FLIR A300

Safety: the infrared eye that never sleeps

The FLIR A300 camera offers an affordable and accurate temperature measurement solution for anyone who needs to solve problems that do not call for the highest speed or reaction and who uses a PC. Due to to its composite video output, it is also an excellent choice for thermal image automation applications, where you can utilize its unique properties such as looking through steam.

Key Features:

- MPEG-4 streaming
- PoE (Power over Ethernet)
- Built-in web server
- General purpose I/O
- 100 Mbps Ethernet (100 m cable, wireless, fiber, etc.)
- Synchronization through SNTP
- Composite video output
- Multi-camera utility software: FLIR IP Config and FLIR IR Monitor included
- Open and well-described TCP/IP protocol for control and set-up
- 16-bit 320 × 240 images @ 3 Hz, radiometric
- Lenses: 25° included, 15° and 45° optional
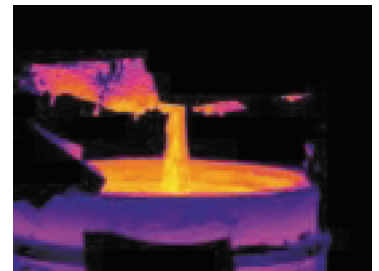
Typical applications:

- Fire prevention, critical vessel monitoring, and power utility asset management
- Volume-oriented industrial control (multi-camera installation is possible)
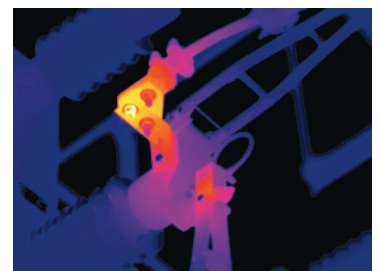

Process monitoring

Sub-station monitoring

IR Automation for Oil & Gas industry	IR Automation for Power Generation and Distribution
• Oil refineries and exploration, petrochemical plants:	• Fire prevention on coal piles
• Natural gas processing, transport and storage	• Fire prevention in wood storage areas
• Fire prevention in storage areas	• Fire prevention in waste storage areas
• Refractory lining monitoring	• Sub-station monitoring
• Flare detection	• Critical equipment monitoring
• Process quality control	

FLIR A300 Technical Specifications

Imaging and optical data	
Field of view (FOV)	25° x 18.8°
Minimum focus distance	0.4m
Focal Length	18mm
Spatial resolution	1.36mrad
Lens identification	Automation
F-number	1.3
Thermal sensitivity/ NETD	<0.05°C @ + 30°C/ 50mK
Image frequency	30Hz
Focus	Automatic or manual (built in motor)
Zoom	1-8x continuous, digital, interpolating zooming on images

Detector data	
Detector type	Focal Plane Array (FPA), uncooled microbolometer
Spectral range	7.5-13µm
IR resolution	320 x 240pixels
Detector pitch	25µm
Detector time constant	Typical 12ms

Measurement	
Object temperature range	-20°C to + 120°C 0 to +350°C
Accuracy	±2°C or ±2% of reading

Set-up	
Color palettes	Color palettes (BW, BW inv, Iron, Rain)
Set-up commands	Date/ time, Temperature°C

Storage of images	
Image storage type	Built-in memory for image storage
File format	Standard JPEG, 16-bit measurement data included

Ethernet	
Ethernet	Control and image
Ethernet, type	100Mbps
Ethernet, standard	IEEE 802.3
Ethernet, connector type	RJ-45
Ethernet, communication	TCP/IP socket-based FLIR proprietary
Ethernet, video streaming	MPEG-4, ISO.IEC 14496-1 MPEG-4 ASP@ L5
Ethernet, image streaming	16-bit 320 x 240 pixels @ 3 Hz
Ethernet, power	Power over Ethernet, PoE Ieee 802.3af class 0
Ethernet, protocols	TCP, UDP, SNTP, RTSP, RTP, HTTP, ICMP, IGMP, ftp, SMTP, SMB (CIFS), DHCP, MDNS (Bonjour), uPnP

Digital input/output	
Digital input, purpose	Image tag (start/ stop/ general), Input ext. device (programmatically read)
Digital input	2 opto-isolated, 10-30 VDC
Digital ouput, purpose	Output to ext. device (programmatically set)
Digital ouput	2 opto-isolated, 10-30 VDC, max 100mA
Digital I/O, isolation voltage	500VRMS
Digital I/O, supply voltage	12/24 VDC, max 200 mA
Digital I/O, connector voltage	6-pole jackable screw terminal

Composite video	
Video out	Composite video output, PAL and NTSC compatible
Video, standard	CVBS (ITU-R-BT.470 PAL/ SMPTE 170M NTSC)
Video, connector type	Standard BNC connector

Power system	
External power operation	12/24 VDC, 24W absolute max
External power, connector type	2-pole jackable screw terminal
Voltage	Allowed range 10-30 VDC

Environmental data	
Operating temperature range	-15°C to +50°C
Storage temperature range	-40°C to +70°C
Humidity (operating and storage)	IEC 60068-2-30/24 h 95% relative humidity +25°C to +40°C
EMC	- EN 61000-6-2:2001 (Immunity) - EN 61000-6-3:2001 (Emission) - FCC 47 CFR Part 15 Class B (Emission)
Encapsulation	IP 40 (IEC 60529)
Bump	25g (IEC 60068-2-29)
Vibration	2g (IEC 60068-2-6)

Physical data	
Weight	0.7kg
Camera size (L x W x H)	170 x 70 x 70mm
Tripod mounting	UNC1/4"-20 (on three sides)
Base mounting	2 x M4 thread mounting holes (on three sides)
Housing materia	Aluminium

Scope of delivery	
Packaging, contents	Hard transport case or cardboard box Infrared camera with lens Calibration certificate Ethernet™ cable Mains cable Power cable, pig-tailed Power supply Printed Getting Started Guide Printed Important Information Guide User documentation CD-ROM Utility CD-ROM Warranty extension card or Registration card

Supplies & Accessories

IR lens f = 30 mm, 15° incl. case
IR lens f = 10 mm, 45° incl. case
Close-up 4× (100 µm) incl. case
Close-up 2× (50 µm) incl. case
Lens 76 mm (6°) with case and mounting support for A/SC3XX
Lens 4 mm (90°) with case and mounting support for A/SC3XX
Close-up 1× (25 µm) incl. case and mounting support for A/SC3XX
High temp. option +1200°C/+2192°F for FLIR T/B2XX to T/B4XX and A/ ••• SC3XX Series
Power supply for A/SC3XX and A/SC6XX
Power cord EU
Power cord US
Power cord UK
Video cable, 3.0 m/9.8 ft.
Ethernet cable CAT-6, 2m/6.6 ft.
Power cable, pigtailed
Hard transport case for A/SC3XX and A/SC6XX series
Delivery Box for A/SC3XX
ThermoVision™ System Developers Kit Ver. 2.6
ITC Advanced General Thermography Course – attendance, 1 pers.
ITC Advanced General Thermography Course – group of 10 pers.
ITC Level 1 Thermography Course – attendance, 1 pers.
ITC Level 1 Thermography Course – group of 10 pers.
ITC Level 2 Thermography Course – attendance, 1 pers.
ITC Level 2 Thermography Course – group of 10 pers.

Accessories

FLIR ®

www.flir.com/thg