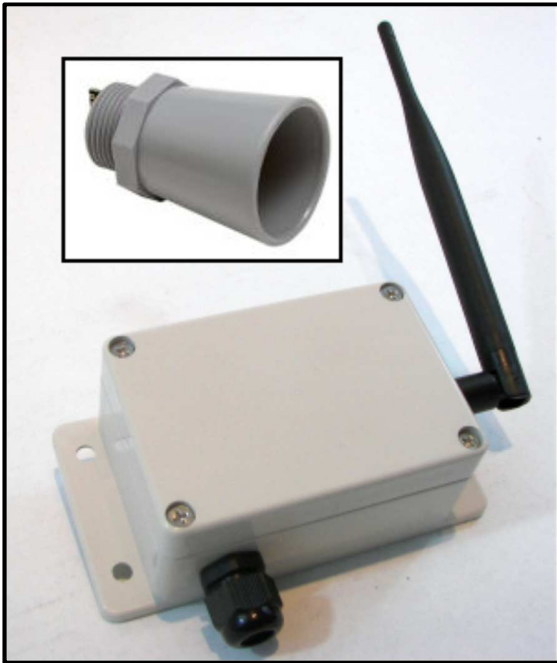




Series: **WULT-900-420**

## Non-contact Ultrasonic Level Transmitter/Wireless System



### FEATURES & BENEFITS

- Wireless Bridge Between Level Sensor & Instrument
- Non-contact Ultrasonic Sensor with Narrow Beam Pattern
- Up To 3 Miles Line-of-site Transmit/Receive Distance
- Sensors Available with Two Different Distance Ranges
- Can Be 12-24V DC, Hardwired, Battery or Solar Powered
- Receiver Provides 4-20mA or 1-5V DC Analog Output
- License Free Point-to-point Radio Operation

### APPLACATIONS

- Bin, Tank or Pool Level Monitoring, Irrigation Systems
- Process Control & Instrumentation
- Snow Level Measurement

### DESCRIPTION

Series WULT-900-420 Continuous Ultrasonic Level Sensor with Wireless Transmitter/Receiver Set provides a wireless bridge between the included non-contact ultrasonic level sensor and any analog input process monitoring or control Instrument. Measurements from the level sensor connected to the transmitting unit are sent via a license free radio signal to a receiver unit up to 3 miles (Line-of-site) away. The receiving unit provides an accurate analog current or voltage output that corresponds the level being measured by the sensor. The sensor transmitter can be powered by a 12-24V DC supply, 12V DC battery or powered by optional solar kit.

SAMPLE APPLICATION: ULTRASONIC LEVEL SENSOR SENDING WIRELESS MEASUREMENTS TO REMOTE PLC DEVIC



## General Specifications

**Radio Frequency:** 900 MHz  
**Wireless Analog Signal Transmission Resolution:** 10-bit  
**RF Output Impedance:** 50 Ohm nominal  
**Transmitter/Receiver Code Matching:** Factory set  
**Wire Connections:** Terminal Blocks (14 – 24 AWG)  
**Transmitter/Receiver Enclosure:** Din-rail Plastic or NEMA 4X  
**Antennas:** 5dBi Antenna (Included with system)  
**Max Transmit/Receive RF Distance:**  
Up to 1 mile Line-of-sight (With Included 5dbi Antennas)  
Up to 3 miles Line-of-sight (With Optional 12dbi Antennas)

## Level Sensor Specifications

**Sensor Frequency:** 42kHz  
**Sensor Connection:** 3 Wire Leads  
**Sensor Read Rate:** 6.66Hz  
**Measurement Distance/Beam Pattern:** See charts  
**Mounting:** 3/4"-14 NPT Thread  
**Cable Length:** 12', 3-wire shielded integral cable  
**Operating Temperature:** -40 to 149 °F (-40 to 65 °C)

## Wireless Transmitter Specifications

**Input Signal:** ULSXL Ultrasonic Level Sensor  
**Operating Power:** Can be Hardwired, Battery or Solar  
**Operating Temperature:** -10 to 130 °F (-23 to 54 °C)  
**Hardwired** - 12 to 24V DC @ 250mA  
**Battery** – 12V Battery (See Manual for Battery Life Estimates)  
**Optional Solar** – Includes Panel, Battery, Charge Controller  
**RF Power Output:** 63mW  
**RF Data Rate:** 250 Kbps

## Wireless Receiver Specifications

**Operating Power:** 12-24V DC @ 350mA  
**Operating Temperature:** -10 to 130 °F (-23 to 54 °C)  
**Receive Sensitivity:** -100 dBm  
**RF Input Impedance:** 50 Ohm nominal  
**Analog Output:** 4-20mA, 1-5VDC (Field Selectable)

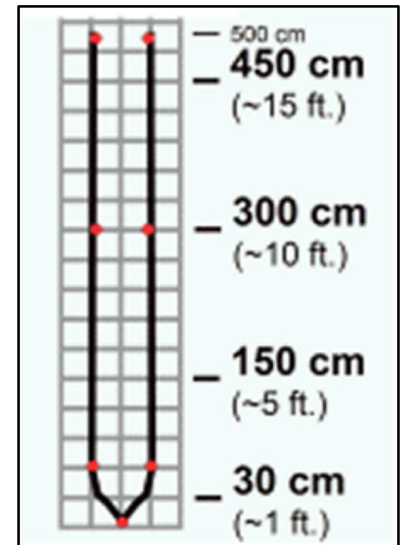
## Wireless Regulatory Approvals

**Regulatory:** FCC Part 15 (No license required)  
**FCC(USA):** MCQ-XBEEEXSC, **IC (Canada):** 1846A-XBEEEXSC

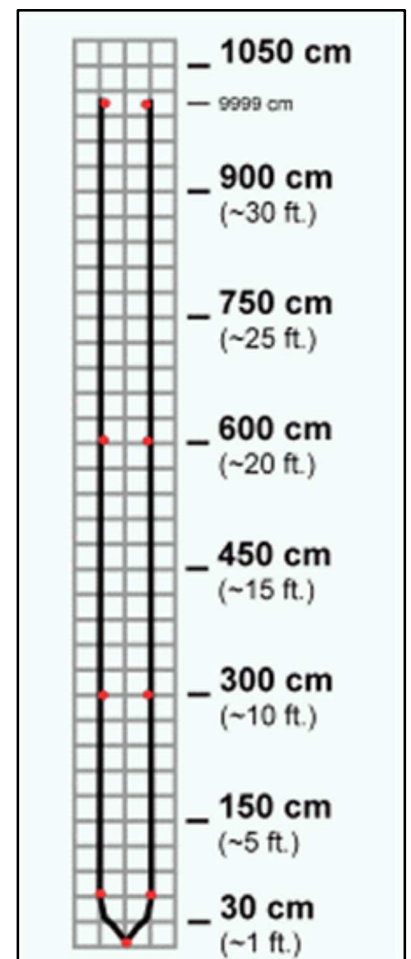


3/4"-14 NPT Thread Sensor Mounting Nut Included

Series: **WULT-900-420**



16' (500 cm) Beam Pattern

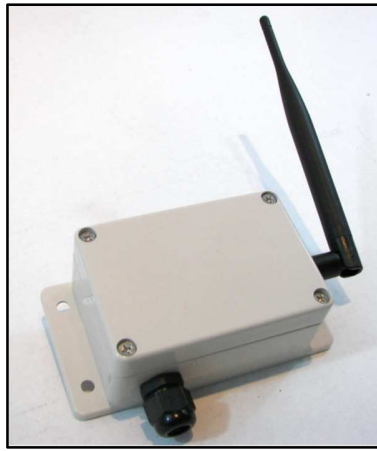


32' (1000cm) Beam Pattern

# Series: WULT-900-420



Din-rail Transmitter/Receiver



NEMA 4X Transmitter/Receiver



Solar Kit Includes Panel, Battery, Charger, Enclosure



Includes 9' Antenna Remote Mount Kit

## Available Models

Model Number	Description/Measurement Distance
WULT-24-420-500CM	16' (500cm) Distance Ultrasonic Level Sensor with NEMA 4X Wireless Analog Transmitter/Receiver Set
WULT-24-420-1000CM	32' (1000cm) Distance Ultrasonic Level Sensor with NEMA 4X Wireless Analog Transmitter/Receiver Set
WULT-DR-24-420-500CM	16' (500cm) Distance Ultrasonic Level Sensor with Din-rail Wireless Analog Transmitter/Receiver Set
WULT-DR-24-420-1000CM	32' (1000cm) Distance Ultrasonic Level Sensor with Din-rail Wireless Analog Transmitter/Receiver Set

## Available Options

Model Number	Description
AT24-12DBI-YD-RP-SMA	12dBi Yagi Antenna
WLTX-24-SPK	Solar Power Kit (for one side)



Optional Antenna Model: AT24-12DBI-YD-RP-SMA

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Note: Continued product improvements make specifications subject to change without notice.  
 Check www.imagineinstruments.com for the latest product information and updates

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