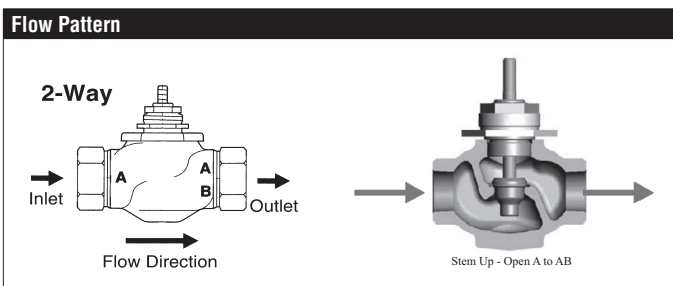


G250S, 2-Way, Globe Valve, Stainless Steel Trim



| Technical data | |
|---------------------------------------|---|
| Service | chilled or hot water, up to 60% glycol, steam |
| Flow Characteristic | linear |
| Controllable Flow Range | stem up - open A to AB |
| Size [mm] | 2" [50] |
| End Fitting | NPT female ends |
| Body | bronze |
| Stem | 316 stainless steel |
| Stem Packing | spring loaded Teflon V-ring |
| Seat | 316 stainless steel |
| Plug | 316 stainless steel |
| Disc | Teflon |
| Body Pressure Rating [psi] | ANSI 250 |
| ANSI Class | ANSI 250 (up to 400 psi below 150°F) |
| Max Inlet Pressure (Steam) | 100 psi (690 kPa) |
| Media Temperature Range (Water) | 20°F to 280°F [-7°C to 138°C] |
| Media Temperature Range (Steam) | 32°F to 338°F [0°C to 170°C] |
| Maximum differential pressure (steam) | 35 psi |
| Max Differential Pressure (Water) | 35 psi (241 kPa) |
| Leakage | ANSI Class IV |
| Rangeability | 75:1 |
| Cv | 40 |
| Weight | 8.4 lb [3.8 kg] |
| Servicing | Repack/Rebuild kits available |



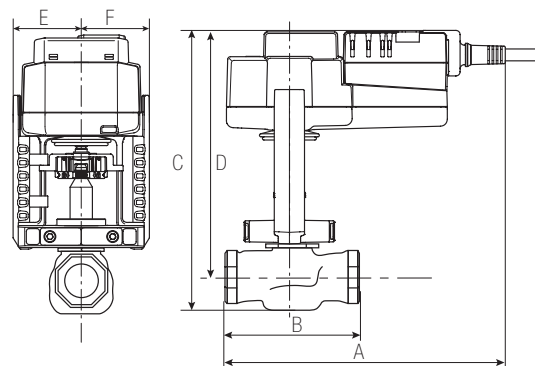
Application

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 variable flow. Bronze and stainless steel trim valves can be used for steam applications, depending on actuator and close-off combinations.

Suitable Actuators

| | Non-Spring | Spring | Electronic Fail-Safe |
|-------|------------|--------|----------------------|
| G250S | SVB(X) | AFB(X) | SVKB(X) |

Dimensions (Inches [mm])



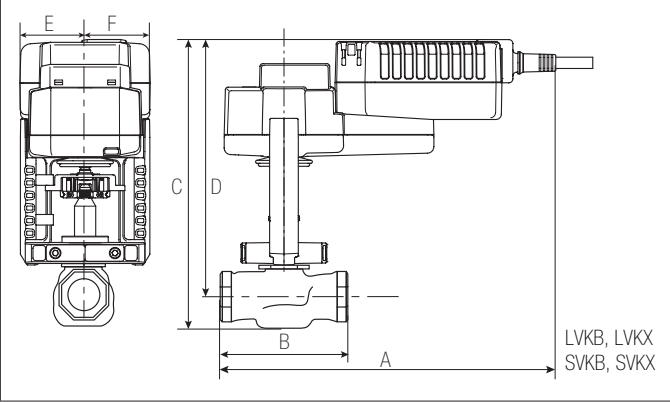
LVB, LVX SVB, SVX

| A | B | C | D | E | F |
|------------|-------------|--------------|-------------|------------|---|
| 9.3" [236] | 6.14" [156] | 10.35" [263] | 8.78" [223] | 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.

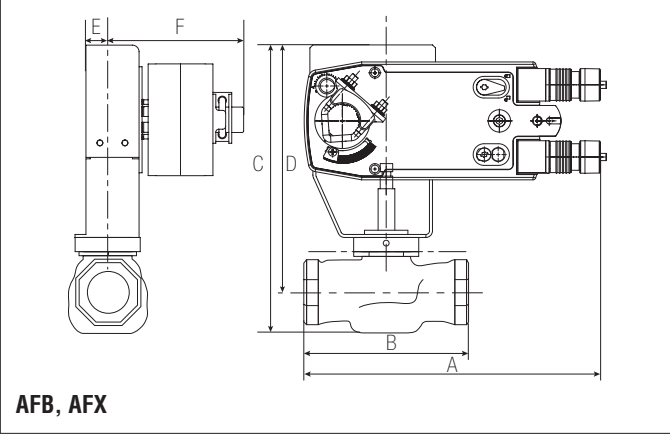
Dimensions (Inches [mm])



LVKB, LVKX
SVKB, SVKX

| A | B | C | D | E | F |
|----------------|-------------|-------------|-------------|------------|---|
| 11.50" [292.1] | 6.14" [156] | 10.3" [262] | 8.78" [223] | 1.95" [49] | |

Dimensions (Inches [mm])



AFB, AFX

| A | B | C | D | E | F |
|-----------|-------------|--------------|-------------|-----------|----------|
| 11" [279] | 6.14" [156] | 10.75" [273] | 9.24" [235] | 1.5" [38] | 5" [127] |

AFBUP-S-X1

On/Off, Spring Return, 24 VAC/DC



| Technical Data | |
|-----------------------------------|---|
| Power Supply | 24...240 VAC +10% / -20%, 50/60 Hz, 24...125 VDC ±10% |
| Power Consumption Running | 7.5 W |
| Power Consumption Holding | 3.5 W |
| Transformer Sizing | 7 VA @ 24 VAC (class 2 power source), 8.5 VA @ 120 VAC, 18 VA @ 240 VAC |
| 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 | on/off |
| Position Feedback | No Feedback |
| Angle of Rotation | 95° (adjustable with mechanical end stop, 35° to 95°) |
| 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) | <75 sec |
| Running Time (Fail-Safe) | <20 sec |
| 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 and 2006/95/EC |
| Sound power level | <50 dB (A) |
| Noise Level (Fail-Safe) | <62 dB (A) |
| Servicing | maintenance free |
| Quality Standard | ISO 9001 |
| Weight | 4.6 lb [2.1 kg] |
| Auxiliary Switch | 2 x SPDT, 3A resistive (0.5A inductive) @ 250 VAC, one set at +10°, one adjustable 10° to 90° |

†Rated Impulse Voltage 4kV, Type of Action 1.AA.B, Control Pollution Degree 3.

Date created, 04/08/2016 - Subject to change. © Belimo Aircontrols (USA), Inc.

Wiring Diagrams

- ◆ Meets cULus requirements without the need of an electrical ground connection.
- Ⓐ Actuators with appliance cables are numbered.
- Ⓢ Universal Power Supply (UP) models can be supplied with 24 VAC up to 240 VAC, or 24 VDC up to 125 VDC.
- ⚡ 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.
- 1 Provide overload protection and disconnect as required.
- 3 Actuators may also be powered by 24 VDC.
- 4 Two built-in auxiliary switches (2x SPDT), for end position indication, interlock control, fan startup, etc.
- 45 Actuators may be powered in parallel. Power consumption must be observed.
- 48 Parallel wiring required for piggy-back applications.

