

Application Note:

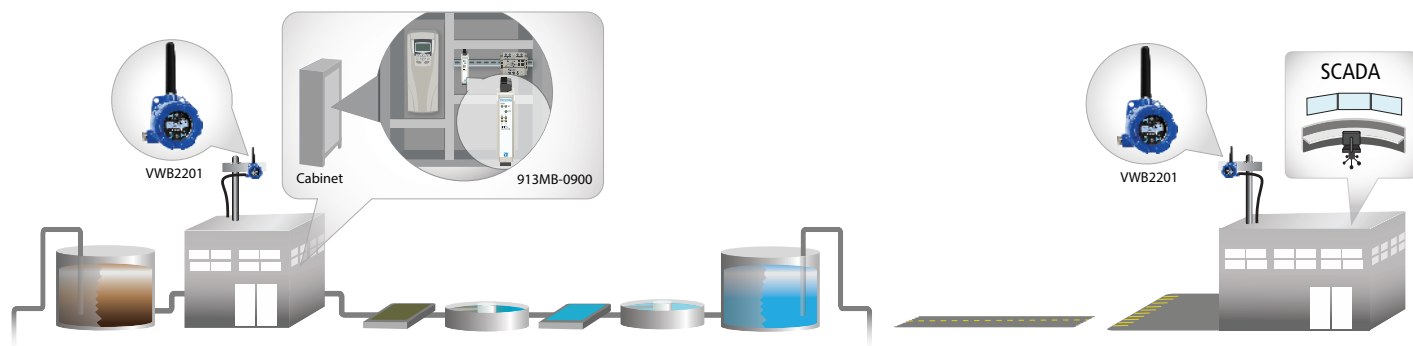
How to Use Wireless Remote I/O for Cost Savings

Defining the Problem:

A wastewater treatment facility wants to bring measurements for water level, turbidity, PH, temperature, and phosphates back to their SCADA control room. The SCADA system can accept analog and discrete inputs as well as Modbus® RTU and Modbus TCP/IP. They have sensors for these measurements that output 4 to 20mA but local ordinances won't allow overhead wiring. This means wires would have to be run underground which will be expensive, especially since they need to cross a parking lot.

System Requirements:

Must be able to cost-effectively transmit five analog current signals wirelessly.



Implementing the Solution:

1. The Acromag VWB2201 is a simple point-to-point wireless bridge that has one channel of analog current or voltage input, one channel of analog current output, four discrete I/O, and Modbus RTU with RS-485 Modbus pass-through communication.
2. The Acromag 913MB-0900 is a 4-channel current input module that is a Modbus RTU slave.
3. The VWB2201 has a primary unit and a secondary unit. It's important to note that the primary unit must be connected to the network that has the Modbus RTU Master controller.

Featured Products:

- [VWB2201](#): Vertu® Point-to-Point Industrial Wireless System
- [913MB-0900](#): Modbus RTU analog DC current input module; 4 current input channels

Notes:

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Why Acromag:

Pairing the VWB2201 with the 913MB-0900 allows the customer to add the data points they need without the added expense of unnecessary equipment and installation costs. The added benefit of four channels of discrete I/O can be used for control or alarms. Acromag has additional Modbus RTU units for analog or discrete inputs and outputs, as well as temperature and pulse/frequency input units, so more data points can be added as needed. Acromag is a Michigan-based manufacturer that has been in business for over 60 years. All Acromag products are manufactured in the USA.