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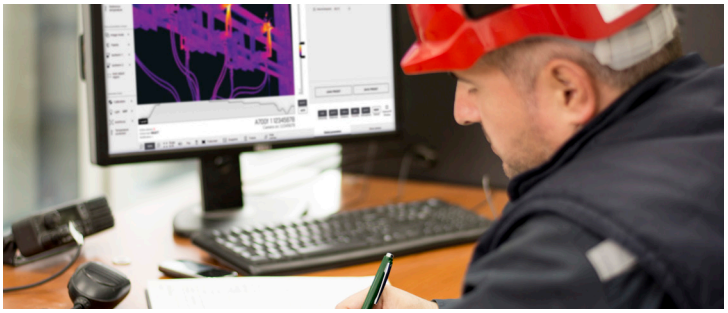
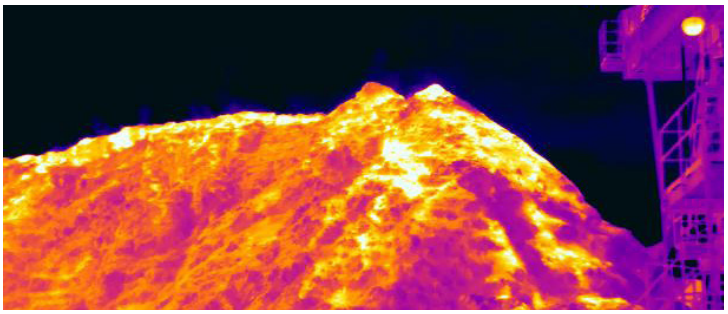
FLIR® PREMIUM PARTNER

FLIR A500f/A700f

Fixed Mount Thermal Imaging Camera for Condition Monitoring and Early Fire Detection





FLIR A500f and A700f Advanced Smart Sensor Thermal Cameras are ideal for users who want built-in temperature analytics and alarms for outdoor condition monitoring and early fire detection applications. These cameras feature a protective housing that can withstand temperatures between -30°C to 50°C, which provides a high level of protection against challenging environmental conditions and secures the sensor from theft. FLIR A500f/A700f cameras offer high-resolution thermal imaging paired with edge computing and industrial internet of things (IIoT) for simplified inclusion in new or existing networks. For VMS integrations, thermal and visible streams can be viewed independently or simultaneously. The cameras are easy to add, set up, and operate in HMI/SCADA systems, offering automation system solution providers a running start. FLIR A500f/A700f cameras can help companies protect assets, improve safety, maximize uptime, and minimize maintenance costs.

www.flir.com/a500f-a700f

SIMPLIFY INTEGRATION

FLIR A500f/A700f cameras provide communication and control options that allow easy integration into existing monitoring systems

- HMI/SCADA-compatible using Modbus TCP client & server and Ethernet/IP
- ONVIF S compliant and integrates into standard security VMS and NVR solutions including control of pan/tilts
- Ready for the fourth industrial revolution, with support for widely adopted IIoT protocols such as MQTT and REST API, in both XML and JSON format

BEST-IN-CLASS OPERATIONAL FEATURES

Tailor thermal imaging monitoring to meet any site's unique requirements

- Improve definition of areas of interest or object curvatures using polygon, polyline, and line function
- Integrate into industrial automation systems using analog and digital control thanks to superior I/O control via Modbus TCP Client and Server, Ethernet IP, REST API, and MQTT
- Conserve network bandwidth with compressed radiometric streaming to FLIR Atlas SDK
polarized glasses

UNMATCHED THERMAL IMAGING

Deliver consistent, accurate results in harsh conditions

- Provides superior image quality with up to 640 × 480 (307,200 pixels) thermal resolution
- Increase contrast in even-temperature scenes and enhance edge detail in low light using FSX® (Flexible Scene Enhancement) technology
- Ensure temperature accuracy of objects at different distances using remote motor focus via Ethernet communication

SPECIFICATIONS

System Overview	A500f	A700f
IR Resolution	464 × 348 (161,472 pixels)	640 × 480 (307,200 pixels)
Visual Resolution	1280 × 960 (not applicable for 80° version)	
Detector Pitch	17 µm	12 µm
MSX® & FSX®	Yes (MSX is not available for 80° version)	
Available Field of Views	14°, 24°, 42°, 80, 14°, 24°, 42°, 80°, FlexView® dual FOV (24°/14°), FlexView® dual FOV (42°/24°) lenses	
Focal Plane Array [FPA]	Uncooled microbolometer	
Focus	Motorized focus, manual & on-command automatic (scene contrast method)	
Image Frequency	30 Hz	
Image Storage	Records up to 100 FLIR radiometric JPEG; storage as function of: alarm, scheduling, or user interaction (camera web)	
Measurement		
Object Temperature Range	-20°C to 120°C (-4°F to 248°F), 0°C to 650°C (32°F to 1202°F), 300°C to 1500°C (572°F to 2732°F)	-20°C to 120°C (-4°F to 248°F), 0°C to 650°C (32°F to 1202°F), 300°C to 2000°C (572°F to 3632°F)
Accuracy	±2°C (±3.6°F) or ±2% of reading, for ambient temperature 15°C-35°C (59°F-95°F) and object temperature above 0°C (32°F)	
Readout	Measurement results: Ethernet/IP, Modbus TCP server (pull), Modbus TCP client (push), MQTT (push), REST API (GET/POST), measurements and still image (radiometric JPEG, visual 640 × 480, visual 1280 × 960), web interface	
Automatic Hot and Cold Detection	Max/min temperature value and position shown within box, poloygon, line or polyline	
Measurement Presets	Yes	
Measurement Tools	10 spotmeters, 10 boxes or mask polygons, 3 Deltas (difference any value/reference/external lock), 2 isotherms (above/below/interval), 2 iso-coverage, 1 reference temperature, 2 lines, 1 polyline, Maximum 12 measurement functions at the same time	
Web Interface	Yes	
Multi Streaming	Yes	
Alarm		
Alarm Functions	On any selected measurement function, digital in, and internal camera temperature	
Alarm Output	Digital out, e-mail (SMTP) (push), Ethernet/IP, file transfer (FTP) (push), Modbus TCP server (pull), MQTT (push), query over RESTful API (pull), store image or video	
Encoding	Video stream: H.264, MPEG4, or MJPEG Radiometric stream: Compressed JPEG-LS over RTSP	

Digital Input/Output	
Digital I/O Connector Type	Terminal block inside housing
Digital I/O Isolation Voltage	500 VRMS
Digital Input Purpose	NUC, NUC disable, alarm
Digital Inputs	2x opto-isolated, Vin(low)= 0–1.5 V, Vin(high)= 3–25 V
Digital Output Purpose	As a function of alarm, output to external device, Fault (NC)
Digital Outputs	3x opto-isolated, 0–48 V DC, max. 350 mA; solid-state opto relay; 1x dedicated as Fault output (NC)
Cable Glands	1x M12, 1x M16, 1x M20
Ethernet	
Ethernet	For control, result, image, and power
Ethernet Communication	TCP/IP socket-based FLIR proprietary
Ethernet Connector Type	IP67 rated RJ45 port
Ethernet Interface	Wired
Ethernet Power	Power over Ethernet, PoE IEEE 802.3af class 3 EtherNet/IP, IEEE 1588, Modbus TCP, MQTT, SNMP, TCP, UDP, SNTP, RTSP, RTP, HTTP, HTTPS, ICMP, IGMP, sftp (server), FTP (client), SMTP, DHCP, MDNS (Bonjour), uPnP, PoE injector sold separately
Environmental Data	
Operating Temperature Range	-30°C to 50°C (-22°F to 122°F)
EMC	EN50130-4, EN61000-6-3, EN55022 Class B, FCC Part. 15 Class B
Encapsulation	IP67
Physical Data	
Packaging Size [L x W x H]	62 cm × 20.2 cm × 22 cm (24.41 in × 7.92 in × 8.66 in)
Size [L x W x H]	51.5 cm × 17.7 cm × 22.9 cm (20.28 in × 6.97 in × 9.02 in)
Mounting	Sold separately, pole and wall adapters available
Housing Material	Aluminum housing, sunshield in ABS
System Features	
Heater	8W, electronically controlled, T_ON 20°C ±2°C (68°F ±4°F), T_OFF 23°C ±2°C (73.4°F ±4°F)
ONVIF Conformance	Yes. ONVIF Profile S
Window Transmission	Automatic, based on window temperature
Power Consumption	30W PoE, PoE+, Type 2. IEEE 802.3af, IEEE 802.3at/PoE Plus

Specifications are subject to change without notice.

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