

B2050VS-01, 2-Way, Ball Valve

Bronze Body, Stainless Steel Ball and Stem



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 a hydronic system with variable flow.

This valve is designed with MFT functionality which facilitates the use of various control input.

Up to 35 psi steam

1/2" - 2" 600 PSIG WOG, Cold Non-Shock

Federal Specification: WW-V-35C, Type II

Composition: BZ

Style: 3

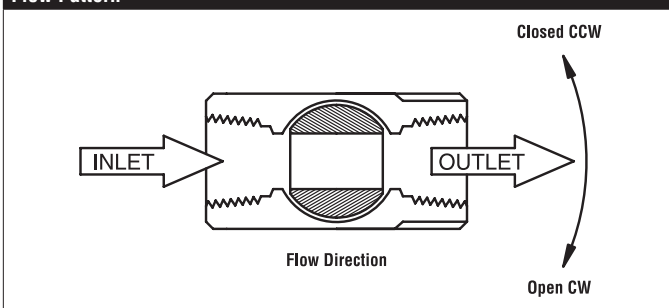
Suitable Actuators

	Non-Spring	Spring
B2050VS-01	LMB(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
Size [mm]	0.5" [15]
End Fitting	NPT female ends
Body	B584-C84400 Bronze
Body Seal	PTFE
Ball	316 stainless steel
Retainer	B16 Brass
Gland	B16 brass
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]	600 psig WOG
Max Inlet Pressure (Steam)	35 psi (241 kPa)
Media Temperature Range (Water)	-22°F to 280°F [-30°C to 138°C]
Maximum Differential Pressure (Steam)	35 psi
Close-Off Pressure	600 psi
Maximum Velocity	15 FPS
Cv	1
Weight	0.4 lb [0.2 kg]
Leakage	ANSI Class VI

Flow Pattern



LF120-S US, Valve Actuator

On/Off, Spring Return, 120 VAC, Auxiliary Switch



Technical Data	
Power Supply	120 VAC, ±10%, 50/60 Hz
Power Consumption Running	5.5 W
Power Consumption Holding	3.5 W
Transformer Sizing	7.5 VA
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...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...122 °F [-30...50 °C]
Storage Temperature Range	-40...176 °F [-40...80 °C]
Housing	IP54, NEMA 2
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°

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

Date created, 08/30/2018 - 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 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.

