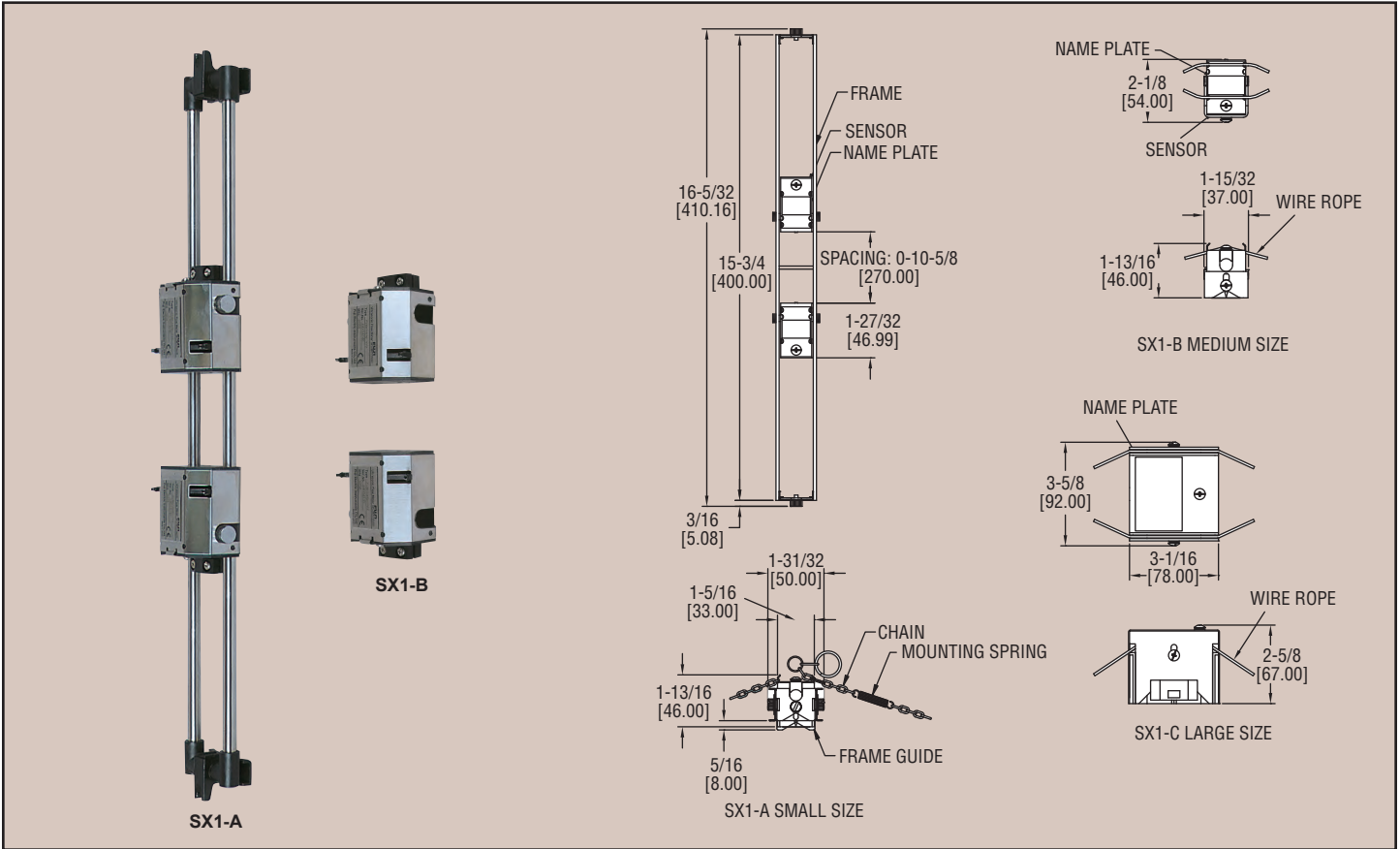




Series  
SX1

# Ultrasonic Flowmeter Detector

Excellent Performance and Easy Operation



**Series SX1 Ultrasonic Flowmeter Detectors** are paired with Series UXF1 and UXF3 converters in order to utilize the transit-time measuring method. Two ultrasonic sensors are mounted on the pipe exterior, and each transmits an ultrasonic pulse to the opposite sensor. The difference in the transit times of the two waves is used to calculate the flow velocity.

**Series SX1 Ultrasonic Flowmeter Detector:**

- Easy installation, no pipe work required
- Simple maintenance, no moving parts
- Free from pressure loss, choking, and leakage
- Clamp-on features allow for reduction of total ownership cost

Model	Description
SX1-A	Detector, Small Sensor
SX1-B	Detector, Medium Sensor
SX1-C	Detector, Large Sensor

**ACCESSORIES**

Model	Description
SXC-1A	16.4 ft (5 m) cable for SX1
SXC-1B	32.8 ft (10 m) cable for SX1
A-186	Silicone-based grease acoustic couplant, 3 oz tube
A-187	Silicone RTV acoustic couplant, 4 oz tube
A-188	Silicone-free acoustic couplant, 4 oz tube

**OPTIONS**

Consult factory for other cable lengths.

**SPECIFICATIONS**

**Service:** Liquid flow through which ultrasonic signal can be transmitted (water, sea water, oil, and fluid of unknown velocity).

**Turbidity:** 10000 deg (mg/L) or less.

**Type of Flow:** Well-developed turbulent or laminar flow in a full-filled pipe.

**Range:** 0 to ±105 fps (0 to ±32 m/s) (bidirectional flow).

**Flow Pipe Sizes:** SX1-A: 1.97 to 15.75 in (50 to 400 mm); SX1-B: 1.97 to 47.24 in (50 to 1200 mm); SX1-C: 7.87 to 236.2 in (200 to 6000 mm).

**Accuracy:**

- Pipe Size: 0.51 in (13 mm) to under 1.99 in (50 mm)
  - ±0.03 m/s for flow rate: Under 2 m/s
  - ±0.75% to ±1.5% of rate for flow rate: 2 m/s to 32 m/s;
- Pipe Size: 1.99 in (50 mm) to under 11.8 in (300 mm)
  - ±0.02 m/s for flow rate: Under 2 m/s
  - ±0.5% to ±1.0% of rate for flow rate: 1 m/s to 32 m/s;
- Pipe Size: 11.8 in (300 mm) up to 19.69 ft (6000 mm)
  - ±0.01 m/s for flow rate: Under 1 m/s
  - ±0.5% to ±1.0% of rate for flow rate 1 m/s to 32 m/s.

**Response Time:** 0.5s or less.

**Temperature Limits:** Ambient 176°F (80°C); Fluid temperature: -40 to 176°F (-40 to 80°C) for SX1-A, SX1-B, SX1-C.

**Enclosure Rating:** IP67.

**Materials:** SX1A: Plastic case; 304 stainless steel and plastic guide rail; SX1B and SX1C: Plastic case; Silicone rubber couplers on all models.

**Sensor Cable:** Radio frequency coaxial cable (RG-58A/U), see accessories table for specific lengths.

**Electrical Connection:** Screw terminals.

**Mounting:** Clamped on pipe wall.

**Weight:** SX1-A: 2.2 lb (1 kg); SX1-B: 0.88 lb (0.4 kg); SX1-C: 3.1 lb (1.4 kg).

FLOW  
Flow Transmitters,  
Ultrasonic