G314, 3-Way, Globe Valve, Bronze Trim, Mixing

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.

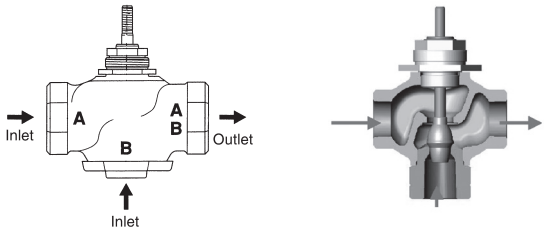
Suitable Actuators

	Non-Spring	Spring	Electronic Fail-Safe
G314	LVB(X)	LF	LVKB(X)

Technical Data

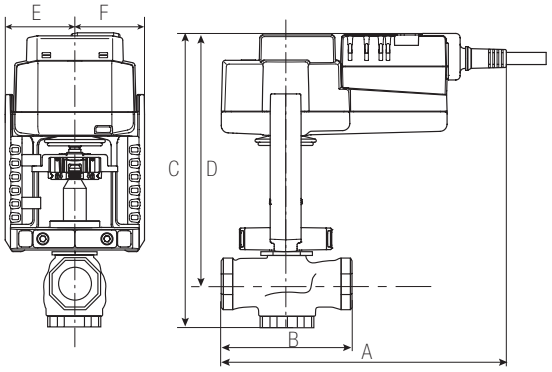
Service	chilled, hot water, up to 60% glycol
Flow Characteristic	linear
Controllable Flow Range	stem up - open B to AB
Size [mm]	0.5" [15]
End Fitting	NPT female ends
Body	bronze
Stem	stainless steel
Stem Packing	spring loaded Teflon® V-ring
Seat	bronze
Plug	brass
Disc	composition (EPDM)
Body Pressure 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 500:1
Cv	2.2
Weight	1.5 lb [0.7 kg]
Leakage	ANSI Class III
Servicing	Repack/Rebuild kits available

Flow Pattern



Stem Up- Open B to AB

Dimensions (Inches [mm])



LVB, LVX, SVB, SVX

A	B	C	D	E	F
7.8" [200]	3.07" [78]	8.54" [217]	7.18" [182]	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.

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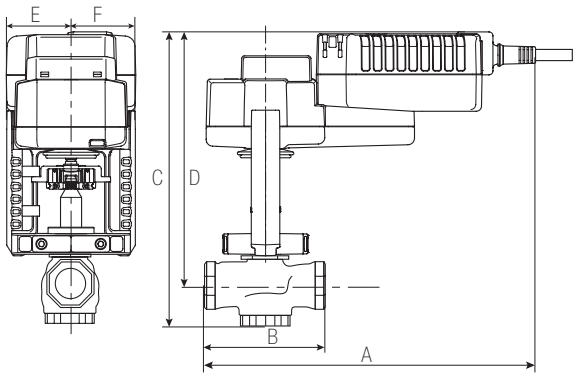
G314, 3-Way, Globe Valve, Bronze Trim, Mixing

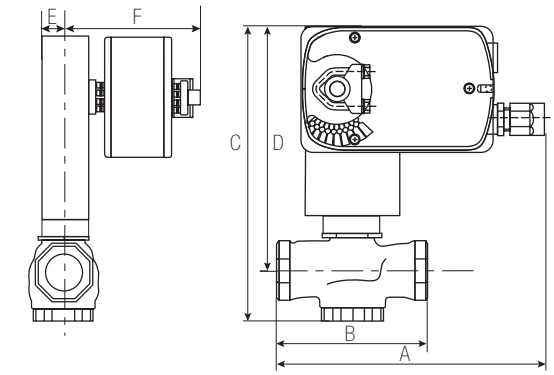
Dimensions (Inches [mm])



LVKB, LVKX, SVKB, SVKX

A	B	C	D	E	F
8.2” [209]	3.07” [78]	9.20” [234]	7.82” [199]	1.95” [49]	

Dimensions (Inches [mm])



LF

A	B	C	D	E	F
8.1” [206]	3.07” [78]	9” [229]	7.63” [193.8]	1” [25]	5.3” [135]

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LF120-S US, Valve Actuator

On/Off, Spring Return, 120 VAC, Auxiliary Switch

Technical Data	
Power Supply	120 VAC ± 10%, 50/60 Hz
Power Consumption Running	5.5 W
Power Consumption Holding	3.5 W
Transformer Sizing	7.5 VA
Electrical Connection	(2) 3ft [1m], 18 GA appliance cables with 1/2" conduit connectors
Overload Protection	electronic throughout 0° to 95° rotation
Operating Range Y	on/off
Angle of Rotation	90°
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)
Running Time (Motor)	<40 to 75 sec
Running Time (Fail-Safe)	<25 sec @ -4°F to 122°F [-20°C to 50°C], < 60 sec @ -22°F [-30°C]
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
Agency Listings†	cULus acc. To UL 873 and CAN/CSA C22.2 No. 24-93
Noise Level (Motor)	<50 dB (A)
Noise Level (Fail-Safe)	<62 dB (A)
Servicing	maintenance free
Quality Standard	ISO 9001
Auxiliary Switch	1 x SPDT, 3A resistive (0.5A inductive) @ 250 VAC, adjustable 0° to 95° (double insulated)

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

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Wiring Diagrams

INSTALLATION NOTES

A Actuators with appliance cables are numbered.

1 Provide overload protection and disconnect as required.

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

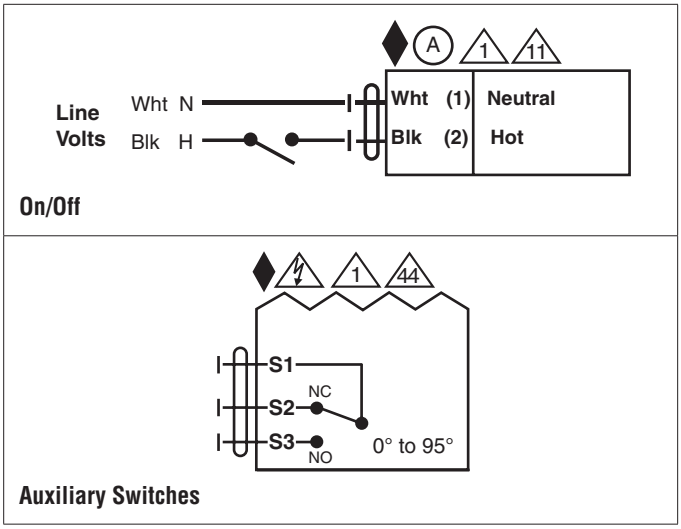
44 One built-in auxiliary switch (1x SPDT), for end position indication, interlock control, fan startup, etc.

Apply only AC line voltage or only UL-Class 2 voltage to the terminals of auxiliary switches. Mixed or combined operation of line voltage/safety extra low voltage is not allowed.

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

Auxiliary Switches

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