

Economical Ultrasonic Transit-Time Flow Meter for Water Applications

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 reading
- Wide operating temperature range 32°F to 140°F (0°C to 60°C)
- Wide bi-directional Flow range of 1.6 to 40 ft/s (0.49 m/s to 12 m/s)
- One meter for a wide range of pipe sizes from 1 inch to 48 inches (25 mm to 1200 mm)
- Configurable pulse and relay output
- RS-232 (RS-485 optional)
- 10-24 VAC or 10-36 VDC, 1A
- Daily, monthly and yearly totalized flow
- 16 (4 x 4) keyboard with 20 x 2 line display
- Clamp-on encapsulated IP 68 sensors require no pipe cutting, no plant shut-down, are a hygienic measurement leading to lower installation and labor costs
- Lightweight (0.7 kg; 1.5 lb) PC/ABS IP 65 transmitter
- Measurement is independent of fluid conductivity meaning a wider applicability compared to magnetic meters
- Programmable frequency output and VAC power emulates turbine/propeller meters



www.sierrainstruments.com

INNOVASONIC 203



DESCRIPTION

Sierra's new InnovaSonic[®] 203 ultrasonic flow meter delivers highly accurate and repeatable flow measurement for water at a significantly reduced cost. Incorporating the core technologies of Sierra's flagship 205i, the design of the 203 universal transit-time flow meter is focused on those features that optimize the measurement of water flows in HVAC, irrigation, and other water applications.

Ideal for pipes up to 48 inches (1200 mm) in diameter, the 203 promises accuracy to +/-0.5% of reading, repeatability of +/-0.3% of reading and a temperature range of 32°F to 140°F (0°C to 60°C).

The 203 offers low power consumption and high reliability at a very competitive price. An easy to read display and clear, user-friendly menu selections make using the instrument simple and convenient. It can be configured via a 4x4 keypad without additional programming devices and features a 20 x 2 digit alpha-numeric display.

The 203 features a programmable frequency output, a relay output and a programmable current loop output. RS-232 and Modbus RTU are standard, while RS-485 is optional.

The InnovaSonic 203 is packaged in a lightweight polycarbonate IP 65 housing and includes clamp-on encapsulated IP 68 sensors that are easy to install and require no pipe cutting, thereby reducing installation and labor costs.



PERFORMANCE SPECIFICATIONS

Flow Range

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

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)
 Pulse output: 0 to 9999Hz, OCT, (min. and max. frequency is adjustable)
 Relay output: SPST, max 1 Hz, (0.3 A @ 125VAC or 1A @ 30VDC)
 Digital output: RS-232 (RS 485 optional)

Power Supply

10 to 24 VAC, 1A and 10 to 36 VDC

Keypad

16 (4x4) key with push buttons

Display

40 character, 2 line (20x2) lattice alphanumeric, backlit LCD

Temperature

Transmitter: 14°F to 122°F (-10°C to 50°C)
 Clamp-on transducer: 32°F to 140°F (0°C to 60°C)

Humidity

Up to 99% RH, (non-condensing).

PHYSICAL SPECIFICATIONS

Transmitter

IP 65 (PC/ABS)

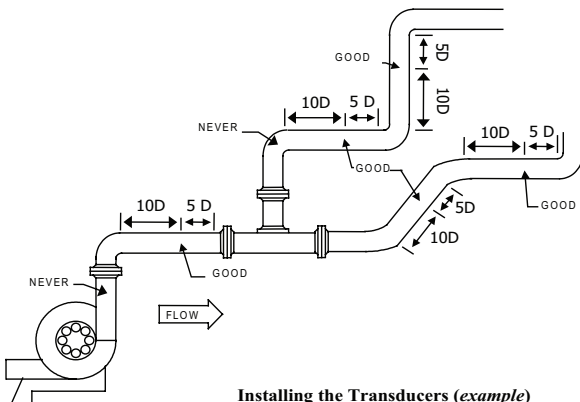
Transducer

Encapsulated design IP 68 standard/maximum cable length: 30 m/100 ft

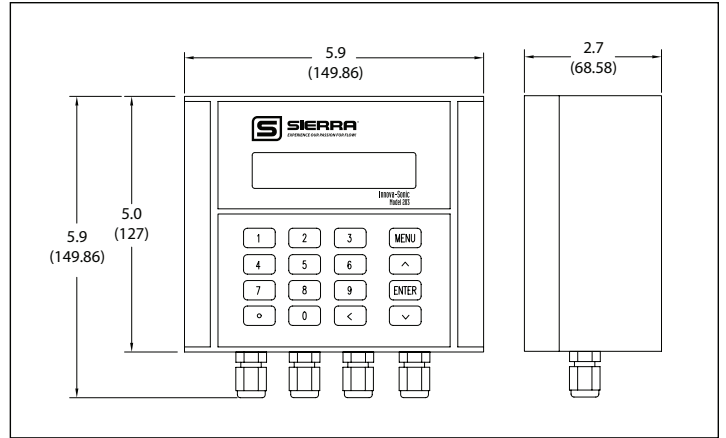
Weight Transmitter

Approximately 1.5 lb. (.7 kg) Transducer: approximately 0.9 lb. (0.4 kg)

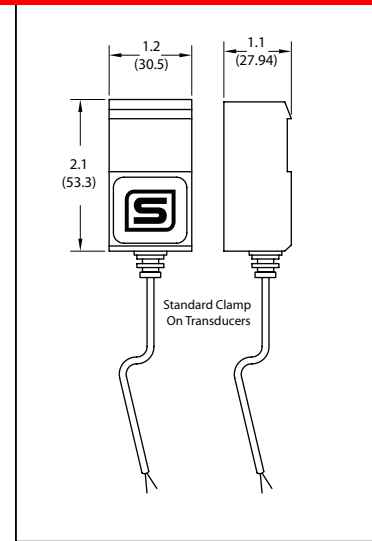
SUITABLE LOCATIONS



TRANSMITTER DIMENSIONAL SPECIFICATIONS

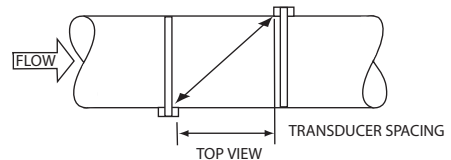


CLAMP-ON TRANSDUCER DIMENSIONAL SPECIFICATIONS

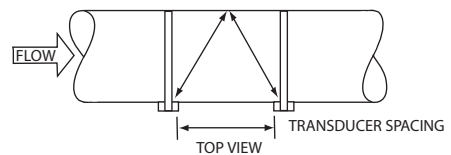


TRANSDUCER SPACING REQUIREMENTS

Z Method



V Method



ORDERING THE MODEL 203

203 - - -
 Feature 1 Feature 2 Option

Instructions: To order a 203, please fill in each block by selecting the codes from the corresponding feature below.

Parent Number	
203	203 Economical digital correlation transit time flow meter; flow range 1.6 to 40 ft./s (0.49 m/s 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; pipe size range 1 inch to 48 inches (25 mm to 1200 mm). 10-24 VAC, 10 to 36 VDC at 110 mA; IP 65, ABS/PC enclosure; 4-20 mA DC output; OCT 0 to 10 kHz. Push button data entry (4x4) and integral display; relay, RS-232; operating temperature 0°C to 60°C (32°F to 140°F).

Feature 1: Outputs	
2	OCT, Relay, RS-485
3	OCT, Relay, RS-232, 4-20 mA

Feature 2: Transducers	
CP	Clamp-on transducers with mounting racks and cable length. Operating temperature 0° to 60°C (32°F to 140°F). Standard 30 ft. (9 m)
CP (X)	Special length up to 100 ft. (30 m)

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-203

Model Number: 203-3-CP

Ships in 2 Days

Online Store Catalog

www.sierrainstruments.com/shop

