

Model μ LF-100

Ultrasonic Micro Liquid Flow Meter

Description

The Model μ LF-100 Model Ultrasonic Flow Meter is an accurate, reliable and cost-effective ultrasonic instrument capable of measuring very low flow rates through small diameter PFA tube. Typical applications are D.I. water and chemical solutions in the semiconductor market. A molded sensor assembly is available in two different sizes for installation in 6mm and 3mm O.D. PFA tubing.

The μ LF-100 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 μ LF-100 Ultrasonic Liquid Flow Meter provides outstanding accuracy and repeatability.

Installation and setup of the Model μ LF-100 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 a straightforward process. The sensors are provided in a robust, molded mounting fixture designed for the specific line size for optimum performance. The meter was designed with no moving parts, thus reducing its cost of ownership and eliminating common maintenance requirements.

Features

- No moving parts
- Low cost of ownership
- Increased energy savings
- Zero maintenance requirements
- No need for meter recalibration
- Wide rangeability with a single unit
- Fast response time
- Ultra low flow rates
- 6mm O.D. x 4mm I.D. and 3mm O.D. x 2mm I.D. line sizes
- PFA line material



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Specifications

Display/Converter

Measurement Method Time difference calculation method of ultrasonic wave propagation

Accuracy $\pm 2\%$ RD (operating range 1.6 to 33 ft./sec.)

Repeatability $\pm 0.2\%$

Applicable Liquids D.I.W. and chemical solutions

Applicable Pipes 6mm O.D. x 4mm I.D. and 3mm O.D. x 2mm I.D.

Flow Rate -6 sensor: 277 – 5560 ml/min.

-3 sensor: 94 – 1881 ml/min.

Analog Output Range Setting within 0–33 ft./sec.

Enclosure Panel Mount IP50

Material Glass fiber resin (Noril)

Installation

Temperature Range 50° to 122° F (10° to 50° C)

Power Supply 12–30 VDC

Power Consumption 3.6 watts or less

Installation Panel mount

Analog Output

Output Information Instantaneous forward flow

Output Signal 4–20 mA

Load Resistance 450 ohm or less



