G340B-N, 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.

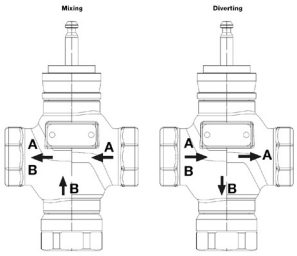
Suitable Actuators

	Non-Spring	Spring	Electronic Fail-Safe
G340B-N	SVB(X)	AFB(X)	SVKB(X)

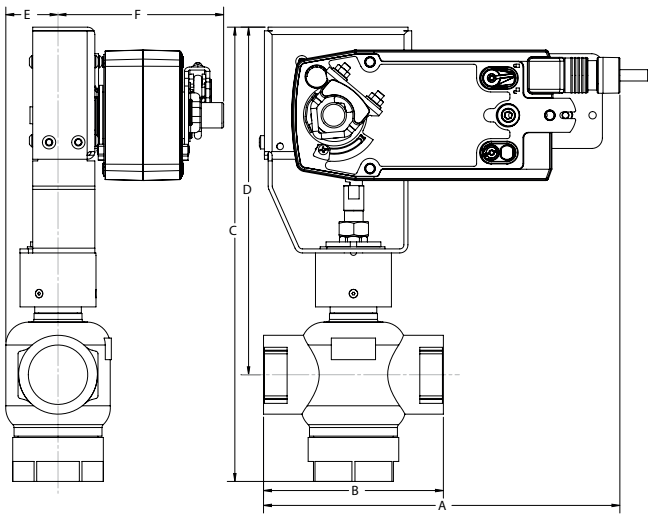
Technical Data

Service	chilled, hot water, up to 60% glycol
Flow Characteristic	modified equal percentage, linear B to AB
Controllable Flow Range	stem up - open B to AB
Size [mm]	1.5" [40]
End Fitting	NPT female ends
Body	bronze
Stem	stainless steel
Stem Packing	EPDM O-ring
Seat	bronze
Plug	brass
Body Pressure Rating [psi]	ANSI 250
ANSI Class	ANSI 250 (up to 400 psi below 150°F)
Media Temperature Range (Water)	20°F to 280°F [-7°C to 138°C]
Max Differential Pressure (Water)	35 psi (241 kPa)
Rangeability	A-port 100:1, B-port 50:1
Cv	28
Leakage	ANSI Class VI
Servicing	repack kits available

Flow Pattern



Dimensions (Inches [mm])



AF

A	B	C	D	E	F
10.5" [267]	5.31" [135]	13.47" [342]	10.38" [264]	1.53" [39]	4.94" [125]

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.

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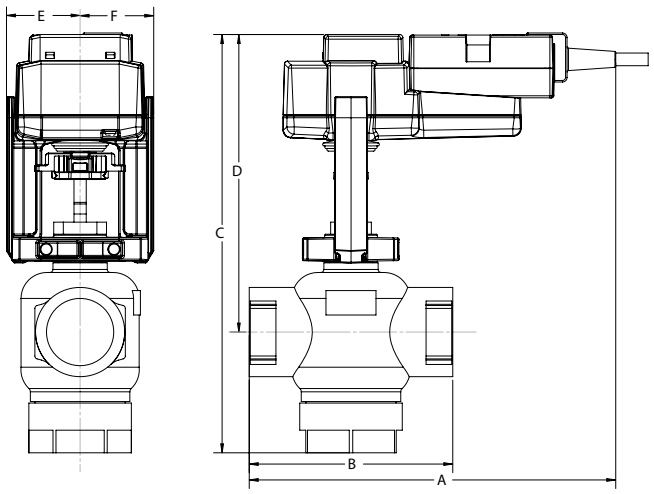
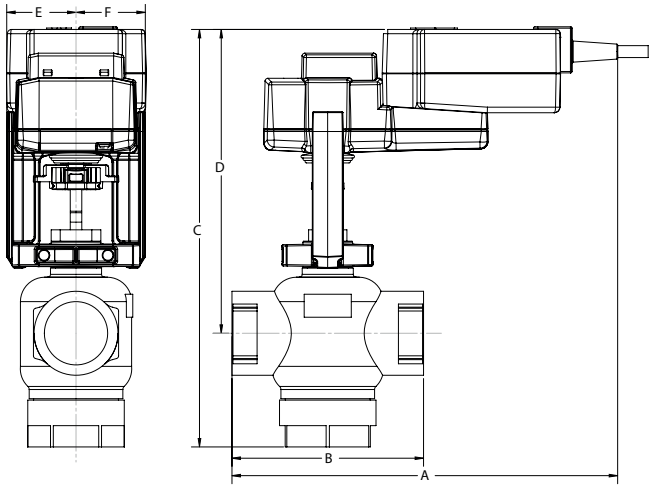
Dimensions (Inches [mm])



SV

A	B	C	D	E	F
9.61" [244]	5.31" [135]	10.3"' [262]	7.81" [198]	1.93" [49]	

Dimensions (Inches [mm])



SVK

A	B	C	D	E	F
10.75" [273]	5.31" [135]	10.24" [260]	8.43" [214]	1.93" [49]	

AFB24-SR-X1

Modulating, Spring Return, 24 VAC/DC, for 2 to 10 VDC or 4 to 20 mA Control Signal

Technical Data	
Power Supply	24 VAC, ±20%, 50/60 Hz, 24 VDC, -10% / +20%
Power Consumption Running	5.5 W
Power Consumption Holding	3 W
Transformer Sizing	8.5 VA (class 2 power source)
Electrical Connection	3ft [1m], 18 GA appliance cable with 1/2" conduit connector
Overload Protection	electronic throughout 0° to 95° rotation
Operating Range Y	on/off
Feedback Output U	2 to 10 VDC, 0.5 mA max
Angle of Rotation	95°,
Torque motor	Min. 180 in-lbs [20 Nm]
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	5 mm hex crank (3/16" Allen), supplied
Running Time (Motor)	95 sec
Running Time (Fail-Safe)	<20 sec
Ambient Humidity	max. 95% RH non-condensing
Ambient Temperature Range	-22°F to 122°F [-30°C to 50°C]
Storage Temperature Range	-40°F to 176°F [-40°C to 80°C]
Housing	NEMA 2, IP54, UL Enclosure Type 2
Housing Material	zinc coated metal and plastic casing
Agency Listings†	cULus acc. to UL60730-1A/-2-14, CAN/CSA E60730-1:02, CE acc. to 2004/108/EC
Noise Level (Motor)	<40 dB (A)
Noise Level (Fail-Safe)	<62 dB (A)
Servicing	maintenance free
Quality Standard	ISO 9001
Weight	4.6 lb [2.1 kg]

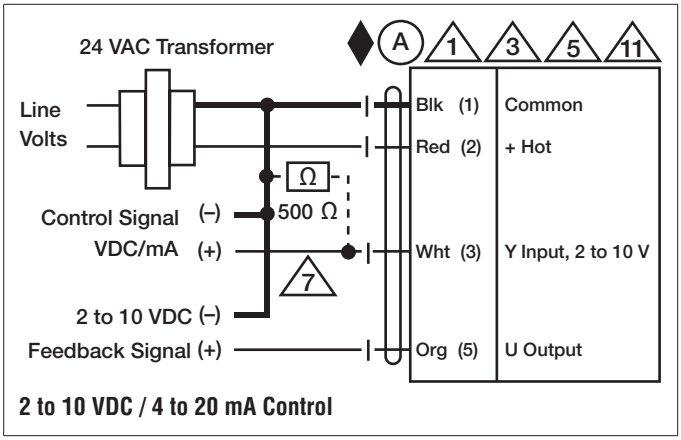
†Rated Impulse Voltage 800V, Type of action 1.AA, Control Pollution Degree 3

AFB24-SR-X1

Modulating, Spring Return, 24 VAC/DC, for 2 to 10 VDC or 4 to 20 mA Control Signal

Wiring Diagrams

- ♦ Meets cULus requirements without the need of an electrical ground connection.
- (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 10 mA control signal to 2 to 10 VDC.
- △11 Actuators may be connected in parallel if not mechanically linked. Power consumption and input impedance must be observed.



2 to 10 VDC / 4 to 20 mA Control