

WIRELESS TRANSDUCER RECEIVER

TYPICAL APPLICATIONS

For use where having a wireless connection between the transducer and the control panel or telemetry panel is required.

DESCRIPTION

The Wireless Transducer Receiver reads the liquid level information in the radio signal from the nearby Wireless Transducer Transmitter and provides an analog 4-20mA output and SCADA register data that represents the liquid level being monitored.

The Wireless Transducer Transmitter is suspended above the liquid in the nearby tank and is connected by cable to the Pressure Sensor submerged near the bottom of the tank. The Transmitter obtains the liquid level from the Pressure Sensor and sends the data by radio signal to the Receiver.

The Transmitter and Receiver are capable of reliable communication even with the Transmitter under a concrete slab inside a lift station wet well. The Receiver with its Antenna must however, be mounted nearby. For applications where the Transmitter and Receiver Antenna have line of site, reliable communication can be maintained at distances up to 125 feet.

The Pressure Sensor measures the Absolute Pressure, so in order to accurately determine the liquid level, the WTR420 measures the barometric pressure and makes the necessary correction.

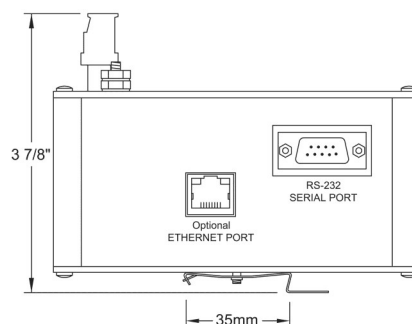
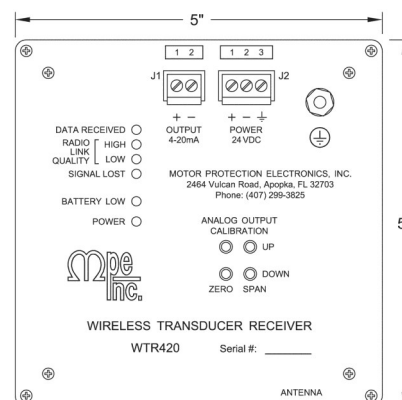
The WTR420 provides three levels of Radio Link Quality indication. HIGH, which indicates good communication. LOW, which indicates less than ideal communication. LOST, which indicates no communication with the Transmitter.

The BATTERY LOW indication on the WTR420 is provided to indicate the condition of the battery in the Transmitter. The indicator blinks when the battery has low voltage and must be replaced.

The 4-20mA Analog Output may be calibration in the field using the Zero and Span push-buttons on the front of the unit. The Span adjustment range is between 20mA @ 3.0 feet/H2O and 20mA @ 34.6 feet/H2O.

Connecting the RS-232 serial port (or optional Ethernet Port) to a SCADA system allows the liquid level to be monitored remotely. The WTR420 acts as a Modbus RTU slave.

Additional setup and troubleshooting features are available using the separately supplied Touch Screen Interface Device (TSID).



SPECIFICATIONS

Input Power:	24 VDC \pm 10% 120 mA max
Analog Output:	Non-Isolated 4-20 mA Maximum Load 600 Ω
Radio Frequency:	2.4 GHz
Operating Temp:	-20 to +65 $^{\circ}$ C
Storage Temp:	-45 to +85 $^{\circ}$ C
Enclosure:	Aluminum, Din Rail Mounted

Receiver Subassembly: WTR420 A B

Analog Output Calibration: _____

05 = 20mA @ 11.5 Ft/H2O

10 = 20mA @ 23.1 Ft/H2O

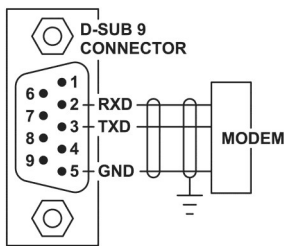
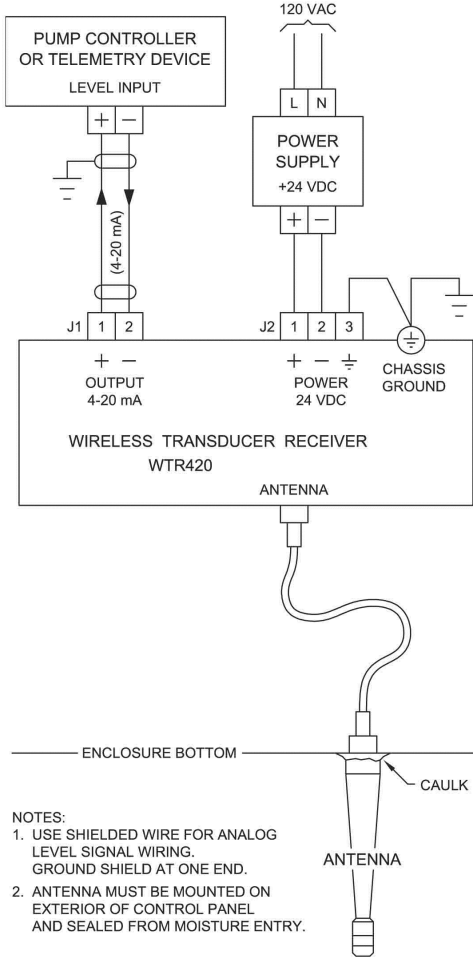
15 = 20mA @ 34.6 Ft/H2O

Communications Option: _____
Blank = Standard Unit **E** = Ethernet Port

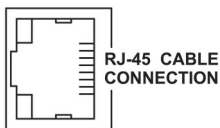
Includes: Antenna and Antenna Cable

WIRELESS TRANSDUCER

CONNECTION DIAGRAM



RS-232 SERIAL PORT



Optional ETHERNET PORT

