



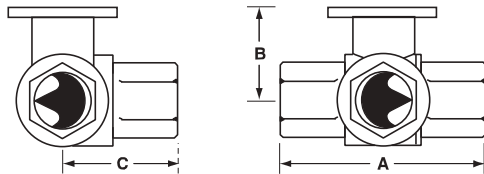
Application

This valve is typically used in air handling units on heating or cooling coils, and fan coil unit heating or cooling coils. Some other common applications include Unit Ventilators, VAV box re-heat coils and bypass loops. This valve is suitable for use in a hydronic system with variable or constant flow.

Technical Data	
Service	chilled or hot water, 60% glycol
Flow characteristic	A-port equal percentage B-port modified for constant common port flow
Action	90° rotation
Sizes	½", ¾", 1", 1¼", 1½", 2"
Type of end fitting	NPT female ends
Materials:	
Body	forged brass, nickel plated
Ball	stainless steel
Stem	stainless steel
Seats	PTFE
Characterizing disc	Tefzel®
Packing	2 EPDM O-rings, lubricated
Body Pressure rating	
600 psi	½" - 1"
400 psi	1¼" - 2"
Media temp. range	0°F to 212°F [-18°C to 100°C]
Close off pressure	
200 psi	½" - 2"
Maximum differential pressure (ΔP)	30 psi for typical applications
Leakage	0% for A to AB <2.0% for B to AB
C _v rating	A-port: see product chart for values B-port: 70% of A to AB C _v

Tefzel® is a registered trademark of DuPont

Dimensions



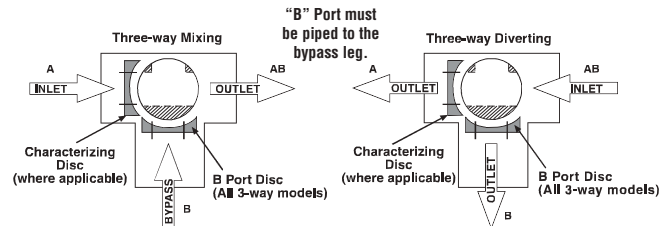
3Way Valve-B307-B320

Valve Body	Valve Nominal Size		Dimensions (Inches [mm])		
	Inches	DN [mm]	A	B	C
B307-B311	½"	15	2.41" [61.1]	1.39" [35.2]	1.20" [30.6]
B312-B315	½"	15	2.38" [60.4]	1.72" [43.7]	1.26" [32.1]
B317-B320	¾"	20	2.73" [69.3]	1.81" [45.9]	1.45" [36.8]
B322-B325	1"	25	3.09" [78.4]	1.81" [45.9]	1.56" [39.8]
B329-B331	1¼"	32	3.96" [100.6]	2.21" [56.2]	2.14" [54.3]
B338-B341	1½"	40	4.39" [111.6]	2.45" [62.2]	2.33" [59.1]
B347-B352	2"	50	4.90" [124.5]	2.68" [68.0]	2.60" [66.0]

C _v	Valve Nominal Size		Type	Suitable Return Actuators			
	Inches	DN [mm]	3-Way NPT	Non-Spring		Spring	
0.3	½"	15	B307	TR Series	LR Series	NR...N4 Series	TF Series
0.46	½"	15	B308				
0.8	½"	15	B309				
1.2	½"	15	B310				
1.9	½"	15	B311				
3	½"	15	B312				
4.7	½"	15	B313				
10	½"	15	B315*				
4.7	¾"	20	B317				
24	¾"	20	B320*				
7.4	1"	25	B322	AR Series	AR...N4 Series	LF Series	
10	1"	25	B323				
30	1"	25	B325*				
10	1¼"	32	B329				
19	1¼"	32	B330				
25	1¼"	32	B331				
19	1½"	40	B338				
29	1½"	40	B339				
37	1½"	40	B340				
46	1½"	40	B341				
29	2"	50	B347	AF Series			
37	2"	50	B348				
46	2"	50	B349				
57	2"	50	B350				
68	2"	50	B351				
83	2"	50	B352				

*Models without characterizing disc

Flow Patterns



B6 Series, Two Way, Characterized Control Valve

Stainless Steel Ball and Stem



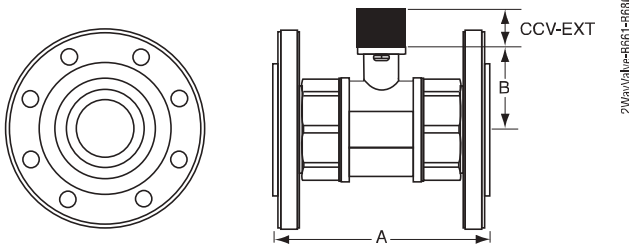
Application

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Technical Data	
Service	chilled or hot water, 60% glycol
Flow characteristic	A-port equal percentage
Action	90° rotation
Sizes	2½", 3"
Type of end fitting	pattern to mate with ANSI 125 flange
Materials:	
Body	forged brass, nickel plated
Ball	stainless steel
Stem	stainless steel
Seats	PTFE
Characterizing disc	Tefzel®
Packing	2 EPDM O-rings, lubricated
Pressure rating	400 psi
Media temp. range	0°F to 212°F [-18°C to 100°C]
Close off pressure	100 psi
Maximum differential pressure (ΔP)	30 psi for typical applications
Leakage	0% for A to AB
C _v rating	A-port: see product chart for values

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Dimensions



Valve Body	Valve Nominal Size		Dimensions (Inches [mm])		
	Inches	DN [mm]	A	B	CCV-EXT
B661-B665	2½"	65	7.54" [192]	3.50" [89]	2.00" [50]
B677-B680	3"	80	7.93" [202]	3.75" [96]	2.00" [50]

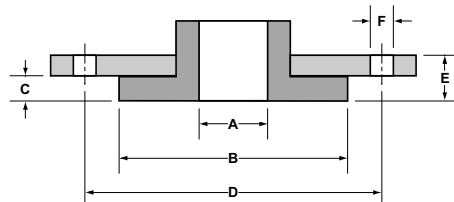
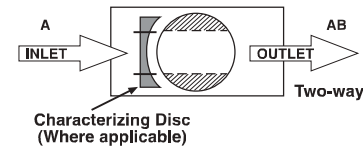
CCV-EXT – Extension kit will be automatically assembled with any Flanged CCV assembly.

Flange Detail

Inches [mm]	Raised Face			Flange			
	Face I.D.	Face O.D.	Face Height	Bolt Circle Diameter	Total Flange Thickness	Bolt Hole Diameter	Bolt Holes
	A	B	C	D	E	F	
2½" [65]	2.50" [63]	4.75" [120]	0.25" [6]	5.50" [140]	0.95" [24]	0.75" [19]	4
3" [80]	3.00" [75]	5.13" [130]	0.25" [6]	6.00" [152]	1.00" [25]	0.75" [19]	4

- NOTES:
- 1) Flange bolt pattern matches ANSI class 125 flanges (not ANSI/ASME rated)
 - 2) Maximum allowable working pressure: 100 PSIG
 - 3) It is not recommended to connect raised-face flanges to flat-faced flanges
 - 4) Materials: Flange: A 105 Carbon Steel (zinc plated)
Raised Face: Brass (nickel plated)

Flow Patterns



C _v	Valve Nominal Size		Type	Suitable Return Actuators	
	Inches	DN [mm]	2-way Flange	Non-Spring	Spring
60	2½"	65	B661	AR Series	AF Series
75	2½"	65	B662		
110	2½"	65	B663		
150	2½"	65	B664		
210	2½"	65	B665*		
70	3"	80	B677	AF Series	
130	3"	80	B678		
170	3"	80	B680*		

*Models without characterizing disc

K20903 - 04/08 - Subject to change. © Belimo Aircontrols (USA), Inc.