

Wireless Building Technologies



- Single-point of responsibility for wireless solutions
- Embed wireless technology at multiple system levels
- Maximize application flexibility and mobility
- Economically control difficult or frequently changing spaces
- Minimize location dependency of building automation system components

You can do more with a Metasys® building management system that has wireless capabilities. You can better manage costs, improve system performance, and increase the ease of installations and changes. Wireless technology can be incorporated at one level or all levels of the Metasys system, as well as the building infrastructure. Johnson Controls can help you determine the best application of wireless technology, whether it is at the system's user interface, network automation, field controller or room sensing levels. The result is increased application flexibility and cost-effectiveness in both new and retrofit installations.

Our wireless infrastructure solutions ensure signal strength in a managed environment that minimizes interference and maximizes reliability. At the network automation and field controller level, you can cost-effectively expand your system into spaces that were difficult or too costly to wire for conventional controls.

Wireless sensing gives you economical control and optimum comfort in areas that are frequently re-configured, or where hardwiring is challenging or simply not possible. The wireless technology is ideal for minimizing the impact to historic buildings and decorative surfaces, or for controlling large, open spaces or structures with brick or concrete walls.

ZFR1800 Series Wireless Field Bus System

The ZFR1800 Series System uses ZigBee™ technology to create a wireless mesh network which provides wireless connectivity for Metasys BACnet devices between multiple levels of a Metasys system, from field controllers to sensors, and to supervisory engines. Wireless devices co-exist with hardwired devices on the same network, and standard field controllers can seamlessly be wirelessly enabled.

The Wireless Field Bus System improves your application mobility and installation flexibility. It's also a cost-effective solution to extend the reach of your Metasys system with minimized wiring.



The ZFR1800 Series efficiently adapts to multiple mounting requirements, providing a quick and easy wireless interface for Metasys BACnet Field Equipment Controllers (FECs) and VAV Modular Assemblies (VMA1600s).

The ZFR1810 Series System includes:

- A ZFR1810 Wireless Field Bus Coordinator, connected to a Metasys Network Automation Engine (NAE) or Network Control Engine (NCE).
- One or more ZFR1811 Wireless Field Bus Routers, each connected to an appropriate Metasys FEC or VMA1600.
- Multiple WRZ Series wireless room temperature sensors.



Wireless Room Temperature Sensing Systems

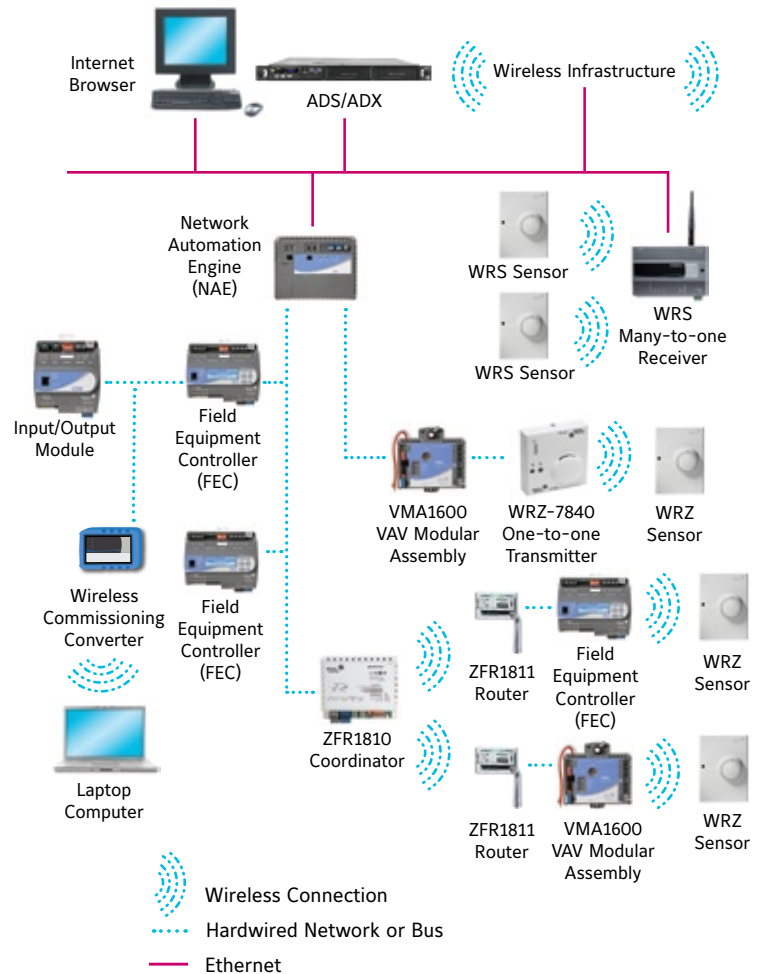
The WRS Series Many-to-One Wireless Sensing System allows multiple WRS sensors to communicate wirelessly to the Metasys network through a single receiver. This system functions with BACnet®, LonWorks® or N2 open field controllers that are communicating to an NAE.

The TE-7800 Series One-to-One Wireless Sensing System consists of a single WRS sensor communicating to a single receiver. This system does not

require an NAE and is intended for locations that require fewer sensors. The TE-7800 functions with VMA1400, UNT, AHU, VAV, and DX N2 open field controllers.

Wireless Sensing Systems feature:

- Acknowledged transmissions on multiple 2.4G Hz frequencies prevent accidental and unauthorized interference.
- Multiple sensor averaging and high/low temperature selection optimizes comfort in larger zones.
- Integral wireless signal strength indication on both the sensors and the receiver provide quick assurance of acceptable wireless signal strength, simplifying sensor location.
- Continuous operation over life of battery (5 years typical).
- The optional battery-operated Wireless Sensing System Tool functions with both wireless sensing systems to provide wireless signal and room temperature information.



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