



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

Application

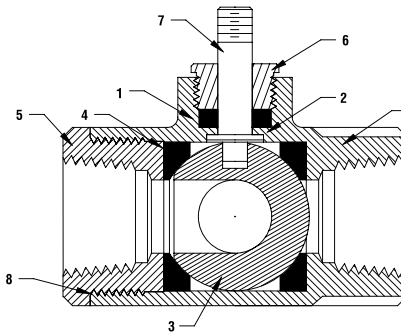
These threaded valves are designed to provide modulating or two position control of hot or chilled water and saturated steam systems under 50 psi.

Typical applications include reheat coils, vav terminal control, unit ventilators, and air handlers, especially in areas which have minimum profile requirements.

- Up to 50 psi steam
- 1/2" - 2000 PSIG WOG, Cold Non-Shock.
- Federal Specification: WW-V-35C, Type II,
Composition: SS
Style: 3

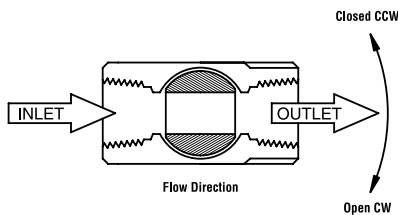
Technical Data	
Media	Chilled or hot water, glycol, 50# steam
Flow Characteristic	Modified equal percentage
Action	90° rotation valve open CW, valve closed CCW
Sizes	1/2", 3/4", 1", 1 1/4", 1 1/2", 2", 2 1/2"
Type of end fitting	SAE NPT (Female Connections)
Materials:	
1 Stem Packing	Reinforced PTFE
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	A276-316
7 Stem	316 Stainless Steel
8 Jam Nut	Stainless Steel
9 Body Seal	PTFE (1 1/4" to 3")
10 Body	A351-CF8M 316 Stainless Steel

C _v	Valve Nominal Size		Type	Suitable Return Actuators	
	Inches	DN [mm]		Spring	Non-Spring
15	1/2	15	B2050VSS-15	LF Series	NM Series
30	3/4	20	B219VSS		
43	1	25	B224VSS	AF Series	AM Series
48	1 1/4	32	B232VSS		
84	1 1/2	40	B239VSS		
108	2	50	B249VSS		
503	2 1/2	65	B265VSS	GM Series	SY Series

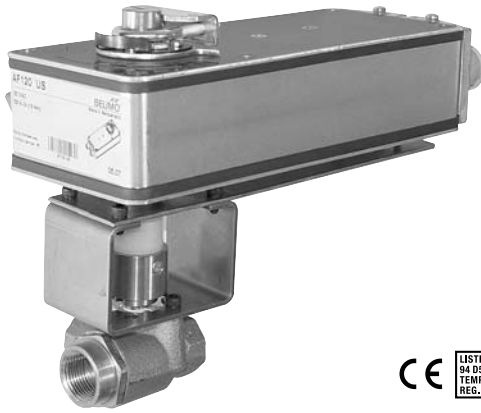


Pressure rating	2000 psig WOG (1/2" - 1")
Media temp. range	-22°F to 298°F (-30°C to 148°C)
Close-off pressure	600 psig @ 100°F
Maximum differential pressure (ΔP)	<600 psig

Flow Patterns



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Models

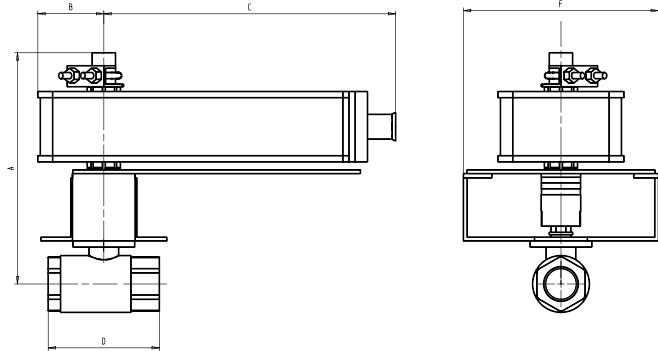
AF24 US	
AF24-S US	w/built-in Aux. Switches
AF120 US	
AF120-S US	w/built-in Aux. Switches

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 sec. independent of load
	spring	<20 sec.
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)

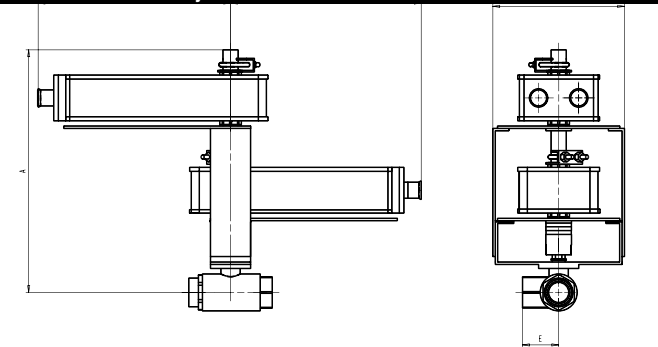
* Dual Mounted Actuators

Dimensions with 2-Way Valve



Valve Body	COP	Valve Nominal Size		Dimensions (Inches)				
		Inches	DN [mm]	A	B	C	D	F
B224VS	400	1	25	7.00	2.00	8.00	3.37	6.25
B225VS	50	1	25	7.00	2.00	8.00	3.62	6.25
B232VS	200	1¼	32	7.25	2.00	8.00	3.97	6.25
*B239VS	400	1½	40	7.50	3.00	8.00	4.37	6.25
*B240VS	50	1½	40	7.50	3.00	8.00	4.75	6.25
*B249VS	200	2	50	8.00	3.00	8.00	4.68	6.25
B219VSS	1000	¾	20	6.70	2.00	8.00	2.25	6.25
B224VSS	1000	1	25	7.00	2.00	8.00	3.37	6.25
B232VSS	400	1¼	32	7.25	2.00	8.00	3.97	6.25
*B232VSS	1000	1¼	32	7.25	2.00	8.00	3.97	6.25
*B239VSS	1000	1½	40	6.70	3.00	8.00	4.37	6.25
*B249VSS	400	2	50	8.00	3.00	8.00	4.68	6.25

Dimensions with 3-Way Valve



Valve Body	COP	Valve Nominal Size		Dimensions (Inches)					
		Inches	DN [mm]	A	B	C	D	E	F
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
B325VSS	200	1	25	7.00	2.00	8.00	3.56	1.88	3.86
B332VSS	200	1¼	32	7.00	2.00	8.00	4.13	2.07	6.25
*B340VS	75	1½	40	7.00	3.00	8.00	4.44	2.25	6.25
*B350VS	75	2	50	7.00	3.00	8.00	5.38	2.75	6.25

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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.

