Lake Monitors
FreeFlow™ Sensor
"Accurate & Economic Flow Sensor"
FOR 3/8" – 3/4" PIPE SIZES

Minimally invasive, low cost segmented wedge flow sensor. Used to monitor and control process water.

STYLE FF

NO MOVING PARTS
The segmented wedge element provides a simple and reliable restriction for sensing flow as related to pressure differential.

UNRESTRICTED MOUNTING
Allows the designer to install the meter in any orientation – horizontal, vertical or inverted.

COMPACT AND RUGGED DESIGN
Measures less than 10" long and 3-1/2" wide, with a flanged mounting base for simple installation.

MULTIPLE FLOW RANGES AVAILABLE
The FreeFlow™ Sensor is offered with several ranges of calibration to accommodate the requirements typical to process water applications.

MULTIPLE PORT SIZES OFFERED
Standard selection of NPT ports reduces the amount of adapters required for installation.

LOW-COST PRECISION
Measuring accuracy of ±2% of range and repeatability of ±1/2%.

ENGINEERING SPECIFICATION

THE FREEFLOW SENSOR SHALL:

- Use the segmented wedge differential producer to measure flow rate as related to pressure.
- Not require inlet or outlet straight plumbing, or require vertical pipe mounting.
- Have a measuring accuracy of ±2% of full scale with ±1/2% repeatability.
- Be Lake Monitors No. FF– _ _ _– _ _ _– _ _

FreeFlow Sensor

MATERIALS OF CONSTRUCTION

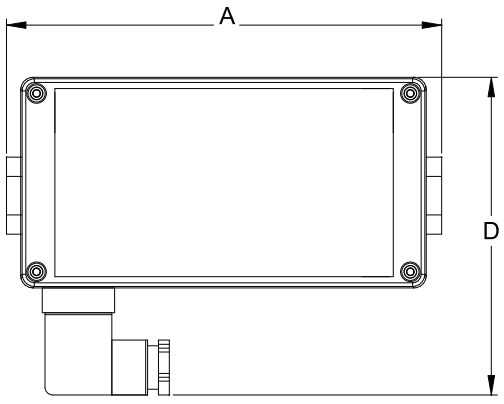
End Ports	PVC
Wedge Element	PVC
Pressure Sensor	Polyetherimide
Electrical Enclosure	Polycarbonate

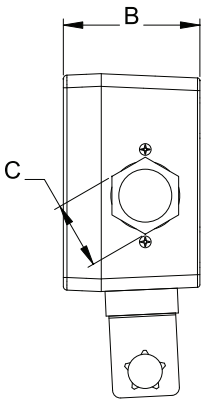
PERFORMANCE

Measuring Accuracy:	±2% of full-scale
Repeatability:	±1/2% of full-scale
Full Scale Flow Measuring Range:	5-15 GPM (19-57 LPM)
Turn Down Ratio (All Ranges)	8:1
Maximum Operating Pressure:	125 PSIG (8.6 bar)
Maximum Operating Temperature:	170°F (76°C)
Pressure Differential:	See graph on right
Standard Calibration Media:	Tap Water @ 70° F

ELECTRONIC SPECIFICATIONS

Electronic output:	0-5 VDC, 0-10 VDC, 4-20mA
Power Requirements:	12-35 VDC
Maximum Current Consumption:	<50mADC
Minimum load resistance:	1000 Ohms
Maximum transmission distance:	≤ 200 feet
Resolution:	12-bit
Response Time:	<500 mS 10%-90% change
Protection:	Short circuit, transient and reverse polarity

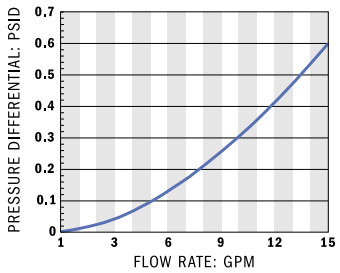




MECHANICAL SIZING CODE

DIM	3/8" Female NPTF	1/2" Female NPTF	3/4" Female NPTF
A	6-7/8" (175mm)	6-7/8" (175mm)	7-1/2" (191mm)
B	2-7/32" (57mm)	2-7/32" (57mm)	2-7/32" (57mm)
C	1-3/32" (28mm)	1-3/32" (28mm)	1-5/16" (34mm)
D	5-1/4" (134mm)	5-1/4" (134mm)	5-1/4" (134mm)

FREEFLOW FLOW METER



LAKE MONITORS

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FFDS-1006 7.5M MR / WGD / MAS