FLIR AX8™
MARINE THERMAL MONITORING SYSTEM
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.

**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

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
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
FLIR AX8™

MARINE THERMAL MONITORING SYSTEM

IMAGING & OPTICAL DATA
- IR resolution: 80 x 60 pixels
- Thermal sensitivity/NETD: < 0.10°C @ +30°C (+86°F) / 100 mK
- Field of view (FOV): 48° x 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 x 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°C to +100°C, ±1% up to +35°C 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 atmosphere, 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

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

ETHETERNET
- Ethernet: Control, result and image
- Ethernet, type: 100 Mbps
- 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, SMTP, RTSP, RTP, HTTP, ICMP, IGMP, sftp, 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 x 480
- Image modes: Thermal, Visual, MSX (IR-image with enhanced detail presentation)
- Automatic image adjustment: Continuous

ENVIROMENTAL DATA
- Humidity (operating and storage): IEC 60068-2-30/h 95% relative humidity +25°C to +40°C (+77°F to +104°F) / 2 cycles
- Encapsulation: IP67 (IEC 60529)
- Bump: 25 g (IEC 60068-2-29)
- Vibration: 2 g (IEC 60068-2-6)

PHYSICAL DATA
- Camera size (L x W x H): 54 x 25 x 79 mm (2 1/4 x 1 x 3 in.) w/o connectors
- Camera size (L x W x H): 54 x 25 x 95 mm (2 1/4 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