

WEOM® Thermal Camera Core for Maritime Applications



WEOM® THERMAL CAMERA CORE

WEOM® thermal cameras are exceptionally well-suited for installation on ships and other maritime vessels. In the demanding maritime environment, where visibility and safety are critical, the advanced features and robust design of the WEOM® thermal camera core provide unparalleled support. Furthermore, they significantly contribute to maritime security, assisting in the detection of unauthorized vessels and suspicious activities. Their versatility extends to environmental monitoring, equipment maintenance, and search and rescue operations, making them an indispensable tool for a wide range of maritime applications.

Enhanced Navigation and Safety

Navigating at sea, especially at night or in poor weather conditions, poses significant challenges. The WEOM® thermal camera core provides high-resolution thermal imaging, which is crucial for detecting obstacles, other vessels, and potential hazards that are not visible to the naked eye or conventional navigation systems. By integrating WEOM® thermal cameras into a ship's navigation system, crew members can safely navigate through fog, rain, and darkness, significantly reducing the risk of collisions and grounding.



Search and Rescue Operations

In emergency situations, such as man-overboard incidents or search and rescue missions, time is of the essence. WEOM® thermal cameras can quickly locate individuals in the water by detecting their body heat, even in rough sea conditions or at night. This capability significantly increases the chances of successful rescues and reduces response times. The high sensitivity and resolution of the WEOM® core ensure that even small heat signatures can be detected from considerable distances.

BENEFITS OF THE WEOM® THERMAL CORE IN MARITIME APPLICATIONS

Enhanced Navigation and Safety

The WEOM® thermal camera core enhances maritime navigation by providing high-resolution thermal imaging, crucial for detecting obstacles, other vessels, and hazards in low visibility conditions like night, fog, or heavy rain. This reduces collision risks, ensuring the vessel's and crew's safety, facilitating secure maritime operations.

Effective Surveillance

Ideal for continuous monitoring, the WEOM® thermal camera core detects vessels and monitors activities even in poor visibility, providing real-time data essential for maintaining security on and around the vessel. This capability enhances overall maritime safety operations, ensuring a secure environment for maritime traffic.

Search and Rescue Efficiency

In emergencies, such as man-overboard incidents, the WEOM® thermal camera core quickly locates individuals by detecting body heat, even in rough sea conditions or at night. This high sensitivity ensures small heat signatures are detectable from distances, significantly improving the effectiveness and speed of rescue operations.

Equipment and Infrastructure Monitoring

The WEOM® thermal camera core monitors critical components like engines and electrical systems, detecting overheating or malfunctions before they escalate into serious issues. Regular thermal inspections ensure optimal system conditions, reducing the risk of equipment failure and enhancing the operational efficiency and safety of maritime operations.

Equipment and Infrastructure Monitoring

Onboard equipment and infrastructure, such as engines, electrical systems, and cargo holds, can be monitored using WEOM® thermal cameras to detect overheating or malfunctions before they escalate into serious issues. Regular thermal inspections help in maintaining the vessel's systems in optimal condition, reducing the risk of equipment failure and extending the lifespan of critical components. This preventative maintenance approach enhances overall operational efficiency and safety.

Modular and Flexible Solution

The WEOM® thermal core offers a range of output formats and control interfaces, including HDMI, CVBS, USB3, CMOS, and GigE. This modularity provides integrators with the flexibility to tailor the system to specific application requirements. The ability to choose from various lenses with focal lengths ranging from 7.5 mm to 35 mm and different fields of view further enhances the core's adaptability. This feature is particularly beneficial in applications requiring customized imaging solutions, such as surveillance drones that need a wide field of view for area monitoring or industrial inspection robots that require a narrow focus for detailed examination.



Enhanced Navigation and Safety

The high-resolution thermal imaging capabilities of WEOM® cameras enable safe navigation by detecting obstacles and hazards in low visibility conditions.

Surveillance and Security

Continuous monitoring and real-time detection of unauthorized vessels and suspicious activities enhance maritime security.

Search and Rescue Operations

The ability to detect body heat in water increases the effectiveness and speed of rescue missions, potentially saving lives.

Monitoring Environmental Conditions

Real-time monitoring of sea surface temperatures and other parameters aids in navigational and operational decision-making.

Equipment and Infrastructure Monitoring

Regular thermal inspections help in identifying and addressing equipment malfunctions, preventing serious issues and enhancing operational efficiency.

Rugged and Reliable Design

With wide operating temperature range, WEOM® cameras are built to withstand the harsh maritime environment, ensuring reliable performance.

The WEOM® thermal camera core represents a state-of-the-art solution for maritime vessels requiring superior imaging capabilities, robust design, and versatile applications. Its integration into maritime operations enhances safety, security, and efficiency, making it an indispensable tool for modern maritime navigation and surveillance.

