



Wireless



**Advanced Wireless
Technology**

We **care** for your **water**



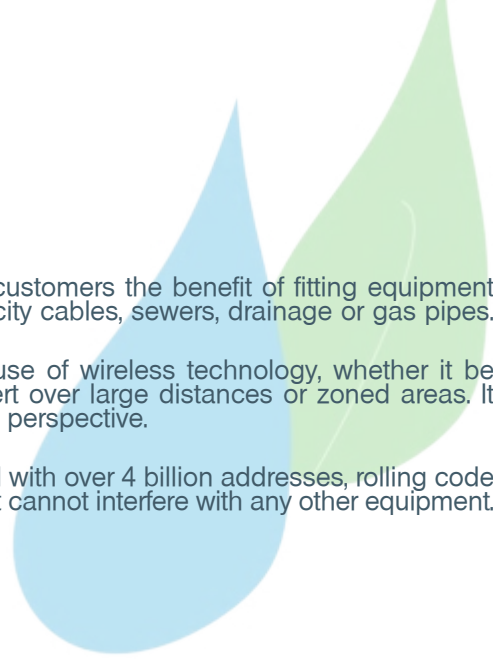


General Operation

Orchard Watercare present a range of solutions which will allow our customers the benefit of fitting equipment without having to worry about a host of civil challenges such as electricity cables, sewers, drainage or gas pipes.

The performance of our Separator Alarms can be enhanced by the use of wireless technology, whether it be linking it to another piece of equipment or using it to monitor and alert over large distances or zoned areas. It also helps to minimise risks from a Health & Safety and Environmental perspective.

The equipment is supplied with a unique secure one-way radio protocol with over 4 billion addresses, rolling code and CRC check sum. This ensures that wherever the device is installed, it cannot interfere with any other equipment.



How the system works



Sensor (in Tank)

Transmitter



Transmitting signal
from the sensor to the
control panel



Control Panel

Receiver

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Key Attribute

TRENCHLESS - NO DIG

CROSSES ROADS, RIVERS, RAILWAYS AND PASSES THROUGH WALLS AND BUILDINGS

WILL CROSS HAZARDOUS AREA AS ATEX APPROVED

BATTERY LIFE

UNIQUE COMBINATIONS

ABILITY TO REMOTELY ACTIVATE OTHER SYSTEMS



Key Benefit

Minimises site disruption when being installed as no major civil work is required, assisting business continuity.

The radio wave technology allows signals to be transmitted over distances from 3 metres to 1,000 metres.

Digging and laying cables in zoned areas is exceptionally hazardous and the equipment is suitable to be used with Zone 1 suitable apparatus applications.

A years battery life ensures minimal maintenance in between services

Every piece of equipment has it's own unique address, meaning that multiple units can be installed on site without compromising each others performance

Utilise the technology to activate equipment from a centralised point. Activate several units simultaneously.

CASE STUDY

A retro fit of a Separator Alarm which required a visual alarm in an office 50 metres away. Works required utilising the traditional separator installation method.

- Digging of the duct to run a cable from the Separator Alarm to the Sensor in the chamber

Conservative Estimated Cost - 50 metres @ £60 per metre = £3,000

The Wireless Solution - Approximately 1/5th of the cost of the civils (subject to site specifics)

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Frequently Asked Questions

Q. What are the advantages for implementing wireless solutions?

A. Sensor technology is a very cost effective way to link various devices and control units to a central point. This flexibility of wireless technology enables a rapid and more accurate response to any incidents that may arise. Wireless solutions eliminate the cost and complexity of additional wiring and civils costs, reducing installation costs by up to 80%.

Q. What are the common pitfalls users need to be aware of when implementing wireless in an industrial environment?

A. We would recommend a site survey to ensure that the system is right for the needs of your business. A recommendation report can only be conducted by a wireless systems expert. The convenience of a battery powered wireless device makes the idea very appealing, however users must be aware that the battery must be tested on a regular basis (or as part of the annual maintenance) to ensure the batteries integrity is intact. Solar and mains powered options can also be provided.

Q. Is wireless technology reliable?

A. Orchard's wireless solutions use self testing protocols to ensure that a system remains active even when there may be no data to transmit. A background 'heartbeat' check is used to confirm that communication between system components is active with an alarm generated in the rare event of a loss of communication.

Q. How secure is the wireless technology?

A. Our wireless systems are supplied with built-in encryption, authentication and anti-jamming measures that offer the security of any software based electronic data system. Our systems offer a unique identity number to each wireless module and use that number to verify the authenticity of each communication exchange are the most secure.

Q. What radio frequency does the wireless communication system use?

A. Both use ultra high frequency radio communication (RF) that does not require user licensing.

Q. What is the operating range of a wireless monitoring system?

A. Wireless transmitters are designed to operate up to one kilometre using an internal antenna. A repeater module can also be used to extend communication range or to get around physical obstacles that cannot be penetrated by RF.

OTHER PRODUCTS & SERVICES AVAILABLE FROM ORCHARD

RAINWATER SYSTEMS

- **COMPLETE RAINWATER HARVESTING AND MANAGEMENT SYSTEMS**
For Domestic, Garden and Commercial applications.
- **UNDERGROUND AND ABOVE GROUND TANKS**
From 300 to 100,000 Litres
- **CONTROL AND MONITORING EQUIPMENT**
- **SUBMERSIBLE AND ABOVE GROUND PUMPS**
- **TOTAL DESIGN SERVICE**
Design service available for Domestic and Commercial applications .
- **INSTALLATION, COMMISSIONING , SERVICING AND MAINTENANCE PACKAGES**

ACCESSORIES

- **UV Filters, Pre Filters**
- **Soakaways**
- **Pressure Vessels**

SEPARATOR ALARMS

- **Mains powered alarms**
- **GSM alarms**
- **Web based alarms**
- **Wired and Wireless sensors**

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