

# FLIR M-Series

## Premium maritime thermal night vision systems

Powerful, flexible, and built to last, the award-winning M-Series is FLIR's premium line of maritime thermal night vision systems.

Available with a variety of sensors and resolutions to meet a wide range of maritime navigation, collision avoidance, security, and search and rescue needs, M-Series is easy to install, integrate, and operate. FLIR M-Series systems use Ethernet connectivity for easy installation, control, and interface with other on-board electronics. The rugged, waterproof pan/tilt enclosure provides a continuous 360° pan and +/-90° tilt.



Dual payload M-Series with thermal and low-light cameras

Single payload M-Series with thermal camera

### Key Features:

- Premium pan/tilt thermal imager
- Thermal only or thermal/lowlight multi-sensor configurations
- Standard- and high-resolution thermal camera options. Available in 320 x 240 and 640 x 480 resolutions
- Network-ready
- Auto-scan feature
- Easy to use joystick control



Red hot Fusion Rainbow



Low-light Video



Black hot White hot



High-resolution detail image

## Different versions available

	M-324XP	M-625XP	M-324L	M-625L	M-618CS	M-612L
Sensor type	320 x 240 VOx Microbolometer	640 x 480 VOx Microbolometer	320 x 240 VOx Microbolometer	640 x 480 VOx Microbolometer	640 x 480 VOx Microbolometer	640 x 480 VOx Microbolometer
FOV (Field of View)	24° x 18°	25° x 20°	24° x 18°	25° x 20°	18° x 14°	12° x 9°
Focal length	19 mm	25 mm	19 mm	25 mm	35 mm	50 mm
E-zoom	2x	2x, 4x	2x	2x, 4x	2x, 4x	2x, 4x
Gyro-stabilized					√	
Image processing	FLIR Proprietary Digital Detail Enhancement	FLIR Proprietary Digital Detail Enhancement	FLIR Proprietary Digital Detail Enhancement	FLIR Proprietary Digital Detail Enhancement	FLIR Proprietary Digital Detail Enhancement	FLIR Proprietary Digital Detail Enhancement
Daylight camera			√	√	√	√
Detect man-sized target	440 m	930 m	440 m	930 m	1,100 m	1,500 m
Detect small vessel	1,250 m	2,800 m	1,250 m	2,800 m	3,300 m	3,900 m



### M-618CS Active gyro-stabilization

The M-618CS is equipped with a 640x480 pixels detector providing a 18° Field of view. It is also equipped with a color TV camera with 36x optical zoom. Ball up installation only.

## Other Features:

- **Heated LCD Screen:** Instant, always legible system status display.
- **Auto Scan Controls:** Program automatic scan speed and pointing angle arc ranging from 40° to 160°
- **Ethernet Connectivity:** Install multiple control stations to control M-Series from anywhere on your vessel



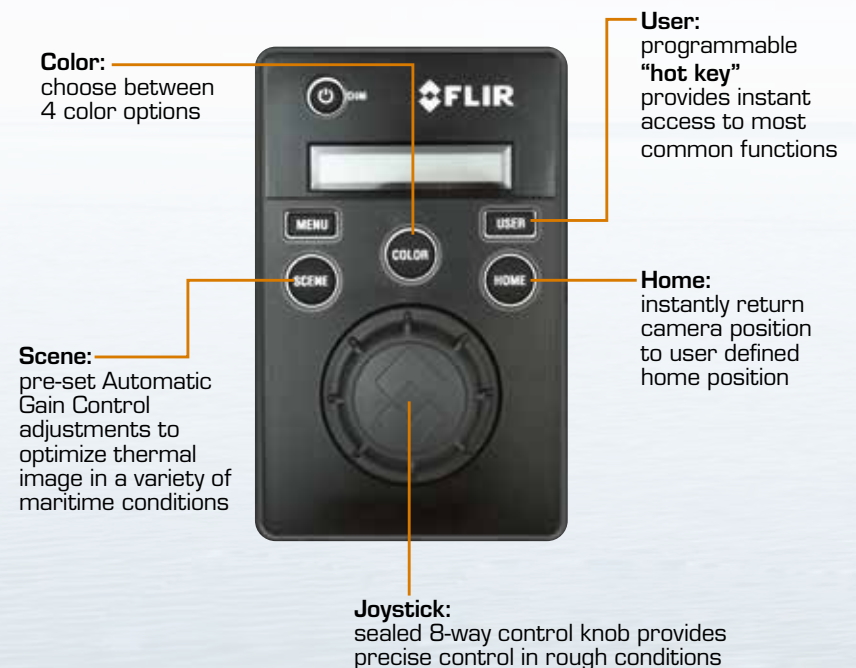
#### On-Screen Icons

M-Series uses FLIR's color on-screen symbology to let you see where the system is pointing, and to give you instantaneous updates regarding the camera's configuration and status.



## Joystick Control Unit

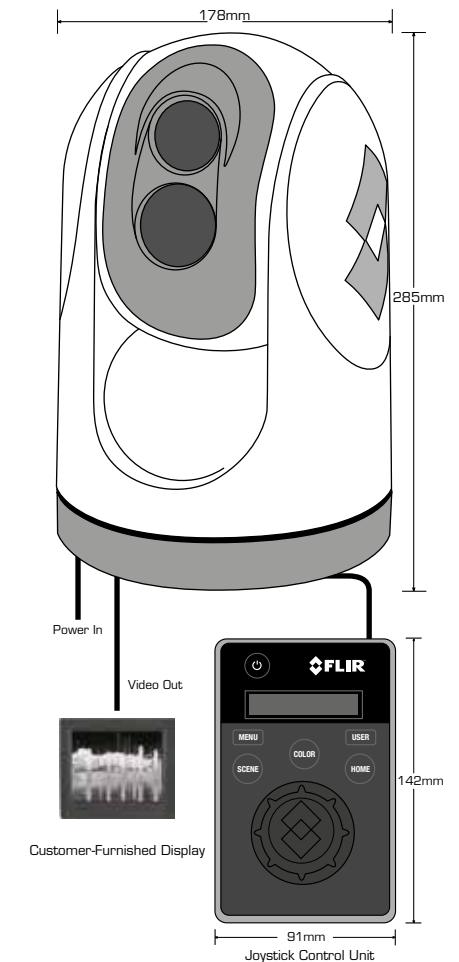
Ergonomic, effortless control of all critical M-Series functions.



## M-series



Thermal imaging specifications	M-324XP	M-625XP	M-324L	M-625L	M-612L	M-618CS
Sensor type	320 x 240 VOx Microbolometer	640 x 480 VOx Microbolometer	320 x 240 VOx Microbolometer	640 x 480 VOx Microbolometer	640 x 480 VOx Microbolometer	640 x 480 VOx Microbolometer
Field of view	24° x 18°	25° x 20°	24° x 18°	25° x 20°	12° x 9°	18° x 14°
Focal length	19 mm	25 mm	19 mm	25 mm	50 mm	35 mm
E-zoom	2x	2x & 4x	2x	2x & 4x	2x & 4x	2x & 4x
Image processing	FLIR Proprietary Digital Detail Enhancement					
<b>Daylight imaging specifications</b>						
Detector type	N/A	1/2" Interline Transfer Lowlight CCD				Color CCD
Lines of resolution	N/A	768 (H) x 494 (V)				530
Minimum illumination	N/A	100 µlx (@ f/1.4)				1.4 lux
FOV	N/A	Matched to IR				58° (H) x 43° (V) w/36x optical zoom matched to IR
<b>System specifications</b>						
Size	178 mm x 285mm.					178 mm x 291mm.
Weight	~ 4 kg					~ 5.2 kg
Pan/tilt coverage	360° Continuous Pan, +/-90° Tilt					
Stabilization	N/A					2-Axis gyro-stabilized
Installation	Ball up / Ball down					Ball up only
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	25 W nominal; 50 W max					
<b>Environmental</b>						
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					
Water ingress	IPx6 (heavy seas, powerful jets of water)					
Shock	15 g vertical, 9 g horizontal					
Vibration	IEC 60945; MIL-STD-810E					
Lightning protection	Standard					
Salt mist	IEC60945					
Wind	100 knot (115.2 mph)					
EMI	IEC 60945					
<b>Thermal range performance†</b>						
Detect man (1.8 m x 0.5 m)	440 m	930 m	440 m	930 m	1,500 m	1,100 m
Detect small vessel (2.3 m x 2.3 m)	1,250 m	2,800 m	1,250 m	2,800 m	3,900 m	3,300 m
<b>Standard package</b>	Camera Head with 18-inch Pigtails for Power, Analog Video, and Ethernet; Joystick Control Unit; 25' LSZH Ethernet Cable, Operator Manual					
<b>Warranty</b>	3 Year (with product registration)					
<b>Optional accessories</b>	Dual Station JCU; Low Smoke Zero Halogen Ethernet Cables; Top-Down Mounting Riser					



† = Actual object detection range performance may vary depending on camera set-up, environmental conditions, user experience, and type of display use. All specifications are subject to change without notice. Visit [www.flir.com](http://www.flir.com) for the most up-to-date specifications.