

BACK PRESSURE AND PRESSURE RELIEF VALVES

SIGMAMOTOR

Provides higher accuracy and safety in metering pump systems

Back Pressure Valves

- CNC precision machined parts
- Cost effective and reliable
- Pressures from 5-150 psi (350 optional)
- Variety of materials available
- Anti-syphon protection
- Fine pressure adjustment
- Optional air release and pressure gauge port

Sigmamotor back pressure valves prevent siphoning and varying rates of dosage from fluctuating downstream pressure by enacting positive discharge pressure in your metering pump system.

Inside the valve is a diaphragm held in place by a spring which is pressure set. When the pressure is exceeded the PTFE diaphragm is pushed up and material flows through the valve to the injection point. The valves are factory set at 50psi but are easily adjusted in the field.



Pressure Relief Valves

- Fine pressure adjustment
- CNC precision machined parts
- Cost effective and reliable
- Variety of materials available
- Right-angle, 3-port design

Sigmamotor pressure relief valves operate when the system pressure raises above the set pressure of the valve to protect systems from damage due to blockages or excessive pressure situations.

Inside the valve a spring holds a PTFE diaphragm against the valve seat until preset pressure is exceeded, then the diaphragm is forced up and the material in the system is forced out of the relief port. The valve is set at 65psi at the factory but is easily field adjustable.



BACK PRESSURE/PRESSURE RELIEF

BACK PRESSURE AND PRESSURE RELIEF VALVES

Engineering Specifications

Max Flow Range @ 150 PSI				
BP Part#	PRV Part#	Size	Pulsating US GPH	Continuous US GPM
B*250(**)	P*250(**)	1/4"	100	10
B*375(**)	P*375(**)	3/8"	200	15
B*499(**)	P*499(**)	1/2" (mini)	350	17.5
B*500(**)	P*500(**)	1/2" (std.)	500	25
B*750(**)	P*750(**)	3/4"	600	30
B*100(**)	P*100(**)	1"	600	30
B*150(**)	P*150(**)	1-1/2"	1350	67
B*200(**)	P*200(**)	2"	2000	100
B*300(**)	P*300(**)	3"	5000	270
B*400(**)	P*400(**)	4"	5000	270

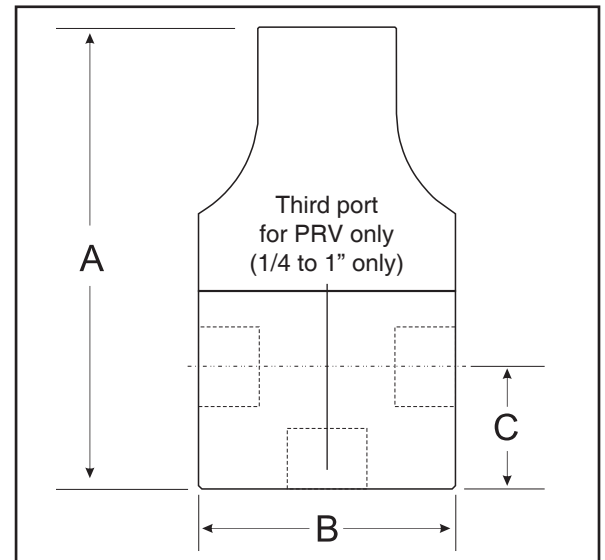
(*) **Body Ports/Type:** Ports: 2 or 3 Ports.
3-Port only for 1/4"-1" PRV.
Port Type: N-NPT, S- Socket, F-Flanged

(**) **Body Material:** P-PVC, PP-Polypro, CP-CPVC, T-PTFE, K- Kynar, S-316SS, A-Alloy 20, H-Hastelloy C

Example: P2N499P- Pressure Relief, 2-Port, NPT, 1/2", PVC

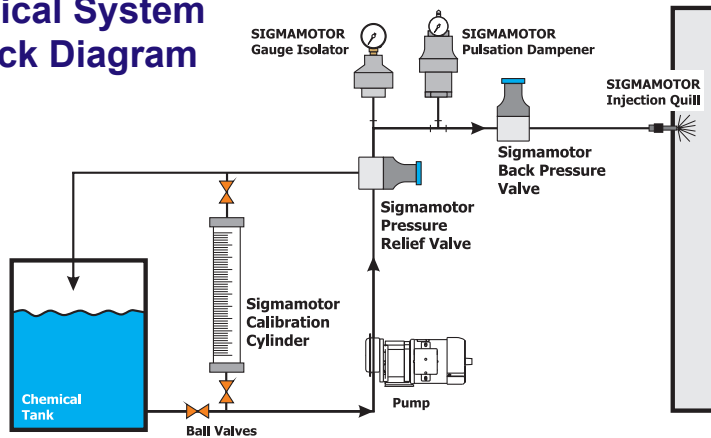
Pressure Range (PSI)	5-150 (50-350 PSI available on metal valves)
Maximum Temperature	Plastic: 140° F Metal: 300° F
Material (Valve Top)	PVC, 316 S.S. or CPVC
Material (Valve Body) Wetted Parts	PVC, CPVC, PP, PTFE, PVDF 316 S.S., A20, or Hastelloy C
Material (Diaphragm)	PTFE Standard, Viton optional

Dimensions



Size (NPT)	A	B Dia.	C
Mini Body 1/4" to 1/2"	Metal: 4.22" Other: 4.5"	2.375"	1.125"
Std. Body 1/2" to 1"	6.0"	3.5"	1.25"
1-1/2"	9.5"	4"	2.125"
2"	9.5"	4.45"	2.125"
3"	11.5"	8"	2.75"
4"	11.5"	8"	2.75"

Typical System Block Diagram



FLOMOTION also provides a complete line of Calibration Cylinders

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