

# M501 / ML110

## ELECTROMAGNETIC FLOWMETERS

Reliable full-pipe flow measurement with high accuracy, low-cost and ease of installation.

**MAGMETER  
RELIABILITY AT  
PADDLEWHEEL  
PRICES!**

**ELECTROMAGNETIC FLOWMETER**



M501 Electromagnetic Sensor

### M501 FEATURES

- Low Cost.
- Five Sizes from 1/8" to 1" Pipe Diameters.
- Flow ranges from 0.06 to 77.8 GPM.
- Volumetric Flow Rate Measurement Independent of Fluid Viscosity, Density and Temperature.
- Non-metallic Body for Corrosive Fluids.
- No Moving Parts for Zero Maintenance.
- No Pressure Drop through Sensor.
- Minimal Straight Pipe Run Required.
- Integral Ground Electrode Eliminates Grounding Rings when used in Plastic Piping Systems.
- Automatic Empty Pipe Detection
- Every Sensor is Factory Wet-Calibrated.
- Lightweight - No Piping Support Required.

### APPLICATIONS

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



ML110 Converter

### ML110 FEATURES

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



# ENGINEERING SPECIFICATIONS

## M501 Flow Sensor

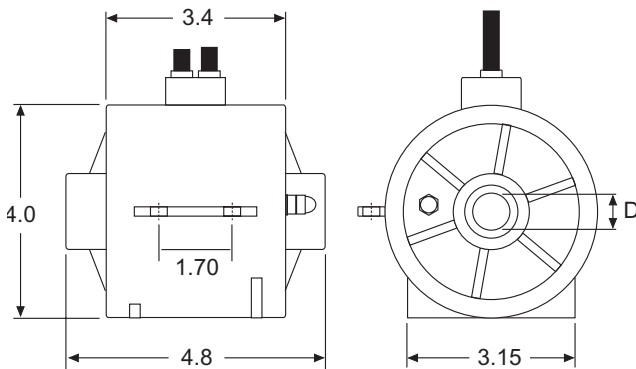
- Accuracy:  $\pm 0.8\%$  of rate from 1 ft/sec to 33 ft/sec (.4% opt)
- Linearity:  $\pm 0.10\%$  of span
- Temperature: Process 140°F (max), Ambient 120°F (max)
- Pressure: 150 PSI @ 70°F
- Weight: 1.9 lbs.
- Housing Material: Polypropylene
- Electrode Material: Hastelloy-C
- Flow Tube Material: Polypropylene (PVC Optional)
- Environmental Rating: NEMA 6 Submersible
- Fluid Conductivity: 5  $\mu\text{S/cm}$  (min)
- Sensor Cable: 20', up to 100' w/ factory approval

## ML110 Converter/Transmitter

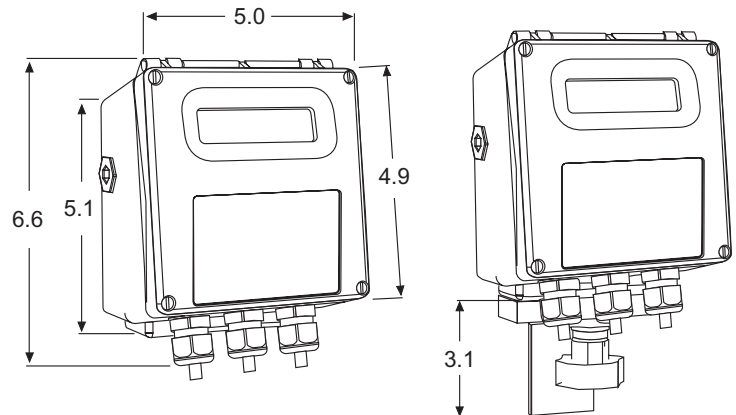
- Two-line alphanumeric LCD Display
- Three pushbutton internal keypad
- Outputs: 4-20mA, Two assignable open-collector outputs & RS485
- Temperature: 140° F (max)
- Enclosure: NEMA 4X
- Power: 90-264 VAC or 24VDC input
- Excitation Supply: 24VDC @ 20 mA
- Weight: 1 lb.

## DIMENSIONS

Characteristics	Sensor Size (D below)					
	1/8"	1/4"	3/8"	1/2"	3/4"	1"
Minimum Flow (gpm @ 1 ft/s)	.06	0.14	0.38	0.85	1.52	2.37
Maximum Flow (gpm @ 33 ft/s)	1.12	4.49	12.46	28.03	49.84	77.87
Process Connectors (FNPT)	1/4"	1/4"	1/2"	3/4"	3/4"	1"



M501 Sensor



ML110 Converter/Transmitter

DIMENSIONS ARE IN INCHES

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