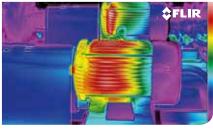


Loose Connection



Continuous monitoring of a motor.

FLIR AX8

Thermal Imaging Camera For Continuous Condition and Safety Monitoring

FLIR AX8 is a thermal sensor with imaging capabilities. Combining thermal and visual cameras in a small, affordable package, the AX8 provides continuous temperature monitoring and alarming for of critical electrical and mechanical equipment.

The AX8 helps you guard against unplanned outages, service interruptions, and equipment failure. You'll get the benefits of continuous condition monitoring and hot spot detection without the need for periodic manual

Compact and easy to install, AX8 provides continuous monitoring of electrical cabinets, process and manufacturing areas, data centers, energy generation and distribution, transportation and mass transit, storage facilities and refrigeration warehouses.

AUTOMATIC ANALYSIS AND ALARMS

With its streaming video output, the AX8 not only gives you live video of every installation, but it also provides automated alarming when pre-set temperature thresholds are exceeded as well as temperature trend analysis.

INDUSTRIAL PROTOCOL

Since FLIR AX8 is Ethernet/IP and Modbus TCP compliant analysis and alarm results can easily be shared to a PLC. Digital inputs/outputs are available for alarms and control of external equipment. An image masking function allows you to select only the relevant part of the image for your analysis.

COMPACT & EASY TO INSTALL

Combining thermal and visual cameras in a small, affordable package, the AX8 measures only 54 x 25 x 95 mm, making it easy to install in spaceconstrained areas for uninterrupted condition monitoring of critical electrical and mechanical equipment.

MULTIPLE VIDEO OPTIONS

With AX8, you can view its thermal imagery, visible light imagery, or the two combined into FLIR's proprietary, patent pending MSX multispectral dynamic imaging. MSX provides image detail from the visible camera embossed on the thermal image, giving you, sharper edge detail, the ability to read labels and better contextual awareness



Technical specifications FLIR AX8

IR resolution 80 × 60 pixels Thermal sensitivity/NETD < 0.10°C	Imaging & Optical Data		
Field of view (FOV) Focus Fixed Detector data Detector type Focal Plane Array (FPA), uncooled microbolometer Spectral range 7.5–13 µm Visual camera Built-in digital camera 640 × 480 Digital camera, FOV Adapts to the IR lens Sensitivity Minimum 10 Lux without illuminator Measurement Object temperature range -10°C to +150°C (14°F to 302°F) 4ccuracy +2°C (±3.6°F) or ±2% of reading (+10 to +1000′®+10 to +35 amb) Measurement analysis Spotmeter 6 Area 6 boxes with max./min./average Automatic hot/cold detection Measurement presets Atmospheric transmission correction Cptics transmission correction Emissivity correction Emissivity correction External optics/ windows correction Automatic, based on input of reflected temperature temperature correction External optics/ windows correction Automatic, based on input of optics/window transmission and temperature Automatic, based on input of optics/window transmission and temperature Automatic, based on input of optics/window transmission and temperature Automatic, based on input of optics/window transmission and temperature Automatic, based on input of optics/window transmission and temperature External optics/ windows correction Automatic, based on input of optics/window transmission and temperature Digital Out, store image, file sending (ftp), email (SMTP), notification Set-up Color palettes Color palettes (BW, BW inv, Iron, Rain) Set-up commands Date/time, Temperature °C/°F Web interface Yes	IR resolution	80 × 60 pixels	
Detector data	Thermal sensitivity/NETD	< 0.10°C @ +30°C (+86°F) / 100 mK	
Detector data Detector type Focal Plane Array (FPA), uncooled microbolometer Spectral range 7.5–13 µm Visual camera Built-in digital camera Digital camera, FOV Adapts to the IR lens Sensitivity Minimum 10 Lux without illuminator Measurement Object temperature range Accuracy 42°C (±3.6°F) or ±2% of reading (+10 to +100C@+10 to +35 amb) Measurement analysis Spotmeter 6 Area 6 boxes with max./min./average Automatic hot/ cold detection Measurement presets Atmospheric transmission correction Emissivity correction Emissivity correction Reflected apparent temperature correction External optics/ windows correction Automatic, based on input of optics/window transmission and temperature External optics/ windows corrections Alarm Alarm functions Automatic alarms on any selected measurement function. A maximum of 5 alarms can be set Digital Out, store image, file sending (ftp), email (SMTP), notification Set-up Color palettes Color palettes (BW, BW inv, Iron, Rain) Set-up commands Date/time, Temperature °C/°F Web interface Yes Storage of images	Field of view (FOV)	48° × 37°	
Pocal Plane Array (FPA), uncooled microbolometer	Focus	Fixed	
Spectral range 7.5–13 µm Visual camera Built-in digital camera 640 × 480 Digital camera, FOV Adapts to the IR lens Sensitivity Minimum 10 Lux without illuminator Measurement Object temperature range -10°C to +150°C (14°F to 302°F) Accuracy ±2°C (±3.6°F) or ±2% of reading (+10 to +100C@+10 to +35 amb) Measurement analysis Spotmeter 6 Area 6 boxes with max./min./average Automatic hot/cold detection Max/Min temp. value and position shown within box Measurement presets Yes Atmospheric transmission correction atmospheric temperature and relative humidity Optics transmission correction Variable from 0.01 to 1.0 Reflected apparent temperature correction External optics/windows correction Automatic, based on input of reflected temperature transmission and temperature Measurement corrections Global object parameters Alarm Alarm functions Automatic alarms on any selected measurement function. A maximum of 5 alarms can be set Digital Out, store image, file sending (ftp), email (SMTP), notification Set-up Color palettes Color palettes (BW, BW inv, Iron, Rain) Set-up commands Date/time, Temperature °C/°F Web interface Yes Storage of images	Detector data		
Visual camera Built-in digital camera 640 × 480	Detector type	Focal Plane Array (FPA), uncooled microbolometer	
Built-in digital camera Digital camera, FOV Adapts to the IR lens Sensitivity Minimum 10 Lux without illuminator Measurement Object temperature range Accuracy -10°C to +150°C (14°F to 302°F) ±2°C (±3.6°F) or ±2% of reading (+10 to +100C@+10 to +35 amb) Measurement analysis Spotmeter 6 Area 6 boxes with max./min./average Automatic hot/cold detection Max/Min temp. value and position shown within box Measurement presets Yes Atmospheric transmission correction Optics transmission correction Emissivity correction Emissivity correction External optics/ windows corrections Automatic, based on input of reflected temperature External optics/ windows corrections Automatic, based on input of optics/window transmission and temperature External optics/ windows corrections Automatic, based on input of optics/window transmission and temperature External optics/ Windows corrections Automatic, based on input of optics/window transmission and temperature Digital Out, store image, file sending (ftp), email (SMTP), notification Set-up Color palettes Color palettes (BW, BW inv, Iron, Rain) Set-up commands Date/time, Temperature °C/°F Web interface Storage of images	Spectral range	7.5–13 µm	
Digital camera, FOV Measurement Object temperature range Accuracy Measurement analysis Spotmeter Area Automatic hot/cold detection Coptics transmission correction Emissivity correction External optics/windows correction Measurement corrections Alarm Alarm Alarm functions Digital camera, FOV Adapts to the IR lens Minimum 10 Lux without illuminator Measurement analysis For (14°F to 302°F) Accuracy Aley (+10 to +150°C (14°F to 302°F) Area 6 Area 6 boxes with max./min./average Max/Min temp. value and position shown within box Yes Automatic, based on inputs for distance, atmospheric temperature and relative humidity Automatic, based on signals from internal sensors Automatic, based on input of reflected temperature External optics/ windows correction Automatic, based on input of reflected temperature Automatic, based on input of optics/window transmission and temperature Automatic, based on input of optics/window transmission and temperature Alarm automatic alarms on any selected measurement function. A maximum of 5 alarms can be set Digital Out, store image, file sending (ftp), email (SMTP), notification Set-up Color palettes Color palettes (BW, BW inv, Iron, Rain) Set-up commands Date/time, Temperature °C/°F Web interface Yes Storage of images	Visual camera		
Measurement Object temperature range	Built-in digital camera	640 × 480	
Measurement Object temperature range -10°C to +150°C (14°F to 302°F) Accuracy ±2°C (±3.6°F) or ±2% of reading (+10 to +100C@+10 to +35 amb) Measurement analysis 6 Spotmeter 6 Area 6 boxes with max./min./average Automatic hot/cold detection Max/Min temp. value and position shown within box Measurement presets Yes 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 object parameters Alarm Automatic alarms on any selected measurement function. A maximum of 5 alarms can be set Alarm output Digital Out, store image, file sending (ftp), email (SMTP), notification Set-up Color palettes (BW, BW inv, Iron, Rain) Set-up commands Date/time, Temperature °C/°F <tr< td=""><td>Digital camera, FOV</td><td>Adapts to the IR lens</td></tr<>	Digital camera, FOV	Adapts to the IR lens	
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Measurement presets Atmospheric transmission correction Emissivity correction External optics/ windows correction Automatic, based on input of reflected temperature transmission and temperature Automatic, based on signals from internal sensors Automatic, based on signals from internal sensors Automatic, based on input of reflected temperature Automatic, based on input of reflected temperature External optics/ windows correction Automatic, based on input of optics/window transmission and temperature Global object parameters Alarm Alarm Alarm functions Automatic alarms on any selected measurement function. A maximum of 5 alarms can be set Digital Out, store image, file sending (ftp), email (SMTP), notification Set-up Color palettes Color palettes (BW, BW inv, Iron, Rain) Set-up commands Date/time, Temperature °C/°F Yes Storage of images	Area	6 boxes with max./min./average	
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Set-up Color palettes Color palettes (BW, BW inv, Iron, Rain) Set-up commands Date/time, Temperature °C/°F Web interface Storage of images	Alarm functions		
Color palettes Color palettes (BW, BW inv, Iron, Rain) Set-up commands Date/time, Temperature °C/°F Web interface Yes Storage of images	Alarm output		
Set-up commands Date/time, Temperature °C/°F Web interface Yes Storage of images	Set-up		
Web interface Yes Storage of images	Color palettes	Color palettes (BW, BW inv, Iron, Rain)	
Storage of images	Set-up commands	Date/time, Temperature °C/°F	
<u> </u>	Web interface	Yes	
Storage media Built-in memory for image storage	Storage of images		
	Storage media	Built-in memory for image storage	
Image storage mode IR, visual, MSX	Image storage mode	IR, visual, MSX	
File formats JPEG+FFF	File formats	JPEG+FFF	

Your authorized FLIR distributor:



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Ethernet	
Ethernet	Control, result and image
Ethernet, type	100 Mbps
Ethernet, standard	IEEE 802.3
Ethernet, connector type	M12 8-pin X-coded
Ethernet, video streaming	Yes
Ethernet, power	Power over Ethernet, PoE IEEE 802.3af class 0.
Ethernet, protocols	Ethernet/IP, Modbus TCP, TCP, UDP, SNTP, RTSP, RTP, HTTP, ICMP, IGMP, sftp, SMTP, SMB (CIFS), DHCP, MDNS (Bonjour)
Image streaming	
Image streaming formats	Motion JPEG, MPEG, H.264
Image streaming resolution	640 × 480
Image modes	Thermal, Visual, MSX (IR-image with enhanced detail presentation)
Automatic image adjustment	Continuous
Power system	
External power operation	12/24VDC, 2 W continuously/ 3.1 W absolute max
External power, connector	M12 8-pin A-coded (Shared with digital I/O)
Voltage Allowed range	10.8–30VDC
Environmental data	
Operating temp. range	0°C to +50°C (32°F to +122°F)
Storage temp. range	–40°C to +70°C (–40°F to +158°F) IEC 68-2-1 and IEC 68-2-2
Humidity (operating and storage)	IEC 60068-2-30/24 h 95% relative humidity +25°C to +40°C (+77°F to +104°F)/ 2 cycles
EMC	EN 61000-6-2:2001 (Immunity) EN 61000-6-3:2001 (Emission) FCC 47 CFR Part 15 Class B (Emission)
Encapsulation	IP67 (IEC 60529)
Bump	25 g (IEC 60068-2-29)
Vibration	2 g (IEC 60068-2-6)
Physical data	
Camera size (L \times W \times H)	54 x 25 x 79 mm (2.1 x 1 x 3.1 in.) w/o connectors 54 x 25 x 95 mm (2.1 x 1 x 3.7 in.) w/ connectors
Shipping information	
Packaging	Infrared camera with lens, printed documentation, user documentation CD-ROM

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