Portable Ultrasonic Transit-Time Flow Meter

InnovaSonic 210i ®

FEATURES

- **Accuracy +/- 0.5% of reading from 1.6 to 40 ft/s (0.49 m/s to 12 m/s); repeatability +/- 0.3% of full scale; linearity +/-1.0% of reading**

- **Flow range 1.6 to 40 ft/s (0.49 m/s 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 inch to 48 inches (25 mm to 1200 mm)**

- **11 VDC rechargeable lithium-ion battery (continuous operation for up to16 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**

ISO
REGISTERED
9001

DESCRIPTION

S ierra's next generation InnovaSonic® 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.

SIERRA ®
EXPERIENCE OUR PASSION FOR FLOW!

www.sierrainstruments.com

Flow Range

1.6 to 40 ft/s (0.49 m/s to 12 m/s)

Accuracy

accuracy +/- 0.5% of reading from 1.6 to 40 ft/s (0.49 m/s to 12 m/s)

Repeatability

+/- 0.3% of reading

Linearity

+/-1.0% of reading

Pipe Size

1 inch to 48 inches (25 mm to 1200 mm)

OPERATING SPECIFICATIONS

Output

Analog: 0/4 to 20mA current loop (max load 750 Ω)

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)
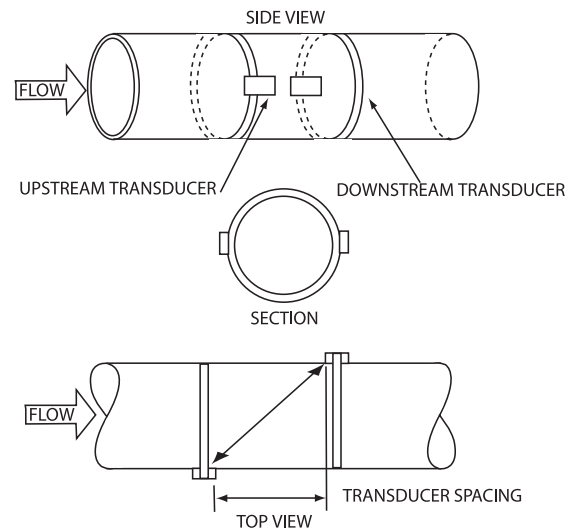
Electronics Dimensions

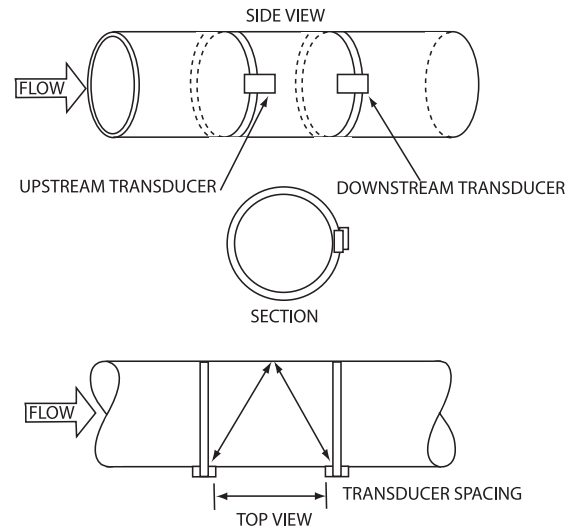H = 7.8 inches (19.5 cm) W = 5.3 inches (13.5 cm) D = 1.4 inches (3.5 cm)

Weight

2.2 lb (1.0 kg)
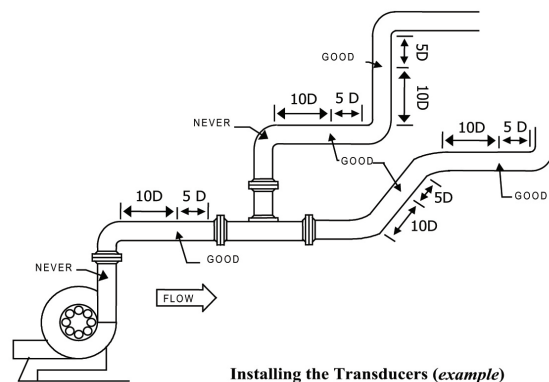
TRANSDUCER SPACING REQUIREMENTS

Z Method

V Method

INSTALLATION EXAMPLES

Installing the Transducers (*example*)

210i - ☐ **-** ☐ **-** ☐

Feature 1   Feature 2   Option

Instructions: To order a 210i, please fill in each block by selecting the codes from the corresponding features below.

Parent Number	
210i	Innova-Sonic® Portable Digital Correlation Transit Time Flow Meter Portable digital correlation transit time flow meter; flow range 1.6 to 40 ft/s (0.49 to 12 m/s); accuracy +/- 0.5% of reading from 1.6 to 40 ft/s (0.49 m/s to 12 m/s); repeatability +/- 0.3% of reading; linearity +/- 1.0% of reading; pipe size 1 inch to 48 inches (25 mm to 1200 mm); 4-20 mA DC output; push-button data entry and integral display; rechargeable battery (16 hours duration); wall-mounted charger included (includes international plug set); 1 GB SD memory card; pelican-style case.

Note: The following lists standard product/pricing. Sierra will work with you for special requests. Please submit your request using the RFQ/Specials tab in this price list.

Feature 1: Interface	
1	Push-button tactile keys with display

Feature 2: Transducer and Cable Length	
16	Clamp-on portable transducers with two magnetic mounting racks. Operating temperature -40°C to 80°C (-40°F to 176°F), 16 ft. (5m) standard cable length. RFQ required for longer cable lengths.

Option: NIST Traceable Certificate	
NIST	5-point calibration certification traceable to NIST. Add two weeks to standard delivery.

STOCKED FOR IMMEDIATE DELIVERY VIA ONLINE STORE
www.sierrainstruments.com/shop/ultrasonic-210i

Model Number: **210i-1-16**
Ships in 2 Days

Online Store Catalog
www.sierrainstruments.com/shop