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 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.

Loose Connection

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
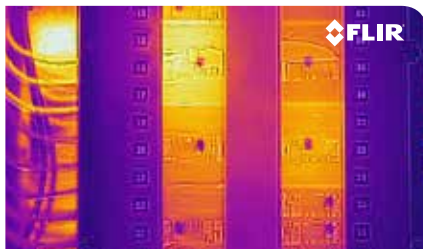
Continuous monitoring of a motor.

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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
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, 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 × W × H)	54 × 25 × 79 mm (2.1 x 1 x 3.1 in.) w/o connectors 54 × 25 × 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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