

B2...VS Series, 2-Way, Ball Valve Bronze Body, Stainless Steel Ball and Stem



- Live-load packing set
- Stainless steel ball & stem
- Blow-out proof stem design

Application

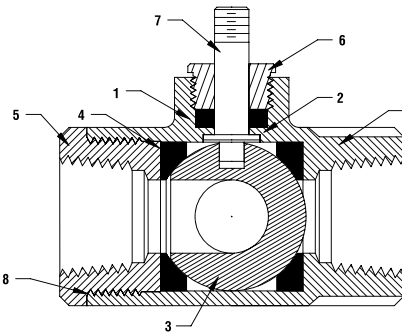
This valve is typically used in air handling units on heating or cooling coils, and fan coil unit heating or cooling coils. Some other common applications include Unit Ventilators, VAV Box re-heat coils and bypass loops. This valve is suitable for use in a hydronic system with variable flow.

This valve is designed with MFT functionality which facilitates the use of various control input.

- Up to 35 psi steam
- 1/2" - 600 PSIG WOG, Cold Non-Shock.
- Federal Specification: WW-V-35C, Type II
Composition: BZ
Style: 3

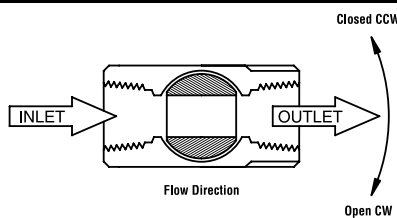
Technical Data	
Media	chilled or hot water, glycol, 35# steam
Flow characteristic	modified equal percentage
Action	90° rotation valve open CW, valve closed CCW
Sizes	1/2", 3/4", 1", 1 1/4", 1 1/2", 2", 2 1/2", 3"
Type of end fitting	SAE NPT (female connections)
Materials:	
1 Stem Packing	Reinforced PTFE
2 Stem Bearing	Reinforced PTFE
3 Ball	316 Stainless Steel
4 Seat (x2)	Reinforced PTFE w/ Durafill
5 Retainer	B16 (3/4" - 1") Brass B584 (1 1/4" - 3") Brass
6 Gland	B16 Brass
7 Stem	316 Stainless Steel
8 Jam Nut	Stainless Steel
9 Body Seal	PTFE (1-1/4" to 3")
10 Body	B584-C84400 Bronze

Cv	Valve Nominal Size		Type	Suitable Return Actuators	
	Inches	DN [mm]	2-way NPT	Spring	Non-Spring
1	1/2	15	B2050VS-01	LF Series	LM Series
2	1/2	15	B2050VS-02		
4	1/2	15	B2050VS-04		
15	1/2	15	B2050VS-15	NF	NM
30	3/4	20	B2075VS-30		
51	3/4	20	B2075VS-51		
43	1	25	B2100VS-43	AF Series	AM Series
68	1	25	B2100VS-68		
48	1 1/4	32	B2125VS-48		
84	1 1/2	40	B2150VS-84		
177	1 1/2	40	B2150VS-177	GM Series	SY Series
108	2	50	B2200VS-108		
389	2	50	B2200VS-389		
503	2 1/2	65	B2250VS-503		
370	3	80	B2300VS-370		

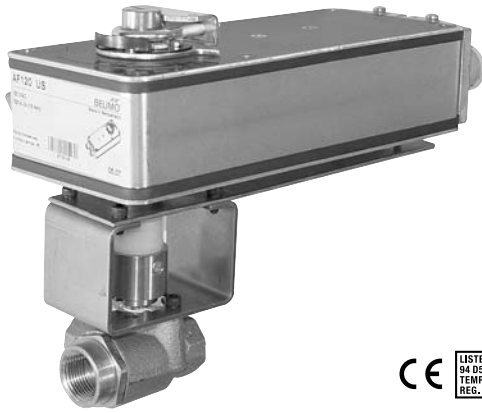


Pressure rating	600 psig WOG
Media temp. range	-22°F to 280°F (-30°C to 138°C)
Close-off pressure	600 psig @ 100°F
Maximum differential pressure (ΔP)	<600 psig

Flow Patterns



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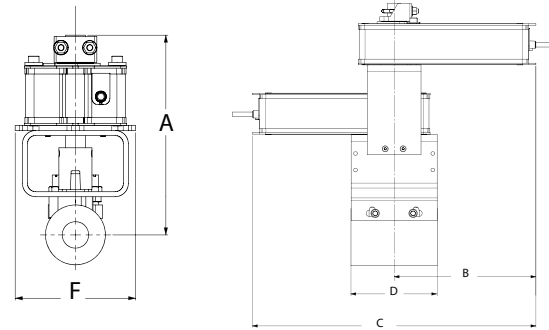
Models

AF24 US	
AF24-S US	w/built-in Aux. Switches
AF120 US	
AF120-S US	w/built-in Aux. Switches

Technical Data	
Control	on/off
Power consumption	
AF24(-S) US	running 5 W
	holding 1.5 W
AF120(-S) US	running 6 W
	holding 2.3 W
Transformer sizing	10 VA, class 2 power
Electrical connection	½" conduit connector
(-S model has 2 cables)	3 ft [1m], 18 GA appliance cables
Electrical protection	120 V actuators double insulated
Overload protection	electronic throughout 0° to 95° rotation
Angle of rotation	95°
Position indication	visual indicator
Manual override	hex crank
Running time	control 150 seconds independent of load
	spring <20 seconds
Ambient temperature	-22° F to 122° F [-30° C to 50° C]
Housing	NEMA 2 / IP54
Agency listings	UL 873, CSA C22.2 No. 24 certified, CE
Noise level	max. 45 dB(A)

AF...-S US	
Auxiliary switches	2 x SPDT, 7A (2.5A) @ 250 VAC, UL listed, one switch is fixed at +5°, one is adjustable 25° to 85° (double insulated)

Dimensions with 2-Way Valve

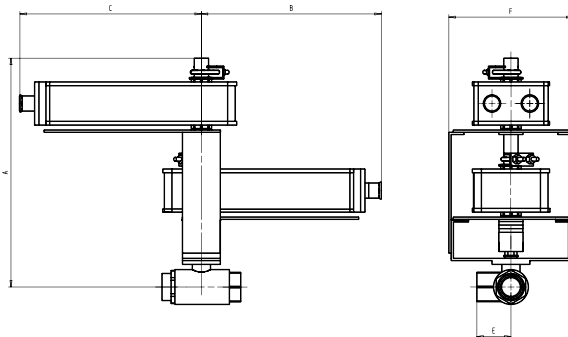


D301, D304

Valve Body	COP	Valve Nominal Size		Dimensions (Inches)				
		Inches	DN [mm]	A	B	C	D	F
B2100VS-68	200	1	25	8.00	8.00	8.00	3.60	4.60
B2125VS-48	100	1¼	32	8.00	8.00	8.00	4.00	4.60
B2150VS-84	200	1½	40	8.00	8.00	8.00	4.40	4.60
B2200VS-108	200	2	40	8.00	8.00	8.00	4.70	4.60
2*B2150VS-177	400	1½	50	14.00	8.00	8.00	4.80	5.60
2*B2200VS-389	100	2	20	14.00	8.00	8.00	5.40	5.60
B2125VSS-48	1000	1¼	25	8.00	8.00	8.00	4.00	4.60
B2150VSS-84	1000	1½	32	13.00	8.00	8.00	4.40	4.60
B2200VSS-108	400	2	40	8.00	8.00	8.00	5.50	4.60
2*B2200VSS-108	1000	2	50	14.00	8.00	8.00	5.50	5.60
2*B2250VSS-503	200	2½	50	14.00	8.00	8.00	6.80	4.60
2*B2300VSS-370	200	3	80	14.00	8.00	8.00	6.80	5.60

*Dual mounted actuators.

Dimensions with 3-Way Valve



B325VS2AF

Valve Body	COP	Valve Nominal Size		Dimensions (Inches)					
		Inches	DN [mm]	A	B	C	D	E	F
B320VS	200	¾	20	7.00	2.00	8.00	3.56	1.88	3.86
B325VS	75	1	25	7.00	2.00	8.00	3.56	1.88	3.86
B332VS	75	1¼	32	7.00	2.00	8.00	4.13	2.07	6.25
*B325VS	200	1	25	7.00	2.00	8.00	3.56	1.88	3.86
*B332VS	200	1¼	32	7.00	2.00	8.00	4.13	2.07	6.25
*B340VS	75	1½	40	15.00	3.00	8.00	4.44	2.25	6.25
*B350VS	75	2	50	15.00	3.00	8.00	5.38	2.75	6.25

*Dual mounted actuators.

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Wiring Diagrams

✂️ INSTALLATION NOTES

1 Provide overload protection and disconnect as required.

2 **CAUTION Equipment damage!**
Actuators may be connected in parallel.
Power consumption must be observed.

3 Actuators may also be powered by 24 VDC.

4 For end position indication, interlock control, fan startup, etc., AF24-S US incorporates two built-in auxiliary switches: 2 x SPDT, 7A (2.5A) @ 250 VAC, UL listed, one switch is fixed at +5°, one is adjustable 25° to 85°.

📄 APPLICATION NOTES

◆ Meets cULus or UL and CSA requirements without the need of an electrical ground connection.

⚠️ **WARNING Live Electrical Components!**
During installation, testing, servicing and troubleshooting of this product, it may be necessary to work with live electrical components. Have a qualified licensed electrician or other individual who has been properly trained in handling live electrical components perform these tasks. Failure to follow all electrical safety precautions when exposed to live electrical components could result in death or serious injury.

