

# Portable Ultrasonic Flow meter with Bluetooth® Wireless

## Features

- Accuracy +/- 0.5% of reading; repeatability +/- 0.5% of reading
- Wide operating temperature range -40F to +176F (-40C to 80C)
- One meter for a wide range of pipe sizes 1.0" to 200" (25mm to 5m)
- Palm® TX PDA interface with Bluetooth® wireless
- Numerical and graphical display interface
- Battery power supply with battery recharge port (including spare battery)
- Lightweight and easily transportable
- Low installation effort and costs
- Clamp-on sensors require no pipe cutting or process interruption and no plant shut-down
- Magnetic sensor clamping fixture with slip-scale gage
- Hygienic measurement, no risk of contamination, suitable for ultra clean liquids
- Cost advantages when used with large diameter pipes, high pressure systems, etc
- Wide bi-directional flow range of 0 to 40 ft/s (0 to 12 m/s)
- Daily, monthly, and yearly totalized flow
- Internally configured batch controller makes batch control convenient
- Measurement is independent of fluid conductivity meaning a wider applicability than magnetic meters
- 1 gig SD memory card for high capacity data logging

**SIERRA**<sup>®</sup>  
**INSTRUMENTS**  
THE MASS FLOW COMPANY



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[www.sierrainstruments.com](http://www.sierrainstruments.com)

# Innova-Sonic® Portable Model 210



## Description

**O**ur Innova-Sonic® Model 210 Portable ultrasonic flowmeter is a state-of-the-art universal transit-time flowmeter incorporating the latest developments in digital signal processing. Sophisticated electronics coupled with powerful ultrasonic transducers deliver highly accurate flow measurement for liquids in full pipes. While principally designed for clean liquid applications, the instrument is tolerant of liquids with a small quantity of air bubbles or suspended solids common in most industrial applications.

Our Innova-Sonic Model 210 is fully field portable and comes standard with a convenient pelican carrying case, spare battery pack, non-invasive clamp-on transducers, mounting hardware, and a Palm® TX Personal Digital Assistant (PDA) interface for a totally self-contained measurement package. The PDA interface features Bluetooth® wireless communication for added convenience allowing all metering and programming functions to be accomplished from the palm of your hand.

The instrument features a powerful yet extremely user friendly suite of programming and data analysis features including: instantaneous flowrate, positive total, negative total, net total, velocity, date & time, and daily flow results. In addition, the graphing function allows easy visual interpretation of flow data and trending. Our Innova-Sonic® Portable is the ideal flow measurement solution for customers who want the flexibility of an accurate and portable flow measurement tool in a ready-to-use package.

### Performance Specifications

**Flow Range:** 0 to +/- 40 ft/s (0 to +/-12 m/s)

**Accuracy:** +/- 0.5% of reading

**Repeatability:** +/- 0.5% of reading

**Pipe Size:** 1.0" in to 200" (25mm to 5m)

### Operating Specifications

**Output:**

Analog: 4 to 20mA (max load 750Ω)

Pulse relay output standard

**Power Supply:** 12VDC (10~36V DC) battery power (continuous operation of main battery 8 hours + spare battery for 8 hours)

**Keypad/Display:** Personal Digital Assistant (PDA) using Bluetooth® wireless technology

**Temperature:** Transmitter: -40F to 140F (-40C to 60C)

**Transducer:** -40F to 176F (-40C to 80C)

**Humidity:** Up to 99%RH, non-condensing

### Physical Specifications

**Transmitter:** Aluminum enclosure

**Transducer:** Encapsulated design

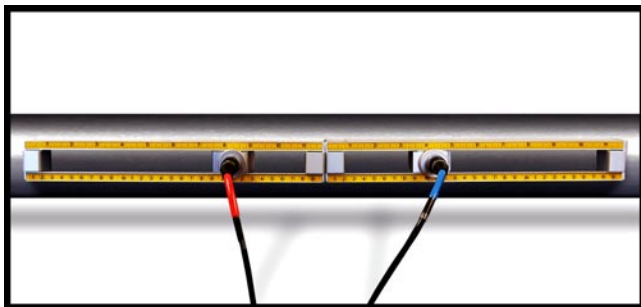
Maximum cable length: 30ft/1000ft (9m/305m)

**Electronics Dimensions:** 7.8"(19.5cm) H x 5.3" (13.5cm) W x 1.4" (3.5cm) D

**Weight:** 1.9 LB (0.9 kg)

**PDA Dimensions:** 4.76" (12cm) H x 3.08" (7.8cm) W x 0.61" (1.5cm) D

### Magnetic Transducer Spacing Slip Scale For Ease of Use



### Personal Digital Assistant Specifications



### Performance Specifications

**Processor:** Intel 312MHz

**Operating System:** Palm® OS 5.4.9

**Platform:** Palm TX PDA

**Wireless Protocol:** Bluetooth®

**Input Method:** Stylus

**Installed Memory:** 256 Flash RAM

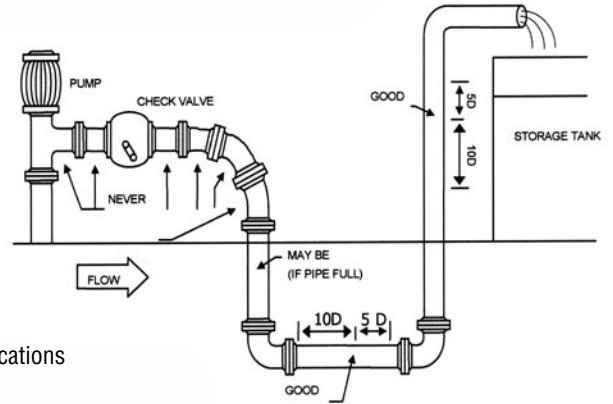
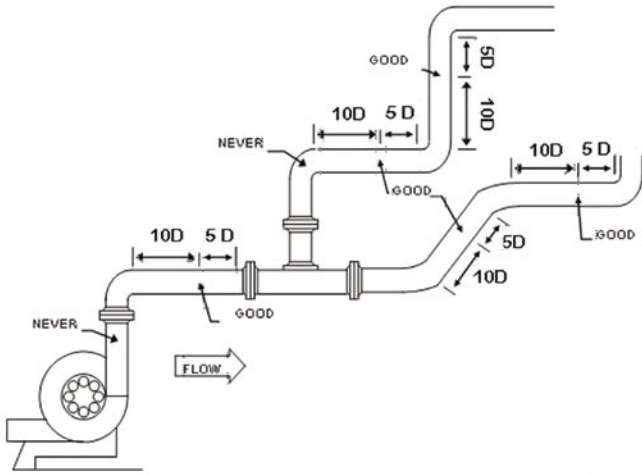
**Software:** Innova-Sonic® Application Program

- Data acquisition and display setup
- Quick Setup Menu
- Data Graphing function
- Complete Diagnostics
- Input/Output Configuration

**Also Included:**

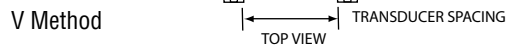
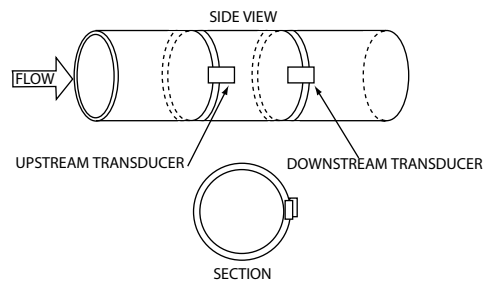
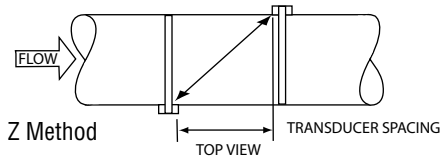
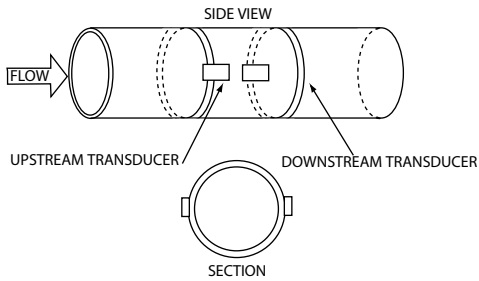
Built-in Microsoft Outlook compatibility, Calendar, Contacts, Tasks, Memos, Favorites, DataViz® Documents to go® v7 Professional Edition for Word, Excel and powerpoint capability, VersaMail® for email, SMS, Web browser, Pocket Tunes for MP3, Palm Media for photos and videos, Security, WiFile, Adobe® Acrobat® Reader® for palm OS® Desktop software for Windows, CJK for Palm® OS, and more.

## Installation Examples

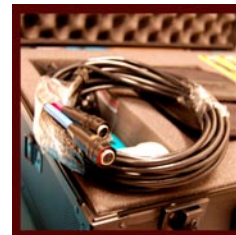
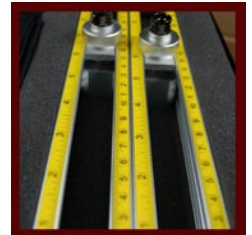
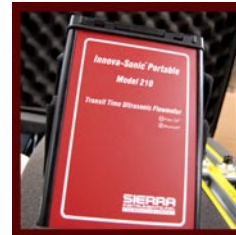


Suitable locations

## Transducer Spacing Requirements



## Complete Package, All Included



## Ordering the Model 210

