FLIR AX8™
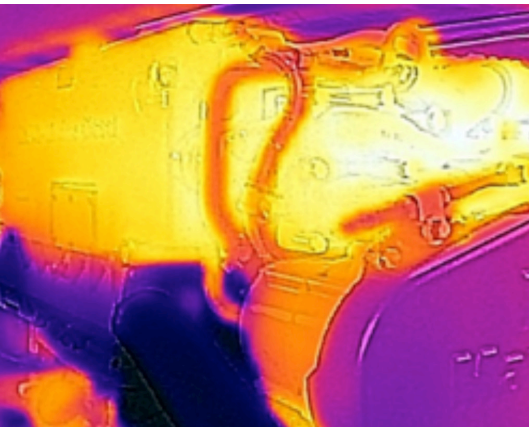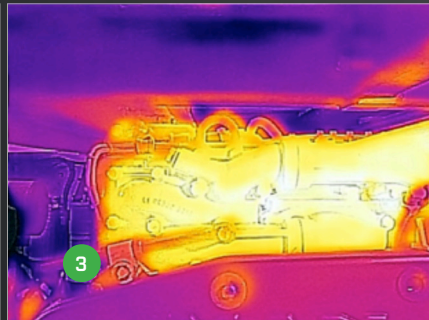
MARINE THERMAL MONITORING SYSTEM

FLIR AX8™

Gain an entirely new view of your vessel's mechanical system with the new FLIR AX8 thermal monitoring camera. Combining thermal and visible cameras in a small, affordable package, the AX8 integrates with Raymarine multifunction displays (MFDs) and sends audible and visual alerts when the temperature of machine parts rise above preset thresholds.

Keep a watchful eye on such critical equipment as engines, exhaust manifolds, and shaft bearings and spot problems before they leave you stranded on the water. And FLIR's exclusive MSX® imaging blends visible and thermal images for more detailed imagery that is easier to understand.
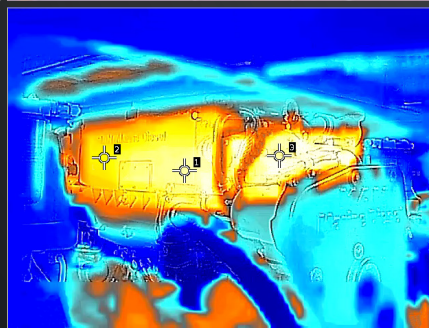
Digital Image | Thermal Image
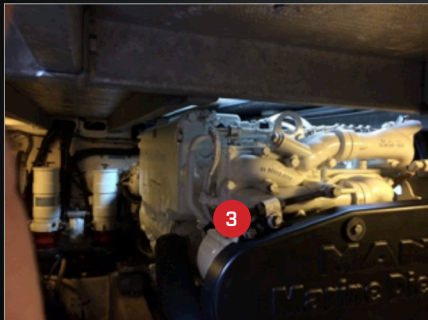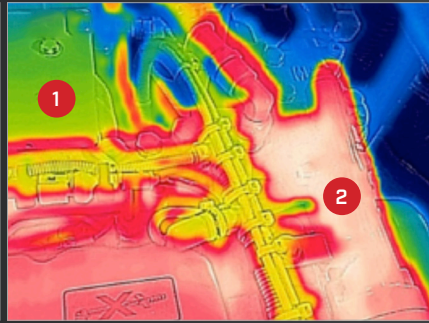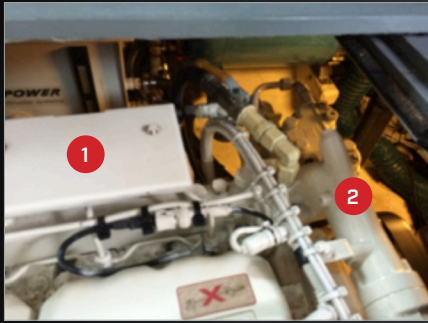
(1) Engine Rocker cover
(2) Engine exhaust manifold
(3) Fuel line

Create spot alarms to provide warnings when temperatures exceed pre-set thresholds

Spot Potential problems before they happen
- State-of-the-art thermal monitoring of engines and onboard machinery
- Powered by Lepton, FLIR's most advanced micro thermal camera
- Exclusive Multi-Spectral Dynamic Imaging (MSX®) for easy-to-understand thermal imagery.

On Board Thermal Alarming and Visual Analysis
- Stream live thermal video of exhaust manifolds, propeller shafts, electrical panels, and other machinery
- Program specific areas to generate automated spot alarms when temperatures exceed pre-set thresholds
- Evaluate ongoing temperature trends
- Help avoid costly repairs and unwanted breakdowns

Raymarine Integration
- View thermal, visible, and MSX video imagery on Raymarine LightHouse II™ MFDs
- Continuous thermal monitoring with audible and visual alarms across the Raymarine network
- Connect up to eight AX8 cameras using Ethernet
- View and record thermal video and snapshots from any Raymarine display on the network
- Easy setup and alarm programming with a PC and web browser

FLIR® | The World's Sixth Sense™
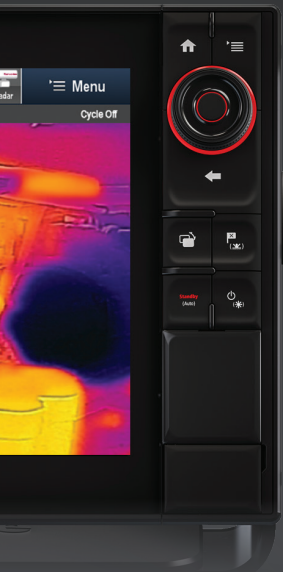
AX8 BASIC FEATURES

1) Digital and thermal cameras and LED illumination
2) Compact housing 54mm (w) x 25mm (d) x 79mm (h) excluding connectors
3) Ethernet connections
4) Optional ball and socket bracket mount
5) Cooling plate
6) Optional RAM(R) brand multi positioning mounting bracket

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FLIR AX8™

MARINE THERMAL MONITORING SYSTEM

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)

MARINE ELECTRONICS INTERFACE

Multifunction displays	Network compatible with Raymarine LightHouse II multifunction displays

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, cooling/mounting plate, POE injector, Raymarine RayNet Ethernet cable

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Check out the collection of marine electronics and navigation we offer.