# G219S, 2-Way, Globe Valve, Stainless Steel Trim

## 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.

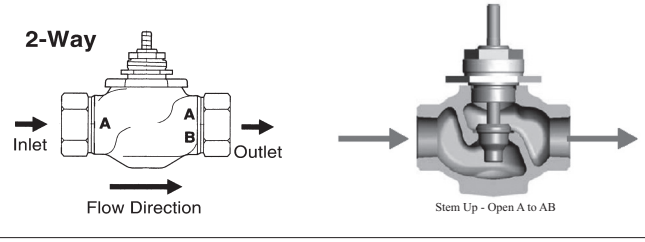
### Suitable Actuators

| | Non-Spring | Spring | Electronic Fail-Safe |
|---|---|---|---|
| G219S | LVB(X) | LF | LVKB(X) |

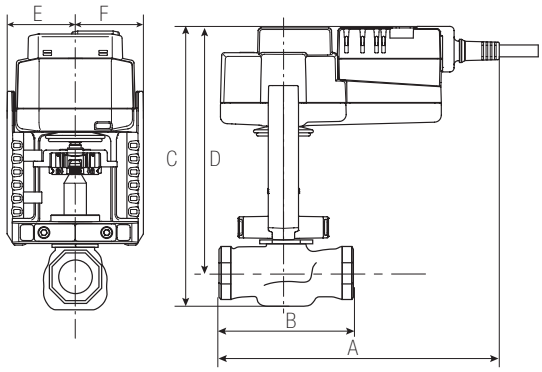
## Technical Data

| | |
|---|---|
| Service | chilled or hot water, up to 60% glycol, steam |
| Flow Characteristic | linear |
| Controllable Flow Range | stem up - open A to AB |
| Size [mm] | 0.75" [20] |
| 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) |
| Rangeability | 50:1 |
| Cv | 5.5 |
| Weight | 2.2 lb [1 kg] |
| Leakage | ANSI Class IV |
| Servicing | Repack/Rebuild kits available |

## Flow Pattern




## Dimensions (Inches [mm])




**LVB, LVX SVB, SVX**

| A | B | C | D | E | F |
|---|---|---|---|---|---|
| 7.8" [200] | 3.62" [92] | 8.75" [222] | 7.81" [198] | 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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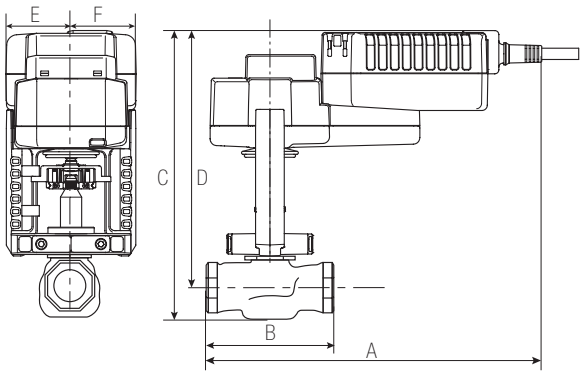
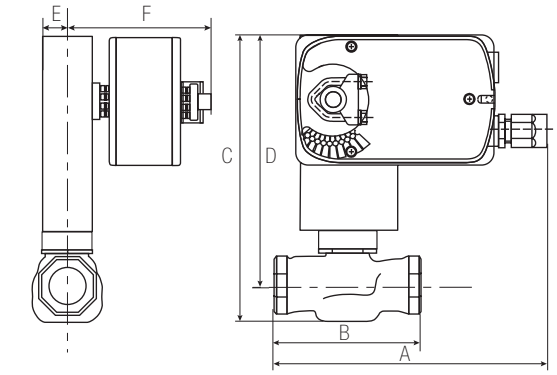
## Dimensions (Inches [mm])




**LVKB, LVKX SVKB, SVKX**

| A | B | C | D | E | F |
|---|---|---|---|---|---|
| 8.7” [221] | 3.62” [92] | 8.95” [227] | 7.81” [198] | 1.95” [49] | |

## Dimensions (Inches [mm])




**LF**

| A | B | C | D | E | F |
|---|---|---|---|---|---|
| 8.3” [211] | 3.62” [92] | 8.7” [219] | 7.79” [198] | 1.25” [32] | 5” [127] |

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# LVKB24-SR

## Modulating, Electronic Fail-Safe, Linear, 24 V

| Technical Data | |
|---|---|
| Power Supply | 24 VAC ± 20%, 50/60 Hz, 24 VDC ± 10% |
| Power Consumption Running | 2.5 W |
| Power Consumption Holding | 1.5 W |
| Transformer Sizing | 6 VA (class 2 power source) |
| Electrical Connection | 3 ft, 18 GA plenum rated cable with 1/2" conduit connector protected NEMA 2 (IP54) |
| Overload Protection | electronic throughout full stroke |
| Electrical Protection | actuators are double insulated |
| Operating Range Y | 2 to 10 VDC, 4 to 20 mA w/ ZG-R01 (500 Ω, 1/4 W resistor) |
| Input Impedance | 100 k Ω for 2 to 10 VDC (0.1 mA), 500 Ω for 4 to 20 mA |
| Feedback Output U | 2 to 10 VDC |
| Stroke | 0.6" [15 mm] |
| Linear Force | 112 lbf [500 N force] |
| Direction of Rotation (Motor) | reversible with switch |
| Direction of Rotation (Fail-Safe) | reversible with switch |
| Position Indication | stroke indicator on bracket |
| Manual Override | 4 mm hex crank (shipped w/actuator) |
| Running Time (Motor) | 90 sec, constant independent of load |
| Running Time (Fail-Safe) | 35 sec |
| Bridge Time | 2 sec delay before fail-safe activates |
| Pre-charging Time | 5 to 20 seconds |
| Humidity | 5 to 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 | Aluminum die cast 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 |
| Noise Level (Motor) | <55 dB (A) |
| Noise Level (Fail-Safe) | <60 dB (A) |
| Servicing | maintenance free |
| Quality Standard | ISO 9001 |
| Weight | 3.5 lb [1.6 kg] |

† Use flexible metal conduit. Push the listed conduit fitting device over the actuator's cable to butt against the enclosure. Screw in conduit connector. Jacket the actuators input wiring with listed flexible conduit. Properly terminate the conduit in a suitable junction box. Rated impulse Voltage 800V. Type of action 1. Control pollution degree 3.

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

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## Wiring Diagrams

### INSTALLATION NOTES

△3 Actuators may also be powered by 24 VDC.

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

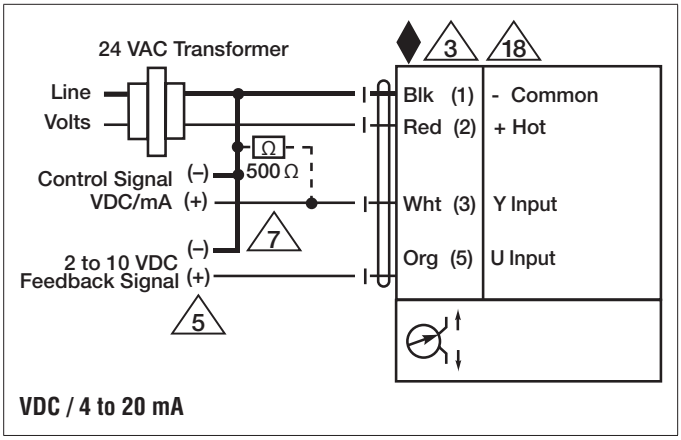
△7 A 500 Ω resistor (ZG-R01) converts the 4 to 10 mA control signal to 2 to 10 VDC.

△18 Actuators with plenum cable do not have numbers; use color codes instead.

◆ 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.




**VDC / 4 to 20 mA**

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