

MS501/ML4-F1

ELECTROMAGNETIC BATCHING FLOWMETERS

Designed for demanding rapid filling, batching and dispensing applications

ELECTROMAGNETIC FLOWMETER



The MS501 comes with a PTFE liner.

TYPICAL APPLICATIONS

- Syrups
- Milk
- Fruit Juices
- Beer
- Salad Dressings
- Tomato Pastes
- Ketchup
- Yogurt
- Wines
- Jellies
- Preserves
- Ice Cream Mix
- Gravies
- Flavorings
- Vinegar
- Mayonnaise
- Soups
- Whey
- Meat Batters
- Specialty Chemicals
- Polymers
- Adhesives
- Fragrances

MS501/ML4-F1 FEATURES

- High sampling rate (400 samples/second) for short duration flows.
- Accuracy to $\pm 0.2\%$ of rate from 1 to 33 ft/sec.
- Lower cost than flanged units.
- Five sizes from 1/8" to 3/4" Pipe Diameters.
- Flow ranges from .034 to 49.8 GPM.
- Standard Pressure: 230 PSI.
- Volumetric flow rate measurement independent of fluid viscosity, density and temperature.
- No moving parts for zero maintenance.
- Wide range of process connection types; threaded, flanged, tri-clamp or compression.
- Bi-directional flow measurement.
- No pressure drop through sensor.
- Minimal straight pipe run required.
- Every sensor is factory wet-calibrated.

ML4-F1 CONVERTER FEATURES

Mounting	Sensor Mount
4-20mA Output	Y (optional)
ON-OFF Output	N
Digital Input	Programmable
Digital Output	Programmable
Pulse & Frequency Output	Y
Empty Pipe Detection	Y
Interface	PC or Hand Terminal
Batch Function	Y
Diagnostic Functions	Y
Power Supply	10-33VDC
Enclosure	304 Stainless Steel NEMA 4x



ENGINEERING SPECIFICATIONS

MS501 Flow Sensor

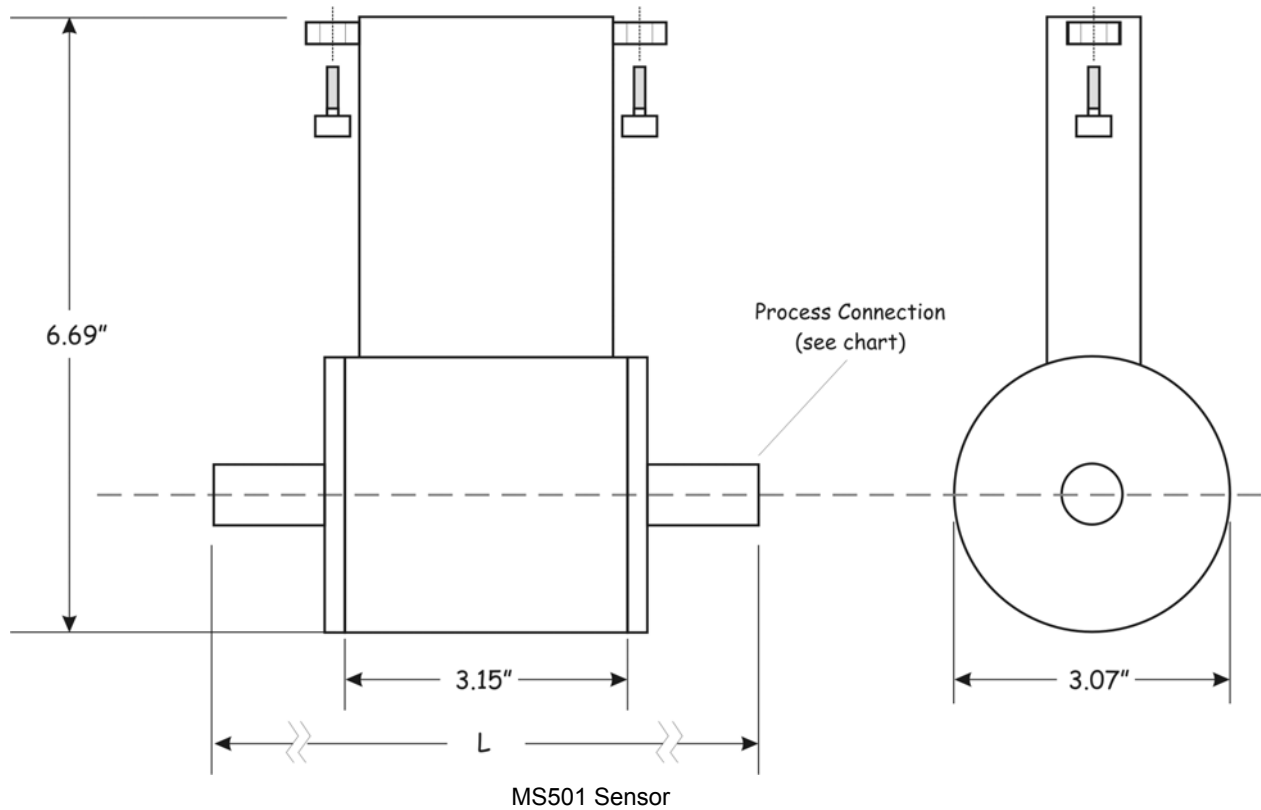
- Accuracy: $\pm 0.2\%$ of rate from 1 to 33 ft/sec.
- Repeatability: $\pm 0.1\%$
- Temperature:
 - Process: -4 to 212 °F
 - Ambient: 140 °F
- Pressure: 230 PSI (higher pressures upon request)

- Liner Material: PTFE
- Flow Tube: 304 S.S.
- Body Material: 304 S.S.
- Process Connections & Electrode Material: 316 S.S.*
- Number of Electrodes: 2
- Environmental Rating: NEMA 4X
- Fluid Conductivity: 5 $\mu\text{S/cm}$ (min)

* Hastelloy C, Platinum-Rhodium or Tantalum optional (other materials on request)

Characteristic/Dimension	Sensor Size				
	1/8"	1/4"	3/8"	1/2"	3/4"
Min flow rate (gpm @ 1 ft/sec)	0.06	0.14	0.38	0.85	1.52
Max flow rate (gpm @ 33 ft/sec)	1.12	4.49	12.46	28.03	49.84
Weight (lbs.)	4.85	4.85	4.85	4.85	4.85
Length (L below) w/Tri-Clamp Fittings	5.00	5.00	5.00	5.00	5.00
Length (L below) w/NPT Fittings	4.72	4.72	4.72	4.72	4.72

DIMENSIONS



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