation showing a transformer with excessive temperature.

- Power Generation and Distribution
- Sub-station monitoring
- Critical equipment monitoring
- Natural gas processing, transport and storage
- Fire prevention in storage areas
- Flare detection
- Fire prevention on coal piles
- Fire prevention in wood storage areas
- Fire prevention in waste storage areas



Thermal imaging offers another pair of "eyes" to see through the steam into the log vat for proper log alignment.



Operators cannot see through the steam cloud caused by condensation in cooler air temperatures.



FLIR A310 f and A310 pt-Series thermal imaging cameras can not only be used for temperature monitoring but for security applications as well. Monitor your equipment and protect your perimeter with one camera.