



## 20 to 50 mm 2-way and 3-way Ball Valves: Brass, Threaded, PN 25 Pressure Rating

### General

The B Series Ball valves are engineered specifically for temperature control applications requiring an equal percentage flow characteristic and a high degree of control precision. Common applications include hot water and chilled water coils and heat exchangers in air handling units, chillers, boilers and cooling towers. Full-port models are available for shut-off application,

The B Series valves are available in 2-way and 3-way configurations, with American NPT threads or European BSP threads.

The B Series valves are operated by 04 Series (light duty) electric damper actuators. The actuators can be mounted directly to the valves without the need of time-consuming field calibration.

### Features

- Establishes a flow coefficient Cv similar to globe valves
- Provides superior rangeability and equal percentage flow characteristics.
- Lower torque actuator required
- T design 3-way piping
- Universal mounting bracket for actuators

### Material

Body:	Forged Brass
Ball:	Nickel Plated Brass
Stem:	Brass
Insert:	Glass-filled Polymer
Stem Seal:	EPDM O-ring
Ball Seal:	RTFE seat with EPDM O-ring
Mounting:	Glass-filled Polymer

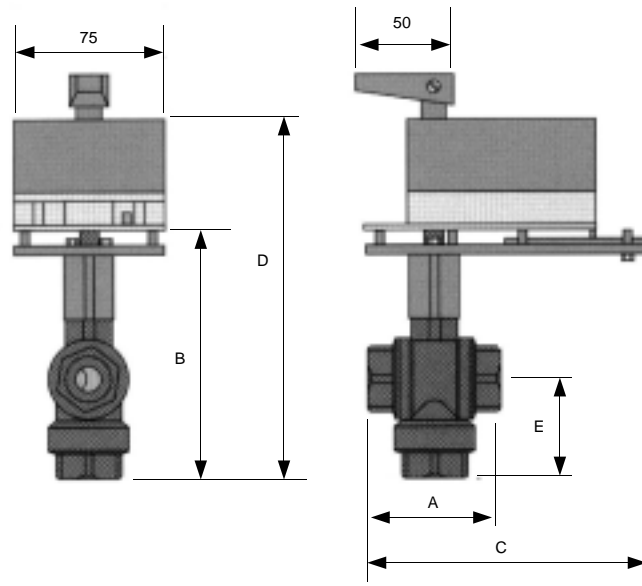


### Specification

Operating Pressure:	25 bar, ANSI class 250
Pipe Connection:	15 to 50 mm Female Thread
Flow Characteristic:	Equal percentage
Seat Leakage:	ANSI class IV (0.01% of Cv)
Fluid limits:	-30...121 °C water with up to 50% Glycol
Stroke:	90°

The specification above are normal and conform to generally acceptable industry standard. Cyrus is not responsible for damages resulting from misapplication or misuse of its products.

# BALL VALVES B



## Dimensions in mm Differential Pressure (kPa)

Model	Dn	Cv, ( ) = Full port	A	B	C	D	E	kg	DP
B2B15(F)	15	4.7 (11.7)	60	87	169	206		1.4	896
B2B20(F)	20	10.1 (14.7)	67	94	169	211		1.4	896
B2B25(F)	25	15.3 (28.4)	77	100	171	220		1.5	689
B2B32(F)	32	14.9 (41.1)	91	113	178	231		2.0	689
B2B40(F)	40	22.8 (73.9)	119	132	191	225		2.4	689
B2B50(F)	50	41.7 (108)	124	146	194	266		3.2	689
B3B15(F)	15	2.4 (8.0)	89	83	178	238	60.5	1.8	344
B3B20(F)	20	3.8 (12.6)	70	83	165	222	50.8	1.6	344
B3B25(F)	25	8.6 (22.0)	95	83	184	241	70.0	1.6	344
B3B32(F)	32	13.0 (34.0)	76	95	171	248	63.5	2.4	276
B3B40(F)	40	26.0 (61.0)	114	102	197	273	82.5	2.5	276
B3B50(F)	50	38.0 (108)	102	114	184	279	82.5	3.2	276

## Installation

### PIPE CONNECTIONS

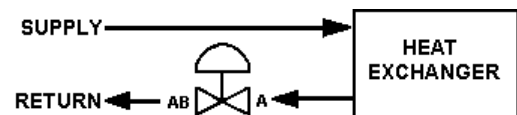
The valve must be piped according to flow directions as indicated on valve body.

### VALVE MOUNTING

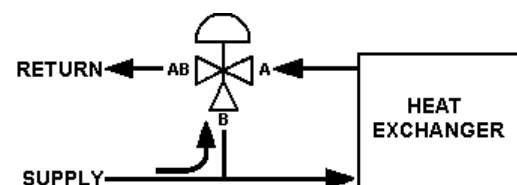
Before mounting valve, be sure that pipes are clean and free from scores. It is essential that pipes be lined up squarely with the valve at each connection, free from vibrations. For installations on plants with high temperature fluid (steam, superheated steam, water, or diathermy fluid) use expansion joints to avoid pipe buckling against valve body.

Valves may be mounted in any position provided that main shaft of actuator is always horizontal. Leave sufficient clearance around the valve for incidental maintenance.

Valve must not be installed in explosive atmosphere nor at ambient temperature higher than 50 °C and lower than -5 °C; must not be subject to steam jets, water jets or dripping.



2-Way Valve Piping



3-Way Valve Piping