



### APPLICATIONS

- Industrial water/wastewater treatment
- Cooling water monitoring
- Industrial fluid control
- Chemical proportioning

### FEATURES

- Low-friction, long-life jewel bearings
- One moving part
- Fully field-repairable
- Choice of materials for compatibility with variety of chemicals
- Fits 1/2" to 8" pipe
- Fixed depth in fitting ensures proper placement in pipe



### GENERAL INFORMATION

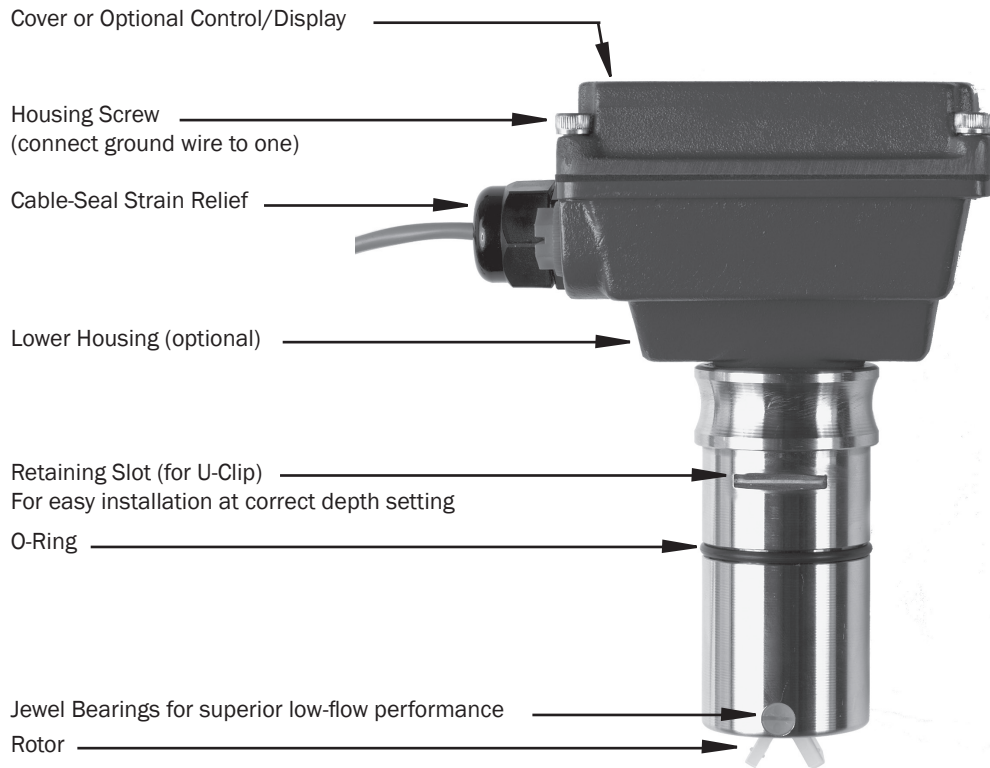
The **IP800-Series** are impeller (or "paddlewheel") insertion meters designed for use with a wide variety of liquids in pipe sizes 1/2" to 8". Sensors are available in brass, 316 stainless steel, PVC, and polypropylene. Bodies are machined from a solid rod for maximum precision. High-quality jewel bearings and nickel-bound tungsten carbide shafts are used for extreme low friction and long life. Low-flow performance is good, although other Seametrics flow meters are recommended where extremely low flows are being measured.

The rotation of the rotor is detected by a non-drag Hall-effect sensor. Output is a current-sinking pulse, which can be sent long distances (up to 2,000 feet) without a transmitter. This signal can be connected directly to PLC's, counters, and computer cards, as well as a variety of Seametrics controls and displays.

Seametrics IP meters are ideal for chemical proportioning applications. If no display is required, a simple divider such as the PD10 provides adjustable pump pacing. For rate and total display, the FT415 (battery powered) or FT420 (loop powered) flow indicator can be mounted directly on the IP80-Series meter, or remotely on a wall or panel. The A055 blind analog transmitter can be used to convert to a 4-20 mA output. IP meters are also compatible with the DL76 data logger and FT520 batch processor.

The IP800-Series require special fittings that ensure correct depth placement in the pipe. Fittings come in a variety of materials for compatibility with specific applications. Tee fittings are individually wet-calibrated at the factory and marked with the K-factor (pulses per gallon). Saddle fittings must be field-installed on the pipe and do not come wet-calibrated. K-factors for saddles are based on factory-testing.

## FEATURES



**High Pressure**



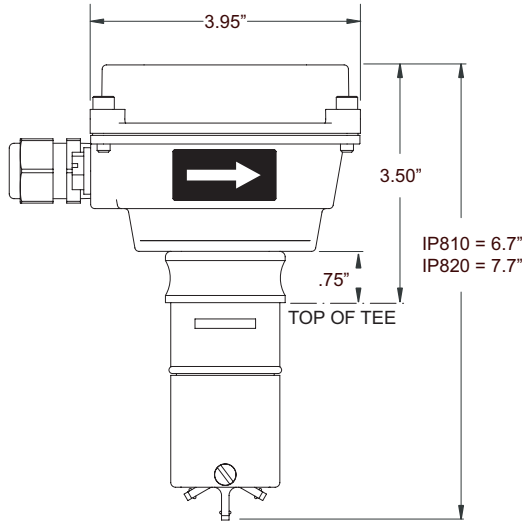
## SPECIFICATIONS\*

<b>Materials</b>	<b>Sensor Body</b>	Brass, 316 Stainless Steel, PVC, or Polypro		
	<b>Rotor</b>	PVDF		
	<b>Shaft</b>	Nickel-bonded tungsten carbide (Ceramic optional)		
	<b>Bearings</b>	Ruby jewel		
	<b>O-Ring</b>	EPDM (Viton optional)		
<b>Rotor Pickup</b>	GMR (Giant Magneto-resistive) Sensor			
<b>Maximum</b>		<b>Brass</b>	<b>316 SS</b>	<b>PVC or Polypro</b> (See Pressure vs. Temp. Chart)
	<b>Pressure</b>	200 PSI (14 bar)	200 PSI (14 bar)	175 PSI (12 bar) @ 75° F
	<b>High Pressure</b>	Not Available	400 psi (28 bar)	Not Available
	<b>Temperature</b>	200° F (93° C)	200° F (93° C)	130° F (55° C)
<b>Flow Range</b>	0.3 - 30 ft./sec.			
<b>Accuracy</b>	+/- 1.5% of full scale			
<b>Signal</b>	Hall effect current sinking pulse			
<b>Power</b>	6-24 Vdc, 2 mA			
<b>Maximum Current</b>	20 mA			
<b>Cable</b>	#22 AWG, 3 Cond, 18 foot (maximum 2000' run)			

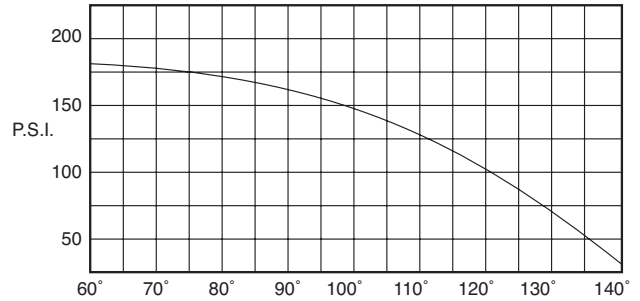
\*Specifications subject to change • Please consult our website for current data ([www.seametrics.com](http://www.seametrics.com)).

## DIMENSIONS

NOTE: Housing Optional



## PRESSURE VS. TEMPERATURE (PVC/Polypro)



## FLOW RANGE (In Gallons Per Minute)

	1/2"	3/4"	1"	1 1/2"	2"	3"	4"	6"	8"
<b>Min</b>	0.28	0.5	0.8	1.9	3.1	6.9	12	27	46.8
<b>Max</b>	28	50	80	190	314	691	1190	2700	4680

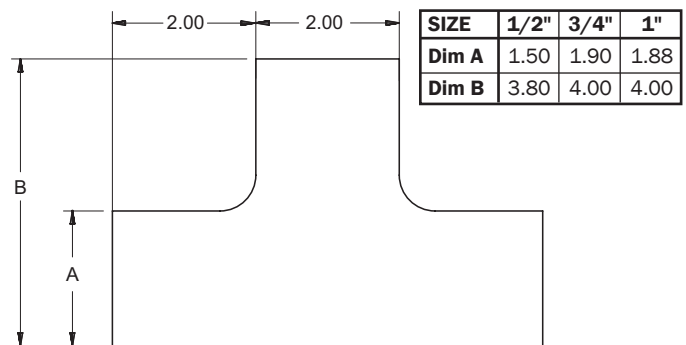
## FLOW RANGE (In Liters Per Minute)

	1/2"	3/4"	1"	1 1/2"	2"	3"	4"	6"	8"
<b>Min</b>	1.06	1.89	3.03	7.19	11.73	26.12	45.42	102.21	177.16
<b>Max</b>	106	189.27	302.83	719.23	1188.62	2615.72	4504.64	10220.61	17715.73

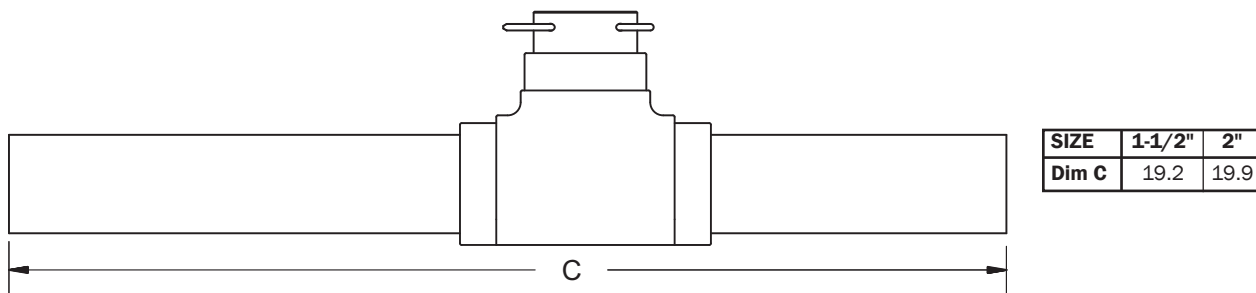
## AVAILABLE FITTINGS

	Tee	Saddle	Weld	Braze	Sweat Tee
<b>Bronze</b>	1/2-4"	3-4"	x	3-8"	1/2-4"
<b>PVC</b>	1/2-2"	3-8"	x	x	x
<b>Stainless Steel</b>	1/2-2" 304SS	x	3-8" 316SS	x	x
<b>Carbon Steel</b>	1/2-2"	x	3-8"	x	x
<b>Ductile Iron</b>	x	3-8"	x	x	x

## PVC BLOCK TEE FITTING



## PVC TEE FITTINGS





# IP800-SERIES Insertion Paddlewheel Flow Sensor

## HOW TO ORDER

Sensor Only			
Description	Size	Sensor Material	Options
Sensor Only.	½" - 3" = <b>IP810</b> 4" - 8" = <b>IP820</b>	Brass = <b>B</b> 316 Stainless Steel = <b>S</b> PVC = <b>P</b> Polypro = <b>Y</b>	Rotor with Ceramic Shaft, PVDF, Kynar = <b>-01</b> Micropower Pickup = <b>-04</b> Standard Power, LMI 4-pin Connector = <b>-06</b> Standard Power, Seametrics Control Connector = <b>-07</b> *Immersibility = <b>-40</b> Viton® O-Ring = <b>-60</b> Roytronics® Series A Pump 5-pin Connector = <b>-106</b> **High Pressure (Stainless Only) = <b>-HP</b>
FT420 Mounted on Sensor			
Description	Size	Sensor Material	Options
Rate & total indicator with pulse & 4-20 mA output, externally powered (FT420) mounted on the sensor.	½" - 3" = <b>IP811</b> 4" - 8" = <b>IP821</b>	Brass = <b>B</b> 316 Stainless Steel = <b>S</b> PVC = <b>P</b> Polypro = <b>Y</b>	Rotor with Ceramic Shaft, PVDF, Kynar = <b>-01</b> Tamper Evident Kit = <b>-32</b> *Immersibility = <b>-40</b> Viton® O-Ring = <b>-60</b> Non-resettable Total = <b>-64</b> Dual Relay Output = <b>-98</b> Hinged Display Cover = <b>-126</b>
A055 Mounted on Sensor			
Description	Size	Sensor Material	Options
Blind 4-20 mA analog transmitter (A055) mounted on the sensor.	½" - 3" = <b>IP812</b> 4" - 8" = <b>IP822</b>	Brass = <b>B</b> 316 Stainless Steel = <b>S</b> PVC = <b>P</b> Polypro = <b>Y</b>	Rotor with Ceramic Shaft, PVDF, Kynar = <b>-01</b> Standard Power, LMI 4-pin Connector = <b>-06</b> *Immersibility = <b>-40</b> Viton® O-Ring = <b>-60</b> Roytronics® Series A Pump 5-pin Connector = <b>-106</b> **High Pressure (Stainless Only) = <b>-HP</b>
FT415 Mounted on Sensor			
Description	Size	Sensor Material	Options
Rate & total indicator with pulse & 4-20 mA output, battery powered (FT415) mounted on the sensor.	½" - 3" = <b>IP814</b> 4" - 8" = <b>IP824</b>	Brass = <b>B</b> 316 Stainless Steel = <b>S</b> PVC = <b>P</b> Polypro = <b>Y</b>	Rotor with Ceramic Shaft, PVDF, Kynar = <b>-01</b> Tamper Evident Kit = <b>-32</b> *Immersibility = <b>-40</b> Viton® O-Ring = <b>-60</b> Non-resettable Total = <b>-64</b> Hinged Display Cover = <b>-126</b> **High Pressure (Stainless Only) = <b>-HP</b>
DL76 Mounted on Sensor			
Description	Size	Sensor Material	Options
Data logger (DL76) mounted on the sensor.	½" - 3" = <b>IP816</b> 4" - 8" = <b>IP826</b>	Brass = <b>B</b> 316 Stainless Steel = <b>S</b> PVC = <b>P</b> Polypro = <b>Y</b>	Rotor with Ceramic Shaft, PVDF, Kynar = <b>-01</b> Micropower Pickup = <b>-04</b> Tamper Evident Kit = <b>-32</b> *Immersibility = <b>-40</b> Viton® O-Ring = <b>-60</b> **High Pressure (Stainless Only) = <b>-HP</b>
PD10 Mounted on Sensor			
Description	Size	Sensor Material	Options
Pulse Divider (PD10) mounted on the sensor.	½" - 3" = <b>IP818</b> 4" - 8" = <b>IP828</b>	Brass = <b>B</b> 316 Stainless Steel = <b>S</b> PVC = <b>P</b> Polypro = <b>Y</b>	Rotor with Ceramic Shaft, PVDF, Kynar = <b>-01</b> LMI Pump Connector = <b>-06</b> 10 Ft. Cable for LMI Connector = <b>-37</b> *Immersibility = <b>-40</b> Viton® O-Ring = <b>-60</b> Roytronics® Series A Pump 5-pin Connector = <b>-106</b> **High Pressure (Stainless Only) = <b>-HP</b>

\*Consult factory for suitable applications    \*\*Requires appropriate fitting.

**CONTACT YOUR SUPPLIER**