

FLIR A310 pt

New Remote Monitoring System Features Thermal & Visible Cameras on a High-Performance Pan-Tilt

The FLIR A310 pt pan-tilt unit enables you to distribute single- or multi-camera solutions that cover vast areas. Utilizing standard Ethernet hardware and software protocols, you can more efficiently control Pile Monitoring, Warehouse Monitoring, Vessel Monitoring, Heat-Exchanger Monitoring and Sub-station Monitoring.

The FLIR A310 pt is an affordable solution for problems demanding built-in "smartness," such as image analysis and alarm functionality. Its precision pan-tilt mechanism gives operators accurate pointing control while providing fully programmable scan patterns, radar slew-to-cue, and slew-to-alarm functionality. Multi-sensor configurations also include a day/night 36x zoom color CCD camera on the same pan-tilt package.

Uncooled Microbolometer Detector –

Maintenance-free and provides excellent longwave imaging performance.

Fast Data Transfer – *100MB Ethernet connection supplies simultaneous analog and digital video at 30 Hz.*

Built-in Warning System – *Automatic alarms on any measurement function you choose + digital in + camera temperature + timer.*

Tailored to Your Command Center – *Choose the data systems, software tools, and color palettes (BW, BW inv, Iron, or Rain) that suit how you want to remotely monitor your substation.*

Extensive Analysis Functions: *Spot and area measurement and difference temperature are built-in.*

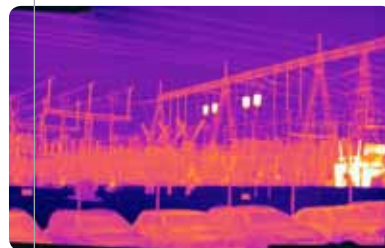
Wider Field of View: *Improve coverage without compromising range performance.*

Precision Pointing Control: *Increase awareness and visibility with fully programmable scan patterns, radar slew-to-cue, and slew-to-alarm functions.*

IP Control: *Integrate with any existing TCP/IP network and control over a PC.*

Serial Control Interface: *Control remotely using Pelco D or Bosch commands over RS-232, RS-422 or RS-485.*

Multi-camera Software: *FLIR Sensors Manager allows users to manage and control a PT-Series camera in a TCP/IP network.*

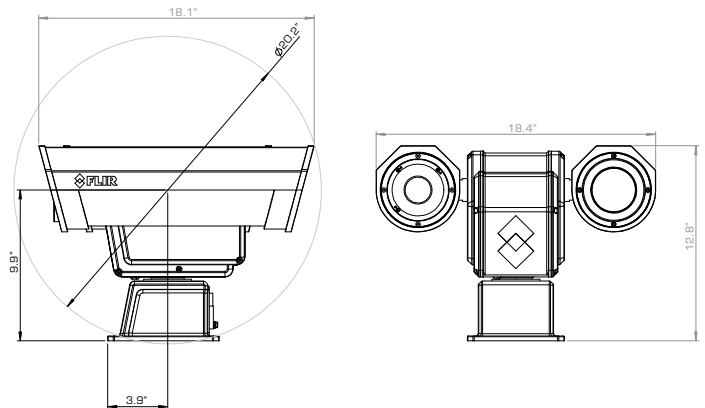


System Specifications: A310 pt

Thermal Camera	
Detector	
Detector Type	Uncooled Microbolometer
Spectral Range	7.5 – 13.0 μm
Resolution	320 x 240
Detector Pitch	25 μm
NETD	<50 mK
Electronics / Imaging	
Time Constant	<12 ms
Frame Rate	30 Hz/9 Hz
Command & Control	TCP, UDP, SNTP, RTSP, RTP, HTTP, ICMP, IGMP, ftp, SMTP, SMB (CIFS), DHCP, MDNS (Bonjour), uPnP
Measurement	
Standard Temperature Range	-20°C to 120°C (-4°F to 248°F) 0°C to 350°C (32°F to 662°F)
Accuracy	$\pm 4^\circ\text{C}$
Spotmeter	Unlimited Geospatial Measurement Points
Area	Unlimited Geospatial Measurement Points
Isotherm	1 with above/below/interval
Image Transfer Option	Scheduled & Alarm Response: File sending (ftp), email (SMTP)
Difference temperature	Delta temperature between measurement functions or reference temperature
Reference temperature	Manually set or captured from any measurement function
Atmospheric transmission correction	Automatic, based on inputs for distance, atmospheric temperature and relative humidity
Optics transmission correction	Automatic, based on signals from internal sensors
Emissivity correction	Variable from 0.01 to 1.0
Reflected apparent temperature correction	Automatic, based on input of reflected temperature
External optics/windows correction	Automatic, based on input of optics/window transmission and temperature
Measurement corrections	Global and individual object parameters
Optics	
Camera f/#	f/1.3
Integrated Lens	18 mm (25°)
Focus	Automatic or Manual (Motorized)
Field of view (FOV) / Minimum focus distance	25° x 18.8° / 0.4 m (1.31 ft.) Available as options: 6°/15°/45°/90°
Zoom	1–8x continuous, digital, interpolating zooming on images
Image Presentation	
Ethernet Video	H.264, MPEG-4, and MJPEG Streaming
Analog Video	NTSC/PAL
General	
Operating Temperature Range	-25°C to 50°C (-13°F to 122°F)
Storage Temperature Range	-40°C to 70°C (-40°F to 158°F)
Encapsulation	IP 66 (IEC 60529)
Bump / Vibration	5 g (IEC 60068-2-27) / 2 g (IEC 60068-2-6)

Day/Night CCD Camera	
Camera Type	Sony FCB-EX1010
Sensor Type	1/4" Exview HAD CCD
Field of View	57.8° (h) to 1.7° (h)
Focal Length	3.4 mm to 122.4 mm
Zoom	36x Optical zoom, 12x E-zoom
F/#	1.6 to 4.5
Effective Pixels (NTSC)	380,000
Pan-Tilt Control	
Point to Point (stand alone), Ethernet, Network Enabled	Standard
Serial	RS-232/-422; Pelco D, Bosch
Pan-Tilt Performance	
Pan Angle/Speed	Continuous 360°; 0.1° to 60°/sec
Tilt Angle/Speed	45 to -45; 0.1° to 30°/sec
A310 pt General*	
Weight	~46 lb (configuration dependent)
Input Voltage	21-30 VAC 21-30 VDC
Power Consumption	24 VAC: 85 VA (max w/o heaters); 215 VA (max w/ heaters) 24 VDC: 65 W (max w/o heaters); 195 W (max w/ heaters)

*Consult installation manual for complete details.



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