# 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





Model SLF-500 Ultrasonic Liquid Flow Meter

# **Specifications** Display/Converter

Measurement Method

Accuracy

Repeatability Applicable Liquid Applicable Pipes Material Lining Analog Output Range Averaging Time

Structure Material Installation Temperature Range Installation Humidity Range Power Supply Power Consumption Installation Time difference calculation method of ultrasonic wave propagation ±2% RD (operating range 3.3 to

33 ft./sec.)
±0.066 ft./sec. (operating range below 3.3 ft./sec.)
±0.2%
Clean liquids
Nominal diameter: 1–12"
PVS, stainless steel and others

Tar-epoxy, mortar, or none Setting within 0–33 ft./sec. 10 sec. (variable within 0–20 sec. by 1 sec. steps) Waterproof type (IP65) Epoxy-coated Aluminum

 $32^\circ$  to  $122^\circ$  F (0° to  $50^\circ$  C)

Noncondensing 85–264 VAC, 50/60 Hz 2.5 watts or less Wall mount

# Specifications (cont'd)

#### Analog Output

**Output Information** 

Output Signal Load Resistance Flow Rate Low Cut Off

#### Contact Output

**Output Information** 

Output Signal Number of Outputs Rating Scaled Units

#### Low Cut Off

#### **Digital Output**

Output

Transmission

#### Weight

Display

LCD Display Information Available Units

#### Sensor

Model Material Structure Installation Operating Temperature Cable Length Weight Straight Run

### **Model Number**

SLF-500

Includes

Momentary instantaneous flow rate (normal/reverse flow) 4–20 mA 450 ohm or less 0–10% (variable in 1% steps)

Selectable from accumulated pulse of forward/reverse flow, abnormal receiving waveform and upper/lower limit of flow rate Open collector no voltage 3 30 VDC @ 0.25 A Selectable from: 0.1, 1, 10,

100 Gal or Lit 0–10% in 1% steps

Instantaneous flow rate, accumulated flow and alarm RS-232C Approximately 3 lbs.

16 characters x 2 lines Rate and total GPM, GPH, LPM, LPH, FPM and FPS

#### SLT-20S

304SS and epoxy resin Clamp-on method V or Z type -4° to 140° F (-20° to 60° C) 16.4 ft. (5 m) Approximately 1 lb. 10D upstream and 5D downstream minimum

Display/converter, sensors and cabling

Specifications are for reference only and are subject to change without notice.

#### Local Representative:



#### Converter



#### Sensor







8930 S. Beck Avenue, Suite 107, Tempe, Arizona 85284 USA Tel: (480) 240-3400 • Fax: (480) 240-3401 • Toll Free: 1-800-528-4225 E-mail: ftimarket@ftimeters.com • Web: www.ftimeters.com