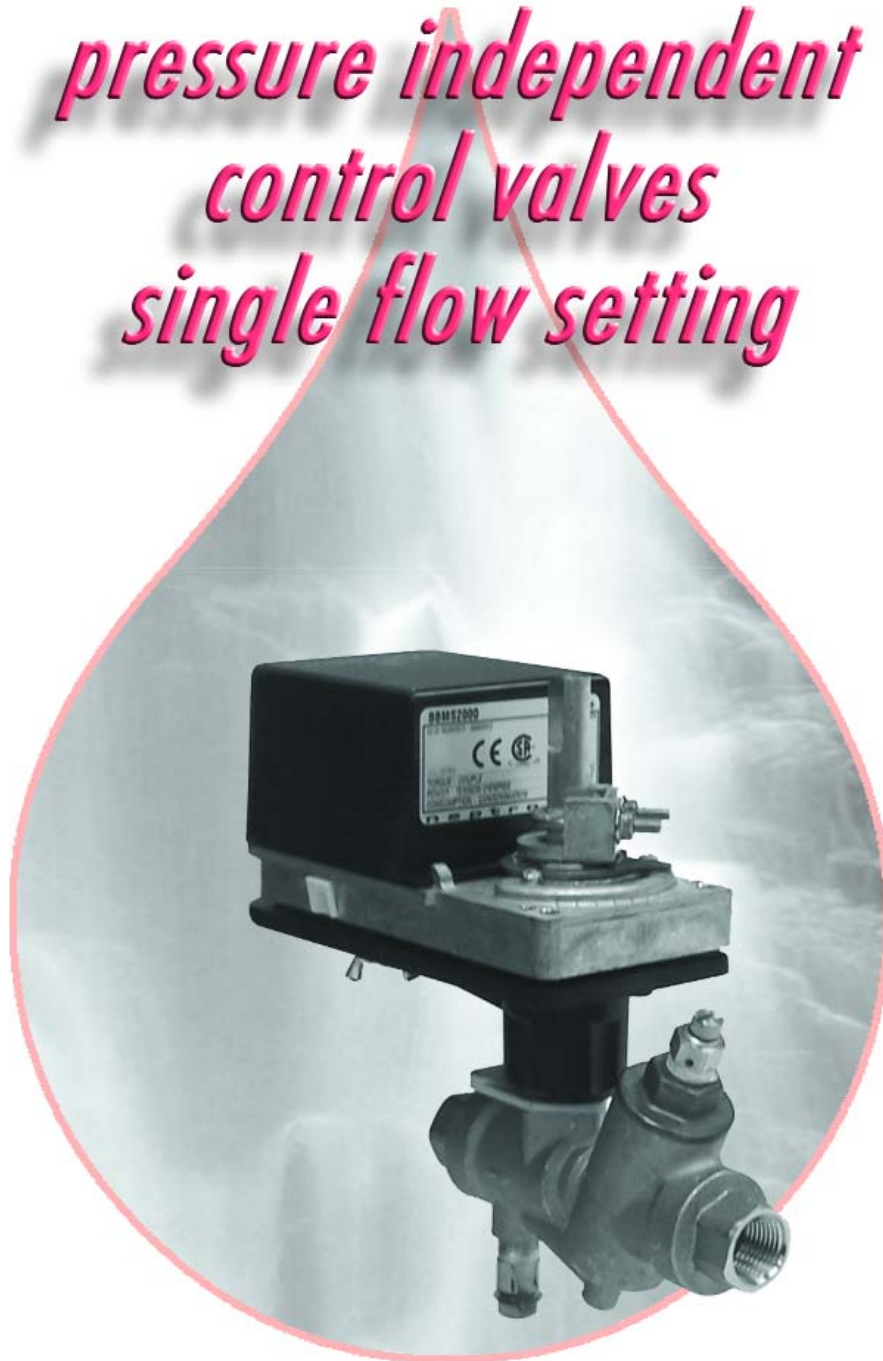


*pressure independent
control valves
single flow setting*



DESCRIPTION

PRESSURE INDEPENDENT CONTROL VALVES

neptronic®



Description



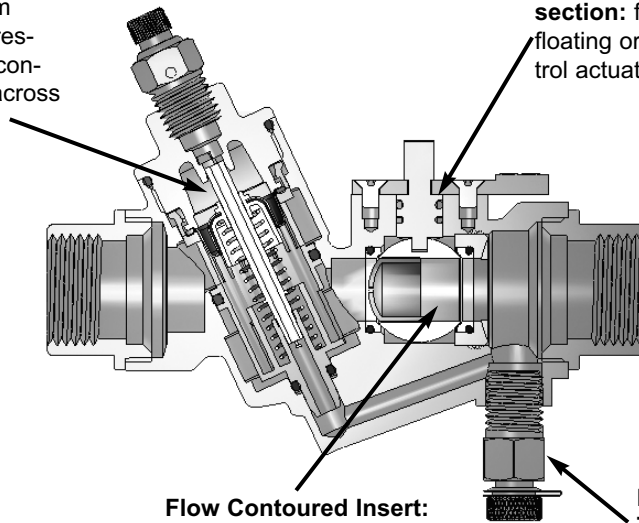
The Neptronic BP series of pressure independent contoured port control valve is the new standard in control for small applications such as VAV terminal reheats fan coils and unit ventilators. These cost effective valves are sized by the GPM to match the maximum rated flow through the coil. They may be set to maximum flows as low as half a GPM.

These valves perform two main functions. First they are an automatic balancing valve and are set to limit the maximum flow to a coil. Second, they are a control valve and can modulate the flow to the coil to match the load. At the same time they are fully pressure independent at any point of control. This results in better zone control and a very stable variable pumping system. In large facilities with many small zones as well as larger air handlers, the BP series control valves can be married with our larger GP series pressure independent valves to complete the picture and give you a very stable totally pressure independent system.

Description

Diaphragm Pressure Compensating Cartridge:
Spring and diaphragm move according to pressure and maintain a constant pressure drop across the ball.

Water exits valve – pressure is low



Control actuated valve section: for on/off, 3 point floating or modulating control actuator.

Water enters valve – pressure is high

Flow Contoured Insert:
Provides Equal Percentage Control and limits the flow to zone set point.

Pressure/Temperature Test Ports: Enable easy pressure differential readings.

General Specifications

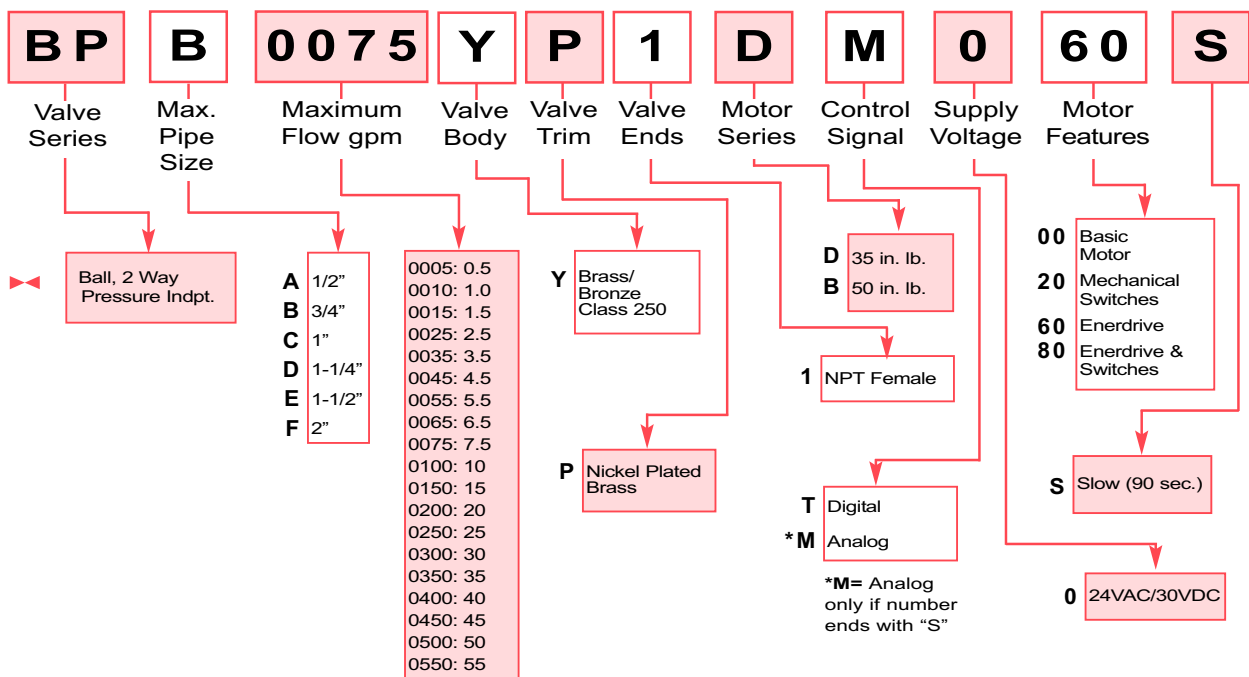
1. Pressure Independent Contoured Port Actuated Valves
 - 1.1 Contoured port valve shall accurately control flow, independent of system pressure fluctuation.
 - 1.2 Contractor shall install pressure independent contoured port valves where indicated on drawings.
 - 1.3 Contoured port valve shall have a ball insert to make flow control equal percentage.
 - 1.4 Valve shall be electronic, pressure independent modulating 2-way control device.

2. Valve Actuator
 - 2.1 Valve actuator housing shall be rated to IP44.
 - 2.2 Actuator shall be driven by a 24Vac motor, and shall accept 4-20Vdc, 4-20mA or on/off, 3 point floating control.
 - 2.3 Optional fail safe system to power valve to either open or closed position from any position in case of power failure shall be available.

3. Valve Housing
 - 3.1 Housing shall consist of forged brass, rated at no less than 360 psi at 250°F.

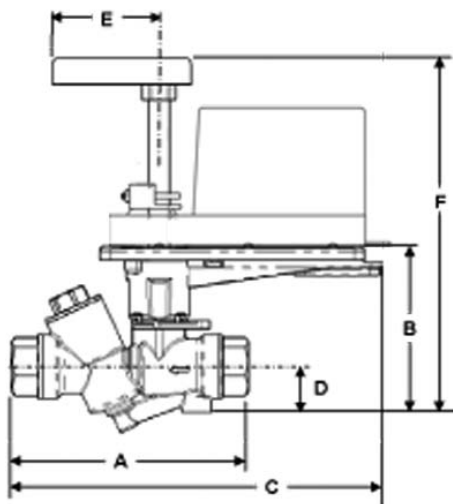
4. Flow Regulating Unit
 - 4.1 Flow regulating unit shall consist of a self balancing cartridge
 - 4.2 Cartridge shall be accesible for maintenance.

Model Nomenclature



DIMENSIONS & FLOW RATE CONTROL VALVES 1/2"- 2"

neptronic®



Housing Specifications

- Static Pressure: 360 psi
- Temperature Range: -22° to 250°F (-30° to 120°C)
- Service: Chilled water, hot water, up to 50% Glycol, or contact factory for additional fluids.
- Flow Contoured Insert: Glass filled Polymer
- Cartridge: Poly-oxy methaline and hydrogenated acrylonitrile-butadiene rubber
- Body Material: Forged brass ASTM B5841/4" NPT
- Stem: Brass
- Stem Seals: EPDM O-Rings
- Ball Valve: Nickel Plated Brass Ball
- Ball Seals: Teflon Seals with EPDM O-Rings
- Accessories: Manual Air Vent Standard

Dimensions & weights (nominal) (measured in inches/lbs. unless noted)

SIZE	A LENGTH	B LENGTH	C LENGTH	D HEIGHT	E HANDLE	F HEIGHT	WEIGHT
1/2"	5.7	4.3	8.6	1.03	2.5	8.4	3.9
3/4"	5.7		8.6				
1"	5.9		8.7				
1"L	9	4.6	10.9	1.6		9.4	4.5
1-1/4"	8.4		10.6				
1-1/2"	8.2		10.5				
1-1/2"L	10	5.2	12.1	2.1		10.4	6.6
2"	9.9		12				

High limit flow rates (+/-5%)

SIZE SIZE	VALVE MODEL PREFIX	CONTROL RANGE PSID	MAXIMUM FLOW GPM	CLOSE-OFF PSID
1/2"	BP A00__YP1	5.8-60	0.5, 1.0, 1.5, 2.5, 3.5, 4.5, 5.5, 6.5, 7.5	100
3/4"	BP B00__YP1	5.8-60		
1"	BP C00__YP1	5.8-60		
1"L	BP C0__0YP1	2.9-60	10, 15, 20, 25	100
1-1/4"	BP D0__0YP1	2.9-60		
1-1/2"	BP E0__0YP1	2.9-60		
1-1/2"L	BP E0__0YP1	2.9-60	25, 30, 35, 40, 45, 50, 55	100
2"	BP F0__0YP1	2.9-60		