# Lake Monitors FlowStat<sup>®</sup>-Turbine Flow Sensor



#### **CHOICE OF THREE PORT SIZES**

Select from 1/2", 3/4" or 1" porting to meet system requirements.

#### EASY MAINTENANCE AND CLEANING

Has only one moving component, the impeller. Cleaning and maintenance may be performed without removing the sensor from the piping.

#### HERMETICALLY ENCAPSULATED CIRCUITRY

Withstands the harshest environments.

#### SEVERAL OUTPUTS AVAILABLE

The standard interface is a 2-wire, 4-20mA current loop. Sensor signal may be transmitted on a low cost wire without degradation. Pulse and 0-5 VDC are also available.

#### CONNECTS DIRECTLY TO YOUR FLOW MONITORING INSTRUMENTS

Can be connected directly to analog acquisition cards, chart recorders or other monitoring instruments, without external signal conditioning. Perfect monitoring solution for Chillers/Cooling Circuits, HVAC, Medical Equipment, Batching and Industrial process control applications.

#### SIMPLY PLUMB AND APPLY POWER

Comes factory calibrated to your flow range specifications.

#### **VALUE PRICING**

Combined with low cost operation and maintenance, equals better bottom line savings for your operation.

#### ENGINEERING SPECIFICATION

#### THE FLOWSTAT SENSOR SHALL:

- Have only one moving component.
- Be calibrated to user specified flow range.
- Have a measuring accuracy of 2% of full scale.
- Have hermetically encapsulated circuitry.
- Be Lake Monitors Number C\_ \_ \_ \_ \_ \_ for the Current output, Number P\_ \_ - \_ \_ \_ for the pulse Output version, and Number V\_ \_ - \_ \_ \_ for the 0-5 VDC option.





## FlowStat <sup>®</sup> – Turbine Flow Sensor

MATERIALS OF CONSTRUCTION				
WETTED COMPONENTS:	Casing:	Stainless Steel #316		
	Cover:	Stainless Steel #316 (optional clear polycarbonate)		
	Seal:	Buna-N (other options available)		
	Turbine:	Acetal copolymer		
	Bearing:	PEEK (Polyetheretherketone)		
	Shaft :	Stainless steel		
NON-WETTED COMPONENTS:	Encapsulant:	Ероху		
	Strain relief:	Nylon		
	Lock Ring:	Stainless steel		
	Wire insulation:	High temperature PVC		

#### PERFORMANCE

Measuring accuracy:	±2% of full-scale		
Repeatability:	±0.5% of full-scale		
Flow Measuring Range:	1/2" porting, 0.5-15 GPM [2-60 LPM]		
	3/4" - 1" porting, 1.5-50 GPM [60-200 LPM]		
Turndown Ratio:	10:1		
Temperature Range:	20-225°F [-7 to 107°C]		
Pressure Range:	to 500 PSIG [34 bar]		
W/optional clear cover	to 200 PSIG [14 bar]		
Pressure Differential:	See graphs on the right for typical pressure differentials.		
Filtration requirements:	150 micron filter recommended		

	ELECTRONIC SPECIFICATIONS	
4-20 mA VERSION:	Power Requirements: 12-35 VdC, loop-powered	
	Load driving capacity: 1150 Ohms max	
	Maximum transmitting distance: Limited only by wire resistance & supply voltage	
	Response time: 2 seconds to 90% (step change in flow rate)	
	Resolution: Infinite	
	Over-current limit: Self limiting at 35mA	
	Other protection: Reverse polarity	
0-5 VDC VERSION:	Power Requirements: 12-35 VDC	
	Maximum Current: 25 mA DC	
	Minimum Load Resistance: 1000 Ohms	
	Maximum transmission distance: ≤200 ft. recommended	
	Resolution: Infinite	
	Response time: 2 seconds to 90% (step change in flow rate)	
PULSE OUTPUT VERSION:	Type: 3 wire, hall effect	
	Power Requirements: 5-24 VDC	
	Maximum current: 25mADC	
	Maximum transmission distance: < 200ft_recommended	

#### MECHANICAL



DIM	1/2" NPTF	3/4" NPTF – 1" NPTF
A	1.94" (49mm)	3.06" (78mm)
В	1.13" (29mm)	1.33" (34mm)
С	2.00" (51mm)	2.46" (62mm)
D	2.45" (62mm)	2.78" (71mm)
D*	2.45" (62mm)	2.88" (73mm)
E	3.70" (94mm)	5.25" (133mm)
F	2.63" (67mm)	3.80" (97mm)

\* Dimensions with optional clear polycarbonate cover installed.

#### **TYPICAL PRESSURE DIFFERENTIALS**









### www.lakemonitors.com

AW-LAKE COMPANY *A TASI Group Company* 8809 Industrial Dr., Franksville, WI 53126 262.884.9800 / Fax: 262.884.9810 800.850.6110