



Series: XTR-WRC420

## Wireless 4-20mA Transmitter / Receiver Set



### FEATURES & BENEFITS

- Wireless Bridge Between Sensor & Instrument
- Receiver Output Mirrors Transmitter 4-20mA Input
- Receiver Provides 4-20mA or 1-5V DC Output
- Up To 6 Miles Line-of-site Transmit/Receive Distance
- Powered by any 12V-24V DC Supply
- NEMA 4X Rugged Enclosures
- Pre-configured, Ready-To-Operate
- Sold As Transmitter/Receiver Matched Set
- License Free Radio Operation

### APPLACATIONS

- Process Transmitter Signals, Valve Positioning & Control, Remote Sensor Monitoring

### Description

The XTR-WRC420 Wireless Analog Transmitter/Receiver System allows for remotely monitoring or controlling equipment from a distance up to 6 miles away using license free wireless radio communication. Each set features one 4-20mA analog signal input and output. Each system is sold as a factory programmed matched set. That means there is no field settings needed to operate right out of the box.

### Transmitter Operation

The wireless 4-20mA analog signal transmitter reads analog input data from temperature, pressure, strain, flow, level or RH sensors and then sends the measured data over the air to a remote location. The measured 4-20mA current signals are converted to digital packets and then transmitted via a license free radio transmission to a waiting control receiver. The transmitter also includes one dry-contact switch input that controls one open collector output on the opposing control receiver.

### Receiver Operation

The wireless 4-20mA analog receiver decodes any incoming radio packets and converts them back into the same 4-20mA current signal that is being measured by the transmitter in real time. The control receiver also includes one dry-contact switch input that controls one open collector output on the opposing transmitter.

## General Specifications

**Radio Frequency:** 900Mhz  
**Regulatory:** FCC Part 15 (No license required)  
**Control Lines:** 1  
**Antenna Connection:** RP-SMA  
**Antennas:** 7dbi, Omni-directional (Included)  
**Transmit/Receive Distance:**  
with included antennas:  
Indoor/Urban 1000ft, Line-of-site 3 Miles  
with optional antennas:  
Indoor/Urban 1600ft, Line-of-site 6 Miles  
**Transmitter/Receiver Code Matching:** Factory set  
**Wire Connection:** Terminal Blocks  
**Operating Temperature:** -22 to 113 °F (-30 to 45 °C)  
**Enclosures:** NEMA 4X, PVC

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Each Set Includes 7dbi Antennas and 9ft Antenna Extension Cables



Optional 6 Mile Distance Antenna Set

## Transmitter Specifications

**RF Power Output:** 100mW  
**RF Output Impedance:** 50 Ohm nominal  
**RF Data Rate:** 10 kbps  
**Operating Power:** 12-24V DC @ 3W max  
**Input Type:** Analog 4-20mA

## Receiver Specifications

**Receive Sensitivity:** -100 dBm  
**Operating Power:** 12-24V DC @ 3W max  
**Output:** Analog, 4-20mA or 1-5V DC

## Regulatory Approvals

FCC(USA) - MCQ-XBEEEXSC  
IC (Canada) - 1846A-XBEEEXSC

## Available Models

Model Number	Description	Control Lines
XTR-WRC420	Industrial Wireless 1-Line 4-20mA Transmitter/Receiver Set	1

## Available Options

Model Number	Description
DRWC-900-LRANT	Optional Long Range Directional Antenna (up to 6 Miles line-of-site)

Note: Continued product improvements make specifications subject to change without notice.  
Check [www.imagineinstruments.com](http://www.imagineinstruments.com) for the latest product information and updates

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e-mail: [info@imagineinstruments.com](mailto:info@imagineinstruments.com) :: [www.imagineinstruments.com](http://www.imagineinstruments.com)

Released: 7 Oct, 2018 :: Rev: A