B3...VS Series, 3-Way, Ball Valve
Bronze Body, Stainless Steel Ball and Stem

- **316 Stainless Ball and Stem**
- **Reinforced PTFE seats and stuffing box**
- **Blow-out proof stem design**
- **Adjustable packing gland**

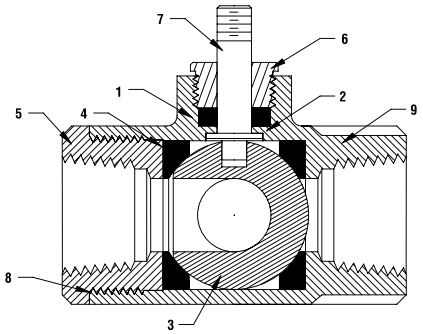
Application

These threaded valves are designed to provide modulating or two position control of hot or chilled water.

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

- 400 PSIG WOG, Cold Non-Shock

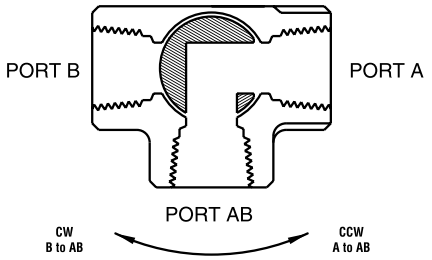
Technical Data	
Media	chilled or hot water, glycol
Flow characteristic	modified equal percentage
Action	90° rotation A to AB open CCW, B to AB open CW
Sizes	½", ¾", 1", 1¼", 1½", 2"
Type of end fitting	SAE NPT (female connection)
Materials:	
1 Stem Packing	PTFE
2 Stem Bearing	PTFE
3 Ball	316 Stainless Steel
4 Seat (x2)	PTFE w/ Durafill
5 Retainer	B16 (½" - 1") Brass B584 (1¼" - 2") Brass
6 Gland	ASTM B16 Brass
7 Stem	316 Stainless steel
8 Jam Nut	PTFE (1¼"" - 2")
9 Body Seal	B584-C84400 Bronze

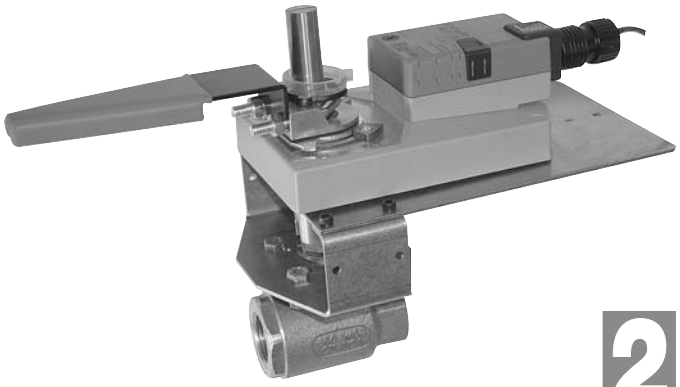


Pressure rating	400 psig WOG
Media temp. range	-22°F to 250°F (-30°C to 120°C)
Close-off pressure	400 psig @ 100°F
Maximum differential pressure (ΔP)	<75 psig

	Valve Nominal Size		Type	Suitable Return Actuators		
C_v	Inches	DN [mm]	3-way NPT	Spring		Non-Spring
4.8	½	15	B315VS	LF	NF	LM
11	¾	20	B320VS	NF		NM Series
21	1	25	B325VS	AF Series		
33	1¼	32	B332VS			AM
49	1½	40	B340VS			GM Series
91	2	50	B350VS			

Flow Patterns





MFT 2 YEAR WARRANTY

CE LISTED 94 DS TEMP.IND. & REG.EQUIP. c UL us BRUSHLESS DC motor

Models

GKX24-MFT-X1

Technical Data		
Control		on/off, floating point, 2 to 10 VDC
Power supply		24 VAC ± 20% 50/60 Hz 24 VDC ± 10%
Power consumption	running	4.5 W
	holding	3 W
Transformer sizing		7 VA (Class 2 power source)
Electrical connection		3 ft,18 GA plenum rated cable ½" conduit connector
Overload protection		electronic throughout rotation
Angle of rotation		95°
Direction of rotation♦		external switch
Position indication		reflective visual indicator (snap-on)
Running time	motor	150 seconds
	fail-safe	35 seconds
Fail-Safe setting		0-100% at 10% intervals
Manual override		external push button
Humidity		5 to 95% RH non-condensing
Ambient temperature		-22°F to 122°F [-30°C to 50°C]
Housing		NEMA 2/IP54, Enclosure Type 2
Housing material		UL94-5V (flammability rating)
Auxiliary switch(es)		add on: 1 or 2 SPDT, 3A (0.5A inductive) @ 250V adjustable 5° to 85°
Agency listings		cULus according to UL 60730-1A/-2-14, CAN/CSA E60730-1:02, CE according to 2004/108/EC and 206/EC
Noise level		<45 dB(A)
Quality standard		ISO 9001

♦ Variable with MFT

Dimensions with 2-Way Valve

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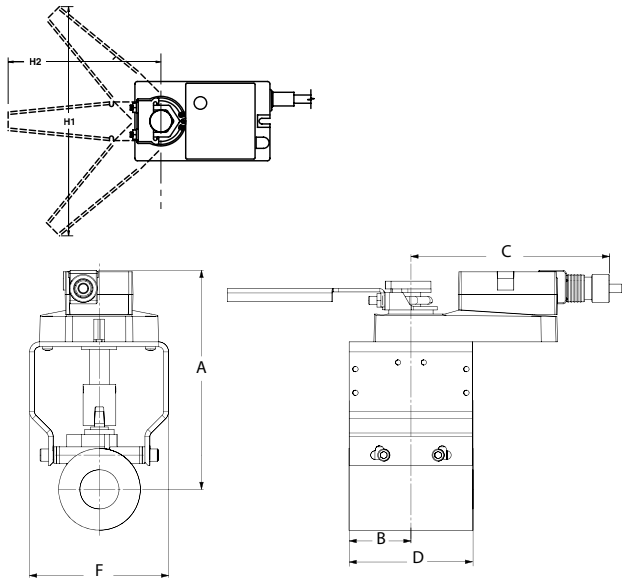

Valve Nominal Size				Dimensions (Inches)						
Valve Body	COP	Inches	DN [mm]	A	B	C	D	F	H1	H2
B2300VS-370	400	3	80	8.65	2.37	8.50	6.80	5.32	9.75	8.50
2*B2250VSS-503	1000	2½	65	8.65	2.37	8.50	6.80	5.32	9.75	8.50
2*B2300VSS-370	1000	3	80	8.65	2.37	8.50	6.80	5.32	9.75	8.50

Dimensions with 3-Way Valve

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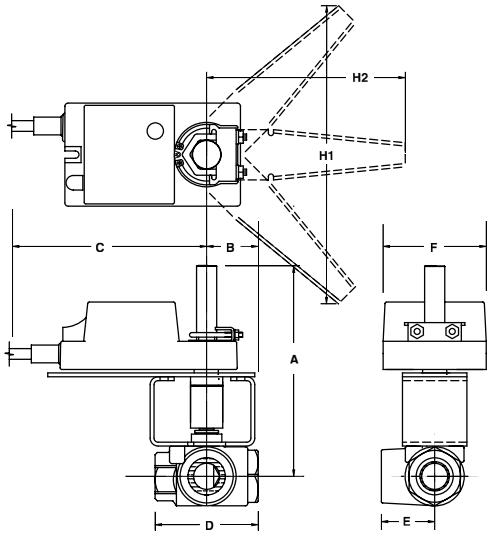

Valve Nominal Size				Dimensions (Inches)							
Valve Body	COP	Inches	DN [mm]	A	B	C	D	E	F	H1	H2
B332VS	200	1¼	32	7.00	2.00	8.00	4.44	2.25	6.25	9.75	8.50
B340VS	75	1½	40	7.00	2.00	8.00	4.44	2.25	6.25	9.75	8.50
B350VS	75	2	50	15.00	8.00	8.00	5.38	2.75	6.25	9.25	8.50
B350VS	200	2	50	15.00	8.00	8.00	5.38	2.75	6.25	9.75**	8.50**

**Handles not available on spring return series or dual mounted actuators

Wiring Diagrams

1. Provide overload protection and disconnect as required.
2. Actuators may be connected in parallel if not mechanically mounted to the same shaft. Power consumption and input impedance must be observed.
3. Actuators may also be powered by 24 VDC.
4. Position feedback cannot be used with Triac sink controller. The actuator internal common reference is not compatible.
5. Control signal may be pulsed from either the Hot (source) or the Common (sink) 24 VAC line.
6. ZG-R01 may be used.
7. Contact closures A & B also can be triacs. A& B should both be closed for triac source and open for triac sink.
8. For triac sink the common connection from the actuator must be connected to the hot connection of the controller.