

Ball Valve (VS), 1/2", 2-way, Cv 2



2-year warranty

Type overview

Type	DN
B2050VS-02	15

Technical data

Functional data	Valve size [mm]	0.5" [15]	
	Fluid	chilled or hot water, up to 60% glycol, steam	
	Fluid Temp Range (water)	-30...138°C [-22...280°F]	
	Body Pressure Rating	600 psig WOG	
	Close-off pressure Δps	600 psi	
	Flow characteristic	modified equal percentage	
	Leakage rate	ANSI Class VI	
	Pipe connection	Internal thread NPT (female)	
	Max Differential Pressure (Steam)	35 psi	
	Flow Pattern	2-way	
	Controllable flow range	90° rotation	
	Cv	2	
	Maximum Inlet Pressure (Steam)	35 psi [241 kPa]	
	Maximum Velocity	15 FPS	
	Materials	Valve body	Bronze B584-C84400
		Housing seal	PTFE
Stem		316 stainless steel	
Stem seal		RPTFE	
Seat		RPTFE	
Lock nut		stainless steel	
Retainer		B16 Brass	
Ball		316 stainless steel	
Suitable actuators	Non Fail-Safe	LMB(X) GRCB(X) GRB(X)	
	Spring	LF	

Safety notes



- **WARNING:** This product can expose you to lead which is known to the State of California to cause cancer and reproductive harm. For more information go to www.p65warnings.ca.gov

Product features

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

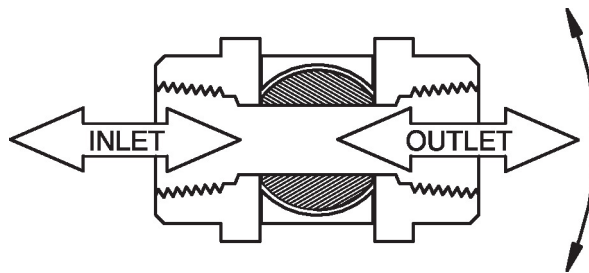
1/2" - 2" 600 PSIG WOG, Cold Non-Shock

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

Composition: BZ

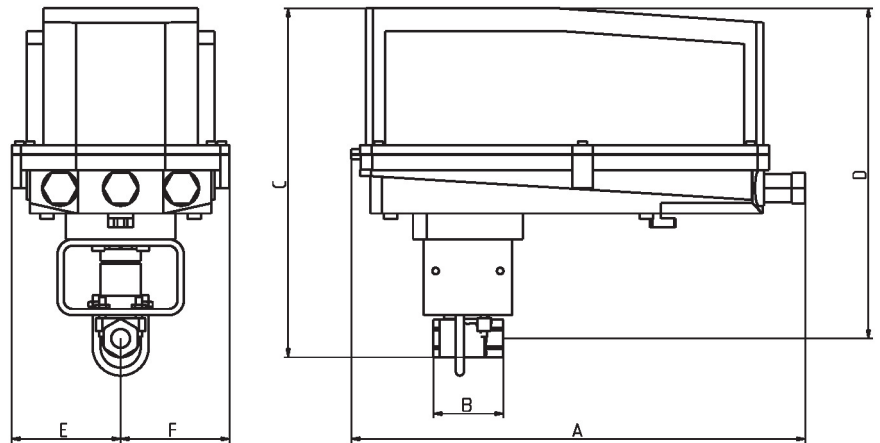
Style: 3

Flow/Mounting details



Dimensions

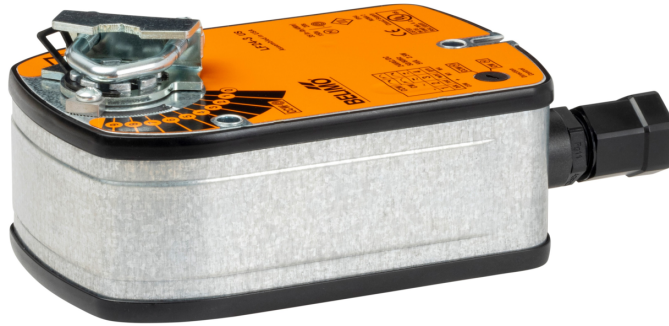
Type	DN	Weight
B2050VS-02	15	0.54 lb [0.24 kg]



B2050VS..+GRC..N4

A	B	C	D	E	F
14.1" [358]	2.2" [56]	10.9" [277]	10.3" [262]	3.4" [86]	3.4" [86]

On/Off, Spring return, 120 V



5-year warranty


Technical data

Electrical data	Nominal voltage	AC 120 V
	Nominal voltage frequency	50/60 Hz
	Nominal voltage range	AC 96...132 V
	Power consumption in operation	5.5 W
	Power consumption in rest position	3.5 W
	Transformer sizing	7.5 VA
	Auxiliary switch	1x SPDT, 1 mA...3 A (0.5 A inductive), DC 5 V...AC 250 V, adjustable 0...95°
	Switching capacity auxiliary switch	1 mA...3 A (0.5 A inductive), DC 5 V...AC 250 V
	Electrical Connection	(2) 18 GA appliance cables, 3 ft [1 m], with 1/2" NPT conduit connectors
	Overload Protection	electronic throughout 0...95° rotation
Functional data	Direction of motion motor	selectable with switch 0/1
	Direction of motion fail-safe	reversible with cw/ccw mounting
	Angle of rotation	90°
	Running Time (Motor)	75 s / 90°
	Running time fail-safe	<25 s @ -4...122°F [-20...50°C], <60 s @ -22°F [-30°C]
	Noise level, motor	50 dB(A)
	Noise level, fail-safe	62 dB(A)
Position indication	Mechanical	
Safety data	Degree of protection IEC/EN	IP54
	Degree of protection NEMA/UL	NEMA 2
	Enclosure	UL Enclosure Type 2
	Agency Listing	cULus acc. To UL 873 and CAN/CSA C22.2 No. 24-93
	Quality Standard	ISO 9001
	UL 2043 Compliant	Suitable for use in air plenums per Section 300.22(C) of the NEC and Section 602 of the IMC
	Ambient humidity	Max. 95% RH, non-condensing
	Ambient temperature	-22...122°F [-30...50°C]
	Storage temperature	-40...176°F [-40...80°C]

Technical data

Safety data	Servicing	maintenance-free
Weight	Weight	□
Materials	Housing material	galvanized steel

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

Electrical installation

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.

Wiring diagrams

On/Off

