

M364C-USV

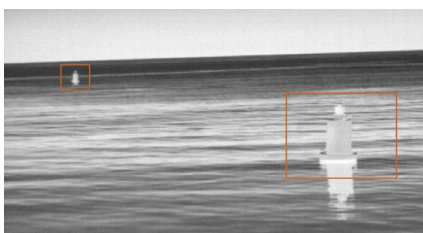
MULTISPECTRAL MARINE CAMERAS FOR USV APPLICATIONS



Purpose-Built Imaging for Uncrewed Operations

The FLIR M364C-USV and M364C LR-USV are engineered for uncrewed surface vessels (USVs) and persistent maritime operation. Built on a proven marine platform with enhanced hardware and software, they deliver reliable, aligned electro-optical/infrared (EO/IR) imaging for autonomous awareness and control.

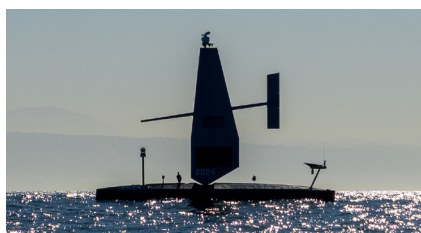
- Tuned for autonomous and remote workflows
- Stable software and interfaces for long-duration missions
- Clean, aligned video outputs for AI and autonomy pipelines
- Engineered and tested for continuous $24 \times 7 \times 365$ operation



Aligned Multispectral Sensing for Autonomous Decision Support

Thermal and visible sensors are optically aligned to a common field of view, enabling consistent target tracking across imaging modes.

- Thermal and visible payloads maintain alignment for precise multi-sensor cueing
- Color Thermal Vision (CTV) adds visual context to thermal detections
- Multispectral Dynamic Imaging (MSX) enhances edges and structure
- Marine Video Analytics (MVA) highlights non-water objects
- Consistent target representation supports autonomy and perception systems



Stable, Long-Range Observation in All Conditions

High-definition visible imaging and stabilization deliver consistent awareness across day, night, and degraded environments.

- HD low-light visible sensor supports near-dark operation
- 30x optical zoom enables long-range identification
- Mechanical stabilization with integrated AHRS maintains stability, even while panning
- Continuous pan and wide tilt range support full-area coverage
- Predictable image behavior supports remote operators and machine vision systems



Designed for Autonomy and System Integration

Built for USV developers, the M364C-USV platforms provide robust interfaces, synchronized data, and flexible control for autonomy stacks.

- Deterministic pan, tilt, and zoom control for closed-loop systems
- Metadata synchronized with video and NTP time alignment
- ONVIF Profile S compliance for interoperability
- Open SDK and Nexus CGI for development and control
- Configurable video streams for AI, recording, or transmission

SPECIFICATIONS

THERMAL CAMERA	M364C-USV	M364C LR-USV
Detector Type	640x512 VOx Microbolometer	
Video Refresh Rate	30 Hz or <9 Hz	
Field of View	24 ° x 19.2 °	18 ° x 14.4 °
Focal Length	18 mm	25 mm
Focus	Fixed 12 ft (3m) to infinity	
Optical Zoom	N/A	
Digital-Zoom	4x Continuous	
VISIBLE CAMERA		
Detector Type	1/2.8" CMOS	
Resolution	Up to 1920 x 1080 @ 30fps	
Minimum Illumination	Low Light Setting ON: 0.00063 lux / Low Light Setting OFF: 0.009 lux	
Optical Zoom	30x	
Digital-Zoom	12x	
Focal Length	129 mm to 4.3 mm	
Field of View	64.0° x 38.7° WFOV to 2.3° x 1.3° NFOV	
SYSTEM SPECIFICATIONS		
Gyro Stabilized	Yes	
Marine Video Analytics (MVA)	Yes	
Pan/Tilt Adjustment Range	360° Continuous Pan, +/- 90° Tilt	
Color Thermal Vision	Yes	
Analog Video Output	NTSC/PAL User Settable	
Analog Video Connector Types	BNC	
Network Video Output	2 HD H.264 Main Streams, 2 H.264 Sub Streams, 1 Live Stream	
HD-SDI Lossless Video Output	Yes	
Power Requirements	12 to 24 VDC	
Power Consumption	41W nominal; 56W w/ heaters	
ONVIF	Profile S Conformance	
ENVIRONMENTAL		
Operating Temperature Range	-13°F to +131°F (-25°C to +55°C)	
Storage Temperature Range	-30°F to +158°F (-30°C to +70°C)	
Automatic Window Defrost	Standard at Power-Up	
Water Ingress	IP66	
Shock	15g vertical, 9g horizontal	
Vibration	IEC60945	
Lightning Protection	Near Strike up to 2kV	
Salt Mist	IEC60945	
EMI	IEC60945	
PHYSICAL		
Weight	Camera: 13.9lbs (6.3kg) / Camera with Top-Down Riser: 14.9lbs (6.8kg)	
Size	Camera: 8.7" (222mm) x 12.9" (328mm) / Camera with Top-Down Riser: 10.0" (254mm) x 14.4" (366mm)	
CLEAR WEATHER RANGE PERFORMANCE		
Detect a 30-foot Vessel	3.2nm (5.92km)	4.26nm (7.89km)
NATO Target 2.3m x 2.3m @50%	0.95nm (1.76km)	1.26nm (2.34km)
Detect Human Sized Target	0.39nm (725m)	0.52nm (966m)

* Always check display manufacturer's website and technical documentation for the latest information regarding camera/display compatibility.
The appearance of U.S. Department of Defense (DoD) visual information does not imply or constitute DoD endorsement.

USA
Teledyne FLIR Maritime US Inc.
110 Lowell Road
Hudson, NH 03051
United States of America

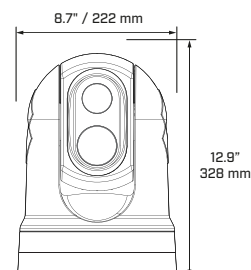
EUROPE
Teledyne FLIR LLC
Marine House, Cartwright Drive,
Fareham, PO15 5RJ
UK

WARRANTY

The FLIR M364C-USV and M364C LR-USV are covered by a 2-year limited warranty. Designed for persistent operation and high-duty cycle use, these systems are supported by Teledyne FLIR's global service and technical support network.

For complete warranty details, visit marine.flir.com.

Equipment described herein is subject to US export regulations and may require a license prior to export. Diversion contrary to US law is prohibited. Imagery for illustration purposes only. Specifications are subject to change without notice. ©2026 Teledyne FLIR Maritime US Inc.



TELEDYNE
FLIR Marine