

# IP80 Series Flow Sensor Specifications



## 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 controls, as well as PLC's, counters, and computer cards.

Muis Controls 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.

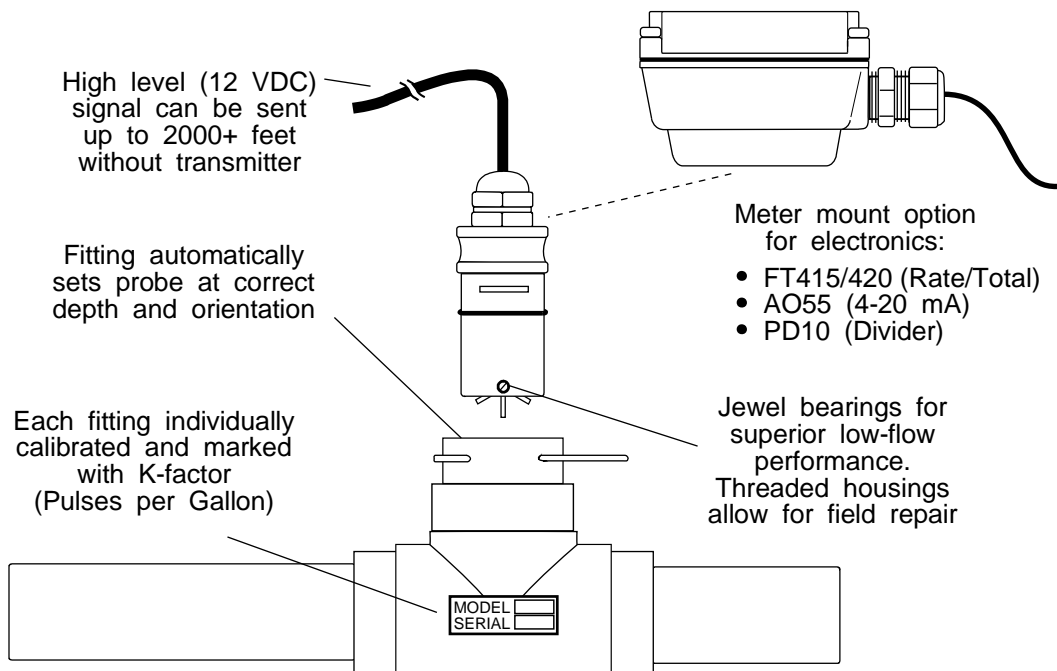
The IP80 Series require special fittings, since they are not depth-adjustable as are the IP 100/200 series meters. Installation in the fitting ensures correct depth placement in the pipe. Fittings are available in PVC, brass, and stainless steel. Sensors are available in brass, 316 stainless steel, PVC, 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

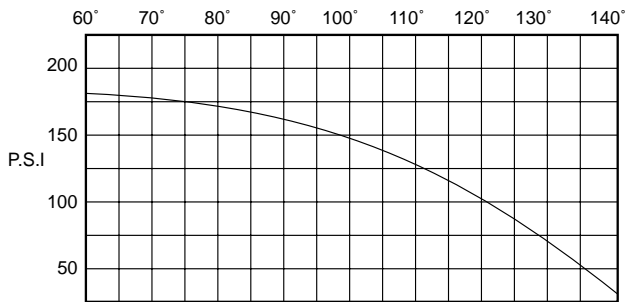
<b>Sensor</b>	Hall Effect Sensor	12 VDC current sinking pulse
<b>Materials</b>	Sensor Body	PVC, Polypro, Brass, or 316 SS
	Rotor	Kynar
	Shaft	Nickel-bound tungsten carbide, ceramic optional
	Bearings	Ruby jewel
<b>Maximum Pressure</b>	PVC	175 PSI (12 bar) at 75° *
	Polypro	175 PSI (12 bar) at 75° *
	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



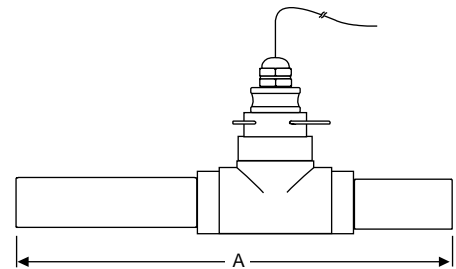
## PVC Working Pressure vs. Temperature



## 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)

Option codes:  
**01** Ceramic shaft

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

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

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