



## Seametrics® IP810 & IP820 Tee-Mount Paddlewheel Flow Sensors

- Sensor automatically sets to correct pipe placement within custom installation fitting
- Micro-powered sensors are ideal for remote locations without AC power

These paddlewheel flow sensors operate as part of a proprietary system that makes installation a breeze. Just insert the sensor into the custom installation fitting (sold separately below), and install on your pipe. Sensor and fitting are sized exactly to the pipe; no worrying about making the right adjustment. Enter the K factor displayed on your fitting into a Seametrics flow monitor (sold separately below) and you're ensured of maximum accuracy, with no variables to adjust for.

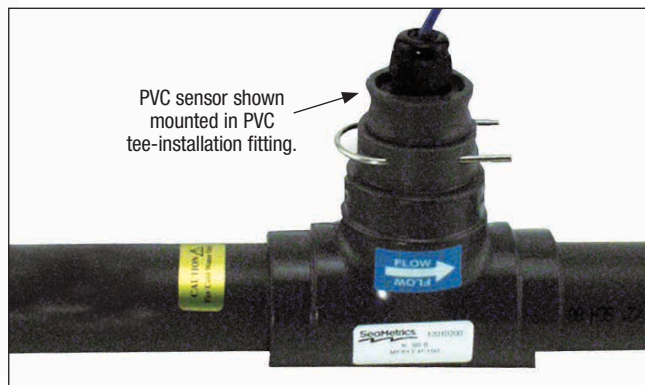
These sensors are suitable for a variety of pipe sizes, and across a wide range of velocities. They can even be used with slightly turbid gray water, but are not recommended for wastewater. Durable construction ensures years of trouble-free service.

**Standard flow sensors** are powered externally by a DC power supply (sold separately). Use them with FT430 and FT440 flow monitors/totalizers.

**Micro-powered flow sensors** are for use with FT450 flow monitors/totalizers. Perfect for remote locations, the FT450's internal battery supplies power to the sensor. **Paddlewheel repair kits** let you replace the entire rotor assembly in just minutes; includes rotor, shaft and bearings.



316 SS  
Sensor



PVC sensor shown mounted in PVC tee-installation fitting.

|                              |  |
|------------------------------|--|
| <b>Accuracy:</b>             | ±1.5% of full scale  |
| <b>Flow velocity range:</b>  | 0.3 to 30 ft/sec   |
| <b>Output:</b>               | Hall effect sensor,<br>12-VDC current sinking pulse                        |
| <b>Materials</b>             |  |
| <b>Body:</b>                 | PVC or 316 SS (varies by model)  |
| <b>Shaft:</b>                | nickel-bound tungsten carbide  |
| <b>Rotor:</b>                | PVDF   |
| <b>Bearings:</b>             | ruby jewel   |
| <b>O-ring:</b>               | EPDM   |
| <b>Maximum pressure:</b>     | SS sensors: 200 psi; PVC sensors: 175 psi                                  |
| <b>Maximum temperature:</b>  | SS sensors: 200°F; PVC sensors: 130°F                                      |
| <b>Power</b>                 |  |
| <b>VDC-powered sensor:</b>   | 6-40 VDC, <2 mA current draw   |
| <b>Micro-powered sensor:</b> | 3.5-16 VDC, 60 µA current draw @<br>3.6 VDC (FT450 lithium battery supply) |
| <b>Sensor cable:</b>         | 18'L AWG 22, 3-conductor<br>(extendable up to 2000')                       |

### Flow Rates for Tee-Mount Paddlewheel Flow Sensors

| Pipe Size             | 1/2" | 3/4" | 1"  | 1 1/2" | 2"  | 3"  | 4"   | 6"   | 8"   |
|-----------------------|------|------|-----|--------|-----|-----|------|------|------|
| <b>Min Flow (gpm)</b> | 0.28 | 0.5  | 0.8 | 1.9    | 3.1 | 6.9 | 12   | 27   | 46.8 |
| <b>Max Flow (gpm)</b> | 28   | 50   | 80  | 190    | 314 | 691 | 1190 | 2700 | 4680 |

### Flow Sensors

| MFR #                             | BODY   | PIPE SIZE | USE WITH      | STOCK # | EACH |
|-----------------------------------|--------|-----------|---------------|---------|------|
| <b>STANDARD FLOW SENSORS</b>      |        |           |               |         |      |
| IP810P                            | PVC    | 1/2 to 3" | FT430 & FT440 | 11720   | \$   |
| IP810S                            | 316 SS | 1/2 to 3" | FT430 & FT440 | 24139   |      |
| IP820P                            | PVC    | 4 to 8"   | FT430 & FT440 | 24140   |      |
| IP820S                            | 316 SS | 4 to 8"   | FT430 & FT440 | 24141   |      |
| <b>MICRO-POWERED FLOW SENSORS</b> |        |           |               |         |      |
| IP810P-04                         | PVC    | 1/2 to 3" | FT450         | 11730   | \$   |
| IP810S-04                         | 316 SS | 1/2 to 3" | FT450         | 24142   |      |
| IP820P-04                         | PVC    | 4 to 8"   | FT450         | 24143   |      |
| IP820S-04                         | 316 SS | 4 to 8"   | FT450         | 24144   |      |

### Installation Fittings

| PIPE SIZE | SCH 80 PVC TEE |      | BRONZE TEE, NPT(F) |      | STAINLESS STEEL TEE |      | DUCTILE IRON SADDLE |      |
|-----------|----------------|------|--------------------|------|---------------------|------|---------------------|------|
|           | STOCK #        | EACH | STOCK #            | EACH | STOCK #             | EACH | STOCK #             | EACH |
| 1/2"      | 11721          | \$   | 49239              | \$   | 51188               | \$   | —                   | —    |
| 3/4"      | 11722          |      | 49240              |      | 51189               |      | —                   | —    |
| 1"        | 11723          |      | 12094              |      | 51102               |      | —                   | —    |
| 1 1/2"    | 11724          |      | 12095              |      | 51103               |      | —                   | —    |
| 2"        | 11725          |      | 12096              |      | 51104               |      | —                   | —    |
| 3"        | 11726*         |      | 12097              |      | —                   |      | 24148               | \$   |
| 4"        | 24145*         |      | —                  |      | —                   |      | 24149               |      |
| 6"        | 24146*         |      | —                  |      | —                   |      | 24150               |      |
| 8"        | 24147*         |      | —                  |      | —                   |      | 24151               |      |

\* Saddle features 16"L pipe stubs.

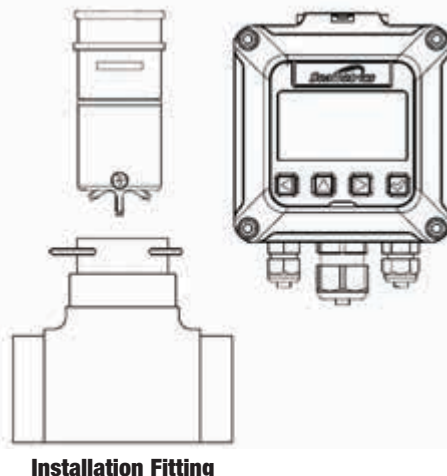
### Accessories

| MFR #  | DESCRIPTION  | STOCK # | EACH |
|--------|--|---------|------|
| FT430W | VDC-Powered Flow Monitor/Totalizer, 2 Pulse Outputs              | 26472   | \$   |
| FT440W | Loop-Powered Flow Monitor/Totalizer, 2 Pulse & 1 4-20 mA Outputs | 26473   |      |
| FT450W | Battery-Powered Flow Monitor/Totalizer, 2 Pulse Outputs          | 26474   |      |
| PC42   | Dual Power Supply (12/24 VDC) w/ Power Cord, 115 VAC             | 26475   |      |
| —      | Power Supply, 24 VDC, 15W  | 74178   |      |
| 100317 | Paddlewheel Repair Kit   | 11732   |      |

### For a complete system, order:

1. IP810 or IP820 Flow Sensor
2. Installation Fitting
3. Flow Monitor/Totalizer:  
See page 433 for more information.
4. Power Supply  
(Except for Micro-Powered Sensors)

### Flow Sensor      Flow Monitor/Totalizer



Installation Fitting