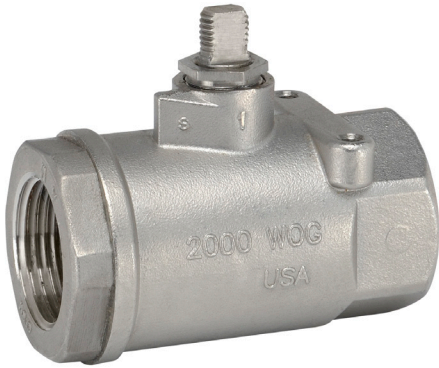


# B2050VSS-15, 2-Way, Ball Valve

## 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

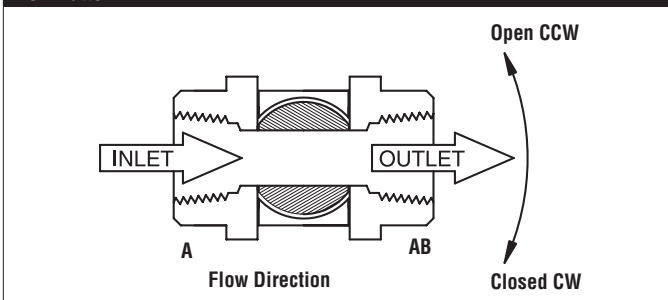
### Suitable Actuators

	Non-Spring	Spring
B2050VSS-15	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]	0.5" [15]
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]	2000 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	15
Weight	0.4 lb [0.2 kg]
Leakage	ANSI Class VI

### Flow Pattern



# LF24-S US, Valve Actuator

On/Off, Spring Return, 24 VAC/DC



Technical Data	
Power Supply	24 VAC ± 20%, 50/60 Hz, 24 VDC ± 10%
Power Consumption Running	5 W
Power Consumption Holding	2.5 W
Transformer Sizing	7 VA (class 2 power source)
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

Date created, 09/05/2017 - Subject to change. © Belimo Aircontrols (USA), Inc.

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

