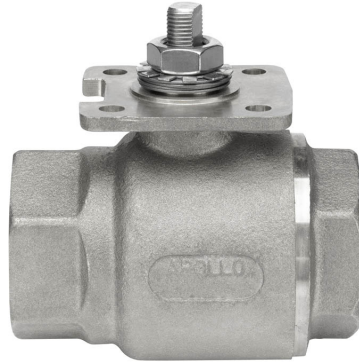


Ball Valve (VSS), 1", 2-way, Cv 43

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



2-year warranty

Type overview

Type	DN
B224VSS	25

Technical data

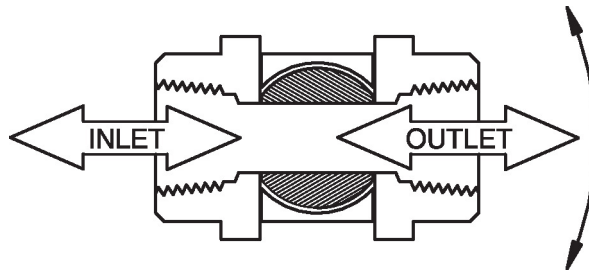
Functional data	Valve size [mm]	1" [25]	
	Fluid	chilled or hot water, up to 60% glycol, steam	
	Fluid Temp Range (water)	-30...148°C [-22...298°F]	
	Body Pressure Rating	1500 psig WOG	
	Close-off pressure Δps	1000 psi	
	Flow characteristic	modified equal percentage	
	Leakage rate	ANSI Class VI	
	Pipe connection	Internal thread NPT (female)	
	Max Differential Pressure (Steam)	50 psi	
	Flow Pattern	2-way	
	Controllable flow range	90° rotation	
	Cv	43	
	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	AMB(X) GRCB(X) GRB(X)	
	Spring	AF	

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

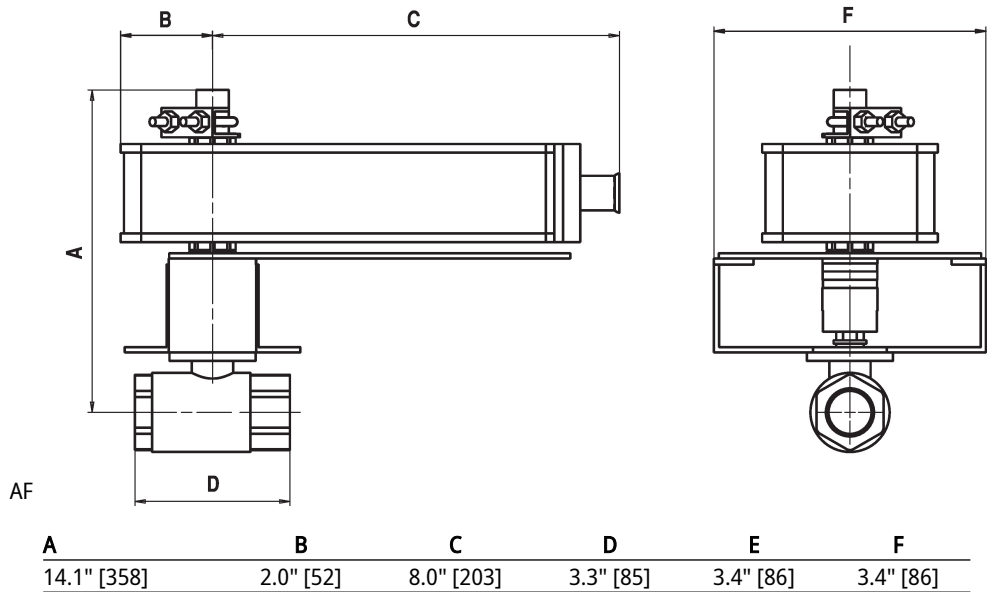
Application These threaded valves are designed to provide modulating or two position control of hot or chilled water and saturated steam systems under 50 psi.
 Typical applications include reheat coils, VAV terminal control, unit ventilators, and air handlers, especially in areas which have minimum profile 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

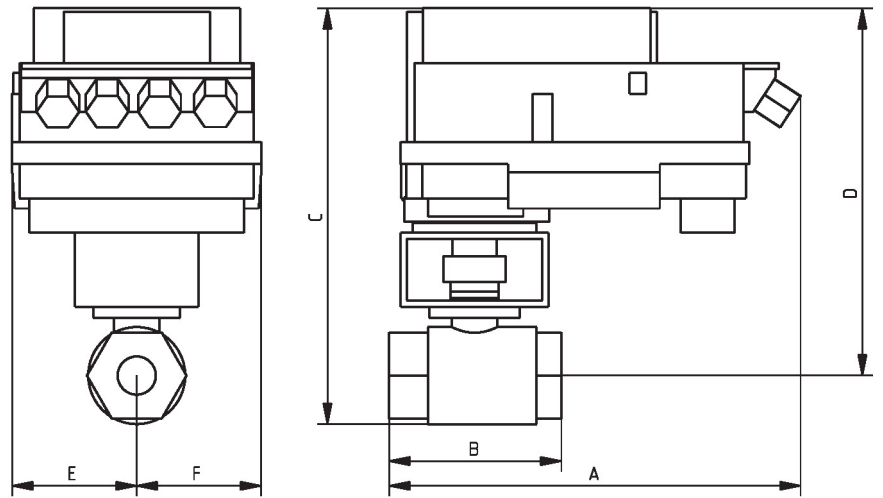


Dimensions

Type	DN	Weight
B224VSS	25	1.8 lb [0.80 kg]



Dimensions



B249VSS+PKR..

A	B	C	D	E	F
14.1" [358]	3.4" [86]	12.1" [307]	11.1" [283]	3.4" [86]	3.4" [86]

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 W
	Power consumption in rest position	3.5 W
	Transformer sizing	18 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 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]

Technical data

Safety data	Servicing	maintenance-free
Weight	Weight	4.9 lb [2.2 kg]
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.
- Meets cULus requirements without the need of an electrical ground connection.
- Actuators with appliance cables are numbered.
- 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.
- Provide overload protection and disconnect as required.
- Actuators may also be powered by DC 24 V.
- Two built-in auxiliary switches (2x SPDT), for end position indication, interlock control, fan startup, etc.
- Actuators may be powered in parallel. Power consumption must be observed.
- Parallel wiring required for piggy-back applications.

Wiring diagrams

On/Off

