

# P420

## UNIVERSAL<sup>®</sup> Flow Monitors

### Plastic Vortex Shedding Flow Rate Transmitters



P420

### Description

The P420 flowmeters are simple plastic flow transmitters intended to be economical and robust.

- Port sizes available from 3/8 (three eighths) inches to 2 (two) inches in diameter.
- Full scale flow rates are from 6 - 200 GPM with 10:1 turndown
- Wetted parts are PVC and CPVC
- Connections are socket weld ports or NPT threads
- There are no moving parts
- Terminal strip with 1/2 inch NPT conduit port
- ID within .030 inches of standard Schedule 80 PVC pipe for flow continuity

### Electrical Specifications

- Output is a 4-20 mA
- Two wire loop powered
- Input power 10-30 VDC@25mA

### Material Specifications

- PVC or CPVC bodies, sensor and bluff
- No seals

### Installation

- Straight run of 10 pipe diameters upstream and 5 pipe diameters downstream required
- 10 PSI backpressure required

### Instrument Specifications

- Response time 0.9 seconds
- Accuracy  $\pm 2\%$  of full scale (max flow)
- Repeatability  $\pm 0.25\%$  of indicated flow
- Pressure maximums vary with pipe diameter and temperature per chart below
- Enclosure Type 4, IP 65
- Pipe connections solvent weld to socket or NPT threads

### Applications

- Low viscosity fluids to 4.5 Cp or 50 SUS
- Brine
- Water
- Corrosive fluids

### Industries

- Water treatment
- Chemical
- Desalination

### Max Pressure at Indicated Temperature

PVC		PIPE DIAMETER IN INCHES				
		3/8&1/2	3/4	1	1 1/2	2
TEMPERATURE IN DEGREES F	73	425	345	315	235	200
	80	377	306	279	208	177
	90	317	258	235	175	149
	100	264	214	196	146	124
	110	216	175	160	119	101
	120	172	139	127	95	81

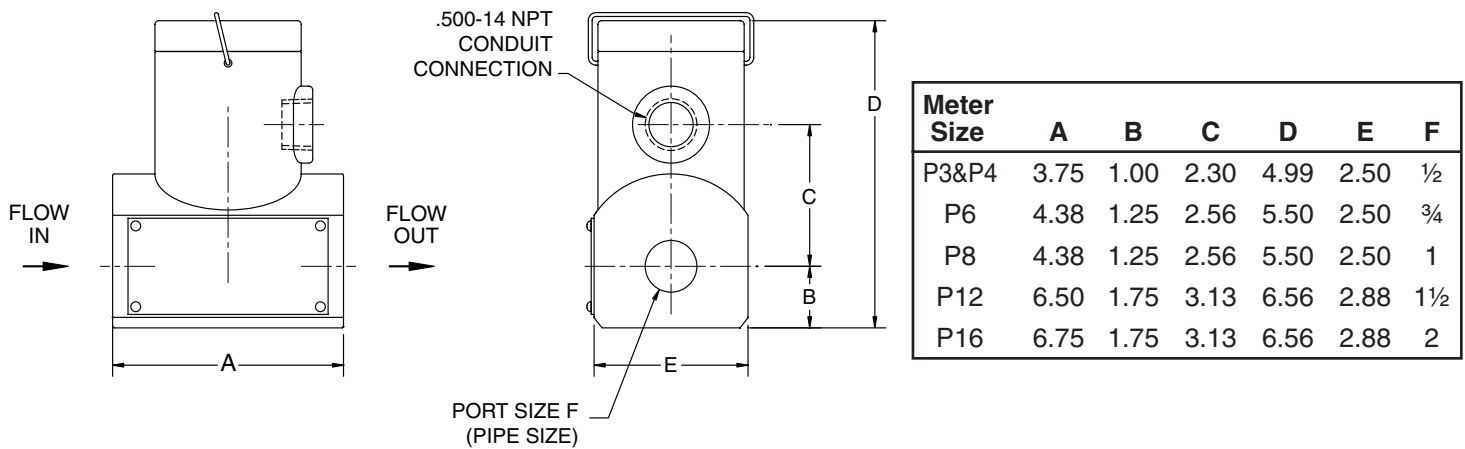
CPVC		PIPE DIAMETER IN INCHES				
		3/8&1/2	3/4	1	1 1/2	2
TEMPERATURE IN DEGREES F	73	425	345	315	235	200
	80	403	327	298	223	189
	90	371	301	275	205	175
	100	340	276	252	188	160
	110	308	250	228	170	145
	120	276	224	205	153	130
	130	244	198	181	135	115
	140	213	173	158	118	100

# How To Order Select the appropriate symbols to build a model code:

## MODEL CODES

Flow Rate GPM (LPM)	Pipe diameter in inches	PVC bodies with socket weld ends	PVC bodies with NPT connection	CPVC bodies with socket weld ends	CPVC bodies with NPT connection
6 (22.7)	3/8	P3	P3-T1	P3-M4	P3-T1M4
12 (45)	1/2	P4	P4-T1	P4-M4	P4-T1M4
25 (95)	3/4	P6	P6-T1	P6-M4	P6-T1M4
50 (190)	1	P8	P8-T1	P8-M4	P8-T1M4
100 (380)	1 1/2	P12	P12-T1	P12-M4	P12-T1M4
200 (750)	2	P16	P16-T1	P16-M4	P16-T1M4

## INSTALLATION DRAWING



## PRESSURE DROP CHARTS

