



# FLIR AX8™

Automated, multi-spectral temperature sensor for condition monitoring and hot spot detection



The World's Sixth Sense™

# FLIR AX8™

Combining thermal and visual cameras in a small, affordable package, the AX8 provides continuous temperature monitoring and alarming for uninterrupted condition monitoring of critical electrical and mechanical equipment.

## CONTINUOUS CONDITION & SAFETY MONITORING

The AX8 helps you guard against unplanned outages, service interruptions, and equipment failure by providing uninterrupted temperature monitoring, so 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:**

- Process and manufacturing industries
- Data centers
- Energy generation and distribution
- Transportation and mass transit
- Storage facilities
- 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. More advanced alarms like temperature trending can be done by using PLC's.

### **AX8 provides:**

#### **Industry-standard interfaces**

- Ethernet/IP
- Modbus TCP

#### **Multiple streaming video formats**

- MPEG
- MJPEG
- H.264



## IDENTIFY PROBLEMS EARLY



Loose Connection



Overloaded Fuse

The images displayed may not be representative of the actual resolution of the camera shown. Images for illustrative purposes only. Specifications are subject to change without notice.

## 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.



Constantly Monitor Critical Equipment



Peace of Mind in Manufacturing



Spot Heat Variance Quickly

## AX8 KEY FEATURES

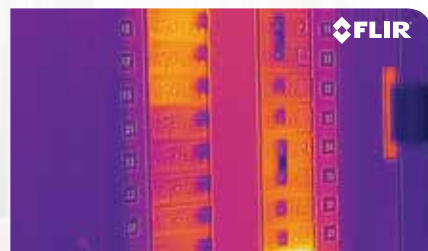
- Extremely affordable
- Ultra-compact
- Intelligent temperature sensor
- Built in analysis
- Power over Ethernet (PoE)
- MSX

## 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 multi-spectral 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
- Better contextual awareness



With MSX



Without MSX



Innovative, small and affordable the **FLIR AX8** is an industry game changer for continuous thermal monitoring of critical installations and facilities.

## 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	Max 66°, 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/position
Automatic hot/cold detection	Max/Min temp. value and position shown within box
Isotherm	1 with above/below/interval
Measurement presets	Yes
Measurement option	Schedule 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
Alarm	
Alarm functions	6 automatic alarms on any selected measurement function, Digital In, Camera temperature
Alarm output	Digital Out, log, 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 images, simultaneous storage of IR and visual images. Visual and IR image automatically grouped together.
Periodic image storage	Yes
File formats	JPEG, JPEG+FFF, PNG+JPEG, FFF, FFF+PNG

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, ftp, SMTP, SMB (CIFS), DHCP, MDNS (Bonjour), uPnP
Image streaming	
Image streaming formats	Motion JPEG, MPEG stream, H.264, Stream format MPEG-4 ISO/IEC 14496-2
Image streaming resolution	640 × 480
Image modes	Thermal, Visual, MSX (IR-image with enhanced detail presentation)
Automatic image adjustment	Continuous/manual; linear or histogram based; possible to lock max, min or span temperature
Manual image adjustment	Level/span/max/min
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	10–30VDC
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) IAW 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 w/o connectors 54 × 25 × 95 mm w/ connectors
Shipping information	
Packaging	Infrared camera with lens, Printed documentation, User documentation CD-ROM



VIPER IMAGING  
2406 VALLEYDALE ROAD  
BIRMINGHAM, AL 35244  
(205) 677-3700  
contact@viperimaging.com  
www.viperimaging.com



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