



# 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 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 scans.

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**

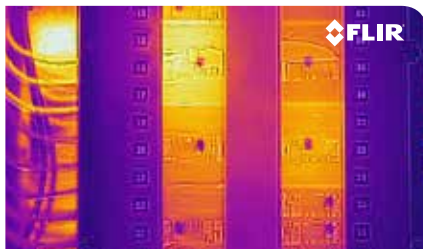
Since FLIR AX8 is Ethernet/IP and Modbus TCP compliant analysis and alarm results can easily be shared to a PLC. Digital inputs/outputs are available for alarms and control of external equipment. An image masking function allows you to select only the relevant part of the image for your analysis.

### **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 space-constrained 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



Loose Connection



Continuous monitoring of a motor.

## Technical specifications FLIR AX8

Imaging & Optical Data	
IR resolution	80 × 60 pixels
Thermal sensitivity/NETD	< 0.10°C @ +30°C (+86°F) / 100 mK
Field of view (FOV)	48° × 37°
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)
Accuracy	±2°C (±3.6°F) or ±2% of reading (+10 to +100°C @ +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	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	
Alarm functions	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	Color palettes (BW, BW inv, Iron, Rain)
Set-up commands	Date/time, Temperature °C/°F
Web interface	Yes
Storage of images	
Storage media	Built-in memory for image storage
Image storage mode	IR, visual, MSX
File formats	JPEG+FFF

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, SNMP, 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 × W × H)	54 × 25 × 79 mm (2.1 × 1 × 3.1 in.) w/o connectors 54 × 25 × 95 mm (2.1 × 1 × 3.7 in.) w/ connectors
Shipping information	
Packaging	Infrared camera with lens, printed documentation, user documentation CD-ROM

**FLIR Systems Trading  
Belgium BVBA**  
Luxemburgstraat 2  
B-2321 Meer  
Belgium  
PH: +32 (0) 3 665 51 00

**FLIR Systems, Inc.**  
9 Townsend West  
Nashua, NH 06063  
USA  
PH: +1 603.324.7611

**FLIR Systems AB**  
Antennvägen 6,  
PO Box 7376  
SE-187 66 Täby  
Sweden  
PH: +46 (0)8 753 25 00

**FLIR Systems Ltd.**  
920 Sheldon Ct  
Burlington, Ontario  
L7L 5K6 Canada  
PH: +1 800 613 0507

**FLIR Systems UK**  
2 Kings Hill Avenue -  
Kings Hill  
West Malling  
Kent  
ME19 4AQ  
United Kingdom  
PH: +44 (0)1732 220 011

www.flir.com  
flir@flir.com  
NASDAQ: FLIR

Equipment described herein may require US Government authorization for export purposes. Diversion contrary to US law is prohibited. Imagery for illustration purposes only. Specifications are subject to change without notice. ©2014 FLIR Systems, Inc. All rights reserved. [Created 09/14]