



M-Series

Premium Multi-Sensor Maritime
Night Vision System

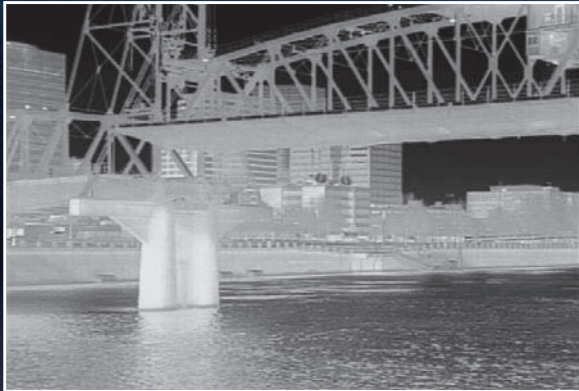


Your Vision



Video camera frame-grab

FLIR Vision



White Hot thermal image

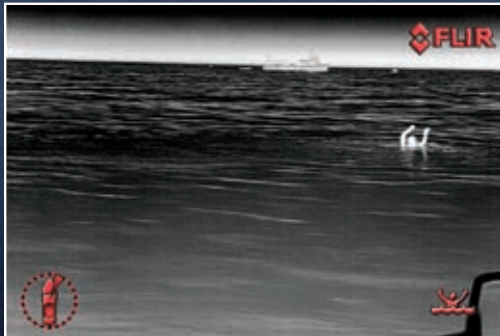
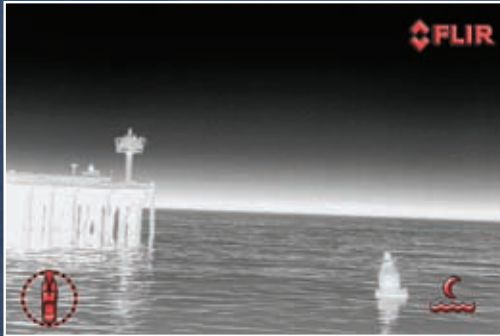
See At Night – Better than ever before

If you boat at night, or even if you think you'd like to someday, then you need M-Series: FLIR's new, premium maritime thermal night vision system.

FLIR thermal imagers let you see clearly in total darkness, using the latest technologies available. In fact, they're the best commercial maritime thermal night vision systems you can find outside of the Pentagon. It's no wonder, coming from the world leader in commercial thermal imaging systems – FLIR.

M-Series cameras feature:

- **Clearest, most detailed thermal imagery**– M-Series cameras deliver up to four-times the resolution of other systems, giving you clear, sharp images with detail you never thought possible in such an affordable thermal night vision system.
- **More than twice the detection range of earlier systems**– The new M-Series systems use FLIR's latest generation of thermal imagers. Featuring the highest sensitivity, and more than double the range performance of current systems, M-Series cameras let you see more - and see farther - even in the dead of night. M-Series systems are available with either standard resolution or high resolution thermal imagers.
- **Lowlight TV Camera**– Provides enhanced navigational abilities during twilight hours, when operating along intracoastal waterways, and near harbor entrances. Anywhere you can see a little, the lowlight camera will help you see more.
- **Color on-screen symbology**– Part of FLIR's exclusive Accu-Point control and display technology, M-Series cameras have detailed, 3D color on-screen symbology that gives you instant access to system status, position, and configuration.



Navigation

Thermal imaging cameras make navigation safer and take the guesswork out of cruising day and night. FLIR imagers provide crystal-clear video regardless of lighting conditions, helping you to see and avoid virtually any natural or man-made obstacle, like floating debris, outcroppings of land, bridge abutments, and other vessels. Navigate with confidence, and with the best capability to see the course ahead.

Find people in the water

The thermal imagers available in the M-Series provide maximum thermal contrast through the use of a custom “man overboard” mode that maximizes your ability to locate a person in the water quickly. In fact, more Coast Guards, Police Agencies, and Military organizations use FLIR’s powerful maritime thermal imaging systems for search and rescue than all other brands combined.

Easy to use

FLIR multi-sensor thermal night vision systems are easy to use and require no training. Unlike radars, GPS systems, and digital chart plotters – which require training, practice, and skill to master – the images you get from thermal cameras are intuitive and easy to understand. If you can watch TV, you can use a FLIR.

Complements other on-board electronics

FLIR’s multi-sensor thermal night vision cameras round-out your electronics suite like nothing you could imagine: GPS and chart plotters tell you where you are and where you are going; radars alert you to nearby vessels; but nothing lets you see what’s out there like a FLIR thermal camera. Once you pilot a boat with a FLIR installed, you’ll never want to be without one again.

M-Series Control Unit

The M-Series controller is simple to use, provides precise system control, and lets users access all of the important camera functions with push-button controls. Controller functions include:



Heated LCD screen – Instantly displays system status.

User-programmable “hot key” for commonly used functions.

Scene selection allows the operator to optimize the system’s performance for specific situations – Night Running, Day Running, Night Docking, and Man Overboard.

User-selectable color palettes change the video display mode for easier viewing based on operator preference.

User-programmable Home button allows the operator to point the gimbal to pre-defined position with the push of a button.

Precision proportional pointing control is provided through a custom, sealed, 8-way iDrive style control knob.

Backlit for easy nighttime readability; the sealed buttons are easy to see and provide positive tactile feedback.

The controller is fully sealed for survival in maritime environment, and meets IPx6 standards.

Install as many control stations around your vessel as you want, thanks to the system’s easy Ethernet connectivity.

Night Running



Day Running



Night Docking



Man Overboard





M-Series inside and out

The M-Series gimbal re-defines maritime multi-sensor system design, drawing on FLIR's 25 years of experience in building combat-proven airborne and maritime thermal imagers for militaries, Coast Guards, and governmental agencies around the world. If you want to use a tougher, better-performing FLIR, you'll have to join the Special Forces.

360° continuous pan and +/-90° tilt provides uninterrupted coverage, from horizon to horizon.

Fully marinated for survivability in demanding maritime environments, M-Series meets IPx6 standards.

Automatic window heaters keep both sets of optics free of ice and delivering crystal clear video.

2X and 4X e-zoom functions give the thermal camera best-in-class range performance.*

Mount gimbal ball-up or ball-down for added flexibility.

Simple Ethernet connections and IP addressability make the system simple to install and easy to control.

Proprietary, patent-pending, image enhancement algorithms called Digital Detail Enhancement (DDE) let all of FLIR's front-line products see more in the most challenging conditions.

Standard video signal displays on any monitor with an auxiliary video input.

Watch thermal and lowlight video simultaneously on multiple displays or single multi-function display.

*2x e-zoom only, in standard resolution

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

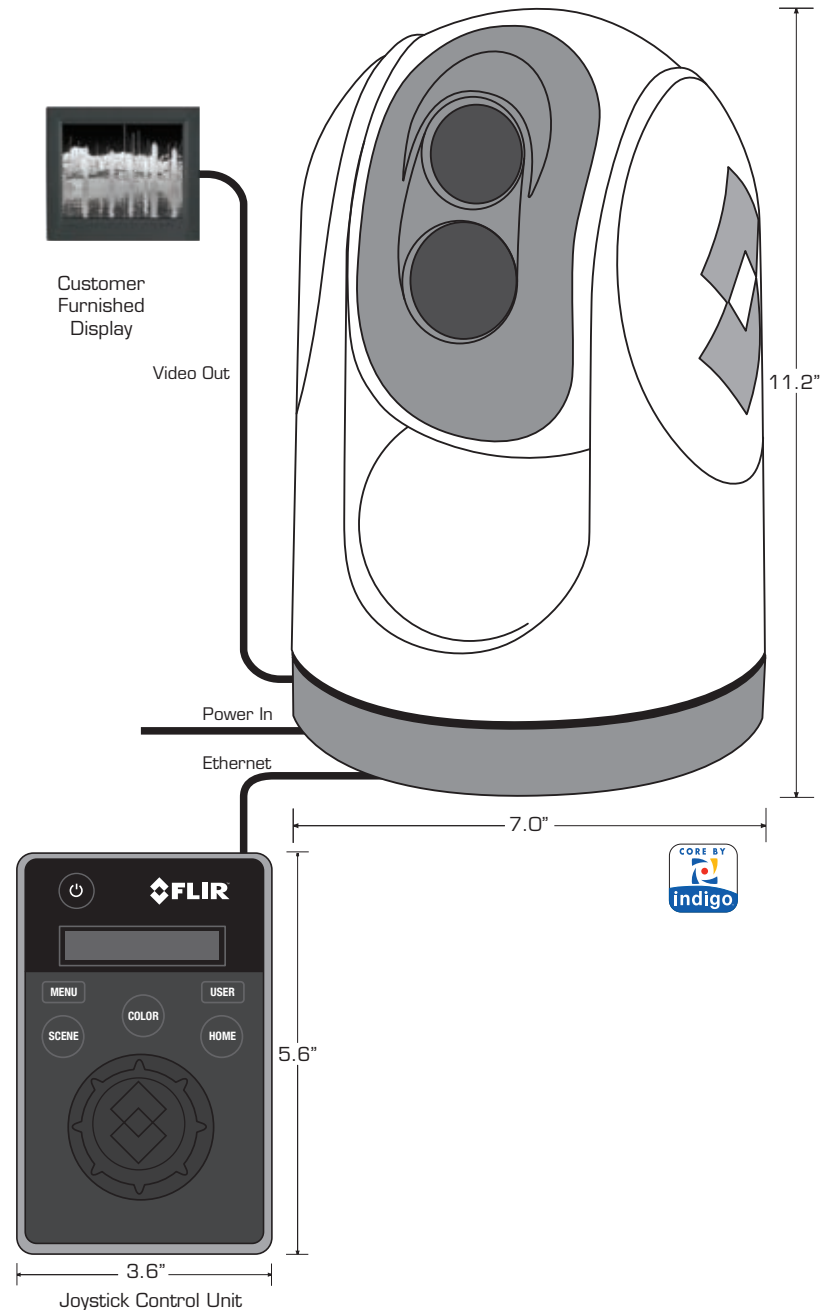
Camera head with 18-inch pigtails for power, analog video, and Ethernet
Joystick Control Unit
Operator manual

Warranty

2 Year

Accessories

Dual Station JCU
Low Smoke, Zero Halogen Ethernet Cables
Standard cat 5e Ethernet cables
Top down mounting riser



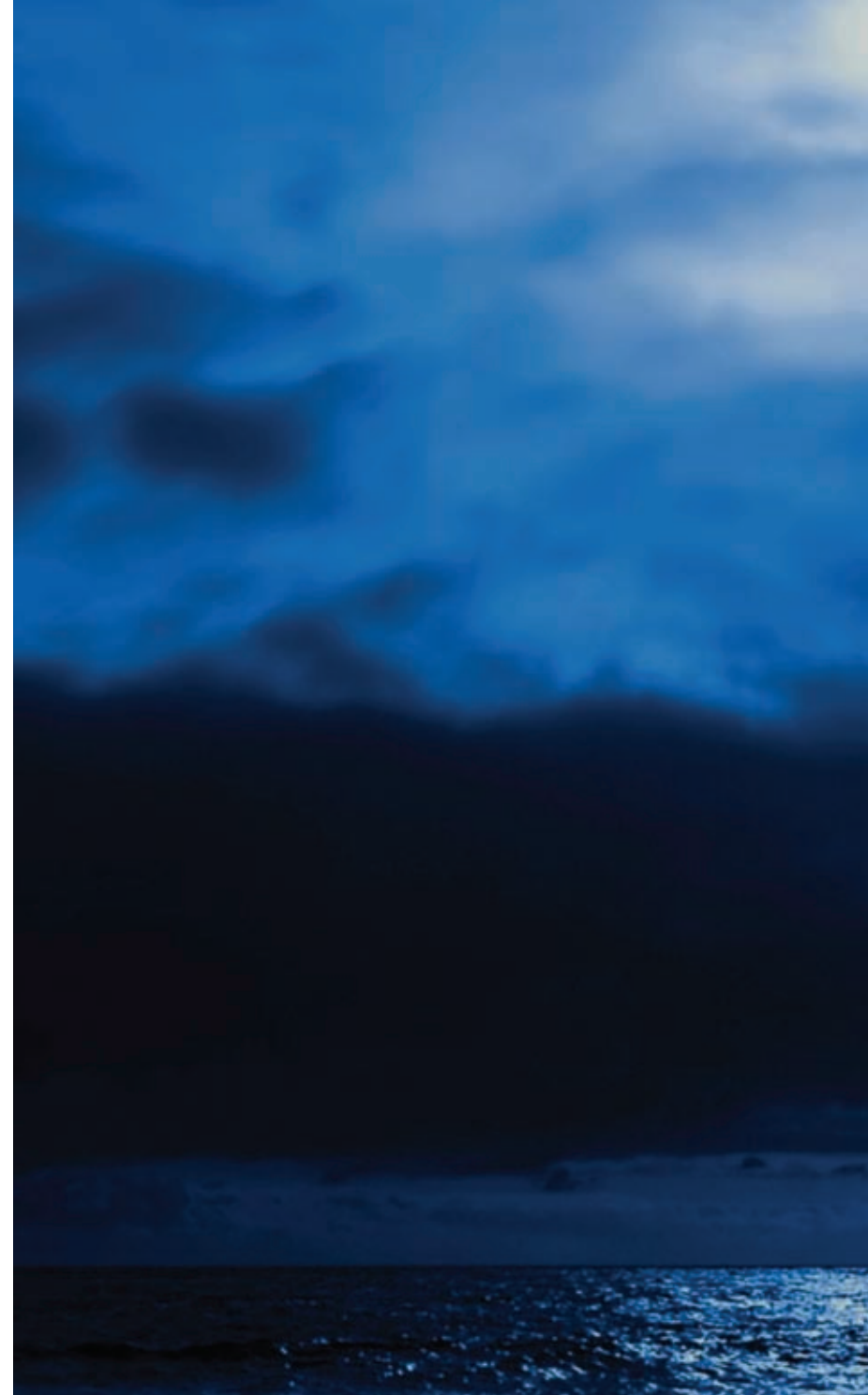


About FLIR Systems

As the world's largest commercial infrared company, FLIR Systems has fielded more high quality military and law enforcement-grade maritime imaging systems than anyone in the world. Our rugged, stabilized imagers are on thousands of civil and maritime platforms – surface and airborne – in the US and around the world. That's more than every other manufacturer combined.

FLIR's powerful, rugged, all-weather thermal imagers allow you to navigate safely and confidently – seeing obstructions, buoys, and other vessels in total darkness. From the low-cost Navigator II to the revolutionary M-Series, from the long-range Voyager to the battle tested SeaFLIR, FLIR's family of maritime thermal imagers will help you see at night, and keep you safe. Whether you're heading out early, coming home late or cruising around the clock, FLIR has a thermal imager to meet your needs.

For additional technical information, or to see a demonstration of this revolutionary new system, contact a FLIR representative today. You can also visit www.flir.com to watch product videos and see how thermal imaging can keep you safe on the water, night and day.





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