



### 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

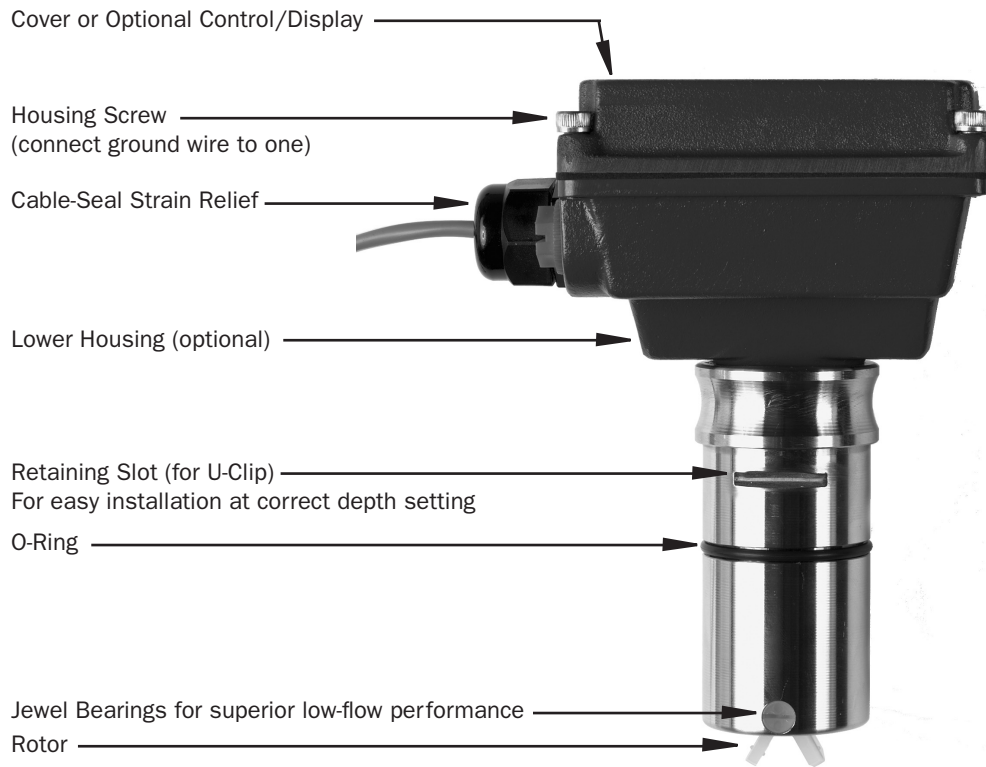
The **IP80-Series** are impeller (or “paddlewheel”) insertion meters designed for use with a wide variety of liquids in pipe sizes 1/2" to 8". Sensors are available in brass, 316 stainless steel, PVC, and polypropylene. Bodies are machined from a solid rod for maximum precision. High-quality jewel bearings 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 (square wave), 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 AO55 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 IP80-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



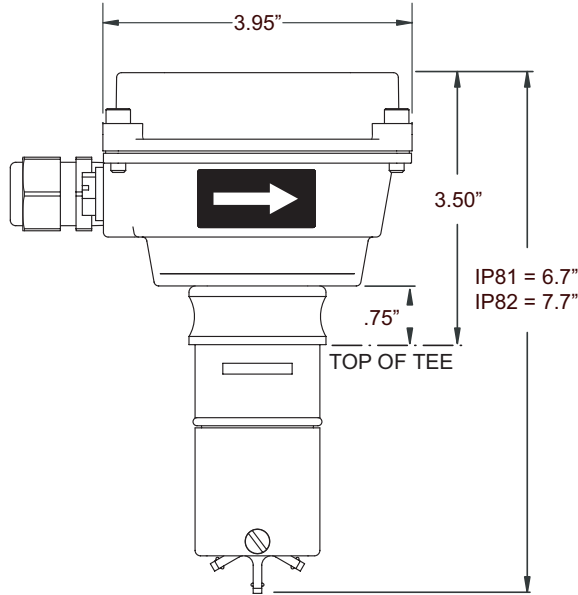
## SPECIFICATIONS\*

<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 Magnetoresistive) Sensor			
<b>Maximum Pressure</b>	<b>Brass</b>	<b>316 SS</b>	<b>PVC or Polypro</b> (See Pressure vs. Temp. Chart)	
	200 PSI (14 bar)	250 PSI (17 bar)	175 PSI (12 bar) @ 75° F	
	<b>Maximum 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)			
<b>Regulatory</b>	 Mark (Stainless Steel, Brass and Standard Power Only)			

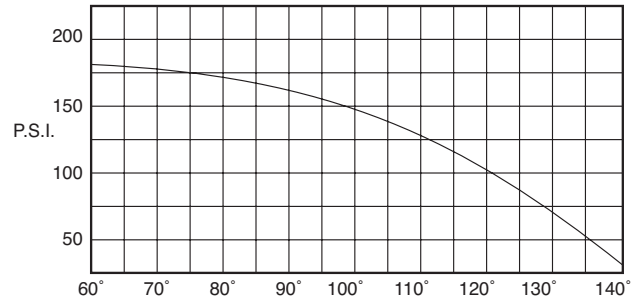
\*Specifications subject to change • Please consult our website for current data ([www.seametrics.com](http://www.seametrics.com)).

## DIMENSIONS

NOTE: Housing Optional



## PRESSURE VS. TEMPERATURE (PVC/Polypro)



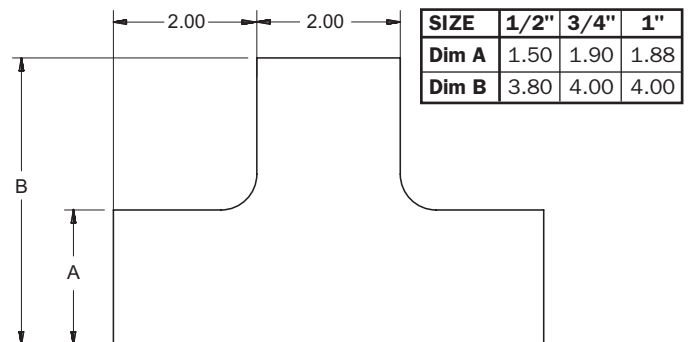
## FLOW RANGE (In Gallons Per Minute)

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

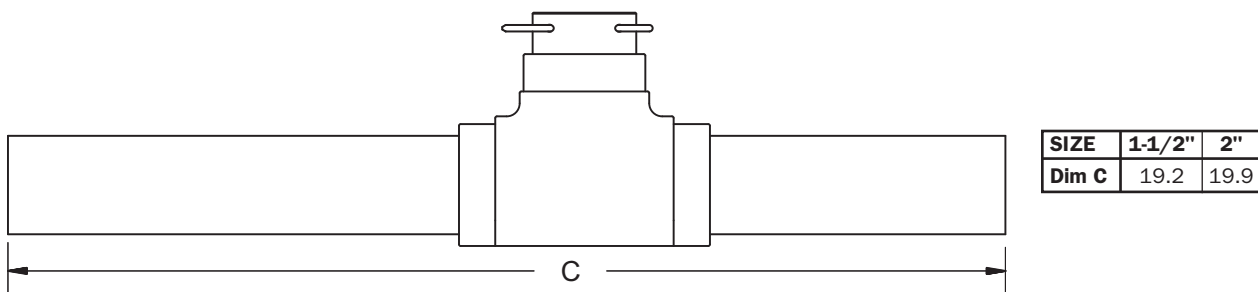
## AVAILABLE FITTINGS

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

## PVC BLOCK TEE FITTING



## PVC TEE FITTINGS





# IP80-SERIES Insertion Paddlewheel Flow Sensor

## HOW TO ORDER

MODEL	MATERIAL	OPTIONS	FITTINGS
1/2" - 3" = <b>IP81</b> 4" - 8" = <b>IP82</b>	Brass = <b>B</b> 316 Stainless Steel = <b>S</b> PVC = <b>P</b> Polypro = <b>Y</b>	Ceramic Shaft = <b>-01</b> Micropower Pickup = <b>-04</b> (Use with FT415 or DL75) LMI Pump Connector = <b>-06</b> Seametrics Control Connector = <b>-07</b> Viton® O-Ring = <b>-60</b>	Select from chart above (Fitting Type and Material)

---

### ACCESSORIES

Rate and Total Indicator with pulse & 4-20 mA outputs = <b>FT420</b>	Pulse divider = <b>PD10</b>
Rate and Total Indicator, battery powered = <b>FT415</b>	Data logger = <b>DL76</b>
Analog transmitter, blind 4-20 mA converter = <b>AO55</b>	Mounting kit, converts wall to meter mount = <b>MK10</b>
Power converter, plug-in, 110-115 Vac, 24 Vdc = <b>PC3</b>	Mounting kit, converts meter to wall mount = <b>MK20</b>

## CONTACT YOUR SUPPLIER