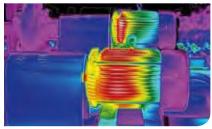


**Loose Connection** 



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 benef ts 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  $54 \times 25 \times 95$  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

### 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 +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	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	
Ref ected apparent temperature correction	Automatic, based on input of ref ected 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, f le sending (ftp), email (SMTP), notif cation	
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	

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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)	$54 \times 25 \times 79$ mm (2.1 x 1 x 3.1 in.) w/o connectors $54 \times 25 \times 95$ 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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