



□ □ □ 2-Way Ball Valves



Overview

Designed to provide excellent equal percentage flow control, ball valves are available in 1/2 to 2-inch line sizes and are 1/4-turn rotary control valves.

Applications

- Hot or chilled water
- Up to 50% glycol solution in convectors, fan coil units, unit conditioners, radiation, and reheat coils.

Features & Benefits

- Universal mounting plate accommodates different actuator sizes
- Variety of ball sizes and flow coefficients
- Industry leading close-off
- Actuator and plate can be rotated to facilitate installation and wiring

Spring Return Ball Valve and Actuator Assemblies Compatibility Chart

Part numbers in grey denote valve and actuator combinations that can be ordered as assemblies.

Assembly part numbers are created by combining the Valve and Actuator Part Numbers. The "599" in the valve part number are replaced by the first 8 characters in the actuator part number following the "DA-" to create the full assembly code. Replace "024" with "C24" in the assembly code to have a Normally Closed valve assembly (applicable to 2-way valves only).

ex. DA-020S024DXXXP+VA-599-10300=VA-020S024D-10300

Valve						Actuator (Close off Pressure - psi)					
Valve	Number of Ports	Size (in)	Flow Rate (Cv)	Action	Trim	DA-020S024DXXXP	DA-020S024FXXXP	DA-020S024QXXXP	DA-062S024DXXXP	DA-062S024FXXXP	DA-062S024PXXXP
VA-599-10300	2-Way	1/2	0.4	NO/NC	Brass	200	200	200			
VA-599-10301	2-Way	1/2	0.63	NO/NC	Brass	200	200	200			
VA-599-10302	2-Way	1/2	1.0	NO/NC	Brass	200	200	200			
VA-599-10303	2-Way	1/2	1.6	NO/NC	Brass	200	200	200			
VA-599-10304	2-Way	1/2	2.5	NO/NC	Brass	200	200	200			
VA-599-10305	2-Way	1/2	4.0	NO/NC	Brass	200	200	200			
VA-599-10306	2-Way	1/2	6.3	NO/NC	Brass	200	200	200			
VA-599-10307	2-Way	1/2	10	NO/NC	Brass	200	200	200			
VA-599-10300S	2-Way	1/2	0.4	NO/NC	SS	200	200	200			
VA-599-10301S	2-Way	1/2	0.63	NO/NC	SS	200	200	200			
VA-599-10302S	2-Way	1/2	1.0	NO/NC	SS	200	200	200			
VA-599-10303S	2-Way	1/2	1.6	NO/NC	SS	200	200	200			
VA-599-10304S	2-Way	1/2	2.5	NO/NC	SS	200	200	200			
VA-599-10305S	2-Way	1/2	4.0	NO/NC	SS	200	200	200			
VA-599-10306S	2-Way	1/2	6.3	NO/NC	SS	200	200	200			
VA-599-10307S	2-Way	1/2	10	NO/NC	SS	200	200	200			
VA-599-10308	2-Way	3/4	6.3	NO/NC	Brass	200	200	200			
VA-599-10309	2-Way	3/4	10	NO/NC	Brass	200	200	200			
VA-599-10310	2-Way	3/4	16	NO/NC	Brass	200	200	200			
VA-599-10311	2-Way	3/4	25	NO/NC	Brass	200	200	200			
VA-599-10308S	2-Way	3/4	6.3	NO/NC	SS	200	200	200			
VA-599-10309S	2-Way	3/4	10	NO/NC	SS	200	200	200			
VA-599-10310S	2-Way	3/4	16	NO/NC	SS	200	200	200			
VA-599-10311S	2-Way	3/4	25	NO/NC	SS	200	200	200			
VA-599-10312	2-Way	1	10	NO/NC	Brass				200	200	200
VA-599-10313	2-Way	1	16	NO/NC	Brass				200	200	200
VA-599-10314	2-Way	1	25	NO/NC	Brass				200	200	200
VA-599-10315	2-Way	1	40	NO/NC	Brass				200	200	200

Spring Return Ball Valve and Actuator Assemblies Compatibility Chart

Valve						Actuator (Close off Pressure - psi)					
Valve	Number of Ports	Size (in)	Flow Rate (Cv)	Action	Trim	DA-020S024DXXXXP	DA-020S024FXXXXP	DA-020S024QXXXXP	DA-062S024DXXXXP	DA-062S024FXXXXP	DA-062S024PXXXXP
VA-599-10316	2-Way	1	63	NO/NC	Brass				200	200	200
VA-599-10312S	2-Way	1	10	NO/NC	SS				200	200	200
VA-599-10313S	2-Way	1	16	NO/NC	SS				200	200	200
VA-599-10314S	2-Way	1	25	NO/NC	SS				200	200	200
VA-599-10315S	2-Way	1	40	NO/NC	SS				200	200	200
VA-599-10316S	2-Way	1	63	NO/NC	SS				200	200	200
VA-599-10317	2-Way	1-1/4	16	NO/NC	Brass				200	200	200
VA-599-10318	2-Way	1-1/4	25	NO/NC	Brass				200	200	200
VA-599-10319	2-Way	1-1/4	40	NO/NC	Brass				200	200	200
VA-599-10320	2-Way	1-1/4	63	NO/NC	Brass				200	200	200
VA-599-10321	2-Way	1-1/4	100	NO/NC	Brass				200	200	200
VA-599-10317S	2-Way	1-1/4	16	NO/NC	SS				200	200	200
VA-599-10318S	2-Way	1-1/4	25	NO/NC	SS				200	200	200
VA-599-10319S	2-Way	1-1/4	40	NO/NC	SS				200	200	200
VA-599-10320S	2-Way	1-1/4	63	NO/NC	SS				200	200	200
VA-599-10321S	2-Way	1-1/4	100	NO/NC	SS				200	200	200
VA-599-10322	2-Way	1-1/2	25	NO/NC	Brass				200	200	200
VA-599-10323	2-Way	1-1/2	40	NO/NC	Brass				200	200	200
VA-599-10324	2-Way	1-1/2	63	NO/NC	Brass				200	200	200
VA-599-10325	2-Way	1-1/2	100	NO/NC	Brass				200	200	200
VA-599-10326	2-Way	1-1/2	160	NO/NC	Brass				200	200	200
VA-599-10322S	2-Way	1-1/2	25	NO/NC	SS				200	200	200
VA-599-10323S	2-Way	1-1/2	40	NO/NC	SS				200	200	200
VA-599-10324S	2-Way	1-1/2	63	NO/NC	SS				200	200	200
VA-599-10325S	2-Way	1-1/2	100	NO/NC	SS				200	200	200
VA-599-10326S	2-Way	1-1/2	160	NO/NC	SS				200	200	200
VA-599-10327	2-Way	2	40	NO/NC	Brass				200	200	200
VA-599-10328	2-Way	2	63	NO/NC	Brass				200	200	200
VA-599-10329	2-Way	2	100	NO/NC	Brass				200	200	200
VA-599-10330	2-Way	2	160	NO/NC	Brass				200	200	200
VA-599-10327S	2-Way	2	40	NO/NC	SS				200	200	200
VA-599-10328S	2-Way	2	63	NO/NC	SS				200	200	200
VA-599-10329S	2-Way	2	100	NO/NC	SS				200	200	200
VA-599-10330S	2-Way	2	160	NO/NC	SS				200	200	200

Non-Spring Return Ball Valve and Actuator Assemblies Compatibility Chart

Part numbers in grey denote valve and actuator combinations that can be ordered as assemblies.

Assembly part numbers are created by combining the Valve and Actuator Part Numbers. The "599" in the valve part number are replaced by the first 8 characters in the actuator part number following the "DA-" to create the full assembly code.

ex. DA-044N024FXXXP+VA-599-10300 = VA-044N024FXXXP-10300

Valve						Actuator (Close Off Pressure - psi)			
Valve	Number of Ports	Valve Size (in)	Flow Rate (Cv)	Action	Trim	DA-044N024FXXXP	DA-044N024PXXXP	DA-088N024FXXXP	DA-088N024PXXXP
VA-599-10300	2-Way	1/2	0.4	NO	Brass	200	200		
VA-599-10301	2-Way	1/2	0.63	NO	Brass	200	200		
VA-599-10302	2-Way	1/2	1.0	NO	Brass	200	200		
VA-599-10303	2-Way	1/2	1.6	NO	Brass	200	200		
VA-599-10304	2-Way	1/2	2.5	NO	Brass	200	200		
VA-599-10305	2-Way	1/2	4.0	NO	Brass	200	200		
VA-599-10306	2-Way	1/2	6.3	NO	Brass	200	200		
VA-599-10307	2-Way	1/2	10	NO	Brass	200	200		
VA-599-10300S	2-Way	1/2	0.4	NO	SS	200	200		
VA-599-10301S	2-Way	1/2	0.63	NO	SS	200	200		
VA-599-10302S	2-Way	1/2	1.0	NO	SS	200	200		
VA-599-10303S	2-Way	1/2	1.6	NO	SS	200	200		
VA-599-10304S	2-Way	1/2	2.5	NO	SS	200	200		
VA-599-10305S	2-Way	1/2	4.0	NO	SS	200	200		
VA-599-10306S	2-Way	1/2	6.3	NO	SS	200	200		
VA-599-10307S	2-Way	1/2	10	NO	SS	200	200		
VA-599-10308	2-Way	3/4	6.3	NO	Brass	200	200		
VA-599-10309	2-Way	3/4	10	NO	Brass	200	200		
VA-599-10310	2-Way	3/4	16	NO	Brass	200	200		
VA-599-10311	2-Way	3/4	25	NO	Brass	200	200		
VA-599-10308S	2-Way	3/4	6.3	NO	SS	200	200		
VA-599-10309S	2-Way	3/4	10	NO	SS	200	200		
VA-599-10310S	2-Way	3/4	16	NO	SS	200	200		
VA-599-10311S	2-Way	3/4	25	NO	SS	200	200		
VA-599-10312	2-Way	1	10	NO	Brass	200	200		
VA-599-10313	2-Way	1	16	NO	Brass	200	200		
VA-599-10314	2-Way	1	25	NO	Brass	200	200		
VA-599-10315	2-Way	1	40	NO	Brass	200	200		
VA-599-10316	2-Way	1	63	NO	Brass	200	200		

Non-Spring Return Ball Valve and Actuator Assemblies Compatibility Chart

Valve						Actuator (Close Off Pressure - psi)			
Valve	Number of Ports	Valve Size (in)	Flow Rate (Cv)	Action	Trim	DA-044N024FXXXXP	DA-044N024PXXXXP	DA-088N024FXXXXP	DA-088N024PXXXXP
VA-599-10312S	2-Way	1	10	NO	SS	200	200		
VA-599-10313S	2-Way	1	16	NO	SS	200	200		
VA-599-10314S	2-Way	1	25	NO	SS	200	200		
VA-599-10315S	2-Way	1	40	NO	SS	200	200		
VA-599-10316S	2-Way	1	63	NO	SS	200	200		
VA-599-10317	2-Way	1-1/4	16	NO	Brass	200	200		
VA-599-10318	2-Way	1-1/4	25	NO	Brass	200	200		
VA-599-10319	2-Way	1-1/4	40	NO	Brass	200	200		
VA-599-10320	2-Way	1-1/4	63	NO	Brass	200	200		
VA-599-10317S	2-Way	1-1/4	16	NO	SS	200	200		
VA-599-10318S	2-Way	1-1/4	25	NO	SS	200	200		
VA-599-10319S	2-Way	1-1/4	40	NO	SS	200	200		
VA-599-10320S	2-Way	1-1/4	63	NO	SS	200	200		
VA-599-10321S	2-Way	1-1/4	100	NO	SS	200	200		
VA-599-10322	2-Way	1-1/2	25	NO	Brass			200	200
VA-599-10323	2-Way	1-1/2	40	NO	Brass			200	200
VA-599-10324	2-Way	1-1/2	63	NO	Brass			200	200
VA-599-10325	2-Way	1-1/2	100	NO	Brass			200	200
VA-599-10322S	2-Way	1-1/2	25	NO	SS			200	200
VA-599-10323S	2-Way	1-1/2	40	NO	SS			200	200
VA-599-10324S	2-Way	1-1/2	63	NO	SS			200	200
VA-599-10325S	2-Way	1-1/2	100	NO	SS			200	200
VA-599-10326S	2-Way	1-1/2	160	NO	SS			200	200
VA-599-10327	2-Way	2	40	NO	Brass			200	200
VA-599-10328	2-Way	2	63	NO	Brass			200	200
VA-599-10329	2-Way	2	100	NO	Brass			200	200
VA-599-10330	2-Way	2	160	NO	Brass			200	200
VA-599-10327S	2-Way	2	40	NO	SS			200	200
VA-599-10328S	2-Way	2	63	NO	SS			200	200
VA-599-10329S	2-Way	2	100	NO	SS			200	200
VA-599-10330S	2-Way	2	160	NO	SS			200	200

Product Specifications

Material

Body	Brass: ASTM B283, C37700
Ball	Chrome-plated brass or stainless steel
Ball seals	Glass filled PTFE with EPDM O-rings
Flow characterizer	Glass filled PTFE
End connections	Female NPT
Stem	Brass or stainless steel
Stem seals	EPDM O-rings

Operating

Valve body rating	ANSI 250/600 WOG
Media temperature	35°F to 250°F (2°C to 121°C)
Controlled medium	Water, water-glycol solutions to 50%
Angle of rotation	0° to 90°
Close-off rating	200 psi (ANSI Class IV)

Miscellaneous

Canadian Registration Number	OC8213.5ADD4
Mounting location	NEMA 1 (interior only) NEMA 3R (with weathershield)
Dimensions, service envelope, weight	See <i>Dimensions</i>

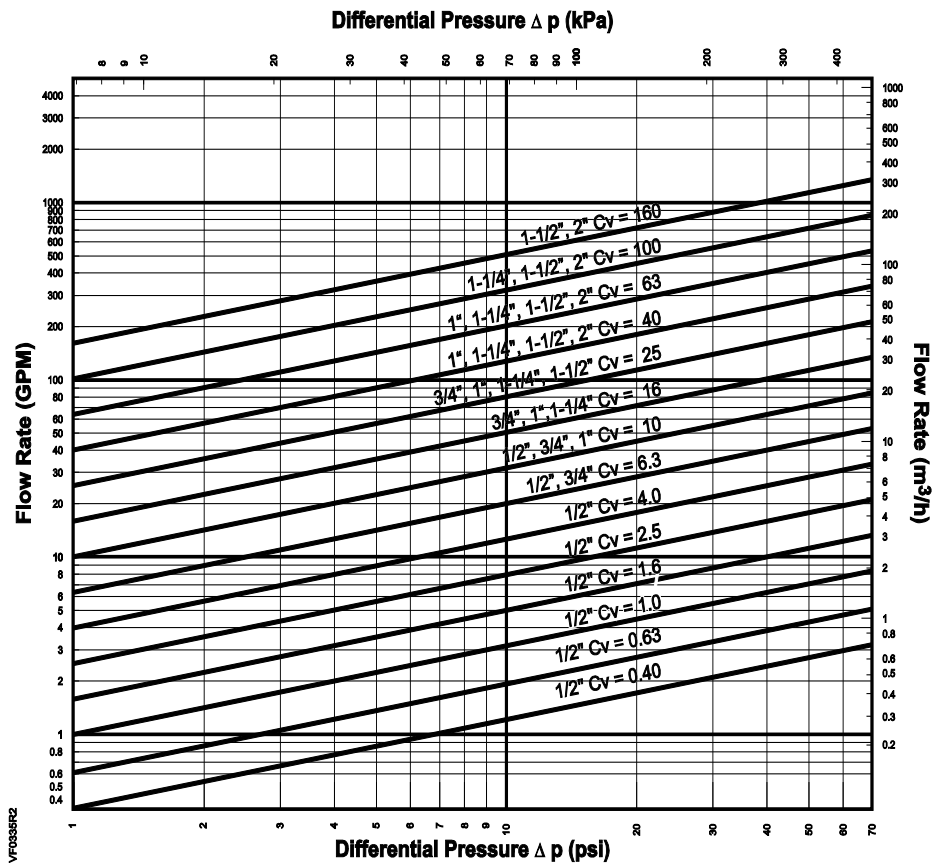
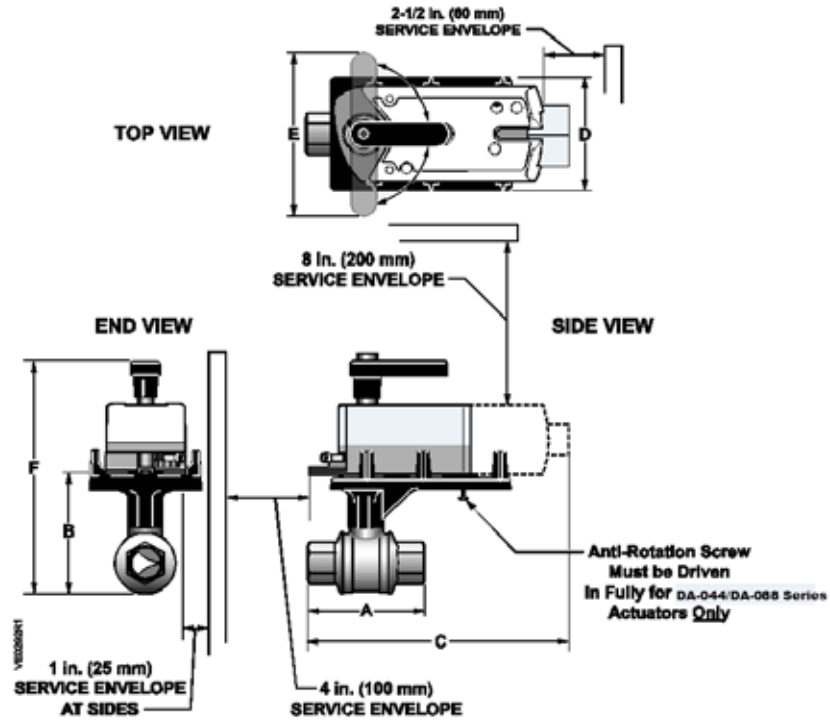


Table 1. Full-Port (No Flow Characterizer) Ball Valve Product Numbers and Flow Coefficients.

Valve Line Size in Inches (mm)	Valve Product Number	Effective (Installed) Cv (Kvs)										
		Supply Line Size in Inches (mm)										
		1/2 (13)	3/4 (20)	1 (25)	1-1/4 (32)	1-1/2 (38)	2 (51)	2-1/2 (63)	3 (76)	4 (102)	5 (127)	6 (152)
1/2 (15)	VA-599-10307	10.00	6.94	6.19	—	—	—	—	—	—	—	—
	VA-599-10307S	(8.62)	(5.93)	(5.29)	—	—	—	—	—	—	—	—
3/4 (20)	VA-599-10311	—	25.00	18.66	15.35	—	—	—	—	—	—	—
	VA-599-10311S	—	(21.55)	(15.95)	(13.12)	—	—	—	—	—	—	—
1 (25)	VA-599-10316	—	—	63.00	39.78	33.56	—	—	—	—	—	—
	VA-599-10316S	—	—	(54.31)	(34.00)	(28.69)	—	—	—	—	—	—
1-1/4 (32)	VA-599-10321	—	—	—	100.00	69.19	51.45	—	—	—	—	—
	VA-599-10321S	—	—	—	(86.21)	(59.13)	(43.98)	—	—	—	—	—
1-1/2 (40)	VA-599-10324	—	—	—	—	63.00	55.34	51.00	—	—	—	—
	VA-599-10324S	—	—	—	—	(54.31)	(47.30)	(43.59)	—	—	—	—
	VA-599-10326	—	—	—	—	160.00	93.80	76.34	—	—	—	—
	VA-599-10326S	—	—	—	—	(137.93)	(80.17)	(65.25)	—	—	—	—
2 (50)	VA-599-10329	—	—	—	—	—	100.00	94.30	86.12	—	—	—
	VA-599-10329S	—	—	—	—	—	(86.21)	(80.60)	(73.61)	—	—	—

	= Valve may be oversized.		= Optimal valve size.		= Valve may be undersized.
--	---------------------------	--	-----------------------	--	----------------------------

Dimensions



Line Size Inch (mm)	Cv Range	A Length	C Length * Actuator Codes DA-044 Series/ DA-088 Series	C Length * Actuator Codes DA-020 Series	C Length * Actuator Codes DA-062 Series	F Height	Valve and Bracket Weight lbs (kg)
1/2 (15)	0.4 to 10.0	2-7/16 (61)	6-11/16 (170)	6 (153)	–	7-5/8 (193)	1.1 (0.50)
3/4 (20)	6.3 to 25	2-3/4 (70)		6 (153)	–	8 (203)	1.4 (0.60)
1 (25)	10	3 (77)	7 (178)	–	8 (203)	8 (203)	1.6 (0.73)
	16, 40, 63	3-1/4 (82)		–	8-3/8 (213)	8-5/16 (212)	1.8 (0.82)
	25	3-7/8 (98)		–	8-11/16 (221)	8-13/16 (223)	
1-1/4 (32)	16	3-3/8(86)	6-11/16 (170)	–	8-7/16 (214)	8-3/8 (213)	2.0 (0.91)
	25 to 100	3-11/16 (94)	6-15/16 (176)	–	8-11/16 (221)	8-13/16 (223)	2.5 (1.1)
1-1/2 (40)	25, 63	3-5/8 (92)	7-1/16 (180)	–	8-7/16 (214)	8-13/16 (223)	1.8 (0.82)
	40, 100, 160	3-15/16 (100)		–	8-3/4 (223)	9-1/4 (235)	3.3 (1.50)
2 (50)	40, 100	4 (102)	7-1/2 (190)	–	9-1/8 (223)	9-3/8 (238)	3.1 (1.41)
	63	4-5/8 (118)		–		10-1/16 (255)	5.25 (2.38)
	160			–			5.3 (2.40)

Dimensions in Inches (Millimeters) and Weights in Pounds (Kg).

Specifications subject to change without notice.
 Distech Controls, and the Distech Controls logo are trademarks of Distech Controls Inc. All other trademarks are property of their respective owner.
 ©, Distech Controls Inc., 2015. All rights reserved.