



### General Information

The IP80 Series are impeller-type insertion meters designed for use in pipe sizes 1/2" to 8". High-quality jewel bearings and nickel-bound tungsten carbide shaft are used for maximum life and extreme low friction. Bodies are machined from solid rod for maximum precision. Low-flow performance is superior. The rotation of the rotor is detected by a non-drag Hall-effect sensor. Output is a pulse-type square wave, which can be sent long distances (up to 2,000 feet) without a transmitter. This signal can be connected directly to SeaMetrics controls, as well as PLC's, counters, and computer cards.

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, as well as pump pacing, the FT415/420 flow indicator can be mounted directly on the IP80 Series, or remotely on a wall or panel.

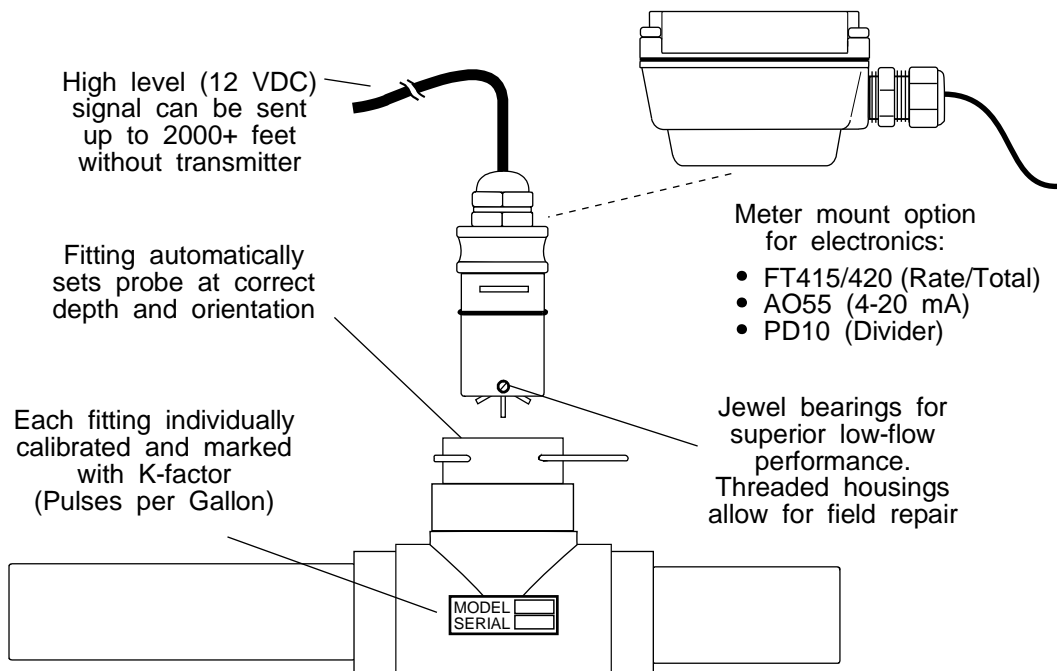
The IP80 Series require special fittings, since they are not depth-adjustable as are the IP 100/200 series meters. Installation in the fitting ensures correct depth placement in the pipe. Fittings are available in PVC, brass, and stainless steel. Sensors are available in brass, 316 stainless steel, PVC, and polypropylene. In plastic pipe 3"-8", use an IP82 sensor, which is 1.00" longer than the IP81 to accommodate the larger fittings.

### Specifications

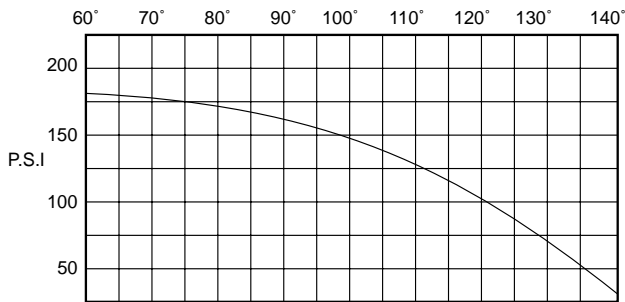
|                            |                                     |   |
|----------------------------|-------------------------------------|---|
| <b>Sensor</b>              | Hall Effect Sensor                  | 12 VDC current sinking pulse                    |
| <b>Materials</b>           | Sensor Body                         | PVC, Polypro, Brass, or 316 SS                  |
|                            | Rotor                               | Kynar   |
|                            | Shaft                               | Nickel-bound tungsten carbide, ceramic optional |
|                            | Bearings                            | Ruby jewel                                      |
| <b>Maximum Pressure</b>    | PVC                                 | 175 PSI (12 bar) at 75° *                       |
|                            | Polypro                             | 175 PSI (12 bar) at 75° *                       |
|                            | Brass                               | 200 PSI (14 bar)                                |
|                            | 316 SS                              | 250 PSI (17 bar)                                |
| <b>Maximum Temperature</b> | PVC, Polypro                        | 130° F (55° C)*                                 |
|                            | Brass, SS                           | 200° F (93° C)                                  |
| <b>Accuracy</b>            |                                     | 1-1/2% FS                                       |
| <b>Flow Range (GPM)</b>    |                                     |   |
|                            | 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 47   |   |
| <b>Max</b>                 | 28 50 80 190 314 691 1200 2700 4700 |   |
| <b>Cable</b>               |                                     | #22 AWG 3-con, 18'                              |
|                            |                                     | *(see Pressure vs. Temperature chart)           |

| Fittings Compatibility Chart |               |                       |
|------------------------------|---------------|-----------------------|
| Material                     | IP81          | IP82                  |
| Bronze                       | 1" - 4" Tee   | 3" - 8" Braze fitting |
| PVC                          | 1/2" - 2" Tee | 3" - 8" Saddle        |
| Polypro                      | N/A           | 3" - 8" Tee           |
| Stainless steel              | 1/2" - 2" Tee | 3" - 8" Weld fitting  |
| Carbon steel                 | 1/2" - 2" Tee | 3" - 8" Weld fitting  |

## Features



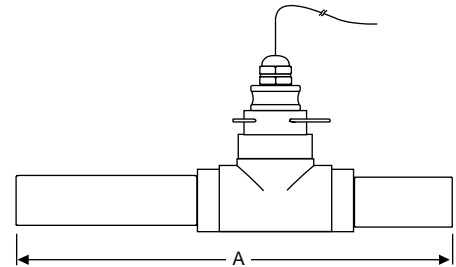
## PVC Working Pressure vs. Temperature



## Dimensions: PVC Fittings

| Fitting Length |         |
|----------------|---------|
| Size           | Dim. A  |
| 1/2"           | 14-1/2" |
| 3/4"           | 18-1/2" |
| 1"             | 18-1/2" |
| 1-1/2"         | 20"     |
| 2"             | 20"     |
| 3"             | *       |
| 4"             | *       |
| 6"             | *       |

\* Requires saddle



## How To Order

Material Code: **P** (PVC), **Y** (Polypro), **K** (PVDF), **B** (Brass), **S** (316 SS)  
 Option Code: (see options at right)

IP81 \_\_\_\_\_ - \_\_\_\_\_

IP82 \_\_\_\_\_ - \_\_\_\_\_

Option codes:

**01** Ceramic shaft

**06** LMI connector

**07** SeaMetrics connector

# SeaMetrics

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