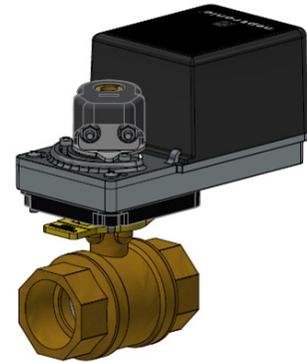


### Models

- CPAxxxxYP1: 2-way, 1/2" (DN15), standard NPT
- CPBxxxxYP1: 2-way, 3/4" (DN20), standard NPT
- CPCxxxxYP1: 2-way, 1" (DN25), standard NPT
- CPDxxxxYP1: 2-way, 1 1/4" (DN32), standard NPT
- CPExxxxYP1: 2-way, 1 1/2" (DN40), standard NPT
- CPFxxxxYP1: 2-way, 2" (DN50), standard NPT
- CPGxxxxYP1: 2-way, 2 1/2" (DN65), standard NPT
- CPHxxxxYP1: 2-way, 3" (DN80), standard NPT



With B Series Actuators

### Features

- 2-way valves available in 1/2" (DN15), 3/4" (DN20), 1" (DN25), 1 1/4" (DN32), 1 1/2" (DN40), 2" (DN50), 2 1/2" (DN65) and 3" (DN80)
- Compatible with Neptronic B series (50 in.lb [5.6 Nm]) actuators
- Close-off pressure of **100psig-130psig**
- Small dimensions allow for easier installation
- Cv range from 0.4 to 124 (Kv 0.3 to 107)
- 2 Way control of hot water or chilled water up to 50%Glycol

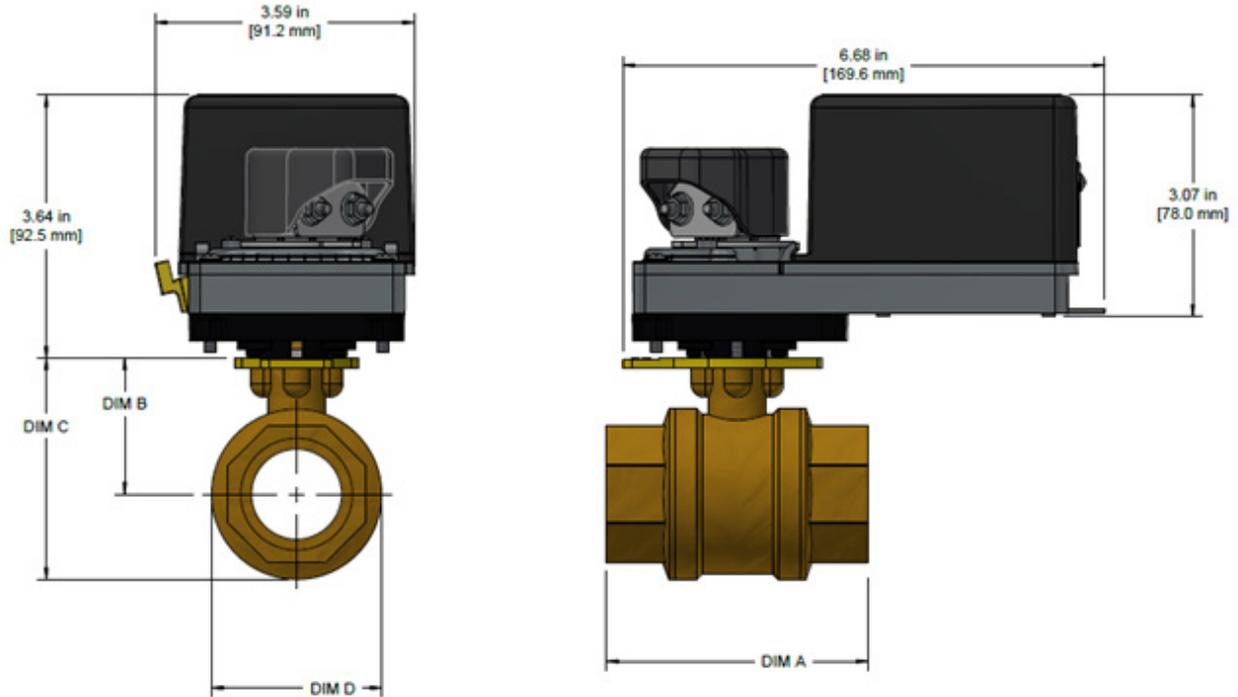
### Models

Size	2-Way Models	Cv	Kv	Close Off PSI
1/2" [DN15]	CP A0004YP1	0.4	0.3	130
	CP A0007YP1	0.7	0.6	130
	CP A0014YP1	1.4	1.2	130
	CP A0026YP1	2.6	2.2	130
	CP A0050YP1	5.0	4.0	130
3/4" [DN20]	CP B0100YP1	10.0	8.0	130
1" [DN25]	CP C0160YP1	16.0	13.0	100
1-1/4" [DN32]	CP D0260YP1	26.0	22.0	100
1-1/2" [DN40]	CP E0410YP1	41.0	35.0	100
2" [DN50]	CP F0710YP1	71.0	61.0	100
2-1/2" [DN65]	CP G1010YP1	101.0	87.0	100
3" [DN80]	CP H1240YP1	124.0	107.0	100

### Technical Data

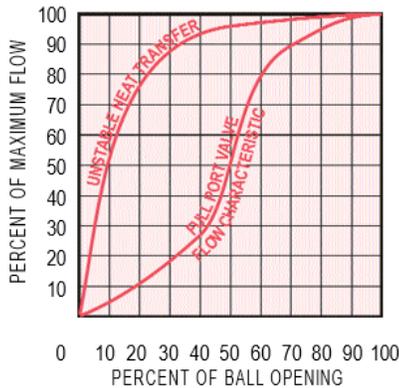
Specification		All Models
Actuator Compatibility		All Neptronic B series actuators
Sizes		1/2" to 3" [DN15 to DN80]
Range Cv [Kv]		0.4 to 124 [0.3 to 107]
Static Pressure and Temperature		360 PSI, -22°F to +250°F (-30°C to +121°C)
Pressure	Close-Off	100 PSIG Maximum (130 PSIG max. for 1/2" and 3/4")
	Differential	35 PSIG Maximum
Materials	Body	Forged Brass ASTM B283
	Ball and Stem	Nickel Plated Brass & Brass, Respectively, or Stainless Steel
	Seats	Reinforced Teflon Seals with EPDM "O" Rings
Flow Contoured Insert		Glass Filled Polymer
Stem Seals		EPDM
End Connections		Standard NPT

## Dimensions

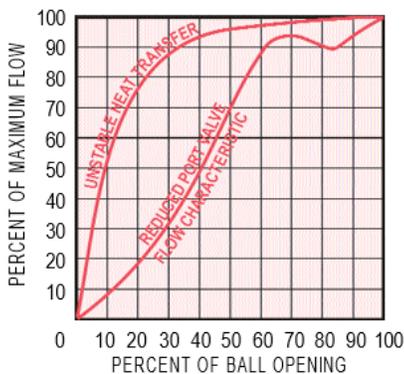


Valve Size	1/2" [DN15]	3/4" [DN20]	1" [DN25]	1-1/4" [DN32]	1-1/2" [DN40]	2" [DN50]	2-1/2" [DN65]	3" [DN80]
A	2.37" [60mm]	2.76" [70mm]	3.04" [77mm]	3.62" [92mm]	4.06" [103mm]	4.90" [125mm]	5.35" [136mm]	5.73" [146mm]
B	1.33" [34mm]	1.47" [37mm]	1.67" [42mm]	1.89" [48mm]	2.22" [56mm]	2.51" [64mm]	2.51" [64mm]	2.51" [64mm]
C	1.94" [49mm]	2.23" [57mm]	2.57" [65mm]	3.07" [80mm]	3.63" [92mm]	4.26" [108mm]	4.26" [108mm]	4.52" [115mm]
D	1.71" [43mm]	1.71" [43mm]	1.81" [46mm]	2.36" [60mm]	2.83" [72mm]	3.50" [89mm]	3.50" [89mm]	4.02" [102mm]

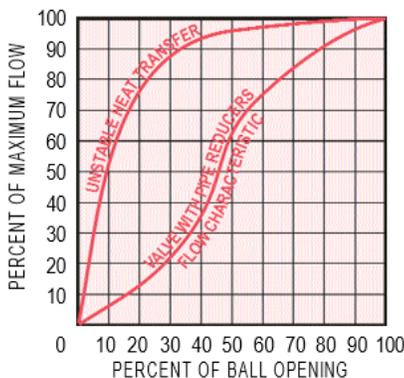
### Benefits of Contoured Port Valves



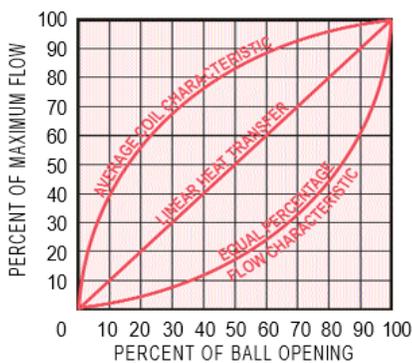
The large Cv rating of **FULL PORT VALVES** is caused by the shape and size of the orifice and results in a distorted flow characteristic, an unstable heat transfer and an “all or nothing” flow. The valve opens quickly and has an exceedingly small pressure drop. This is used for 2 position control where a low-pressure drop is desirable. It is not recommended for proportional control.



Using the **REDUCED PORT VALVE** results in a smaller opening through the ball and gives a smaller Cv with a higher-pressure differential yet the flow characteristic is still distorted. A stable control under these conditions will be difficult to achieve.



**PIPE REDUCERS** reduce the Cv due to the piping geometry, but this also distorts the characteristic. As in the full and reduced port ball valves, pipe reducers cause unstable heat output that increases far too quickly as the valve opens.



The **NEPTRONIC SOLUTION** is the **CONTOURED PORT BALL VALVE**. The characterized “V” style port allows for a more gradual equal percentage curve that is controllable for the full stroke of the valve. This results in a high rangeability and a greater turn down ratio for more accurate flow control.

As you can see in the graph on the left, the equal percentage characteristic of the **CONTOURED PORT BALL VALVE** mirrors the average coil characteristic resulting in linear heat transfer.



Recycling at end of life: please return this product to your Neptronic local distributor for recycling. If you need to find the nearest Neptronic authorized distributor, please consult [www.neptronic.com](http://www.neptronic.com).