WES

WES3 PRODUCT BROCHURE

ramtech

WES3 Wireless Fire and Emergency System

Fire, evacuation and medical alert system for a wide range of temporary applications.

WES3 is a completely wireless system that has been developed to provide a simple, fast, and secure method of communicating and notifying personnel in the event of a site emergency. Fully wireless and battery operated, WES3 can be rapidly deployed and remotely monitored, without the need for cabling or mains power. From void properties through to sprawling construction sites, WES3 can be easily customised to tackle it all.

Benefits of the WES3 system

The WES3 system has been designed to offer a practical and economical wirelessfire and emergency alert solution.

- **EN54-25** certified system
- **Completely wireless system** (3-year battery)
- **Simple to setup,** install, and reposition
- **24/7 protection** with smoke/heat detectors
- **Easily connects** with other systems
- **4G connectivity** for offsite communication
- **IP55 rated,** suitable for outdoor use
- **Remote monitoring** via REACT
- Two-year warranty

Free site survey

Call us on **+44 (0)115 957 8282** or email us at solutions@ramtechglobal.com

Connect Control Unit

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

Manual Call point

Manual Call Point allows a fire/evacuation alarm to be raised from any unit on site, to initiate a site-wide alarm. It also includes a medical alert button.

Heat detector

Incorporating heat detectors into your WES3 network allows you to receive automatic activations 24/7 in the event of fire.

Smoke detector

Incorporating dust-resistant smoke detectors into your WES3 network gives you early notification in the event of fire whilst eliminating false alarms caused by dust.

Interface

Allows WES3 to be seamlessly integrated with third party systems, such as permanent fire alarms, Building Management Systems, standpipe flow switches, etc.

Link

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

Did you know?

WES3 Connect is the only **completely wireless EN54-25 control panel** on the market. The unit is powered by a battery with a three-year life under normal use to secure your project during all phases whether electricity is available or not.

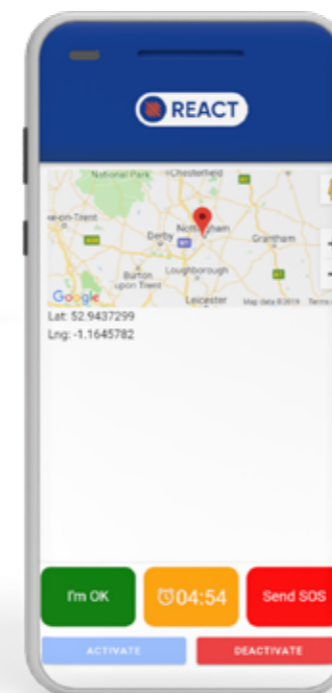CONNECT

WES3 Connect Control Unit

Connect is an enhanced emergency control unit that uses 4G data connectivity to deliver real-time alerts.

The WES3 Connect is the real brains behind the **fully EN54-25 compliant** WES3 system. The control unit will capture data from up to 999 devices situated around a site, it constantly relays data back to the user including active fire alarm activations, medical alerts, low battery warning and signal failure. In addition, WES3 Connect includes 4G cellular connectivity, allowing customised alerts to be sent to **6 different phone numbers** ensuring that the relevant persons are notified in the event of an emergency.

An accurate log of all system events can be downloaded via USB to allow robust reporting of on-site issues.

When an alarm has been raised the Connect unit will display the exact location of where the alarm has been triggered for quick identification.

Enhanced user interface including alphanumeric keypad and large colour LCD display.

REACT

24/7 Site Alerts and Notification System

Partnering Connect with REACT enables users to monitor WES3 alarm activations from anywhere in the world 24/7 using the mobile app to receive real-time alerts and notifications.

○ **Real-time alerts**
Receive real-time alerts for any alarm activations or system faults both on-site and off.

○ **Visibility of alarm activations**
The graphical map on the REACT app provides a quick and easy identification of the position where any activations, fault or issues occur.

○ **Third-party integration with monitoring stations**
WES3 can send alerts automatically via the REACT cloud to a dedicated monitoring centre where they can notify named key holders in the event of an alarm activation.

○ **Traceability and auditability**
Traceable event log stored on the cloud for auditing or incident investigation.

WES

CALL POINT

WES3 Manual Call Point

Our wireless fire and evacuation alarm system is a cost-effective way to protect your people and property.

One of the leading innovations of the **EN54-25 compliant** WES3 system is the introduction of the integrated Medical Alert feature, also known as a first-aid button. With WES3 call points you can manually raise a fire or medical emergency alert at a simple touch of a button. Call points are suitable for both indoor and outdoor use, under IP55 conditions. Typically situated around a site in prominent places, such as main escape routes, stairwells and on or near fire points, where they are visible in case of an emergency.

Call Point

The WES3 Manual Call Point is the primary alert unit in the WES3 range. The unit incorporates 94dB(A) siren, bright strobe lights, and a manual call point/medical alert button for activating the alarm.

Raising the alarm

Raise a fire or evacuation alarm by simply pressing any call point in the network, this will initiate a site-wide alarm or activate the pre-alarm function. The control unit will notify the user of the exact location where the alarm has been triggered for quick identification of the search area.

Integrated medical alert button

The integrated medical alert button provides all personnel with the means to raise an alert when medical assistance is required, this will immediately alert first aiders.

94 dB(A) siren with a built-in strobe light.

Manual call button used to raise a fire/evacuation alarm.

Integrated first aid button for medical emergencies.

SMOKE DETECTOR

WES3 Smoke Detector

Unique to WES3, this detector will isolate smoke dusty environments.

Unique to WES3, the dust-resistant smoke detector with dual optic technology minimises the risk of false alarms. Using the scattered light principle, the WES3 dust-resistant smoke sensor goes one step further and uses both IR and blue LEDs to provide a more accurate measurement of particles within the chamber. By calculating the ratio of these light sources, which operate at different wavelengths, the unit can determine the particle size and thus distinguish between smoke and non-combustion products such as steam and dust. With 4G functionality means your site is protected 24 hours a day, seven days a week.

The smoke detector units have an individual coverage of 7.5m radius and can differentiate between smoke and dust particles.

HEAT DETECTOR

WES3 Heat Detector

Early warning of abnormal heat to pre-warn of potential fires.

WES3 heat detectors are an integral part of the system, providing essential detection in and out of working hours on all types of projects. Unlike smoke detectors that detect the presence of smoke particles, heat detectors only react to changes in temperature. The detector work in the radio mesh network to transmit and receive radio messages from other units to help site-wide radio performance. Thermistor technology registers changes in temperatures and, if necessary, activates the alarm. With 4G functionality means your site is protected 24 hours a day, seven days a week.

The heat detector will activate at a temperature of 57°C and has an individual coverage of 5.3m radius.

WES3 Interface (Standard)

Easily connect your WES3 system to other systems on site.

The WES3 Interface unit enables seamless integration between the WES3 system and various on-site building management and emergency systems. This includes wired fire alarms, BMS, and access control turnstiles. The interface unit is versatile and well-suited for a broad spectrum of projects, capable of communicating with the most commonly used technologies in existing buildings, ongoing construction projects, and site cabins.
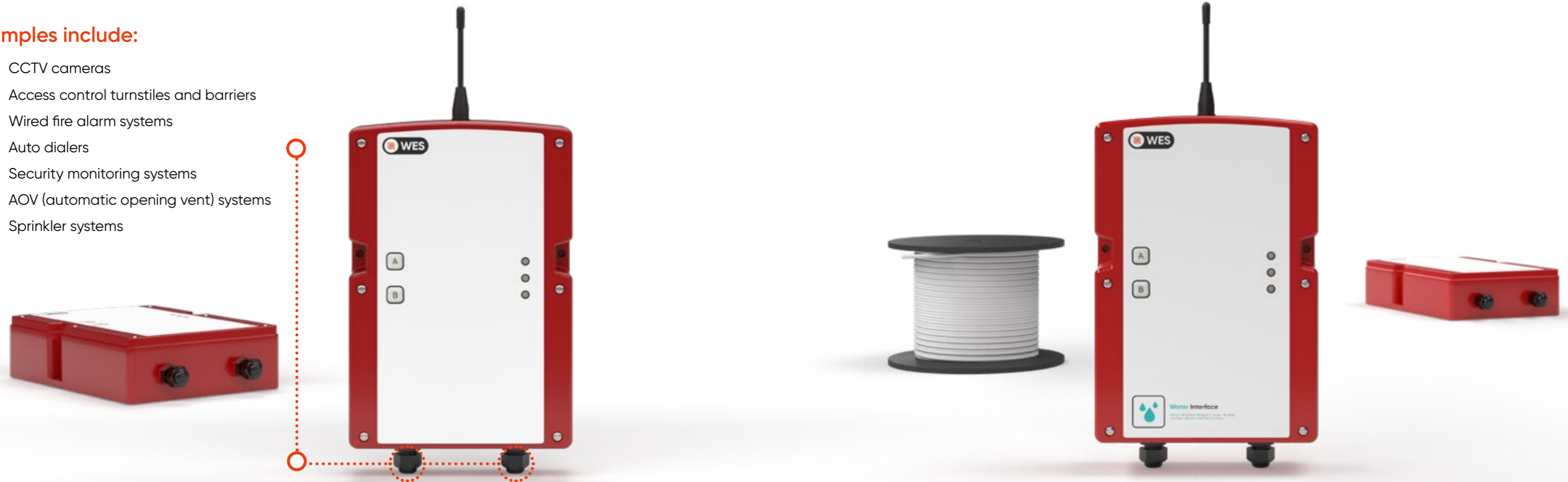
WES3 Interface (Water)

A complete cost effective water leak detection solution

The WES3 Water Interface facilitates the seamless integration of water detection devices, such as detection cables, into a WES3 network. This integration ensures continuous, automated monitoring around the clock, triggering notifications in the event of water detection. Additionally, the versatile WES3 Interface allows for configuration to activate connected third-party devices, such as shut-off valves, enhancing the overall responsiveness and safety of the system.

The following pre-terminated lengths of water leak detection cable are available:
2m (6.5ft)   5m (16.4ft)   10m (32.8ft)   15m (50ft)   25m (82ft)   100m (328ft) reel

Examples include:

- ○ CCTV cameras
- ○ Access control turnstiles and barriers
- ○ Wired fire alarm systems
- ○ Auto dialers
- ○ Security monitoring systems
- ○ AOV (automatic opening vent) systems
- ○ Sprinkler systems

INTERFACE

WES3 Interface (Medical, Maintenance)

Reliable warning without having to activate the entire network.

Medical Interface

The WES3 Medical Interface serves to activate external medical alert devices, like autodiallers, upon the initiation of a Medical Alert on a WES3 Call Point. This functionality ensures swift response by on-site teams to address first aid incidents and medical emergencies, particularly in areas with no cellular signal availability.

Maintenance Interface

The WES3 Maintenance Interface delivers prompt notifications to maintenance and service teams whenever a system fault is detected on the WES3 network. This encompasses warnings like low battery levels, external tampering faults, or alerts regarding network signal strength. Typically employed to activate autodiallers or pager notifications, the Maintenance Interface ensures swift awareness and response to system maintenance needs.

Maintenance alerts:

Internal tamper, detector tamper, back tamper, no radio signal, low radio signal, low battery and flat battery.

LINK

WES3 Link Unit

Boost your WES3 system range.

The Link unit is a simple, cost-effective way to extend the range of your WES3 temporary alarm system on very large-scale sites. In most cases, you'll probably never need a radio repeater link unit for your WES3 system – each unit has excellent wireless range already that will cover most large structures. However, if you do receive a low signal warning, for example if a far-off call point becomes more obscured as a build progresses and starts to lose signal, you can add a Link unit to boost the signal and make sure your system continues to work optimally.

Network

If any unit in the network fails, the transmission path finds an alternate route, ensuring communication continuity.

CONNECTIVITY

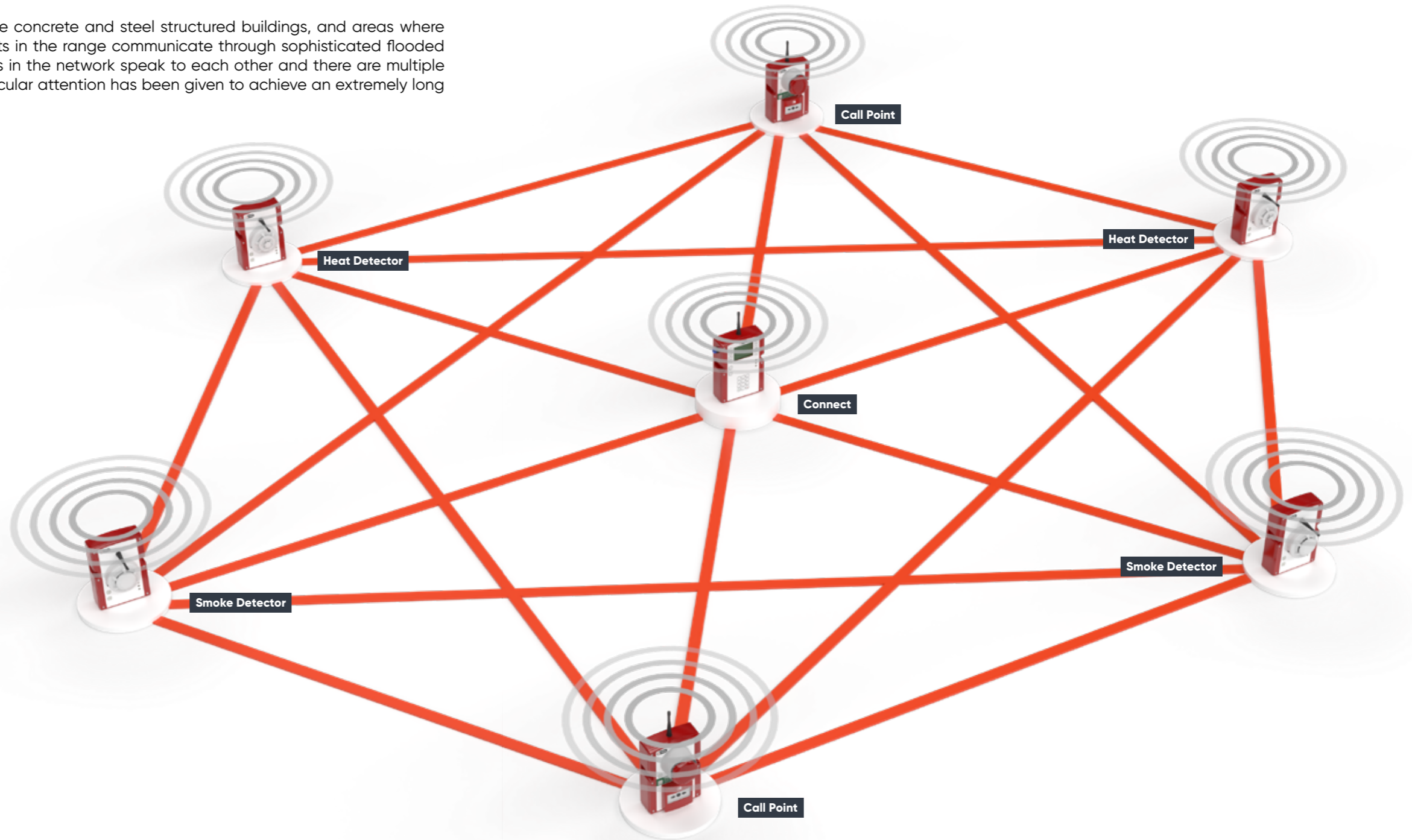# Wireless Mesh Radio Technology

WES3 wireless alarm system is fast becoming the solution of choice for many applications.

WES3 has been specifically designed for use in dense concrete and steel structured buildings, and areas where there are many other radio frequencies in use. All units in the range communicate through sophisticated flooded mesh radio technology which means that all the units in the network speak to each other and there are multiple paths for the activation signal to travel through. Particular attention has been given to achieve an extremely long range connection and distances between units.

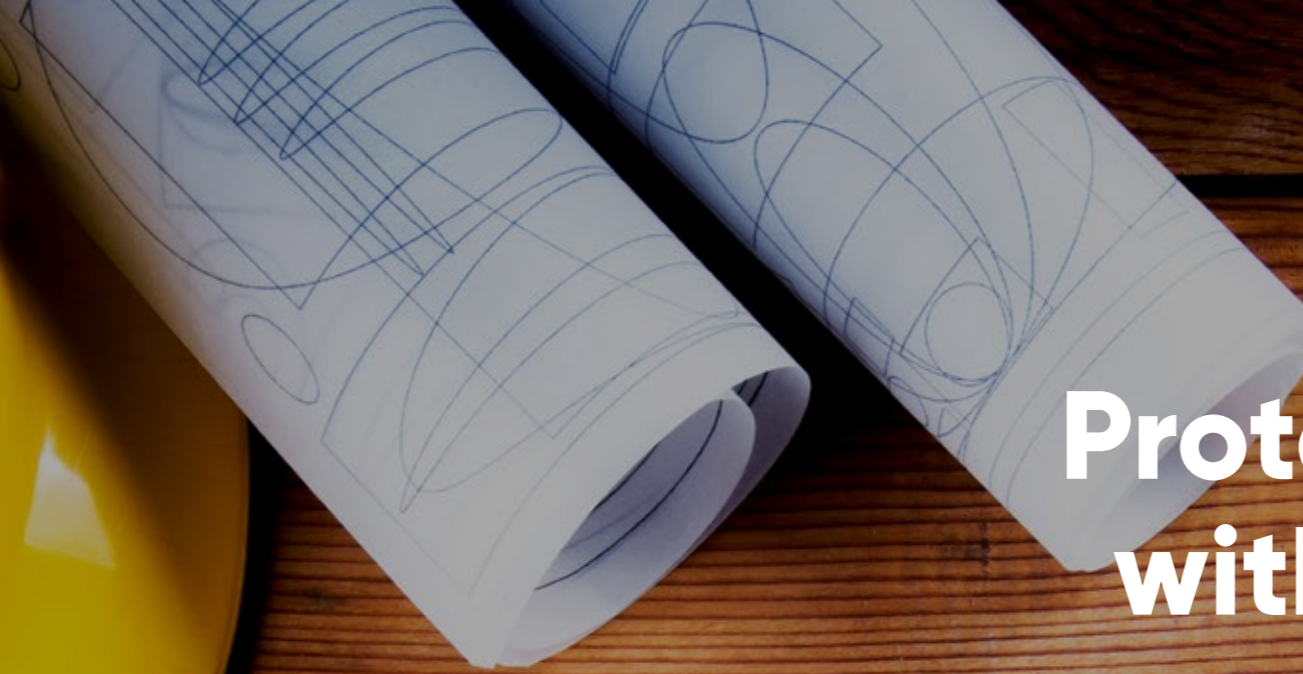### Advantage of a wireless alarm system:

The enormous flexibility and endless combinations of wireless units make wireless a sound choice.

- ○ Minimal Disruption
- ○ Quick Installation
- ○ Easy to Maintain
- ○ Fully Addressable
- ○ Easy to re-locate / move

Call Point

Heat Detector

Heat Detector

Connect

Smoke Detector

Smoke Detector

Call Point

Protect your site today with a free site survey

+44 (0)115 957 8282

The system

Technical information

The WES3 system uses Category 1, Euro-harmonised radio in compliance with European standards covering the use of radio technology in emergency equipment (ETSI 300-220-1).

WES3 is also independently tested, CE marked and compliant with all key safety legislation. Our robust and hard-wearing units are suitable for internal or external use, with weather sealing and a 3-year battery life under normal use.

The WES3 range has grown to become a truly global alarm system, currently protecting sites in over 30 countries around the world. Using our innovative radio technology, WES3 has been developed to satisfy all applicable Radio and Communications legislation in international territories, including the relevant parts of ETSI, FCC and EMC test standards.

	Dimension (mm)	IP Rating	Noise Level	Compatible With	Operating Temperature (°C)
Call Point (Strobe & Sounder)	235x161x128*	IP55	Max. 94 dB	Other WES3 Units	-25 to +70
Heat Detector	235x161x118*	N/A	N/A	Other WES3 Units	-25 to +70
Dust Resistant Smoke Detector	235x161x108*	N/A	N/A	Other WES3 Units	-25 to +70
Interface	235x161x58**	N/A	N/A	Relay input/ output to connect to additional systems	-10 to +55
Link	235x161x58*	N/A	N/A	Other WES3 Units	-25 to +70
Base Station	235x161x128*	N/A	N/A	Other WES3 Units	-25 to +70
Connect	235x161x128*	N/A	N/A	Other WES3 Units	-25 to +70

WES3 at a glance

High Performance

WES3 has been developed to satisfy all applicable Radio and Communications legislation in international territories, including the relevant parts of IC, ETSI, FCC and EMC test standards.

Cost-effective

The completely wireless units connect on site to form a secure and stable radio mesh network with no need for specialist wiring, cabling or external power.

User Friendly

Your site system can have an unlimited number of units on one site, additional units can be quickly added or removed as the build progresses. All WES3 units can be reused on future projects.

Robust and Reliable

WES3 is independently tested, CE marked and compliant with all key safety legislation. Our robust and hard-wearing units are suitable for internal or external use, with weather sealing and a 3-year battery life under normal use.

Fully Supported

Our dedicated helpline and training team are always on hand to support you, from introductory training and workshops for your site staff through to system trouble shooting, our team are with you every step of the way.

Internationally Recognized

The WES3 range has grown to become a truly global alarm system, currently protecting sites in over 30 countries around the world. Using our innovative radio technology, WES3 has been developed to satisfy all applicable Radio and Communications legislation in international territories, including the relevant parts of ETSI, FCC and EMC test standards, as well as achieving full EN54-25 certification.

Possible applications of the WES3 system

Fire, evacuation and medical alert system for a wide range of temporary applications.

WES3 has been designed and developed to provide an innovative wireless fire, evacuation and emergency solution to suit a variety of different industries, from construction to historical sites. Our wide-ranging communications and hardware expertise has been developed over 30 years. The WES3 and REACT solutions provide your business with improved safety, security, operational efficiency, data insight and more. All of our solutions are backed up by extensive support from our office and field-based teams.

Case Studies
Read our latest case studies on our website by scanning the QR code.

Construction

Construction sites worldwide are dangerous places to work. With the demands and complexities of modern construction sites, it is vital that you protect staff, property and equipment. WES3 has been used on construction sites such as Embassies, Bank HQs and Amazon distribution centers, keeping them safe from fire and site incidents.

Shipyards & Shipbuilding

Safety is paramount in the highly specialist world of shipbuilding and maintenance. The WES3 emergency fire and evacuation alarm system has been used across various sites to act as an early warning of a potential fire, protecting hugely expensive equipment and employees.

Historical Buildings

Heritage properties can be particularly vulnerable to the risk of fire during renovation works. Often these historic buildings are of both architectural and cultural significance so ensuring they have the highest protection possible is even more important.
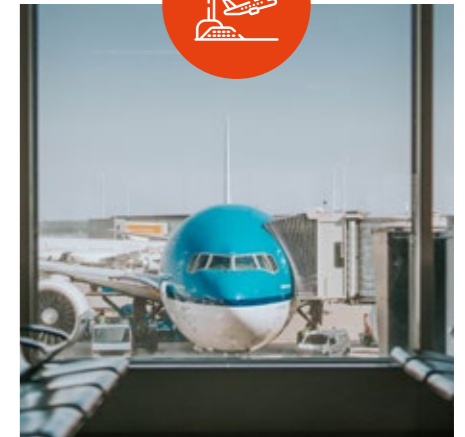

Manufacturing Plants

Our wireless safety solutions have been used by many manufacturing plants across North America, EU and beyond - particularly during times of construction, renovation or restoration.

Rail

Due to the strong health and safety requirements across railway infrastructure, from underground stations to freight depots, Ramtech's technology is an asset to safety. The WES3 and REACT systems have already been used on HS2, Crossrail, London Underground and more.

Airports

Ramtech technologies including WES3 and REACT have been used on airport expansion projects in various countries. The solutions are ideal for complex and ever-changing sites such as airports, where health and safety of workers and the public are key.

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