

Ball Valve (VSS), 2", 2-way, Cv 108

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



2-year warranty

Type overview

Type	DN
B249VSS	50

Technical data

Functional data	Valve size [mm]	2" [50]
Fluid	chilled or hot water, up to 60% glycol, steam	
Fluid Temp Range (water)	-22...298°F [-30...148°C]	
Body Pressure Rating	1500 psig WOG	
Close-off pressure Δp_s	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	108	
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	GMB(X) PRB(X)
Spring	AF	
Electrical fail-safe	GKB(X) PKRB(X)	

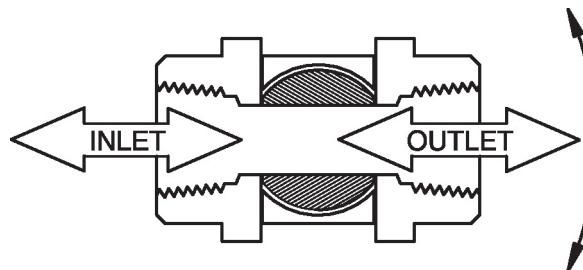
Note: NSF/ANSI/CAN 61 Section 8, Annex G, NSF/ANSI 372 - Drinking Water System Components - Lead Content. Suitable for Cold, Domestic Hot, and Commercial Hot applications.

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.

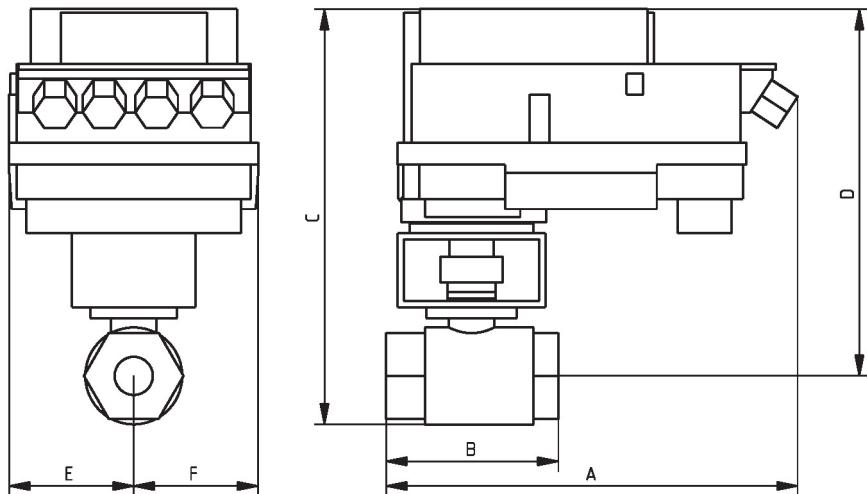
Up to 50 psi steam
1/2" - 2000 PSIG WOG, Cold Non-Shock
Federal Specification: WW-V-35C, Type II
Composition: SS
Style: 3

Flow/Mounting details



Dimensions

Type	DN	Weight
B249VSS	50	6.2 lb [2.8 kg]



B249VSS+PKR..

A	B	C	D	E	F
12.8" [325]	5.5" [140]	13.3" [337]	11.7" [298]	4.0" [102]	4.0" [102]

On/Off, Spring return, 24...240 V



5-year warranty



Technical data

Electrical data	Nominal voltage	AC 24...240 V / DC 24...125 V
Nominal voltage frequency	50/60 Hz	
Nominal voltage range	AC 19.2...264 V / DC 21.6...137.5 V	
Power consumption in operation	7.5 W	
Power consumption in rest position	3.5 W	
Transformer sizing	36 VA	
Auxiliary switch	2x SPDT, 1 mA...3 A (0.5 A inductive), DC 5 V...AC 250 V, 1x 10% / 1x 11...90%	
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	Position feedback U note	No Feedback
Direction of motion motor	selectable by ccw/cw mounting	
Direction of motion fail-safe	reversible with cw/ccw mounting	
Manual override	5 mm hex crank (3/16" Allen), supplied	
Angle of rotation	95°	
Running Time (Motor)	75 s / 90°	
Running time fail-safe	<20 s	
Noise level, motor	50 dB(A)	
Noise level, fail-safe	62 dB(A)	
Position indication	Mechanical	
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	
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	

Technical data

Weight	Weight	□
Materials	Housing material	Galvanized steel and plastic housing

Footnotes [†]Rated Impulse Voltage 4kV, Type of Action 1.AA.B, Control Pollution Degree 3.

Electrical installation



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.

-  A Actuators with appliance cables are numbered.
-  Meets cULus requirements without the need of an electrical ground connection.
-  UP Universal Power Supply (UP) models can be supplied with AC 24...240 V, or DC 24...125 V.
-  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.
-  1 Provide overload protection and disconnect as required.
-  3 Actuators may also be powered by DC 24 V.
-  4 Two built-in auxiliary switches (2x SPDT), for end position indication, interlock control, fan startup, etc.
-  45 Actuators may be powered in parallel. Power consumption must be observed.
-  48 Parallel wiring required for piggy-back applications.

Wiring diagrams

On/Off

