

Ball Valve (VSS), 1/2", 2-way, Cv 15

- NSF/ANSI 61 – Water Quality – C. Hot
- NSF/ANSI 372 - Lead Free



2-year warranty

Type overview

Type	DN
B2050VSS-15	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...148°C [-22...298°F]	
Body Pressure Rating	2000 psig WOG	
Close-off pressure Δ ps	1000 psi	
Flow characteristic	modified equal percentage	
Leakage rate	ANSI Class VI	
Pipe connection	Internal thread NPT (female)	
Max Differential Pressure (Steam)	50 psi	
Flow Pattern	2-way	
Controllable flow range	90° rotation, A – AB open ccw, B – AB open cw	
Cv	15	
Maximum Inlet Pressure (Steam)	50 psi	
Maximum Velocity	15 FPS	
Materials	Valve body	Stainless steel A351-CF8M 316
	Housing seal	PTFE
	Stem	316 stainless steel
	Stem seal	RPTFE
	Seat	RPTFE
	Lock nut	stainless steel
	Ball	316 stainless steel
Suitable actuators	Non Fail-Safe	LMB(X) GRCB(X) GRB(X)
	Spring	LF

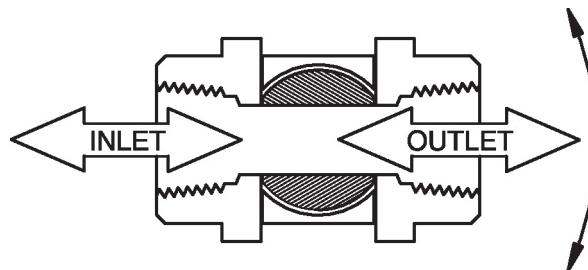
** NSF/ANSI/CAN 61 Section 8, Annex G, NSF/ANSI 372 - Drinking Water System Components - Lead Content. Suitable for Cold, Domestic Hot, and Commercial Hot applications.

Product features

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.

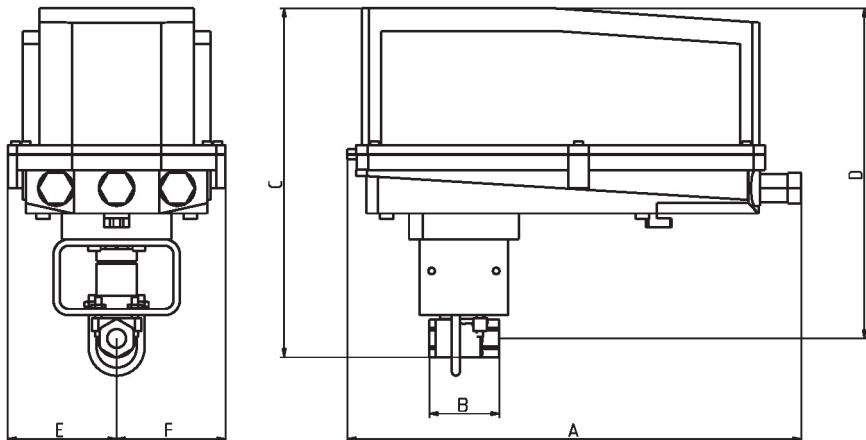
Up to 50 psi steam
1/2" - 2000 PSIG WOG, Cold Non-Shock
Federal Specification: WW-V-35C, Type II
Composition: SS
Style: 3

Flow/Mounting details



Dimensions

Type	DN	Weight
B2050VSS-15	15	0.51 lb [0.23 kg]



B2050VS..+GRC..N4

A	B	C	D	E	F
14.1" [358]	2.2" [56]	10.8" [274.5]	10.3" [262]	3.4" [86]	3.4" [86]

On/Off, Floating point, Non fail-safe, 24 V



5-year warranty



Technical data

Electrical data		
	Nominal voltage	AC/DC 24 V
	Nominal voltage frequency	50/60 Hz
	Nominal voltage range	AC 19.2...28.8 V / DC 21.6...28.8 V
	Power consumption in operation	1.5 W
	Power consumption in rest position	0.2 W
	Transformer sizing	2.5 VA
	Electrical Connection	18 GA plenum cable, 3 ft [1 m], with 1/2" NPT conduit connector
	Overload Protection	electronic throughout 0...90° rotation
Functional data		
	Direction of motion motor	selectable with switch 0/1
	Manual override	external push button
	Angle of rotation	90°
	Angle of rotation note	adjustable with mechanical stop
	Running Time (Motor)	90 s / 90°
	Running time motor note	constant, independent of load
	Noise level, motor	35 dB(A)
	Position indication	Mechanical, 30...65 mm stroke
Safety data		
	Power source UL	Class 2 Supply
	Degree of protection IEC/EN	IP54
	Degree of protection NEMA/UL	NEMA 2
	Enclosure	UL Enclosure Type 2
	Agency Listing	cULus acc. to UL60730-1A/-2-14, CAN/CSA E60730-1:02 CE acc. to 2014/30/EU and 2014/35/EU
	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]
	Servicing	maintenance-free
Weight		
	Weight	0.84 lb [0.38 kg]
Materials		
	Housing material	Galvanized steel and plastic housing

Technical data

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

Accessories

Electrical accessories	Description	Type
	Battery backup system, for non-spring return models	NSV24 US
	Battery, 12 V, 1.2 Ah (two required)	NSV-BAT
	Feedback potentiometer 140 Ω add-on, grey	P140A GR
	Feedback potentiometer 500 Ω add-on, grey	P500A GR
	Feedback potentiometer 1 k Ω add-on, grey	P1000A GR
	Feedback potentiometer 2.8 k Ω add-on, grey	P2800A GR
	Feedback potentiometer 5 k Ω add-on, grey	P5000A GR
	Feedback potentiometer 10 k Ω add-on, grey	P10000A GR
	Auxiliary switch 1x SPDT add-on	S1A
	Auxiliary switch 2x SPDT add-on	S2A

Electrical installation

INSTALLATION NOTES

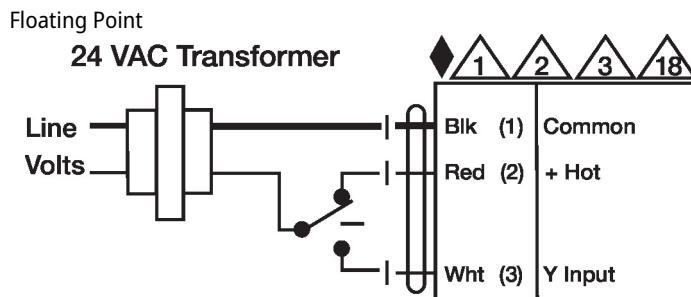
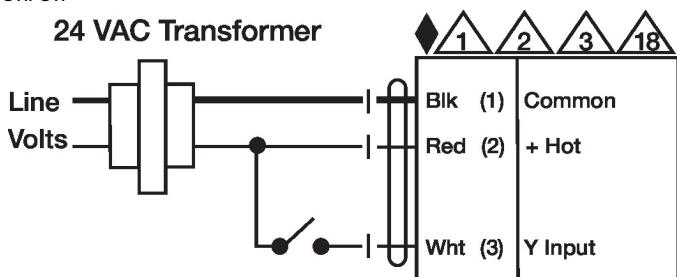
- A** Actuators with appliance cables are numbered.
- 1** Provide overload protection and disconnect as required.
- 3** Actuators may also be powered by DC 24 V.
- 6** Actuators Hot wire must be connected to the control board common. Only connect common to neg. (-) leg of control circuits. Terminal models (-T) have no-feedback.
- 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.

⚠ 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

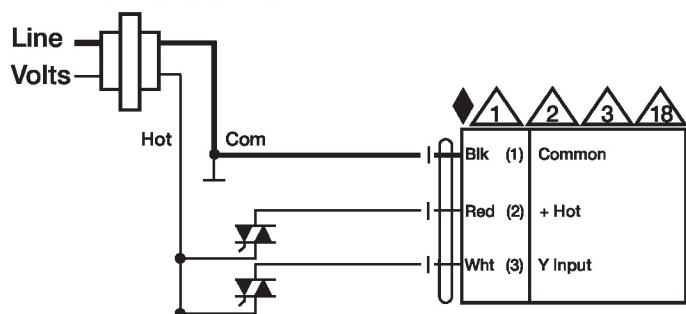
On/Off



Electrical installation

Wiring diagrams

24 VAC Transformer

Floating Point - Triac Sink
24 VAC Transformer