

Remote Control Technology

Simple Wireless Solutions

Applications Include:

Pumps, Valves, Relays, Conveyors, Tank Level, Alarm Systems, PLC Activation, Data Monitoring, Automation

Wireless Automation System part #:80660S

The Wireless Automation System is a 900 MHz radio frequency network with integrated I/O that can operate in most environments while eliminating the need for wiring runs. Systems are built around a Gateway, which acts as the wireless network master device, and one or more Nodes.



- Pump Control
- Valve Actuation
- Conveyor Control
- Grain Augers
- Light Control
- Stackers
- PLC Activation
- Engine Control
- Wireless Automation

The Wireless Automation System is an industrial I/O device with six discrete DIP switch selectable inputs, and six discrete (sourcing) outputs, with DIP switches for user configuration. The system combines Frequency Hopping Spread Spectrum (FHSS) technology and Time Division Multiple Access (TDMA) control architecture to ensure reliable data delivery within the unlicensed Industrial, Scientific, and Medical (ISM) bands. The transceivers provide two-way communication between the Gateway and Node, including fully acknowledged data transmission site survey analyses. Lost RF links are detected, and relevant outputs set to user-defined conditions.

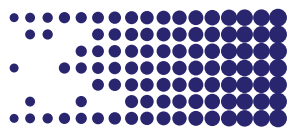
Operation

The Wireless Automation System provides reliable monitoring, without the burden of wiring or conduit installation, and can operate independently of or in connection with a PLC and/or PLC Software. Each wireless system consists of one gateway and one or more nodes. The gateway device works as the master within each radio network system. The gateway initiates communication and reporting with the node. Each node can be connected to a sensor or output device and report back the state of the I/O to the master. The gateway and nodes can be arranged to extend the range (2 miles) of the network or to avoid obstacles in the transmissions path.

Wireless Automation System Gateway Specifications

Power Requirements	Supply Power: 12 VDC (15 W power supply included)	WAS Gateway Part #: 80660G  The range of all radio products is dependent on local conditions and antenna selection/location.
Radio	Output: 100 mA max current at 30V dc Frequency: 900 MHz distance up to 2 miles (Frequency Hopping Spread Spectrum) FCC Part 15 compliant	
Operating Environment	Indoor or Outdoor Standard: 32° to 122° F	
Discrete Input	Input Rating. 3 mA max current at 30V dc Input Sample Rate. 62.5 milliseconds Input Report Rate. On Change of State 6 Dry Contact Inputs	WAS Node Part #: 80660N 
Discrete Output	100 mA max current at 30V dc ON-State Saturation: Less than 3V at 100 mA OFF-state Leakage: Less than 10 µA Output Update Rate. 125 milliseconds	
Relay Outputs	6 Class C Relays Rated 6A @ 250V	

* The range of all radio products is dependent on local conditions and antenna selection/location.



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Applications Include:

Pumps, Valves, Relays, Conveyors, Tank Level, Alarm Systems, PLC Activation, Data Monitoring, Automation

Wireless Automation System part #:80442S

The Wireless Automation System is a 900 MHz radio frequency network with integrated I/O that can operate in most environments while eliminating the need for wiring runs. Systems are built around a Gateway, which acts as the wireless network master device, and one or more Nodes.

- Pump Control
- Flow Rate Monitoring
- Conveyor Control
- Tank Level Monitoring
- Light Control
- Alarm Systems
- PLC Activation
- Data Logging
- Wireless Automation

The Wireless Automation System combines Frequency Hopping Spread Spectrum (FHSS) technology and Time Division Multiple Access (TDMA) control architecture to ensure reliable data delivery within the unlicensed Industrial, Scientific, and Medical (ISM) bands. The transceivers provide two-way communication between the Gateway and Node, including fully acknowledged data transmission site survey analyses. Lost RF links are detected, and relevant outputs set to user-defined conditions. Each device comes with four discrete inputs, four discrete (sourcing) outputs, two analog (0–20 mA) inputs, and two analog (0–20 mA) outputs.

Operation

The Wireless Automation System provides reliable monitoring, without the burden of wiring or conduit installation, and can operate independently of or in connection with a PLC and/or PLC Software. Each wireless system consists of one gateway and one or more nodes. The gateway device works as the master within each radio network system. The gateway initiates communication and reporting with the node. Each node can be connected to a sensor or output device and report back the state of the I/O to the master. The gateway and nodes can be arranged to extend the range (3 miles) of the network or to avoid obstacles in the transmissions path. The transceivers provide two-way communication between the gateway and node including fully acknowledged data transmissions.

Wireless Automation System Gateway Specifications

Power Requirements	Supply Power: 24 VDC (15 W power supply included) 100VAC-240VAC Input
Radio	Frequency: 900 MHz distance up to 2 miles (Frequency Hopping Spread Spectrum) FCC Part 15 compliant (License Free)
Operating Environment	Indoor or Outdoor 32° F to 122° F
Discrete Inputs	4 Dry Contact Inputs (Switch)
Analog Input Ratings	Analog Input Rating. 24 mA Analog Input Sample Rate. 62.5 milliseconds Analog Report Rate. 1 second or on Change of State (1% change in value) Accuracy. 0.1% of full scale +0.01% per °C
Output Ratings	Analog Update Rate 125 milliseconds Accuracy 0.1% of full scale +0.01% per °C
Relay Outputs	4 Class C Relays Rated 6A @ 250V

**WAS Gateway
Part #: 80442G**



The range of all radio products is dependent on local conditions and antenna selection/location.

**WAS Node
Part #: 80442N**



The WAS analog output will connect to any controller that reads 4-20 mA data such as a flow meter, data logger, tank level indicator, or process meter.

* The range of all radio products is dependent on local conditions and antenna selection/location.



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WAS 80442SH – Now available with HMI!

- New Improved Range – Up to 4 miles
- Conveniently activate switches and review data on screen
- HMI is compatible with an app for mobile devices, just connect the HMI to the internet and you can view and control it from anywhere in the world through the web



Power Requirements	Supply Power: 24 VDC (15 W power supply included) 100VAC-240VAC Input
Radio	Frequency: 900 MHz distance up to 4 miles (Frequency Hopping Spread Spectrum) FCC Part 15 compliant (License Free)
Operating Environment	Indoor or Outdoor 32° F to 122° F
Discrete Inputs	4 Dry Contact Inputs (Switch)
Analog Input Ratings	Analog Input Rating. 24 mA Analog Input Sample Rate. 62.5 milliseconds Analog Report Rate. 1 second or on Change of State (1% change in value) Accuracy. 0.1% of full scale +0.01% per °C
Output Ratings	Analog Update Rate 125 milliseconds Accuracy 0.1% of full scale +0.01% per °C

