G332B-M, 3-Way, Globe Valve, Bronze Trim, Mixing/Diverting

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 hydronic system with constant or variable flow. These 3-way valves can be used for both Mixing and Diverting depending on the piping configuration.

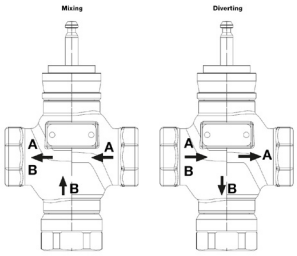
Suitable Actuators

	Non-Spring	Spring	Electronic fail-safe
G332B-M	SVB(X)	NF	SVKB(X)

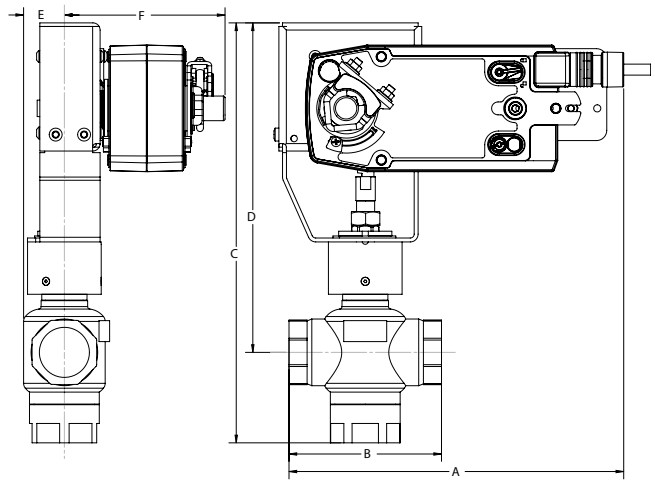
Technical Data

Media	chilled, hot water, up to 60% glycol
Flow characteristic	modified equal percentage, linear B – AB
Controllable flow range	stem up - open B – AB
Valve Size [mm]	1.25” [32]
Pipe connection	NPT female ends
Housing	Bronze
Stem	stainless steel
Stem seal	EPDM O-ring
Seat	Bronze
Closing element	brass
Body Pressure Rating	ANSI Class 250, up to 400 psi below 150°F
ANSI Class	250
Rangeability Sv	A-port 100:1, B-port 50:1
Cv	20
Weight	4.2 lb [1.9 kg]
Media Temp Range (water)	20...280°F [-7...138°C]
Leakage rate	ANSI Class VI
Maintenance	repack kits available

Flow Pattern



Dimensions (Inches [mm])



NF

A	B	C	D	E	F
10.2” [260]	4.6” [118]	12.8” [325]	10.2” [260]	1.2” [30]	4.9” [125]

Safety Notes

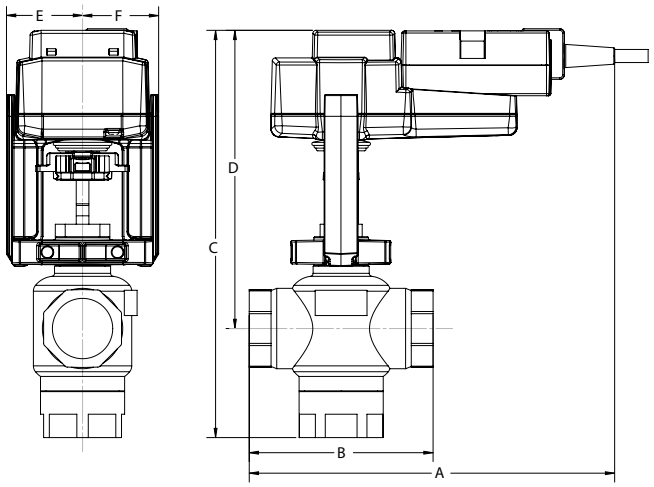
⚠ WARNING: For Belimo Products sold in California, these Products do or may contain chemicals which are known to the State of California to cause cancer and or birth defects or other reproductive harms. For more information see www.p65warnings.ca.gov.

Piping

The valves should be mounted in a weather-protected area in a location that is within the ambient limits of the actuator. Allow sufficient room for valve with actuator and for service. The G2 and G3 preferred mounting position of the valve is with the valve stem vertical above the valve body, for maximum life. However, the assemblies can be mounted with the valve stem vertical or horizontal in relation to the pipe. The actuators should never be mounted underneath the valve, as condensation can build up and result in a failure of the actuators.

G332B-M, 3-Way, Globe Valve, Bronze Trim, Mixing/Diverting

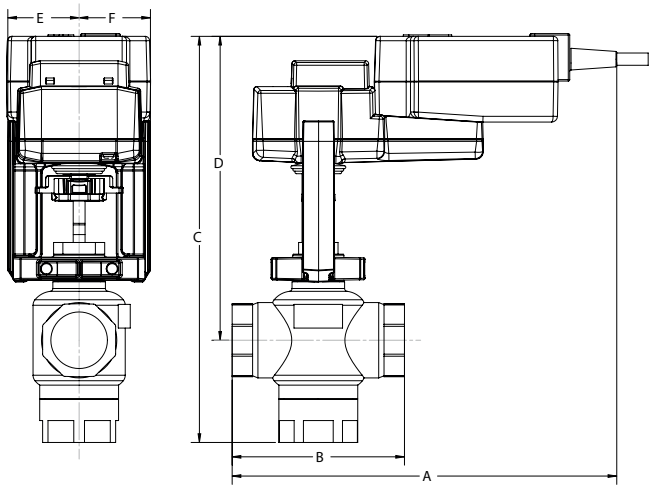
Dimensions (Inches [mm])



SV

A	B	C	D	E	F
9.2” [234]	4.6” [118]	10.3” [262]	8.5” [216]	1.9” [48]	

Dimensions (Inches [mm])



SVK

A	B	C	D	E	F
10” [254]	4.6” [118]	11.1” [281]	8.2” [208]	1.9” [48]	

NFX24-MFT-X1

Modulating, Spring Return, 24 V, Multi-Function Technology®

Technical Data	
Power Supply	24 VAC, ±20%, 50/60 Hz, 24 VDC, -10% / +20%
Power consumption in operation	6.5 W
Power consumption in rest position	3 W
Transformer sizing	9 VA (class 2 power source)
Electrical Connection	18 GA appliance cable, 3ft [1m] 10ft [3m] and 16ft [5m], with 1/2" conduit connector, degree of protection NEMA 2 / IP54
Overload Protection	electronic throughout 0° to 95° rotation
Operating Range	DC 2...10 V (default), 4...20 mA w/ ZG-R01 (500 Ω, 1/4 W resistor), variable (VDC, PWM, on/off, floating point)
Operating range Y variable	Start point DC 0.5...30 V End point DC 2.5...32 V
Position Feedback	DC 2...10 V, Max. 0.5 mA, VDC variable
Angle of rotation	95°, adjustable with mechanical end stop, 35...95°
Torque motor	90 in-lb [10 Nm]
Direction of rotation motor	reversible with built-in switch
Direction of motion fail-safe	reversible with CW/CCW mounting
Position indication	Mechanical
Manual override	5 mm hex crank (3/16" Allen), supplied
Running Time (Motor)	default 150 s, variable 40...150 s, constant, independent of load
Running time fail-safe	<20 s @ -4...122°F [-20...50°C], <60 s @ -22°F [-30°C]
override control	min. position = 0% , mid. Position = 50% , max. position = 100% (Default)
Ambient humidity	max. 95% r.H., non-condensing
Ambient temperature	-22...122°F [-30...50°C]
Storage temperature	-40...176°F [-40...80°C]
Degree of Protection	IP54, NEMA 2, UL Enclosure Type 2
Housing material	Galvanized steel and plastic housing
Agency Listing	cULus acc. to UL60730-1A/-2-14, CAN/CSA E60730-1:02, CE acc. to 2004/108/EC and 2006/95/EC
Noise level, motor	50 dB(A)
Noise level, fail-safe	62 dB(A)
Maintenance	maintenance-free
Quality Standard	ISO 9001
Weight	4.4 lb [2.0 kg]

*Variable when configured with MFT options.
†Rated Impulse Voltage 800V, Type of action 1.AA, Control Pollution Degree 3

Safety Notes

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Wiring Diagrams

INSTALLATION NOTES

A Actuators with appliance cables are numbered.

1 Provide overload protection and disconnect as required.

3 Actuators may also be powered by 24 VDC.

5 Only connect common to negative (-) leg of control circuits.

7 A 500 Ω resistor (ZG-R01) converts the 4 to 20 mA control signal to 2 to 10 VDC.

8 Control signal may be pulsed from either the Hot (Source) or Common (Sink) 24 VAC line.

10 For triac sink the Common connection from the actuator must be connected to the Hot connection of the controller. Position feedback cannot be used with a triac sink controller; the actuator internal common reference is not compatible.

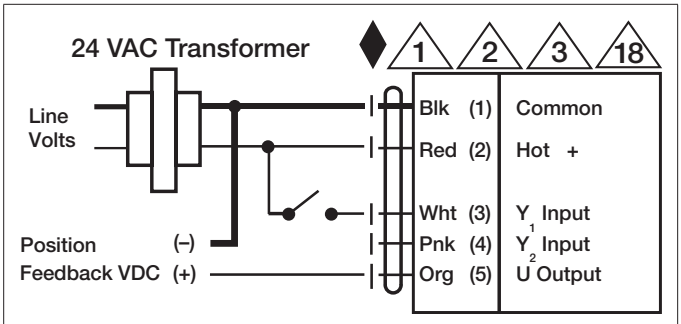
11 Actuators may be connected in parallel if not mechanically linked. Power consumption and input impedance must be observed.

12 IN4004 or IN4007 diode. (IN4007 supplied, Belimo part number 40155).

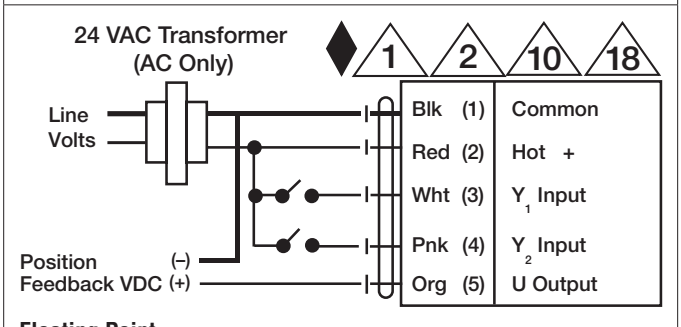
◆ Meets cULus requirements without the need of an electrical ground connection.

WARNING! LIVE ELECTRICAL COMPONENTS!

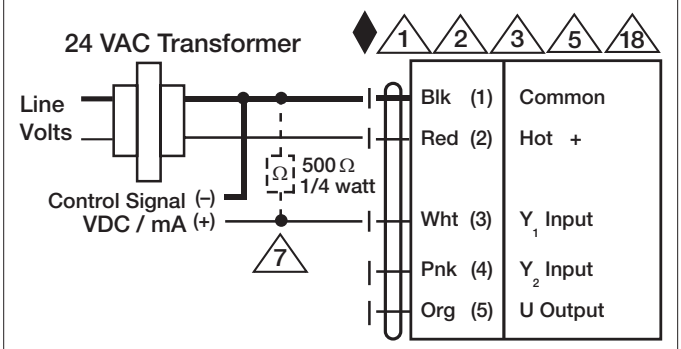
During installation, testing, servicing and troubleshooting of this product, it may be necessary to work with live electrical components. Have a qualified licensed electrician or other individual who has been properly trained in handling live electrical components perform these tasks. Failure to follow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



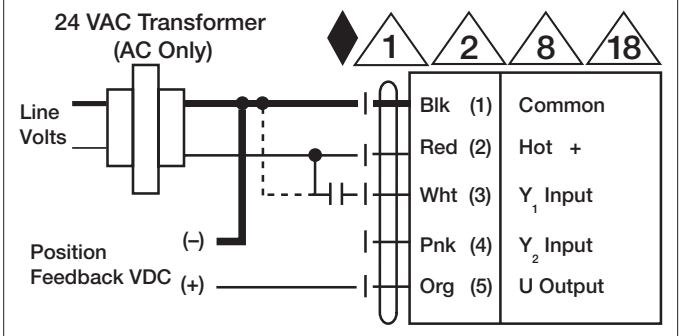
On/Off



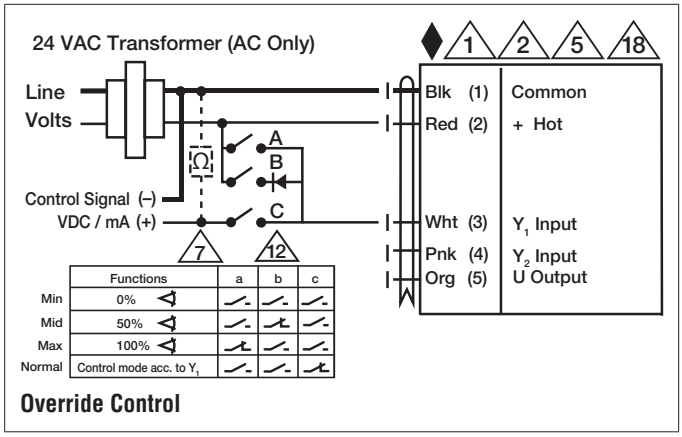
Floating Point



VDC/mA Control



PWM Control



Override Control