G332D, 3-Way, Globe Valve, Bronze Trim, Diverting

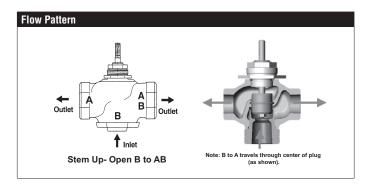








chilled, hot water, up to 60% glycol
linear
stem up - open B to AB
1.25" [32]
NPT female ends
bronze
stainless steel
spring loaded Teflon® V-ring
bronze
brass
composition (EPDM)
ANSI 250
ANSI 250 (up to 400 psi below 150°F)
20°F to 280°F [-7°C to 138°C]
35 psi (241 kPa)
500:1
20
3.7 lb [1.7 kg]
ANSI Class III
Repack/Rebuild kits available

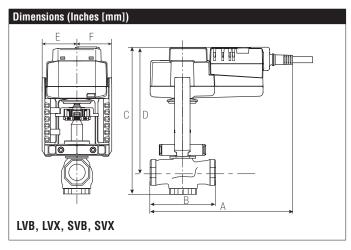


Application

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. 3-way valves are available with mixing or diverting flow patterns.

Suitable Actuators

	Non-Spring	Spring	Electronic Fail-Safe
G332D	SVB(X)	NFB(X)	SVKB(X)

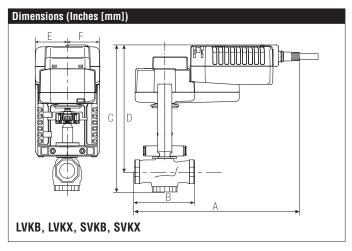


Α	В	С	D	Е	F
8.7" [221]	4.65" [118]	10" [254]	8.5" [216]	1.95	" [49]

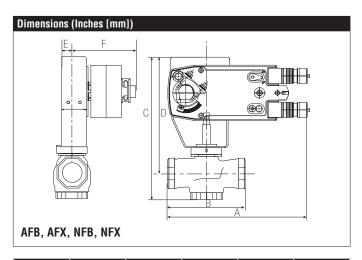
Piping

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(S) and G3(D) 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. Do not reverse flow direction.

G332D, 3-Way, Globe Valve, Bronze Trim, Diverting



Α	В	С	D	E	F
9.2" [234]	4.65" [118]	10.3" [262]	8.5" [216]	1.95	" [49]



Α	В	С	D	E	F
10" [254]	4.65" [118]	10.34"	8.5" [216]	1.5" [38]	5" [127]
		[260]			

NFX24-MFT-X1

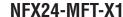
Modulating, Spring Return, 24 V, Multi-Function Technology®

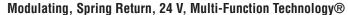




Technical Data	
Power Supply	24 VAC±20%, 50/60Hz, 24 VDC+20%/-10%
Power Consumption Running	6.5 W
Power Consumption Holding	3 W
Transformer Sizing	9 VA (class 2 power source)
Shaft Diameter	1/2" to 1.05" round, centers on 1/2" and 3/4"
	with insert, 1.05" without insert
Electrical Connection	18 GA applicance rated cable with 1/2"
	conduit connector protected NEMA 2 (IP54)
	3 ft [1m] 10 ft [3m] and 16 ft [5m]
Overload Protection	electronic throughout 0° to 95° rotation
Operating Range Y	2 to 10 VDC, 4 to 20 mA w/ ZG-R01 (500 Ω , 1/4 W resistor), variable (VDC, PWM, floating
	point, on/off)
Feedback Output U	2 to 10 VDC, 0.5 mA max, VDC variable
Angle of Rotation	95° (adjustable with mechanical end stop,
7 mgio oi riolation	35° to 95°)
Torque	90 in-lbs (10 Nm) minimum
Direction of Rotation (Motor)	reversible with built-in switch
Direction of Rotation (Fail-Safe)	reversible with CW/CCW mounting
Position Indication	visual indicator, 0° to 95° (0° is full spring
	return position)
Manual Override	return position) 5 mm hex crank (3/16" Allen), supplied
Manual Override Running Time (Motor)	
	5 mm hex crank (3/16" Allen), supplied 90 sec, constant independent of load <20 sec @ -4°F to 122°F [-20°C to 50°C], <
Running Time (Motor) Running Time (Fail-Safe)	5 mm hex crank (3/16" Allen), supplied 90 sec, constant independent of load <20 sec @ -4°F to 122°F [-20°C to 50°C], < 60 sec @ -22°F [-30°C]
Running Time (Motor)	5 mm hex crank (3/16" Allen), supplied 90 sec, constant independent of load <20 sec @ -4°F to 122°F [-20°C to 50°C], <
Running Time (Motor) Running Time (Fail-Safe)	5 mm hex crank (3/16" Allen), supplied 90 sec, constant independent of load <20 sec @ -4°F to 122°F [-20°C to 50°C], < 60 sec @ -22°F [-30°C] min. position = 0%, mid. Position = 50%,
Running Time (Motor) Running Time (Fail-Safe) Override Control	5 mm hex crank (3/16" Allen), supplied 90 sec, constant independent of load <20 sec @ -4°F to 122°F [-20°C to 50°C], < 60 sec @ -22°F [-30°C] min. position = 0%, mid. Position = 50%, max. position = 100% (Default) max. 95% RH non-condensing -22°F to +150°F [-30°C to +65°C]
Running Time (Motor) Running Time (Fail-Safe) Override Control Humidity	5 mm hex crank (3/16" Allen), supplied 90 sec, constant independent of load <20 sec @ -4°F to 122°F [-20°C to 50°C], < 60 sec @ -22°F [-30°C] min. position = 0%, mid. Position = 50%, max. position = 100% (Default) max. 95% RH non-condensing -22°F to +150°F [-30°C to +65°C] NEMA 2, IP54, UL enclosure type 2
Running Time (Motor) Running Time (Fail-Safe) Override Control Humidity Ambient Temperature Range	5 mm hex crank (3/16" Allen), supplied 90 sec, constant independent of load <20 sec @ -4°F to 122°F [-20°C to 50°C], < 60 sec @ -22°F [-30°C] min. position = 0%, mid. Position = 50%, max. position = 100% (Default) max. 95% RH non-condensing -22°F to +150°F [-30°C to +65°C]
Running Time (Motor) Running Time (Fail-Safe) Override Control Humidity Ambient Temperature Range Housing	5 mm hex crank (3/16" Allen), supplied 90 sec, constant independent of load <20 sec @ -4°F to 122°F [-20°C to 50°C], < 60 sec @ -22°F [-30°C] min. position = 0%, mid. Position = 50%, max. position = 100% (Default) max. 95% RH non-condensing -22°F to +150°F [-30°C to +65°C] NEMA 2, IP54, UL enclosure type 2 zinc coated metal and plastic casing cULus acc. to UL60730-1A/-2-14, CAN/CSA
Running Time (Motor) Running Time (Fail-Safe) Override Control Humidity Ambient Temperature Range Housing Housing Material	5 mm hex crank (3/16" Allen), supplied 90 sec, constant independent of load <20 sec @ -4°F to 122°F [-20°C to 50°C], < 60 sec @ -22°F [-30°C] min. position = 0%, mid. Position = 50%, max. position = 100% (Default) max. 95% RH non-condensing -22°F to +150°F [-30°C to +65°C] NEMA 2, IP54, UL enclosure type 2 zinc coated metal and plastic casing cULus acc. to UL60730-1A/-2-14, CAN/CSA E60730-1:02, CE acc. to 2004/108/EC and
Running Time (Motor) Running Time (Fail-Safe) Override Control Humidity Ambient Temperature Range Housing Housing Material Agency Listings†	5 mm hex crank (3/16" Allen), supplied 90 sec, constant independent of load <20 sec @ -4°F to 122°F [-20°C to 50°C], < 60 sec @ -22°F [-30°C] min. position = 0%, mid. Position = 50%, max. position = 100% (Default) max. 95% RH non-condensing -22°F to +150°F [-30°C to +65°C] NEMA 2, IP54, UL enclosure type 2 zinc coated metal and plastic casing cULus acc. to UL60730-1A/-2-14, CAN/CSA E60730-1:02, CE acc. to 2004/108/EC and 2006/95/EC
Running Time (Motor) Running Time (Fail-Safe) Override Control Humidity Ambient Temperature Range Housing Housing Material Agency Listings†	5 mm hex crank (3/16" Allen), supplied 90 sec, constant independent of load <20 sec @ -4°F to 122°F [-20°C to 50°C], < 60 sec @ -22°F [-30°C] min. position = 0%, mid. Position = 50%, max. position = 100% (Default) max. 95% RH non-condensing -22°F to +150°F [-30°C to +65°C] NEMA 2, IP54, UL enclosure type 2 zinc coated metal and plastic casing cULus acc. to UL60730-1A/-2-14, CAN/CSA E60730-1:02, CE acc. to 2004/108/EC and 2006/95/EC <50 dB (A)
Running Time (Motor) Running Time (Fail-Safe) Override Control Humidity Ambient Temperature Range Housing Housing Material Agency Listings† Noise Level (Motor) Noise Level (Fail-Safe)	5 mm hex crank (3/16" Allen), supplied 90 sec, constant independent of load <20 sec @ -4°F to 122°F [-20°C to 50°C], < 60 sec @ -22°F [-30°C] min. position = 0%, mid. Position = 50%, max. position = 100% (Default) max. 95% RH non-condensing -22°F to +150°F [-30°C to +65°C] NEMA 2, IP54, UL enclosure type 2 zinc coated metal and plastic casing cULus acc. to UL60730-1A/-2-14, CAN/CSA E60730-1:02, CE acc. to 2004/108/EC and 2006/95/EC <50 dB (A) <62 dB (A)
Running Time (Motor) Running Time (Fail-Safe) Override Control Humidity Ambient Temperature Range Housing Housing Material Agency Listings† Noise Level (Motor) Noise Level (Fail-Safe) Servicing	5 mm hex crank (3/16" Allen), supplied 90 sec, constant independent of load <20 sec @ -4°F to 122°F [-20°C to 50°C], < 60 sec @ -22°F [-30°C] min. position = 0%, mid. Position = 50%, max. position = 100% (Default) max. 95% RH non-condensing -22°F to +150°F [-30°C to +65°C] NEMA 2, IP54, UL enclosure type 2 zinc coated metal and plastic casing cULus acc. to UL60730-1A/-2-14, CAN/CSA E60730-1:02, CE acc. to 2004/108/EC and 2006/95/EC <50 dB (A) <62 dB (A) maintenance free
Running Time (Motor) Running Time (Fail-Safe) Override Control Humidity Ambient Temperature Range Housing Housing Material Agency Listings† Noise Level (Motor) Noise Level (Fail-Safe)	5 mm hex crank (3/16" Allen), supplied 90 sec, constant independent of load <20 sec @ -4°F to 122°F [-20°C to 50°C], < 60 sec @ -22°F [-30°C] min. position = 0%, mid. Position = 50%, max. position = 100% (Default) max. 95% RH non-condensing -22°F to +150°F [-30°C to +65°C] NEMA 2, IP54, UL enclosure type 2 zinc coated metal and plastic casing cULus acc. to UL60730-1A/-2-14, CAN/CSA E60730-1:02, CE acc. to 2004/108/EC and 2006/95/EC <50 dB (A) <62 dB (A)

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







Wiring Diagrams



🔀 INSTALLATION NOTES



Actuators with appliance cables are numbered.



Provide overload protection and disconnect as required.



Actuators may also be powered by 24 VDC.



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



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



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



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.



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



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.

