

MS1000

ELECTROMAGNETIC FLOWMETERS

Combines reliable full-pipe flow measurement with high accuracy, low-cost and ease of installation



The MS1000 is available with Polypropylene, Ebanite or PTFE liner and local or remote mounted converter.

MS1000 FEATURES

- Accuracy to $\pm 0.2\%$ of rate from 3 to 33 ft/sec.
- Lower cost than flanged units.
- Eleven sizes from 1" to 16" Pipe Diameters.
- Flow ranges from 2.37 to 19,934 GPM.
- Standard pressure: 230 PSI.
- Volumetric flow rate measurement independent of fluid viscosity, density and temperature.
- No moving parts for zero maintenance.
- Bi-directional flow measurement.
- No pressure drop through sensor.
- Optional integral ground electrode eliminates grounding rings with plastic piping systems.
- Minimal straight pipe run required.
- Every sensor is factory wet-calibrated.

TYPICAL APPLICATIONS

- Water
- Polymers
- Wastewater
- Lime Slurries
- Dyes
- Process Chemicals
- Caustics
- Slurries
- Acids
- Starches



ML110 Converter

ML210 Converter with Graphics Display (wall mount version)

ML210 Converter with Graphics Display (panel mount version)

CONTROLLER FEATURES

	ML110	ML210
Mounting	Sensor or Wall	Sensor, Wall or Panel
Keypad	3 Internal Keys	3 Keys
LCD Display	2-Line Alphanumeric	Graphic Display
Backlight	N	Y
4-20mA Output	Y (opt)	Y
Pulse/Frequency/Alarm Output	2 Assignable Open Collector	2 Assignable
Empty Pipe Detection	Y	Y
Interface	PC, Hand Terminal	RS485, PC, Hand Terminal
Batch Function	N	Y
Power Supply	90-265 VAC (Std.) 10-63VDC 15-45VAC	90-265 VAC 10-35VDC 18-63VDC/ 15-45VAC
Enclosure	Plastic NEMA 4x	Aluminum or Plastic (panel version). NEMA 6

ELECTROMAGNETIC FLOWMETER

ENGINEERING SPECIFICATIONS

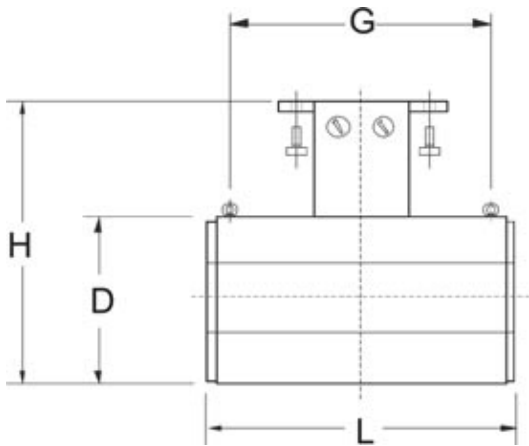
MS1000 Flow Sensor

- Accuracy:
 - ML210: $\pm 0.2\%$ of rate from 3 to 33 ft/sec.
 - ML110: $\pm 0.4\%$ of rate from 3 to 33 ft/sec.
- Repeatability: $\pm 0.1\%$
- Temperature (Process)
 - +32 to 140°F (PP)
 - +23 to 175°F (Ebonite)
 - 4 to 212°F (PTFE Compact)
 - 4 to 302°F (PTFE Remote)
- Pressure: 230 PSI Std. (higher pressures upon request)
- Liner Material: PTFE, Ebonite or Polypropylene
- Flow Tube: Carbon Steel, Painted or 304/316 S.S. (optional)
- Electrode Material: 316 S.S.*
- Number of Electrodes: 2 (3rd grounding electrode optional)
- Environmental Rating: NEMA 6
- Fluid Conductivity: 5 $\mu\text{S/cm}$ (min)
- Connections: Wafer tightening between ANSI 150 flanges
- Case Material: Carbon steel with two-part epoxy coating, S.S. Optional

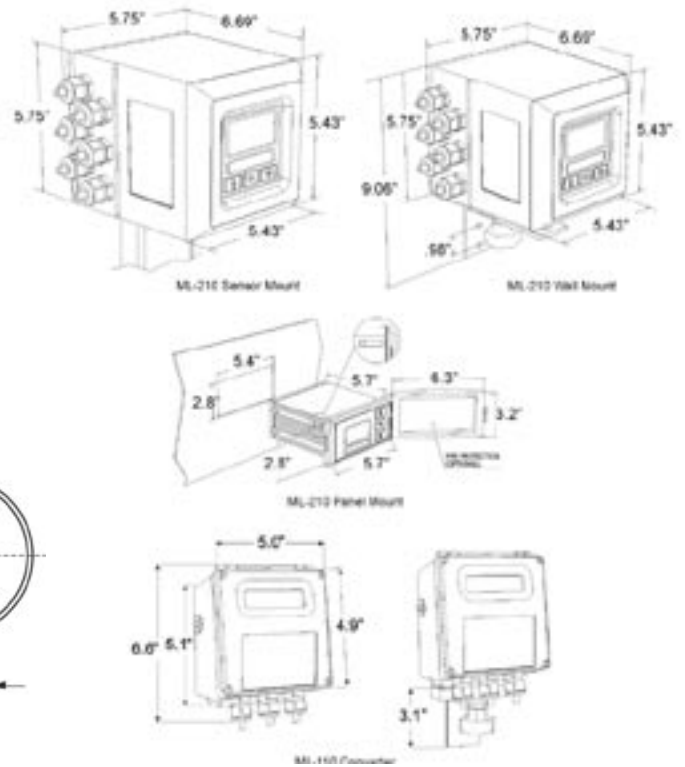
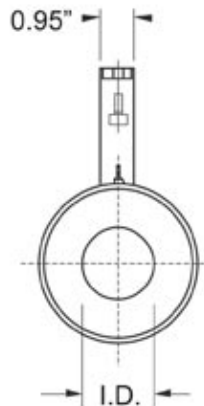
* Hastelloy C, Platinum-Rhodium or Tantalum electrodes optional (other upon request).

DIMENSIONS

Size (in.)	1	1-1/2	2	3	4	6	8	10	12	14	16
Min flow rate (gpm @ 1 ft/sec)	2.37	6.08	9.49	24.30	37.97	85.44	151.9	237.3	341.8	465.2	607.6
Max flow rate (gpm @ 33 ft/sec)	77.9	199.3	311.5	797.4	1246	2803	4984	7787	11213	15262	19934
Weight (lbs.)	2.7	4.0	4.4	8.4	11.0	18.1	40.1	52.9	59.5	70.6	86.0
Length (L below)	3.94	3.94	3.94	5.91	5.91	7.09	7.87	9.84	11.81	13.78	15.75
Height (H below)	5.79	6.34	6.97	8.23	9.25	11.46	14.25	16.42	18.39	20.75	22.80
Lifting Ring Distance (G below)	-	-	-	-	-	-	5.67	7.64	9.61	11.58	13.54



MS1000 Sensor



FLOMOTION SYSTEMS Inc.

586 N. French Rd., Suite 6
 Buffalo NY 14228-2103
 Tel: 800-909-FLOW (3569)
 Tel: 716-691-3941
 Fax: 716-691-1253
 Email: info@flomotionsystems.com
www.flomotionsystems.com

