

B219VSS, 2-Way, Ball Valve

Stainless Steel Body, Ball and Stem



Application

These threaded valves are designed to provide modulating or two position control of hot or chilled water and saturated steam systems under 50 psi. Typical applications include reheat coils, VAV terminal control, unit ventilators, and air handlers, especially in areas which have minimum profile requirements. Up to 50 psi steam
 1/2" - 2000 PSIG WOG, Cold Non-Shock
 Federal Specification: WW-V-35C, Type II
 Composition: SS
 Style: 3

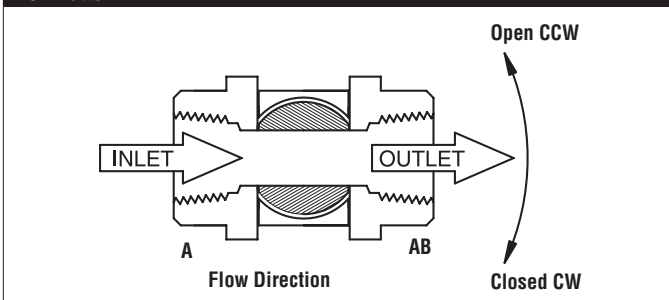
Suitable Actuators

| | Non-Spring | Spring |
|---------|-------------|--------|
| B219VSS | NMB(X), SY1 | LF |

Technical Data

| | |
|---------------------------------------|---|
| Service | chilled or hot water, up to 60% glycol, steam |
| Flow Characteristic | modified equal percentage |
| Controllable Flow Range | 90° rotation, A to AB open CCW, B to AB open CW |
| Size [mm] | 0.75" [20] |
| End Fitting | sae npt (female connections) |
| Body | A351-CF8M 316 Stainless Steel |
| Body Seal | PTFE |
| Ball | 316 stainless steel |
| Gland | A276-316 |
| Stem | 316 stainless steel |
| Stem Packing | reinforced PTFE |
| Stem Bearing | reinforced PTFE |
| Jam Nut | stainless steel |
| Seat | reinforced PTFE w/ Durafill |
| Body Pressure Rating [psi] | 1500 psig WOG |
| Max Inlet Pressure (Steam) | 50 psi |
| Media Temperature Range (Water) | -22°F to 298°F [-30°C to 148°C] |
| Maximum Differential Pressure (Steam) | 50 psi |
| Max Differential Pressure (Water) | <600 psig |
| Close-Off Pressure | 1000 psi |
| Maximum Velocity | 15 FPS |
| Cv | 30 |
| Weight | 1.3 lb [0.6 kg] |
| Leakage | ANSI Class VI |

Flow Pattern



Date created, 02/23/2018 - Subject to change. © Belimo Aircontrols (USA), Inc.

NFB24-X1

On/Off, Spring Return, 24 VAC/DC



| Technical Data | |
|-----------------------------------|--|
| Power Supply | 24 VAC, ±20%, 50/60 Hz, 24 VDC, -10% / +20% |
| Power Consumption Running | 6 W |
| Power Consumption Holding | 2.5 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 |
| Angle of Rotation | 90°, adjustable with mechanical stop |
| Torque motor | Min. 90 in-lbs [10 Nm] |
| Direction of Rotation (Motor) | reversible with CW/CCW mounting |
| 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 @ -4°F to 122°F [-20°C to 50°C], <60 sec @ -22°F [-30°C] |
| 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 and 2006/95/EC |
| Noise Level (Motor) | <50 dB (A) |
| Noise Level (Fail-Safe) | <62 dB (A) |
| Servicing | maintenance free |
| Quality Standard | ISO 9001 |
| Weight | 4.2 lb [1.9 kg] |

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

Date created, 11/30/2017 - Subject to change. © Belimo Aircontrols (USA), Inc.

Wiring Diagrams

⚠ 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.

✂ INSTALLATION NOTES

- Ⓐ** Actuators with appliance cables are numbered.
- 1** Provide overload protection and disconnect as required.
- 3** Actuators may also be powered by 24 VDC.
- 11** Actuators may be connected in parallel if not mechanically linked. Power consumption and input impedance must be observed.
- ◆** Meets cULus requirements without the need of an electrical ground connection.

