

P420

UNIVERSAL[®] 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 1/2 (one half) inches to 2 (two) inches in diameter.
- Full scale flow rates are from 12 - 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 ±2% of full scale (max flow)
- Repeatability ±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

		PIPE DIAMETER IN INCHES					
		1/2	3/4	1	1 1/2	2	
TEMPERATURE IN DEGREES F	PVC	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	
	130	131	106	97	72	62	
	140	93	76	69	52	44	
	150	-	-	-	-	-	
	160	-	-	-	-	-	
	170	-	-	-	-	-	
180	-	-	-	-	-		

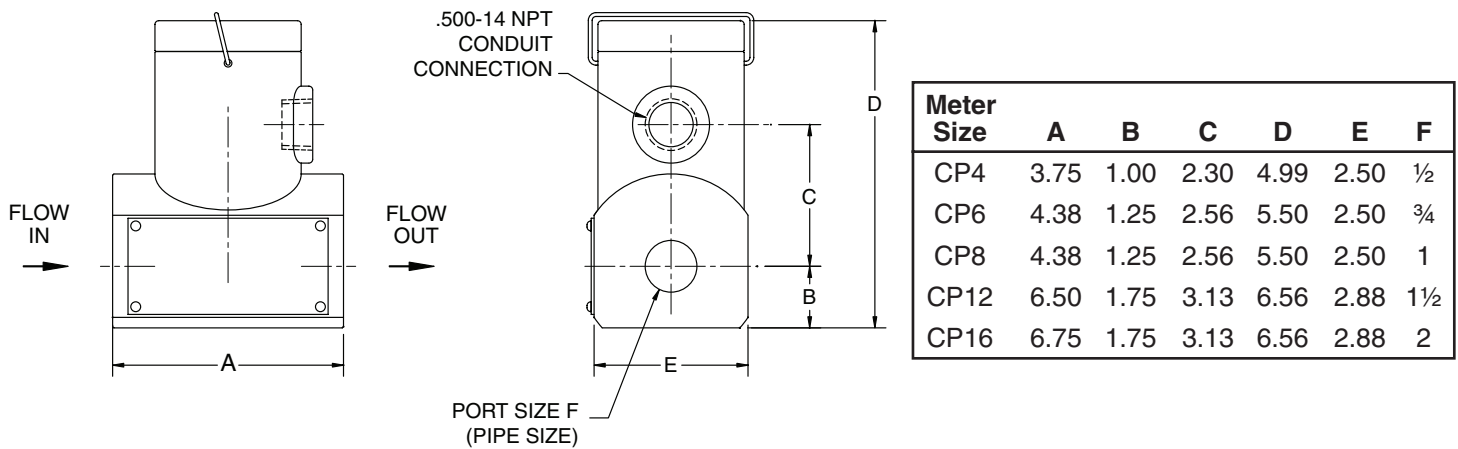
		PIPE DIAMETER IN INCHES					
		1/2	3/4	1	1 1/2	2	
TEMPERATURE IN DEGREES F	CPVC	73	425	345	315	235	200
	80	403	327	298	223	189	
	90	371	301	275	205	175	
	100	340	276	252	188	160	
	110	308	250	228	170	145	
	120	276	224	205	153	130	
	130	244	198	181	135	115	
	140	213	173	158	118	100	
	150	182	148	135	101	86	
	160	154	125	114	85	72	
	170	129	105	96	71	61	
180	110	89	81	61	52		

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
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

