

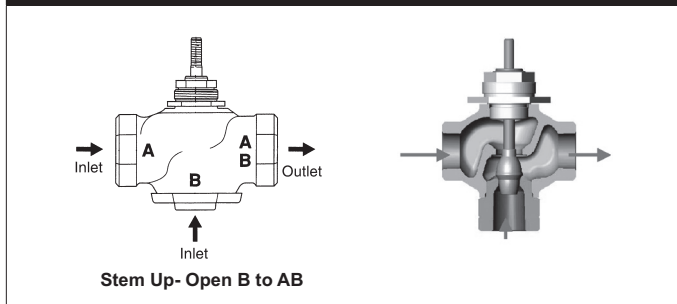
G325, 3-Way, Globe Valve, Bronze Trim, Mixing



Technical Data

| | |
|-----------------------------------|---------------------------------------|
| Service | chilled, hot water, up to 60% glycol |
| Flow Characteristic | linear |
| Controllable Flow Range | stem up - open B to AB |
| Size [mm] | 1" [25] |
| 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 | 14 |
| Weight | 3.1 lb [1.4 kg] |
| Leakage | ANSI Class III |
| Servicing | Repack/Rebuild kits available |

Flow Pattern



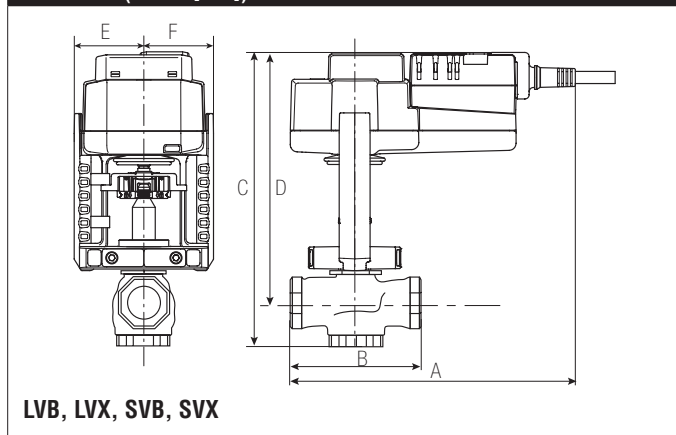
Application

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 |
|------|------------|--------|----------------------|
| G325 | SVB(X) | NFB(X) | SVKB(X) |

Dimensions (Inches [mm])



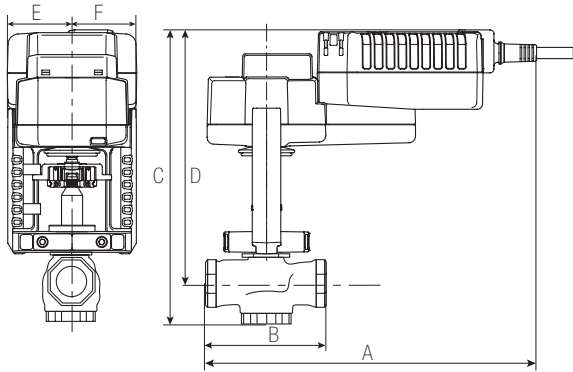
| A | B | C | D | E | F |
|----------|-------------|------------|------------|------------|---|
| 8" [203] | 4.65" [118] | 9.8" [249] | 8.6" [218] | 1.95" [49] | |

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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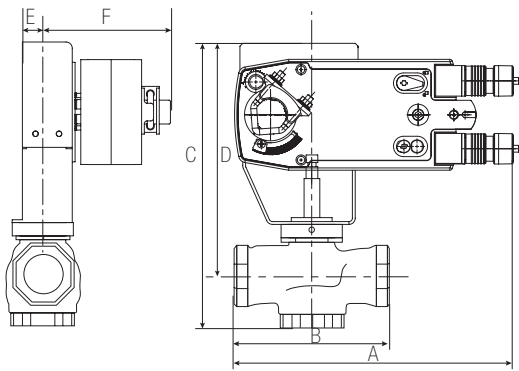
Dimensions (Inches [mm])



LVKB, LVKX, SVKB, SVKX

| A | B | C | D | E | F |
|----------|-------------|-------------|------------|------------|---|
| 9" [229] | 4.65" [118] | 10.3" [262] | 8.6" [218] | 1.95" [49] | |

Dimensions (Inches [mm])



AFB, AFX, NFB, NFX

| A | B | C | D | E | F |
|------------|-------------|--------------|------------|------------|----------|
| 9.8" [249] | 4.65" [118] | 10.12" [257] | 8.5" [216] | 1.25" [32] | 5" [127] |

NFX24-MFT-S-X1

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



Technical Data

| | |
|-----------------------------------|---|
| Power Supply | 24 VAC ± 20%, 50/60 Hz, 24 VDC ± 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 | (2) 3 ft [1 m], 18 GA appliance cables with 1/2" conduit connectors |
| 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) |
| Feedback Output U | 2 to 10 VDC, 0.5 mA max, VDC variable |
| Angle of Rotation | 95° (adjustable with mechanical end stop, 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 | 5 mm hex crank (3/16" Allen), supplied |
| Running Time (Motor) | 150 sec (default), variable (40 to 150 sec) |
| Running Time (Fail-Safe) | <20 sec @ -4°F to 122°F [-20°C to 50°C], < 60 sec @ -22°F [-30°C] |
| Override Control | min. position = 0% , mid. Position = 50% , max. position = 100% (Default) |
| Humidity | max. 95% RH non-condensing |
| Ambient Temperature Range | -22°F to +150°F [-30°C to +65°C] |
| Storage Temperature Range | -40°F to +176°F [-40°C TO +80°C] |
| Housing | NEMA 2, IP54, UL enclosure type 2 |
| Agency Listings† | UL 873 listed, CSA C22.2 No. 24 certified |
| Noise Level (Motor) | <50 dB (A) |
| Noise Level (Fail-Safe) | <62 dB (A) |
| Servicing | maintenance free |
| Quality Standard | ISO 9001 |
| Weight | 4.4 lb [2 kg] |
| Auxiliary Switch | 2 x SPDT, 3A resistive (0.5A inductive) @ 250 VAC, one set at +10°, one adjustable 10° to 90° |

*Variable when configured with MFT options.

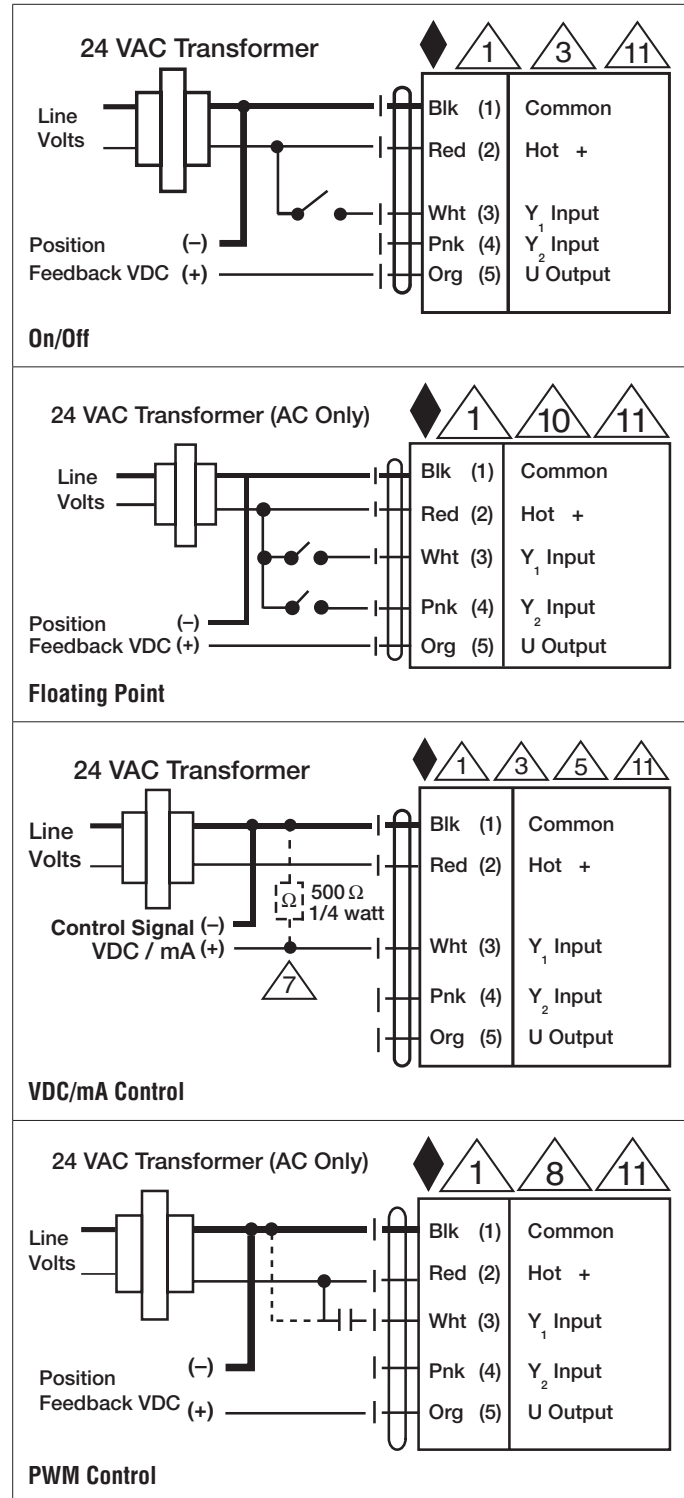
†Rated Impulse Voltage 800V, Type of action 1.AA, Control Pollution Degree 3

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Wiring Diagrams
INSTALLATION NOTES

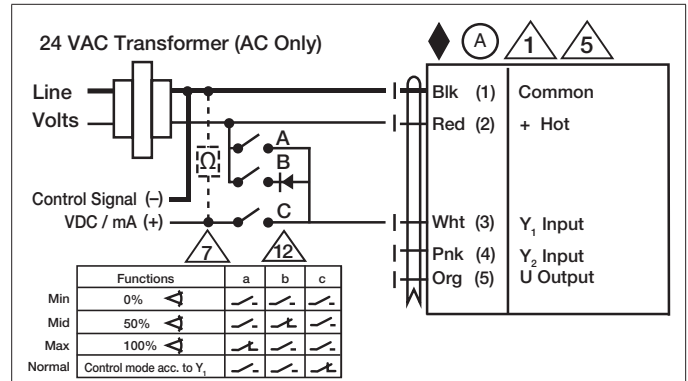
- Actuators with appliance cables are numbered.
- Provide overload protection and disconnect as required.
- Actuators may also be powered by 24 VDC.
- Two built-in auxiliary switches (2x SPDT), for end position indication, interlock control, fan startup, etc.
- Only connect common to negative (-) leg 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).
- 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.

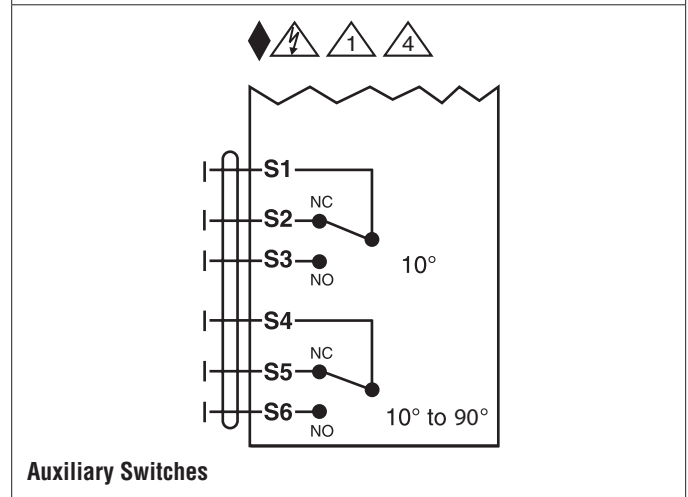


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Override Control



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