

Model SLF-500

Ultrasonic Liquid Flow Meter

Description

The Model SLF-500 Ultrasonic Liquid Flow Meter is an accurate, reliable and cost-effective clamp-on ultrasonic instrument capable of measuring bidirectional flow through metal, plastic and even lined pipes without altering the piping. Typical applications include corrosive chemicals in the process industry, DI water and chemicals in the semiconductor market, fluids in the sanitary industry, or any installation when it is preferable not to have an instrument exposed to the process fluid. The SLF-500 was designed with the latest solid state technology providing the major economic benefit of many years of uninterrupted service.

Employing digital signal processing (DSP) techniques, the Model SLF-500 Ultrasonic Liquid Flow Meter provides outstanding accuracy and repeatability. The same meter can be used on line sizes from 1 to 12 inches without recalibration, and will cover a wide range of flow rates.

Installation and setup of the Model SLF-500 Ultrasonic Liquid Flow Meter is fast and easy. Integral to the display unit, the set-up software leads the installer through a series of questions related to pipe material and size, display configuration and desired outputs. This makes the initial installation or reconfiguration for different applications a straightforward process. The sensors are provided with a robust mounting fixture that allows adjustment of the sensor mounting position for optimum performance. Sensor separation distance is determined and displayed on the SLF-500 during the initial system setup. The meter was designed with no moving parts, thus reducing its cost of ownership and eliminating common maintenance requirements.

Features

- Bi-directional flow capability
- No moving parts
- Low cost of ownership
- Easy installation with clamp-on sensor
- No cutting pipes
- No intrusion into the process line
- No pressure drop
- Increased energy savings
- Zero maintenance requirements
- No need for meter recalibration
- Wide rangeability with a single unit
- Fast response time



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Specifications

Display/Converter

Measurement Method

Time difference calculation method of ultrasonic wave propagation

Accuracy

±2% RD (operating range 3.3 to 33 ft./sec.)

±0.066 ft./sec. (operating range below 3.3 ft./sec.)

Repeatability

±0.2%

Applicable Liquid

Clean liquids

Applicable Pipes

Nominal diameter: 1–12"

Material

PVS, stainless steel and others

Lining

Tar-epoxy, mortar, or none

Analog Output Range

Setting within 0–33 ft./sec.

Averaging Time

10 sec. (variable within 0–20 sec. by 1 sec. steps)

Structure

Waterproof type (IP65)

Material

Epoxy-coated Aluminum

Installation

Temperature Range

32° to 122° F (0° to 50° C)

Installation

Humidity Range

Noncondensing

Power Supply

85–264 VAC, 50/60 Hz

Power Consumption

2.5 watts or less

Installation

Wall mount



Specifications (cont'd)

Analog Output

Output Information	Momentary instantaneous flow rate (normal/reverse flow)
Output Signal	4–20 mA
Load Resistance	450 ohm or less
Flow Rate Low Cut Off	0–10% (variable in 1% steps)

Contact Output

Output Information	Selectable from accumulated pulse of forward/reverse flow, abnormal receiving waveform and upper/lower limit of flow rate
Output Signal	Open collector no voltage
Number of Outputs	3
Rating	30 VDC @ 0.25 A
Scaled Units	Selectable from: 0.1, 1, 10, 100 Gal or Lit
Low Cut Off	0–10% in 1% steps

Digital Output

Output	Instantaneous flow rate, accumulated flow and alarm
Transmission	RS-232C
Weight	Approximately 3 lbs.
Display	16 characters x 2 lines
LCD Display Information	Rate and total
Available Units	GPM, GPH, LPM, LPH, FPM and FPS

Sensor

Model	SLT-20S
Material	304SS and epoxy resin
Structure	Clamp-on method
Installation	V or Z type
Operating Temperature	-4° to 140° F (-20° to 60° C)
Cable Length	16.4 ft. (5 m)
Weight	Approximately 1 lb.
Straight Run	10D upstream and 5D downstream minimum

Model Number

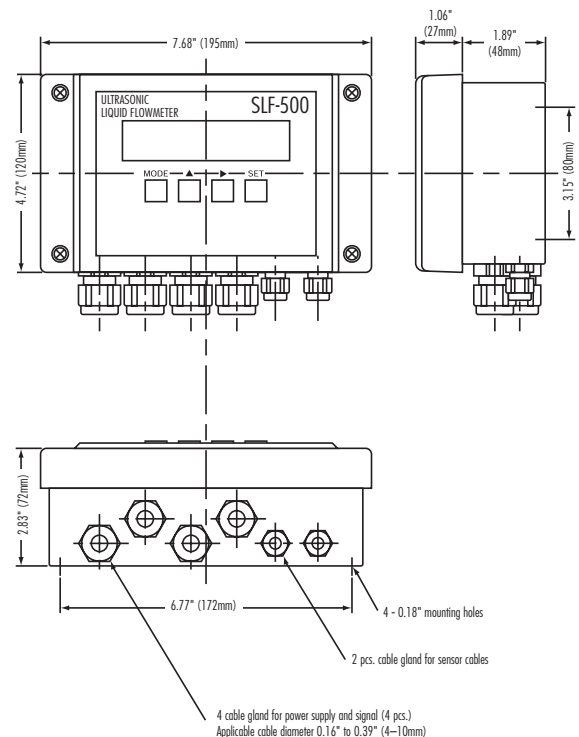
SLF-500

Includes	Display/converter, sensors and cabling
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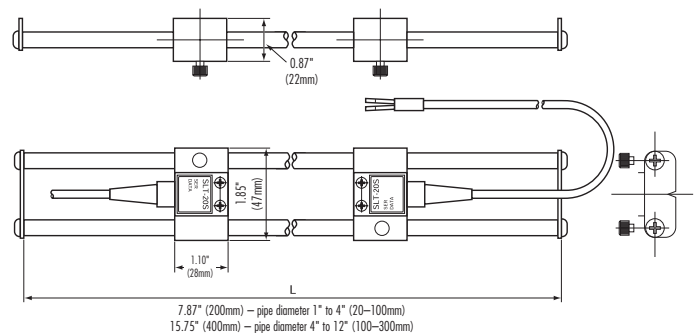
Specifications are for reference only and are subject to change without notice.

Dimensions

Converter



Sensor



Local Representative:



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