# FLOWSTAT ES TURBINE FLOW SENSOR

*Ideal for monitoring various fluids in applications such as chillers/cooling circuits, HVAC, batching and industrial process control applications.*

## TECHNICAL SPECIFICATIONS

### Measuring Accuracy
2% of full-scale

### Repeatability
±0.5% of full-scale

### Flow Measuring Range
5-15 GPM (20-60 LPM)
With optional low-flow adapter:
2.5-4.5 GPM (10-17 LPM)

### Turn Down Ratio
10:1

### Maximum Operating Pressure
150 PSIG

### Maximum Operating Temperature
20-150°F

### Standard Calibration Fluid
Tap water @ 70°F Temperature (21°C), 1.0 sg

### Filtration Requirement
150 Micron Filter recommended

## BENEFITS

### Value Pricing
Low cost operation combined with low cost maintenance, equals better bottom line savings for your operation.

### 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, relay and 0-5 VDC (regulated) 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.

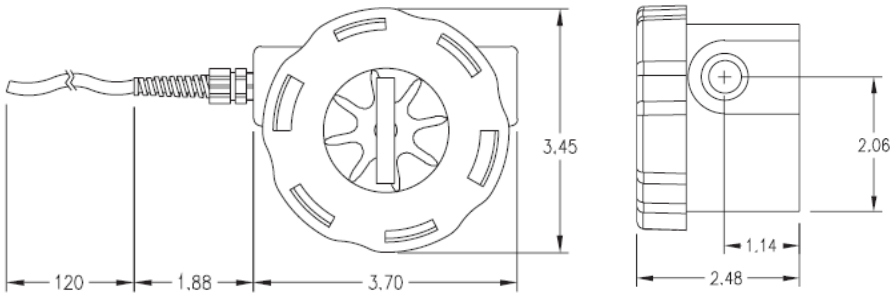
### Simply Plumb and Apply Power
Comes factory calibrated to your flow range specifications.

## MATERIALS OF CONSTRUCTION

| Wetted Components | |
|---|---|
| Component | Materials |
| Casing | Glass-Filled Polypropylene |
| Cover | Clear Polycarbonate |
| Seal | Buna-N® (Other options available) |
| Impeller | Acetal Copolymer |
| Bearing | PEEK (Polyetheretherketone) |
| Shaft | Stainless Steel |

| Non-Wetted Components | |
|---|---|
| Component | Materials |
| Encapsulant | Epoxy |
| Strain Relief | Nylon |
| Lock Ring | Glass-Filled Polypropylene |
| Wire Insulation | High-Temperature PVC |

*Buna-N is a registered trademark of Chemische Werke Huls.*




*Measurements shown in inches.*

AW-LAKE
PROCESS FLOW MEASUREMENT

2440 W. Corporate Preserve Dr. #600, Oak Creek, WI 53154 | www.aw-lake.com

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## PART NUMBER GUIDE

□ C B — □ □ — □ — E S — □ □ (OPTIONAL)

**OUTPUT***
- Current = C
- Pulse = P
- Relay = R
- Voltage = V

**ROTOR COVER**
- Clear Polycarbonate = C

**PORT SIZE RANGE**
- 1/2" NPT = B

**MAX. FLOW RATE: GPM**

1/2" NPT:
- 5 GPM up to 15 GPM Max. flow rates available = □ □

*Important: Choose a maximum flow rate. 5-15 maximum GPM. Minimum flow rate will be 10% of maximum flow rate. Example: If your maximum flow rate is 8 GPM, the minimum flow rate would be .8 (8 x .1 = .8) Thus, the correct flow range would be .8-8.0 GPM.*

**COVER SEAL**
- Buna-N (Standard) = B
- EPR (Optional) = E
- FKM (Optional) = V

**ECONOMY SERIES**

**OPTIONS** (If no options desired, leave blank)
- Electronic Disconnect = D
- Low Flow Adapter** = L F

*** The low flow adapter will accommodate full-scale flow rates from 2.5 - 4.5 GPM for 1/2" only. For full-scale flow rates below 2.5 GPM, consult the Lake factory.*

## ELECTRONIC SPECIFICATIONS

| 4-20 mA version | |
|---|---|
| Power Requirements | 12-24 VDC, Regulated, Loop powered |
| Load driving capacity | Use the following equation to calculate maximum load resistance: Max Loop Load (Ω) = 50 (Power supply volts – 12). |
| Maximum Transmission Distance | Limited only by wire resistance & supply voltage |
| Response time | 2 seconds to 90% (step change) |
| Resolution | Infinite |
| Over-current limit | Self limiting at 35 mA |
| Other protection | Reverse polarity |

| 0-5 VDC (regulated) version | |
|---|---|
| Power Requirements | 12-24 VDC, Regulated |
| Maximum Current | 25 mA DC, Regulated |
| Minimum Load resistance | 1000 Ohms |
| Maximum Transmission Distance | 200 feet recommended |
| Resolution | Infinite |
| Response time | < 5 seconds to 90% (step change) |

| Relay Output | |
|---|---|
| Power Requirements | 12-24 VDC, Regulated |
| Maximum Transmission Distance | 200 feet recommended |
| Switch Contact | Form C, 5A max 120 or 240 VAC |
| Set Point Repeatability | 1% of full scale |

| Pulse Output Version | |
|---|---|
| Power Requirements | 12-24 VDC, Regulated |
| Response Time | <100 mS |
| Maximum Current | 25 mA DC, Regulated |
| Maximum Transmission Distance | 200 feet recommended |
| Minimum Load Resistance | 1000 Ohms |
| Protection | Short circuit & reverse polarity |

*Products may be subject to change without notice - Contact factory for the most up-to-date product information.*

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