

M-Series: The Highest Definition Maritime Thermal Night Vision System Available

A cutting-edge thermal night vision dual-payload system, M-Series is the culmination of FLIR's 25 years of experience as the world leader in maritime thermal imaging. M-Series boasts the highest definition thermal night vision imaging capability available to the recreational and commercial maritime community.

Its thermal camera provides:

- A 26° field of view with 4X electronic zoom
- More than twice the range performance of earlier systems
- Four times the resolution of standard definition systems – the highest resolution thermal imagery available to non-military customers
- The ability to see outcroppings of land, other boats, and people in the water more clearly, and from significantly greater ranges, than ever before...even in total darkness

Its lowlight TV gives operators:

- Micro-lux visible-light imaging capability
- The ability to see during times of low ambient light like dusk, dawn, or along intracoastal waterways and harbor entrances when the sun is below the horizon

The M-Series gimbal:

- Is a rugged, waterproof gimbal enclosure that provides continuous 360° continuous pan and +/-90° tilt capability, for horizon-to-horizon visibility
- Incorporates cutting-edge control-over-Ethernet for easy installation, control, and networking built on a rugged Linux platform
- Can mount in either ball-up or ball-down configuration for added utility and flexibility
- Measures only 7" in diameter by 11.2" tall, taking up less swept volume than most systems in its class

The Joystick Control Unit (JCU):

- Measures 3.6" wide by 5.7" high
- Is powered and controlled by PoE (power over Ethernet)
- Uses shielded, low smoke, zero halogen Cat 5 Ethernet cable for easy installation
- Is waterproof to IPx6 standards and meets the requirements of IEC 60945
- Uses an intuitive operator interface and 8-way, iDrive-style, control knob for precise gimbal control
- Includes advanced features, like a user programmable "hotkey"
- Has a heated LCD display that provides system status information
- Uses an Ethernet interface that allows an unlimited number of control stations on a single boat

Environmentally, the M-Series:

- Meets the requirements of IEC-60945 for survivability in rugged, high humidity, commercial and recreational operational environments
- Is rated to operate in temperatures ranging from -25°C to +55°C
- Has automatic heaters to keep both cameras imaging clearly, even in icing environments
- Exceeds the shock and vibration requirements of IEC-60945 by a wide margin
- Operates on 12VDC to 24VDC per IEC 60945 (-10%/+30%)
- Is lightning protected per EMC directive 2004/108/EC

M-Series features:

- Dedicated and switchable video outputs for use with multi-function displays
- FLIR's open Ethernet protocol that invites third-party application development, and allows effortless integration into the latest maritime architectures
- FLIR's exclusive Accu-Point position control and display feature that gives the operator continuous feedback of where their imager is pointing
- A full array of infrared color palettes for easy viewing
- A 24-month warranty



Quotations

"Thermal imaging has become an indispensable tool for maritime navigation and safety," said Lou Rota, Vice President of Maritime Business Development at FLIR Systems. "Our new M-Series class of products combines our industry-leading thermal cameras with our tested military technology to deliver the ultimate maritized imager for the recreational and commercial marine markets."

"More than two years of market research and customer feedback have gone in to the features included in the M-Series camera system," adds Pat Richardson, Director of the Maritime Product Line. "Customer input ensures that this imaging system sets a new standard for maritime imaging systems and paves the way for integration with existing marine electronics."



M-Series

Thermal Imaging Specifications

	M-626L	M-320L
Sensor Type	640 x 480 VOx microbolometer	320 x 240 VOx microbolometer
FOV	26° x 20° (NTSC)	20° x 15° (NTSC)
Focal Length	35mm	35mm
E-Zoom	2X & 4X	2X
Image Processing	FLIR DDE	FLIR DDE

Lowlight Imaging Specifications

Detector Type	1/2" interline transfer CCD
Lines of Resolution	768 (H) x 494 (V)
Minimum Illumination	100 micro-lux (@ f/1.4)

System Specifications

Size	7" dia. w 11.2" ht.
Weight	~ 9lb
Pan/Tilt Coverage	360° continuous pan +/-90° tilt
Video Output	NTSC or PAL
Connector Types	BNC with BNC-to-RCA adapter included for video out
Power Requirements	12 VDC to 24 VDC (-10%/+30%)
Power Consumption	25W nominal; 50W max

Environmental

Operating temperature range	-25°C to +55°C
Storage temperature range	-40°C to +85°C
Automatic Window defrost	Standard
Sand/dust	Mil-Std-810E
Window de-icing	Standard
Water Ingress	IPX6
Shock	15 g vertical, 9 g horizontal
Vibration	IEC 60945; MIL-STD-810E
Lightening Protection	Standard
Salt Mist	IEC60945
Wind	100 knot (115.2 mph)
EMI	IEC 60945

Standard Package	Camera head with 18-inch pigtailed for power, analog video, and Ethernet Joystick Control Unit Operator manual
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Warranty	2 Year
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Accessories	Dual Station JCU Low Smoke, Zero Halogen Ethernet Cables Standard cat 5e Ethernet cables Top down mounting riser
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