

### DESCRIPTION

#### 350 Series Wireless System

The Badger Meter® 350 Series Wireless System consists of the 350T RF transmitter and the 350R RF receiver. These devices are serialized to each other and transmit and receive updated data every four seconds. The 350T is a potted, battery powered radio transmitter. This transmitter can be placed in below grade applications and is intended for outdoor use. The 350R requires 12...24V AC/DC and needs to be installed in an indoor location or weatherproof enclosure.

This system is designed to collect scaled pulse information from Badger Meter flow products or other instrumentation with a pulse output that can be scaled to be compatible with the 350T. Once collected, this data is transmitted every four seconds to the serialized 350R. This device then reproduces the scaled pulse output and then sends it out to an appropriate collection device via an open collector output.

#### 350T Wireless Transmitter

The 350T is a battery powered radio transmitter that will receive scaled pulses from an open collector output device. These pulses must be between 30...70 ms pulse width and the maximum frequency input must be less than 3 Hz. The pulses within the 350 system are unitless as they are simply counted and passed on. The 350T has a red and black wire (10' in length) to allow a two wire connection to pulse output devices.

#### 350R Wireless Receiver

The 350R is a radio receiver that is serialized to one 350T. Once powered, the receiver will collect the 350T transmissions every four seconds. An led is onboard the unit to indicate that these receptions are occurring. This is a good diagnostic tool to ensure the 350T and 350R are within range of each other. The 350R requires an external antenna. A coax connector is standard on the 350R.

### EXAMPLE USES AND CONNECTIONS

To make the connections between the 350T and a pulse output device, the two wires (Red + and Black -) need to be connected to the output devices positive (+) and negative (-) terminals. The input to the 350T must meet the requirements mentioned above.

An example of a suitable pulse output device would be the Badger Meter 320 Pulse Transmitter. This device will make any non-battery powered Badger Meter Impeller Flow Sensor directly compatible with the 350 system.

For connection to a Badger Meter 320 Programmable Scaled Pulse Output Transmitter:

- The Red wire from the 350T connects to the Pulse Out + of the 320
- The Black wire from the 350T connects to the Pulse Out - of the 320



**350T**



**350R**

In the PC Programming Software for the 320, set the *Pulse Width (ms)* in the *Pulse Output Control* section of the parameters to 50. Set up the *1 Pulse =* parameter so the output does not go over the range of the 350T. To make sure of this, use the following based on pipe size:

- < 3 in. = 1
- 3...6 in. = 10
- 8...18 in. = 100
- 20...36 in. = 1000

For connection to a Badger Meter Battery Powered SDI Sensor

- The Red wire from the 350T connects to the Red wire from the pulse out of the Battery SDI
- The Black wire from the 350T connects to the Black wire from the pulse out of the Battery SDI

In the Programming Software for the Battery SDI, set the *Pulse Width (ms)* in the *Pulse Output Control* section of the parameters to 50. Set up the *1 Pulse =* parameter so the output does not go over the range of the 350T. To make sure of this, use the following based on pipe size:

- < 5" = 100
- 5" to 14" = 1000
- > 16" = 10000

The Battery SDI *1 Pulse =* setting is larger because of battery conservation to hold to the life expectancy to what is listed in the sensor user manual. The PC software will not let you enter in a number that is too low, but this absolute lower number may be lower than what is listed here. The scale listed above is given in even tens to make conversion as easy as possible.

### SUMMARY

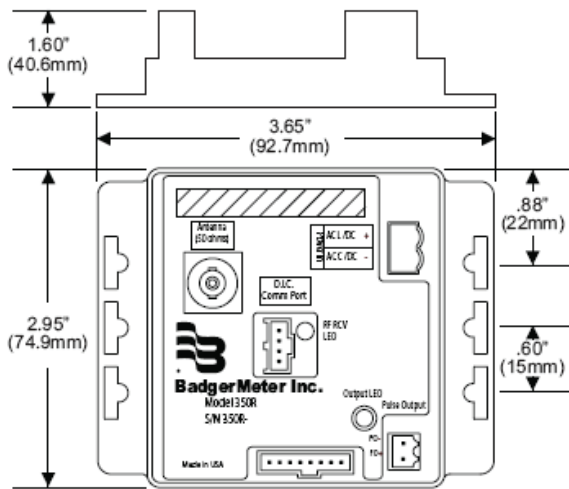
This simple wireless system can benefit many installations by reducing installation time and cost. Whether used with a Badger Meter product or another instrument, the compatibility allows for a quick means to retrieve data without installing wires.

## SPECIFICATIONS

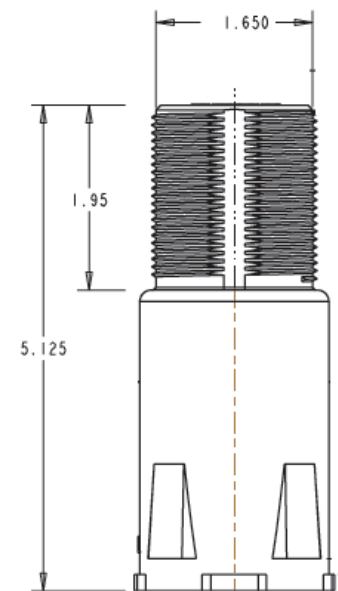
Power Requirements	350T	Battery powered (typical battery > 10 years)
	350R	Externally powered 12...24 V DC/AC
		Current draw: 36 mA @ 12V DC 16 mA @ 24V DC 40 mA rms @ 12V AC rms 30 mA rms @ 24V AC rms
Programming	350R	Programmed using PC software via the A301W-20 connector cable
		Parameters: Volume units (gallons, ft <sup>3</sup> , m <sup>3</sup> , liters) Scaled pulse output (units/pulse) Scaled pulse output (pulse width)

## DIMENSIONS

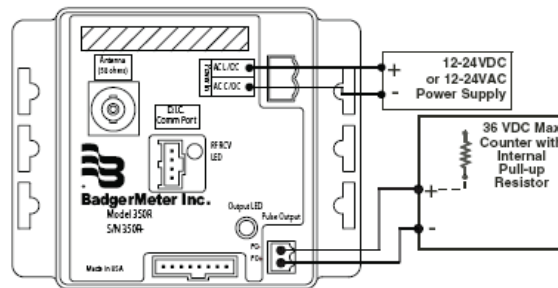
### 350R



### 350T



### 350R Electrical



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