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WIRELESS SAFETY

Marine Brochure

Completely Wireless
Robust Mesh Network
Remote Monitoring via REACT

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WES3 Product Overview

Comprehensive and Reliable Wireless Safety Solutions for Shipyards and Vessels

WES3 is a fully wireless system specifically designed to provide a simple, fast, and secure method of communicating and alerting personnel during emergencies. Battery-operated and completely wireless, WES3 can be quickly deployed and remotely monitored without the need for cabling or mains power, making it ideal for the dynamic environments of shipbuilding and repair. When integrated with REACT, the system offers enhanced real-time alerts and comprehensive monitoring capabilities. Whether protecting vessels in drydock or large shipyard facilities, WES3 can be easily customized to meet the unique challenges of maritime construction and maintenance projects.

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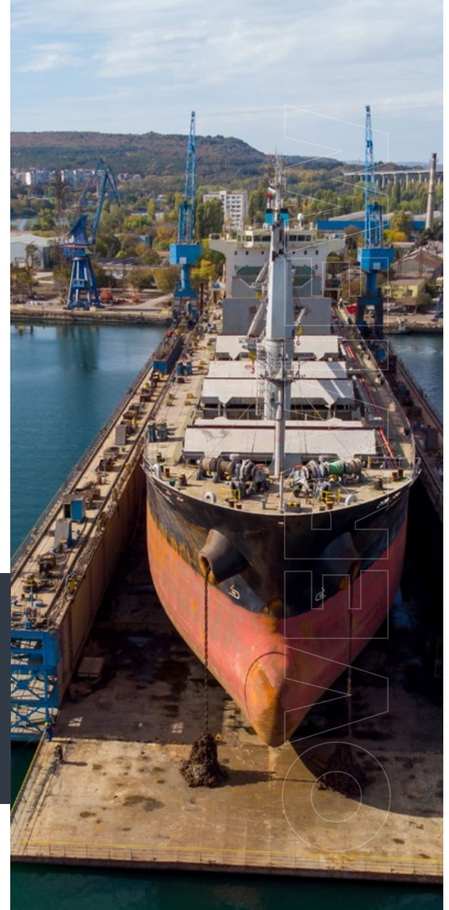

Connect Control Unit

Connect is the real brains behind the WES3 system, enabling full management and real-time diagnostics and alarm activations for any connected unit in the network.

Manual Call Point

The Manual Call Point allows a fire or evacuation alarm to be raised from any unit on-site, initiating a site-wide alarm. It also includes a medical alert button for immediate medical assistance.

Heat Sensor

Incorporating heat sensors into your WES3 network allows for automatic 24/7 fire detection. These sensors are ideally suited for locations where smoke sensors may not be effective.

Smoke Sensor

Incorporating dust-resistant smoke sensors into your WES3 network provides early fire detection while eliminating false alarms caused by dust.

Interface

Allows WES3 to seamlessly integrate with third-party systems, such as permanent fire alarms, Building Management Systems, standpipe flow switches, and more.

Link

A simple repeater unit that boosts the radio signal capability in particularly large, complex, or high-density sites.

REACT

REACT is a cloud-based platform that delivers accurate, real-time, and customized alerts via a simple-to-use mobile app to all relevant personnel during a site incident or emergency.

The only wireless safety system with instant, site-wide alerts, ensuring unparalleled protection and response time.

WES

WES3 revolutionized our evacuation process, cutting evacuation time by 83.5%. We went from evacuating 30 workers in 7 minutes on a 5,000 sq. ft. site to evacuating 130 workers in just 5 minutes on a 155,000 sq. ft. site. The efficiency and safety improvements are remarkable.

ANTONIO CACCIACARRO
Implementation Manager, PCL

EVACUATE

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Fire Safety Standards

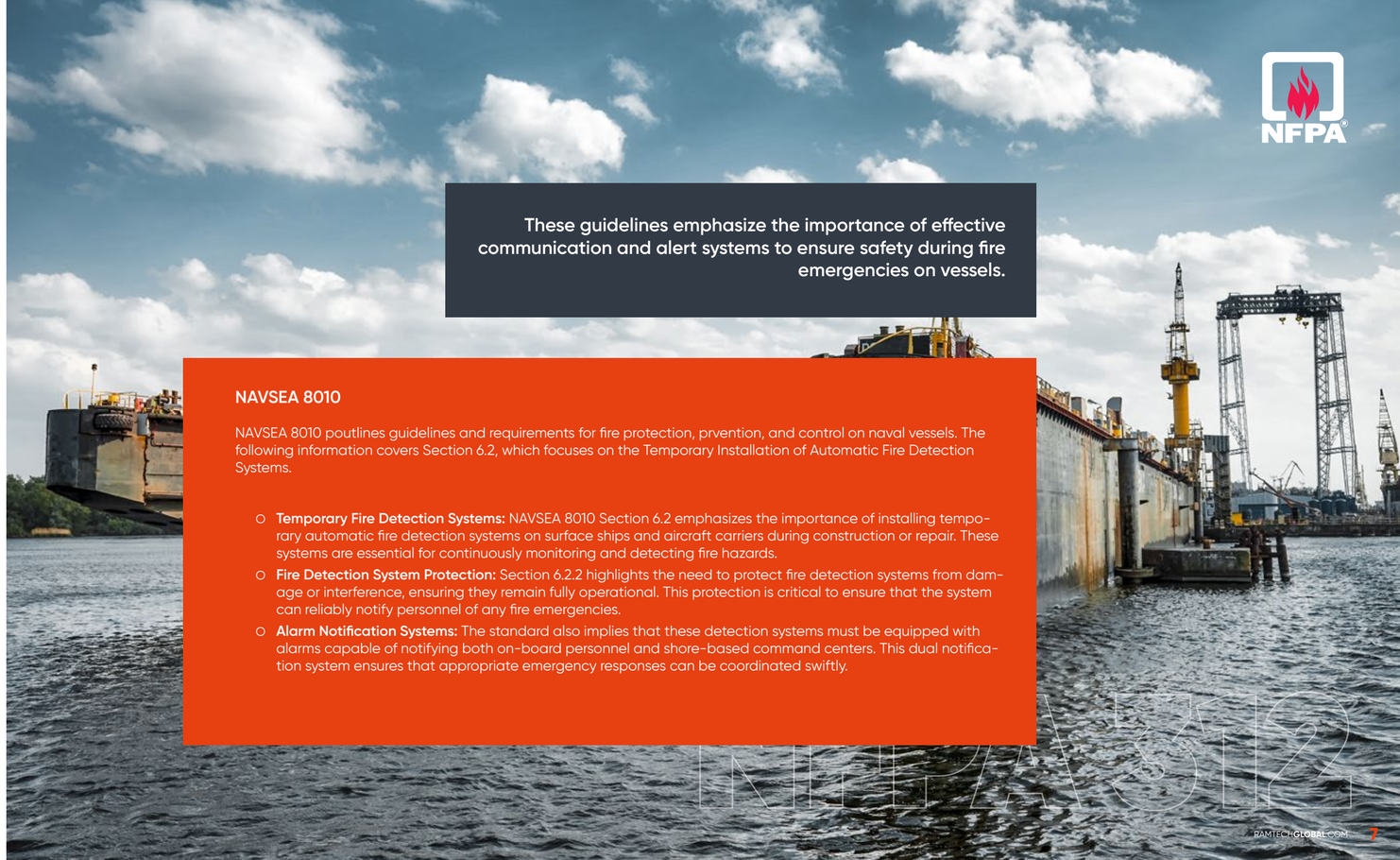
Fire Safety Standards During Vessel Construction, Repair, and Maintenance: Understanding NFPA 312 and NAVSEA 8010

Fire safety is paramount in maritime environments, particularly during vessel construction, repair, and maintenance. This page provides an overview of two key standards: NFPA 312, which offers comprehensive guidelines for fire protection on vessels during construction, conversion, repair, and lay-up, and NAVSEA 8010, which outlines stringent fire safety requirements for naval vessels.

NFPA 312

NFPA 312 applies to vessels undergoing construction, conversion, repair, or lay-up, establishing requirements to prevent or limit fire spread. The following information highlights the key points from Chapter 5.14, which focuses on Fire Detection and Fire Alarms.

- **Fire Detection and Alarm Systems:** Chapter 5.14.1 of NFPA 312 mandates that there must be a system in place to alert all individuals aboard the vessel in the event of a fire. This ensures that everyone is immediately aware of an emergency, allowing for prompt evacuation and firefighting efforts.
- **Posting of Fire Procedures:** Chapter 5.14.2 requires that clear instructions on what to do in case of a fire must be posted at the point of vessel access. This ensures that all personnel are informed of the procedures and can act quickly when a fire is detected.
- **Communication Systems for Emergencies:** Chapter 5.14.3 specifies that vessels must maintain two-way voice radio or telephone communication for emergency purposes. This allows for continuous communication and coordination during an emergency, ensuring that the situation is managed effectively.

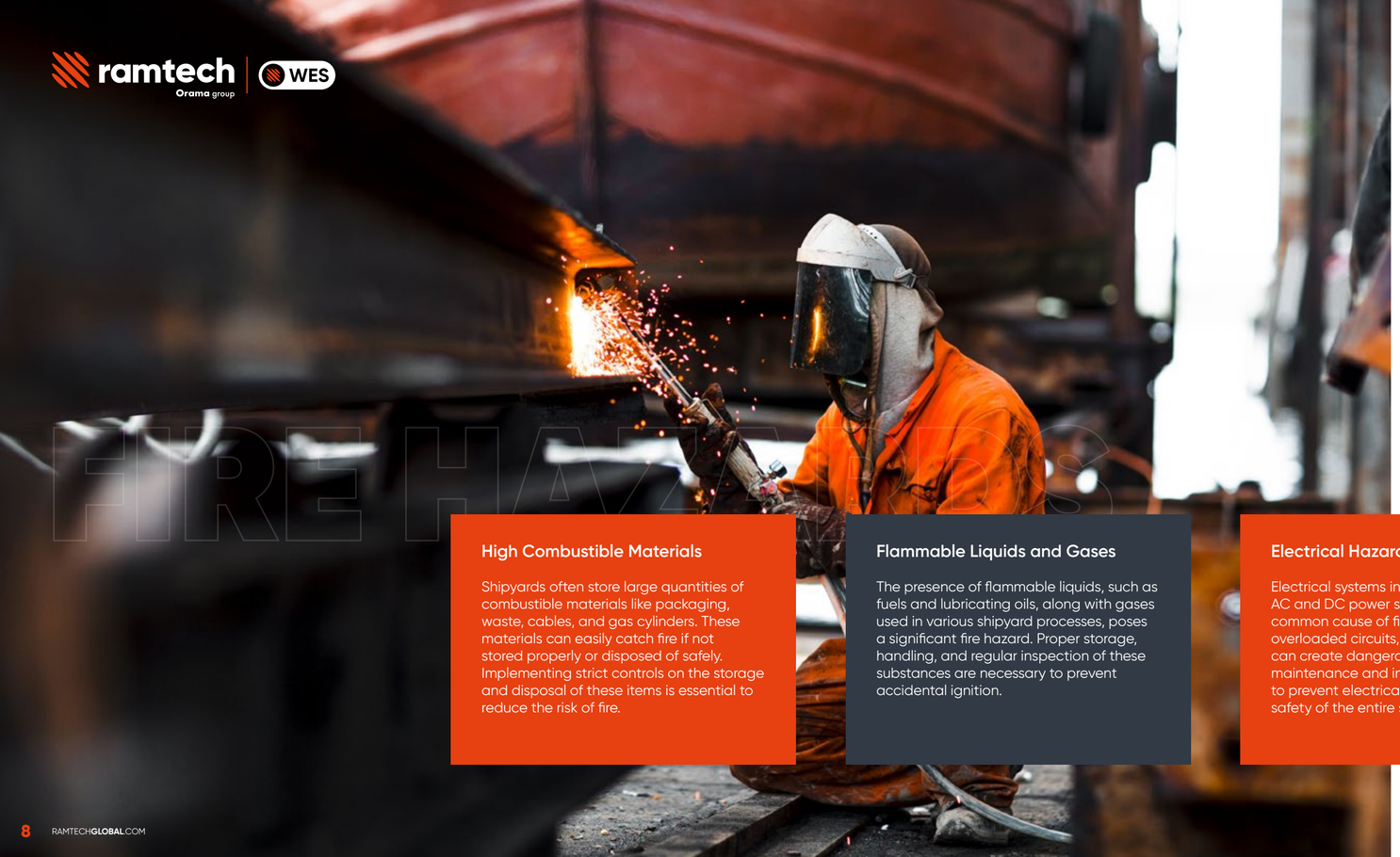


These guidelines emphasize the importance of effective communication and alert systems to ensure safety during fire emergencies on vessels.

NAVSEA 8010

NAVSEA 8010 poutlines guidelines and requirements for fire protection, prvention, and control on naval vessels. The following information covers Section 6.2, which focuses on the Temporary Installation of Automatic Fire Detection Systems.

- **Temporary Fire Detection Systems:** NAVSEA 8010 Section 6.2 emphasizes the importance of installing temporary automatic fire detection systems on surface ships and aircraft carriers during construction or repair. These systems are essential for continuously monitoring and detecting fire hazards.
- **Fire Detection System Protection:** Section 6.2.2 highlights the need to protect fire detection systems from damage or interference, ensuring they remain fully operational. This protection is critical to ensure that the system can reliably notify personnel of any fire emergencies.
- **Alarm Notification Systems:** The standard also implies that these detection systems must be equipped with alarms capable of notifying both on-board personnel and shore-based command centers. This dual notification system ensures that appropriate emergency responses can be coordinated swiftly.



FIRE HAZARDS

Understanding the Increased Fire Risks

Identifying, Managing, and Mitigating Common Hazards Found in Shipyard Environments

Shipyards are complex environments where numerous fire hazards exist. Potential ignition sources are everywhere—ranging from hot works and vehicles fueled by gas or diesel to electrical installations, heating equipment, and even smoking areas. If not properly managed, these elements can easily spark a fire, leading to severe consequences. Ensuring the safe handling and constant monitoring of these activities is crucial to maintaining a secure environment.

Here are some examples of fire risks commonly found in shipyards:

High Combustible Materials

Shipyards often store large quantities of combustible materials like packaging, waste, cables, and gas cylinders. These materials can easily catch fire if not stored properly or disposed of safely. Implementing strict controls on the storage and disposal of these items is essential to reduce the risk of fire.

Flammable Liquids and Gases

The presence of flammable liquids, such as fuels and lubricating oils, along with gases used in various shipyard processes, poses a significant fire hazard. Proper storage, handling, and regular inspection of these substances are necessary to prevent accidental ignition.

Electrical Hazards

Electrical systems in shipyards, including AC and DC power sources, are a common cause of fires. Faulty wiring, overloaded circuits, or exposed cables can create dangerous conditions. Regular maintenance and inspections are vital to prevent electrical fires and ensure the safety of the entire site.

Diverse Workforce

A shipyard's workforce is often made up of subcontractors from various trades, each with their own safety protocols. Coordinating safety measures across this diverse group can be challenging, increasing the likelihood of accidents. Consistent communication and training are key to ensuring everyone is aware of the fire risks and how to mitigate them.

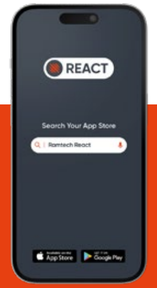
Tight Deadlines and Rushed Work

The pressure to meet construction timelines can sometimes lead to rushed work, which increases the risk of errors and accidents. These mistakes can lead to fires or other safety hazards. It's important to balance efficiency with safety, ensuring that all work is completed to the highest standards without cutting corners.

24/7 Fire Protection for Shipyards and Vessels

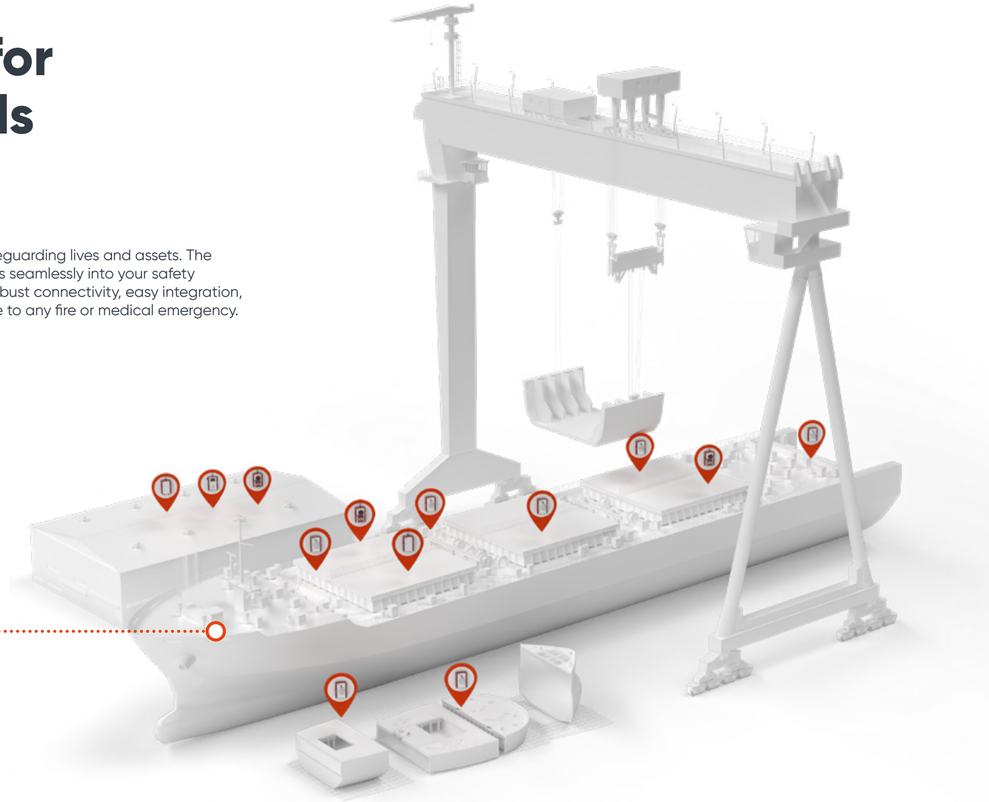
WES3 Wireless Fire and Evacuation System

Ensuring continuous protection in shipyards and vessels is essential for safeguarding lives and assets. The WES3 system provides a reliable, around-the-clock solution that integrates seamlessly into your safety protocols. Designed for the most challenging environments, WES3 offers robust connectivity, easy integration, and real-time monitoring to guarantee immediate detection and response to any fire or medical emergency.



REACT

REACT adds real-time alerts, remote monitoring, and full system oversight, ensuring swift emergency responses.



Stay protected around the clock with these essential features:

Robust Mesh Radio Network

WES3's robust mesh radio network ensures reliable, uninterrupted communication across even the most challenging environments.

Manual Push Button for Emergencies

Quickly raise fire, evacuation, or medical alerts, ensuring immediate response during critical situations.

24/7 Protection with Automatic Sensors

Continuous monitoring with smoke and heat sensors that automatically detect and alert you to potential fire hazards.

Seamless System Integration

Easily integrates with other on-site systems, enhancing overall safety infrastructure.

IP55 Rated for Outdoor Use

Designed to withstand harsh outdoor conditions, making it suitable for use in diverse environments.

Full 4G Connectivity

Enables off-site communications, ensuring that alerts and system status updates can be accessed remotely.

WES3 Connect Control Unit

Centralized Monitoring and Management with Connect

WES3 Connect Control Unit serves as a centralized command center for your wireless fire and evacuation system, offering comprehensive monitoring and management of all WES3 devices deployed across shipyards and vessels during construction. With the capacity to oversee up to 999 connected units, Connect Control Unit provides real-time data and alerts, ensuring complete visibility and control over your site's safety operations.

Built for toughmenvironments, WES3 Connect helps you quickly respond to fire alerts, medical emergencies, and system updates, improving both safety and efficiency. Plus, it works seamlessly with the REACT app, letting you manage and monitor your site from anywhere, ensuring 24/7 protection and peace of mind.

User-Friendly Interface

Feature: WES3 Connect Control Unit features an intuitive interface with a large color LCD display and an alphanumeric keypad for easy navigation and operation.

Benefit: Simplifies the management of your safety system, allowing for quick access to critical information and reducing the learning curve for new users.

Scalable Network Integration

Feature: Capable of managing up to 999 devices across a large site, with seamless integration into your existing safety infrastructure.

Benefit: Ensures comprehensive coverage, making it ideal for shipyards and vessels of all sizes and complexities, with the flexibility to scale as your needs grow.

4G Connectivity

Feature: Equipped with 4G connectivity, the Connect Control Unit enables remote monitoring and alert distribution to designated personnel via SMS, email, or the REACT app.

Benefit: Ensure that key team members are always in the loop, regardless of their location, enhancing overall site safety.

Real-Time Alerts and Monitoring

Feature: Instantly receive notifications for any alarm activations, low battery warnings, or signal failures, ensuring you stay ahead of potential issues.

Benefit: Stay connected and informed, no matter where you are, with real-time updates that allow for prompt action and decision-making.

WES3 Manual Call Point

Manual call point for fire, evacuation, and medical emergencies

WES3 Manual Call Points are critical for maintaining safety during shipyard operations and onboard vessels during construction, repair, or maintenance. Strategically placed throughout your site, these units allow crew members to instantly raise alarms—whether for fire, evacuation, or medical emergencies—with a single press of a button. Once activated, the alert is immediately transmitted to the central control unit, which initiates a coordinated site-wide response. Flashing strobes and loud sirens on all connected units ensure that everyone is promptly alerted to take action. Additionally, these call points integrate seamlessly with smoke and heat sensors, enabling automatic alarms when hazards are detected, providing comprehensive and dependable protection for your entire operation.

Three-in-One Unit

Feature: WES3 Manual Call Point can raise fire, evacuation, and medical alerts from a single device.

Benefit: Streamlines emergency response by consolidating multiple alert functions into one easy-to-use unit, reducing the need for separate devices and ensuring that all types of emergencies are covered.

Integrated First Aid Button

Instantly summon medical help with a single press, ensuring rapid response in emergencies.

Durable and Weather-Resistant

Designed for both indoor and outdoor use, the WES3 Manaul Call Point is built to withstand harsh conditions with an IP55 rating.

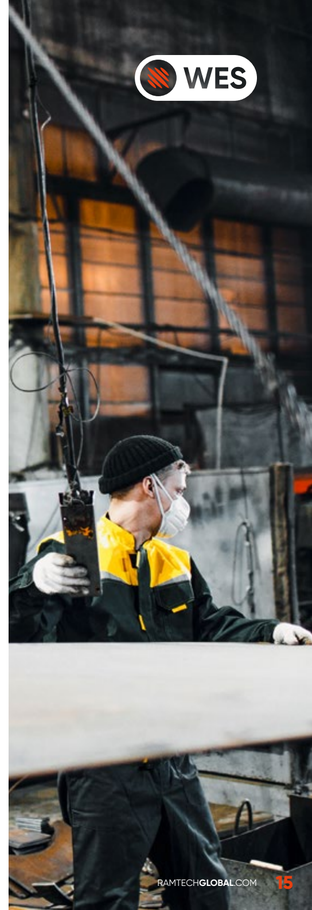
> Raise fire, evacuation, or medical alert instantly with a single press of a button.

Loud and Clear Alerts

Equipped with a powerful 94dB (A) horn and a bright strobe light to ensure the alarm is both seen and heard.

Fire Call Point Button

This button is prominently positioned for quick access, ensuring a swift and effective response when every second counts.



WES3 Heat and Smoke Sensors

24/7 Automatic Detection with Integrated Heat and Smoke Sensors

WES3 Heat and Smoke Sensors are vital to a comprehensive safety system, delivering continuous monitoring and early detection of fire hazards. Engineered for demanding environments such as shipyards and construction sites, these sensors provide round-the-clock protection, ensuring your site is always guarded against potential fire risks. Equipped with advanced technology to minimize false alarms, WES3 Heat and Smoke Sensors are a crucial component of your safety strategy, offering reliable and robust fire detection where it matters most.

WES3 Smoke Sensor

WES3 Smoke Sensor leverages cutting-edge dual-optic technology to accurately detect smoke particles while minimizing false alarms from dust and contaminants. With a 25-foot coverage radius, it ensures early fire detection, making it perfect for high-risk areas.

WES3 Heat Sensor

WES3 Heat Sensor is your go-to solution for challenging environments where smoke detection falls short, such as steamy areas. Triggered when temperatures rise above 135°F, this sensor provides dependable fire detection within a 17.5-foot radius. Easy to install and maintain, it integrates effortlessly into the WES3 network, ensuring a swift response to temperature-related fire risks.

Interface

Easily connect your WES3 system to other systems on-site.

WES3 Interface is designed to seamlessly connect your existing systems to the WES3 network, ensuring comprehensive safety coverage. This interface enables effortless integration with various systems, including permanent wired fire alarms, access control systems, and standpipe flow switches. Whether you're working on new builds or extensive refits, this versatile unit ensures that your safety systems are fully integrated and ready to respond to any situation.

- CCTV cameras
- Access control turnstiles and barriers
- Wired fire alarm systems
- Auto dialers
- Security monitoring systems
- AOV (automatic opening vent) systems
- Sprinkler systems
- Gas, water or flame detectors
- BMS (Building management systems)
- Evacuation lights
- Temporary stand pipe flow switches
- Leak detection

REACT

Emergency Notification System

In high-risk environments like shipyards and vessels, safety is paramount. REACT offers a sophisticated alert system designed to keep your personnel and assets protected by delivering real-time notifications across multiple channels. Whether facing a fire, medical emergency, or other hazards, REACT ensures that your team can respond swiftly and effectively.

Fire

Fire Alert
In the event of a fire, instantly notify all relevant personnel, giving them the time needed to evacuate the premises safely.

Water

Water Damage Alert
Stay informed of potential hazards such as burst pipes or flooding and attach images of the incident.

SOS

SOS Alert
Signal emergencies to designated receivers, providing a rapid and effective way to address unexpected incidents.

Medical

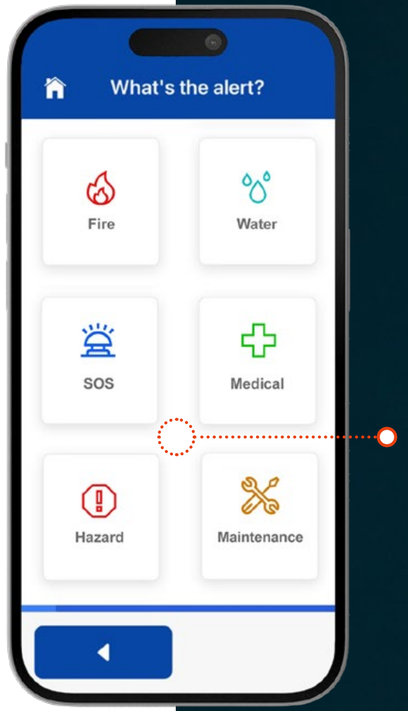
Medical Alert
In the event of a fire, instantly notify all relevant personnel, giving them the time needed to evacuate the premises safely.

Hazard

Hazard Report Alert
Report hazardous situations on-site, including attaching images of the hazard, to prevent accidents.

Lone Worker

Lone Worker
Designed for those who work alone and face potential risks, Lone Worker feature provides regular check-ins and GPS location tracking for enhanced safety.



WES3 Mesh Network Technology

Ensuring Reliable and Uninterrupted Safety Communication Across Your Site

WES3 is powered by an advanced mesh network, a state-of-the-art technology that ensures uninterrupted communication between all safety devices on your site. Unlike traditional systems that depend on a central hub, a mesh network enables each device to interact directly with others, establishing multiple pathways for signals. This architecture delivers exceptional reliability and extensive coverage, making it crucial for maintaining safety in complex environments such as shipyards and construction sites.

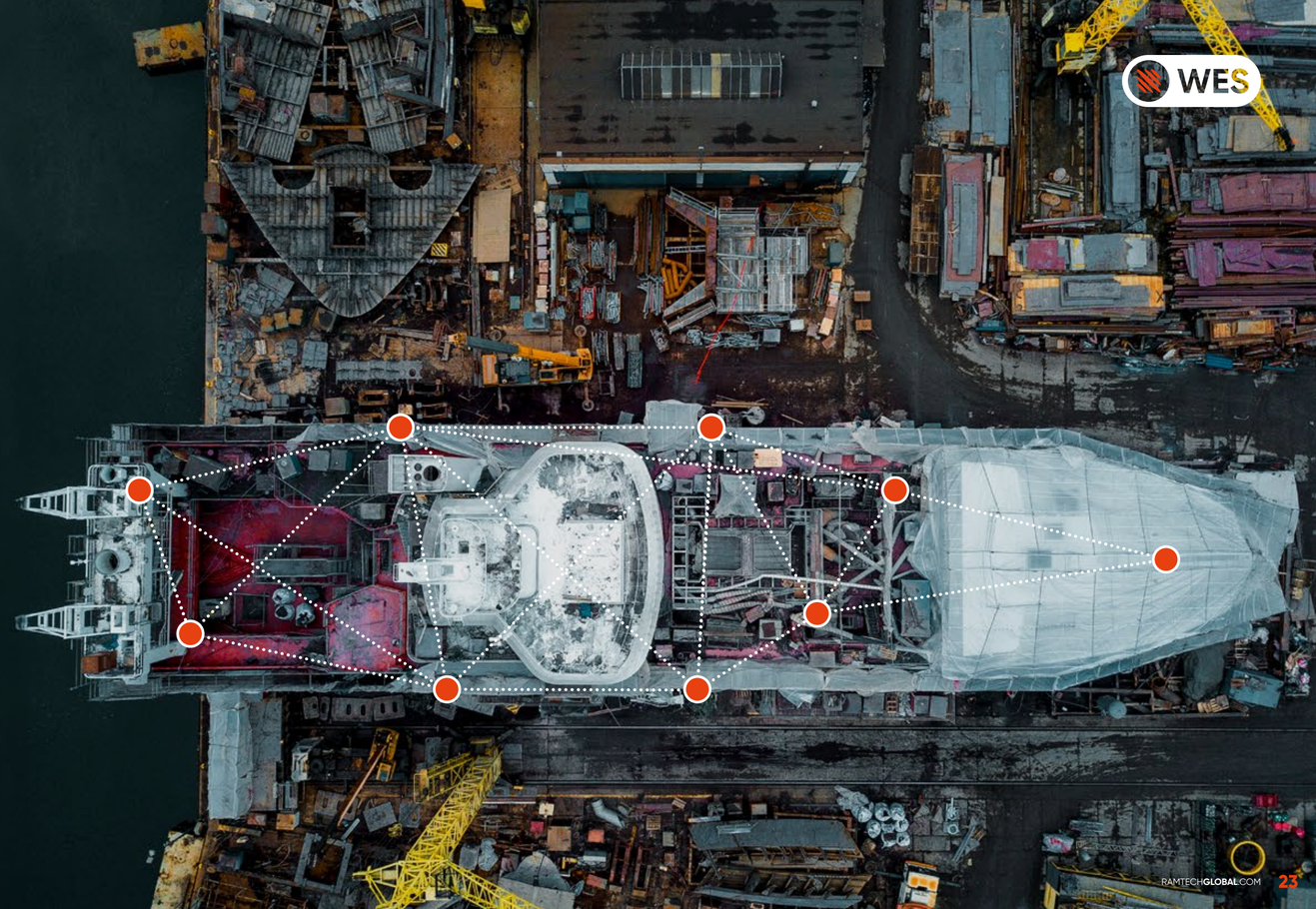
Improved Reliability

The decentralized nature of a mesh network means there is no single point of failure, making the system more resilient to disruptions. This reliability is particularly important in safety-critical environments, where the ability to maintain constant communication between devices can significantly enhance overall site safety.

Scalability

A mesh network is inherently scalable, allowing you to add more devices without compromising the integrity or performance of the system. As your site grows or your safety needs change, you can easily expand the WES3 system by adding additional sensors, call points, or other devices, knowing that they will seamlessly integrate into the existing network.

RADIO MESH

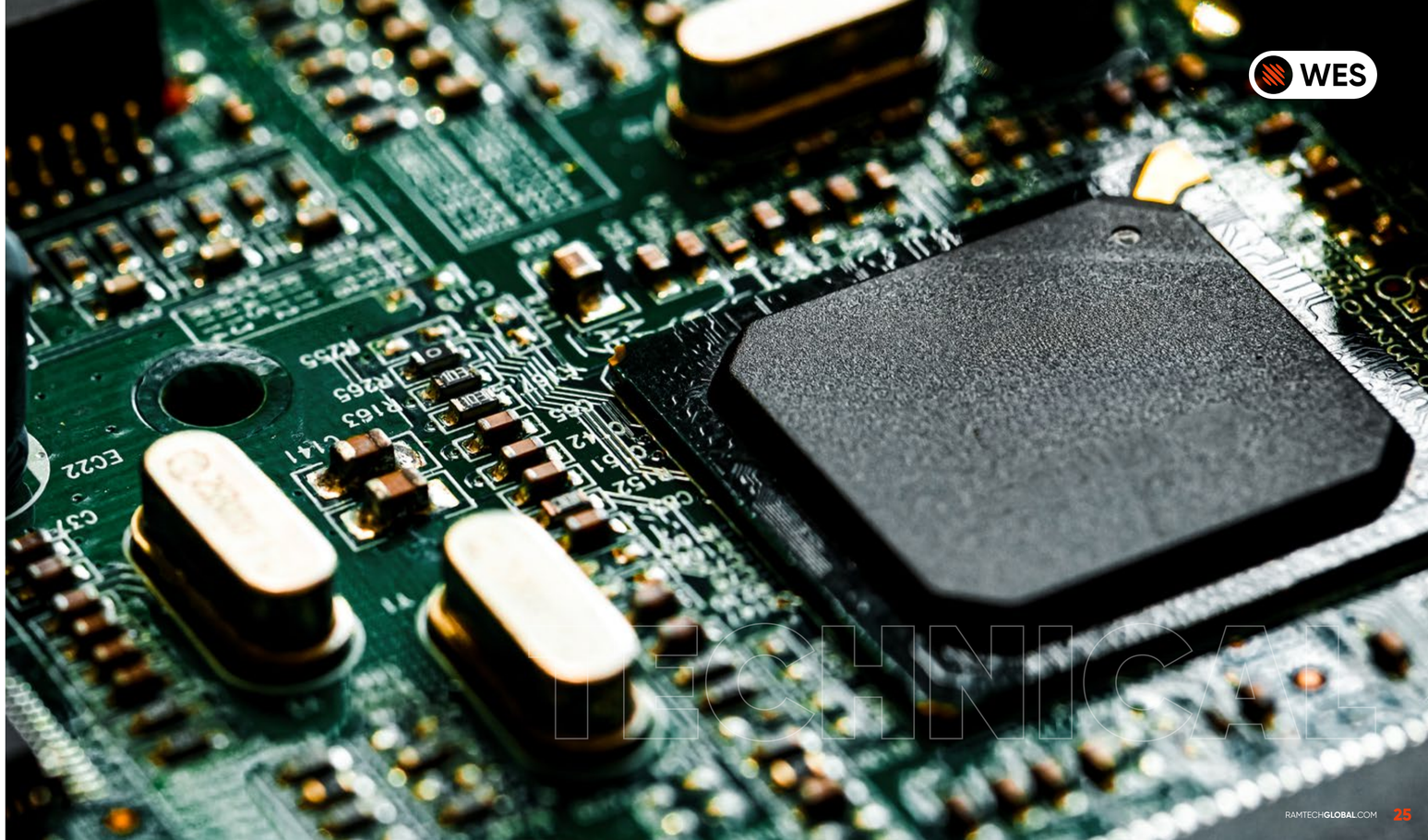


WES3 Technical Specifications

Comprehensive Technical Specifications for All WES3 Safety Units

Below, you'll find the essential specifications for each WES3 device, ensuring you have all the necessary information to make informed decisions about your site's safety infrastructure.

	Dimension (mm)	IP Rating	Noise Level	Compatible With	Operating Temperature (°F)
Call Point (Strobe & Sounder)	235x161x128*	IP55	94 dB(A)	Other WES3 Units	-13.0 to 158.0
Heat Sensor	235x161x118*	N/A	N/A	Other WES3 Units	-13.0 to 158.0
Dust-resistant Smoke Sensor	235x161x108*	N/A	N/A	Other WES3 Units	-13.0 to 158.0
Interface	235x161x58**	N/A	N/A	Relay input/output to connect to additional systems	14.0 to 131.0
Link	235x161x58*	N/A	N/A	Other WES3 Units	-13.0 to 158.0
Base Station	235x161x128*	N/A	N/A	Other WES3 Units	-13.0 to 158.0
Connect	235x161x128*	N/A	N/A	Other WES3 Units	-13.0 to 158.0



> WES3's installation was incredibly quick and hassle-free, and the system has proven highly reliable. It's a top choice for efficient and dependable marine safety.

Project References

Success Stories and Case Studies

WES3 safety system has been successfully implemented across diverse projects and industries, demonstrating its versatility and dependability. Whether in shipyards, construction sites, historical buildings, or large-scale infrastructure, WES3 has consistently enhanced safety and streamlined emergency communication.

Navy Transport Dock Ship

The US Navy chose the WES3 Wireless Evacuation System for a transport vessel with a capacity of 800 personnel and a length of 684 feet. Traditional wired systems were too costly and complex for the ship's layout. WES3, with its fast installation and encrypted mesh radio technology, provided a reliable and efficient solution for maintaining safety during maintenance and repair operations.

Super Yacht

During the refurbishment of a super yacht in Amsterdam, the WES3 system was installed to upgrade safety features. The installation included manual call points, smoke sensors, and heat sensors. Renowned for its ease of installation, the WES3 system was seamlessly integrated with minimal disruption, providing a reliable and efficient safety solution for the yacht.

REACT WES

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