

Ball Valve (VS), DN 1 1/2" [40], 2-way, Cv 84



2-year warranty

Picture may differ from product

## Type overview

Type	DN
B239VS	1 1/2" [40]

## Technical data

Functional data	Valve size [mm]	1.5" [40]
	Fluid	chilled or hot water, up to 60% glycol, steam
	Fluid Temp Range (water)	-22...280°F [-30...138°C]
	Body Pressure Rating	600 psig WOG psi
	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	84
	Maximum Inlet Pressure (Steam)	35 psi [241 kPa]
Materials	Valve body	Bronze B584-C84400
	Housing seal	PTFE
	Stem	316 stainless steel
	Stem seal	RPTFE
	Seat	RPTFE
	Lock nut	stainless steel
	Retainer	B584-C84400 bronze
	Ball	316 stainless steel
Suitable actuators	Non Fail-Safe	GMB(X) PRB(X) GRCB(X) GRB(X)
	Spring	AF
	Electronic fail-safe	PKRB(X)

## 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](http://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

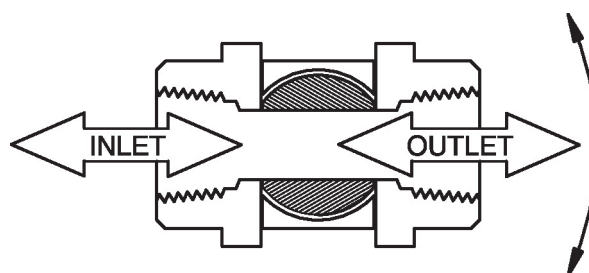
1/2" - 2" 600 PSIG WOG, Cold Non-Shock

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

Composition: BZ

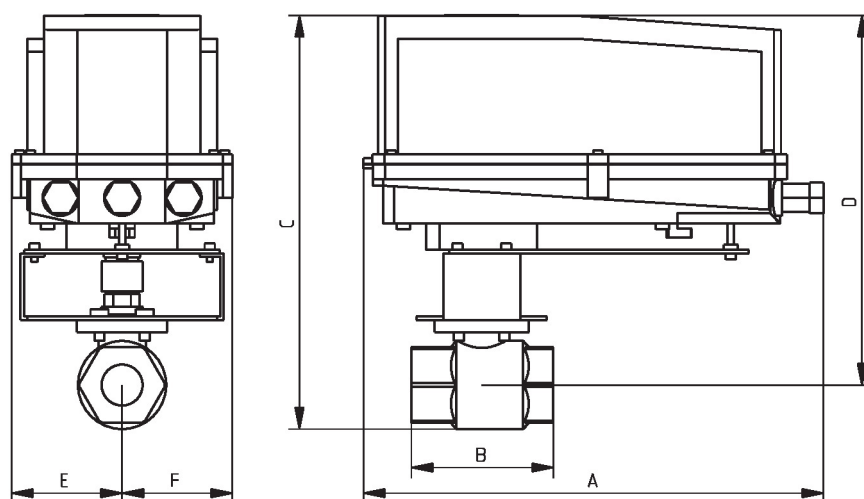
Style: 3

## Flow/Mounting details



## Dimensions

Type	DN	Weight
B239VS	1 1/2" [40]	4.5 lb [2.1 kg]



B239VS+GRC..N4

A	B	C	D	E	F
11.7" [297.5]	4.4" [112]	9.7" [247]	7.7" [196]	2.3" [58]	2.3" [58]

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



5-year warranty



## Technical data

<b>Electrical data</b>	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
<b>Functional data</b>	Overload Protection	electronic throughout 0...95° rotation
	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)
<b>Safety data</b>	Position indication	Mechanical
	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

## Technical data


Safety data	Ambient temperature	-22...122°F [-30...50°C]
	Storage temperature	-40...176°F [-40...80°C]
	Servicing	maintenance-free
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

