

## Portable Ultrasonic Transit-Time Flow Meter

### Features

- Accuracy +/- 1.0% of reading; repeatability +/- 0.3% of full scale; linearity +/-1.0% of reading
- Flowrange 0 to 40 ft/s (0 to 12 m/s)
- Wide measurement temperature range -40°F to +176°F (-40°C to 80°C)
- One meter for a wide range of pipe sizes 1.0" to 48" (25mm to 1200mm)
- 11 VDC rechargeable lithium-ion battery (continuous operation for up to 16 hours)
- Analog output 4 to 20 mA (max 750 ohms)
- NEMA 13 (IP 54) transmitter with tactile entry keys and 64 x 128 alphanumeric backlit LCD
- Ambient conditions 14°F to 122°F (-10°C to 60°C). Up to 99% relative humidity (non-condensing)
- Encapsulated transducers; IP 68 with 16 ft (5m) standard cable
- 1GB SD memory card for high capacity data logging (512 files max; interval 5 to 60 seconds)
- Lightweight 2.2lb (1.0kg) 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; chain straps included for non-magnetic pipe
- Hygienic measurement, no risk of contamination, suitable for ultra clean liquids
- Cost advantages when used with large diameter pipes, high pressure systems, etc



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

# Innova-Sonic® 210i



### Description

Sierra's next generation Innova-Sonic® 210i ultrasonic flow meter succeeds at delivering portability and expanded functionality at a significantly reduced cost.

The 210i is ideal for precisely measuring a wide range of liquid flows and temperatures. This universal transit-time meter features a pushbutton interface, ergonomic handheld design and a large digital display that significantly simplifies set-up and data collection. Its high-powered ultrasonic pulse with improved digital signal processing requires just one set of transducers for a wide range of pipe sizes and materials including metal, plastic and concrete.

While principally designed for clean liquids, the 210i operates effectively with the minimal quantity of air bubbles or suspended solids found in most industrial applications.

The 210i provides a powerful and extremely user-friendly programming menu that includes instantaneous flow rate, positive total, negative total, net total, velocity, date & time, and daily flow results. Its 1GB SD memory card promises high capacity data logging and a rechargeable lithium-ion battery supports continuous operation for a minimum of 16 hours.

A fully field-portable, lightweight, yet rugged and totally self-contained flow measurement package, the Sierra 210i comes standard with a sturdy and convenient pelican carrying case, non-invasive clamp-on transducers installed into compact mounting racks (magnetic & cable mount), coupling compound and a start-up CD. And it's easy to use. It sets up in five minutes or less.



## Performance Specifications

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

**Accuracy:** +/- 1.0% of reading

**Repeatability:** +/- 0.3% of reading

**Linearity:** +/-1.0% of reading

**Pipe Size:** 1.0" in to 48" (25mm to 1200mm)

## Operating Specifications

### Output:

Analog: 0/4 to 20mA (max load 750  $\Omega$ )

**Power Supply:** 11.1 VDC rechargeable lithium-ion battery (continuous operation of up to 16 hours)

**Keypad/Display:** Tactile keys with 64 x128 alphanumeric backlit LCD

**Ambient Temperature:** 14°F to 122°F (-10°C to 50°C); up to 99% relative humidity (non-condensing)

**Fluid Temperature:** -40°F to 176°F (-40°C to 80°C)

## Physical Specifications

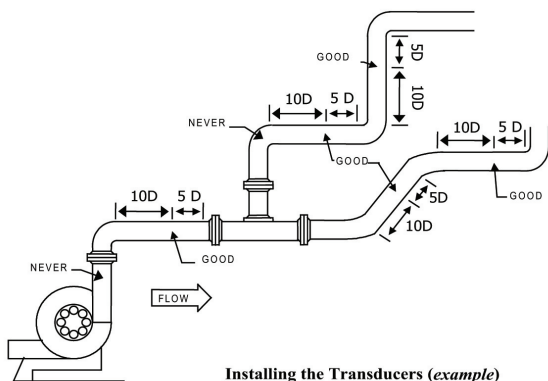
**Transmitter:** NEMA 13 (IP 54)

**Transducer:** Encapsulated design, IP 68; Standard cable 16 ft (5 m)

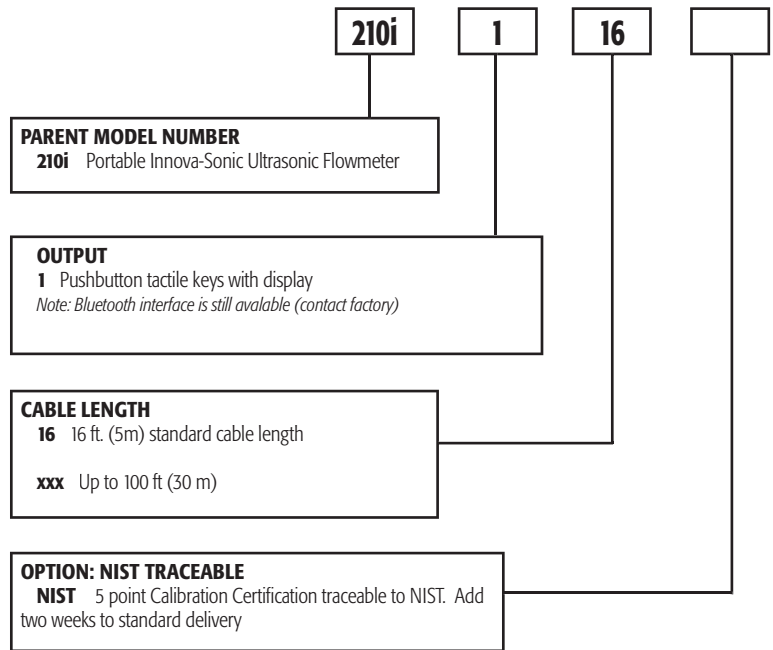
**Electronics Dimensions:** H = 7.8" (19.5cm) W = 5.3" (13.5cm) D = 1.4" (3.5cm)

**Weight:** 2.2 lb (1.0 kg)

## Installation Examples



## Ordering The Model 210i



Note: Buy the 210i-1-16 online for immediate delivery at [sierrainstruments.com/shop](http://sierrainstruments.com/shop)

## Transducer Spacing Requirements

