

Ball Valve (VS), DN 1" [25], 2-way, Cv 68



2-year warranty



Picture may differ from product

**Type overview**

<b>Type</b>	<b>DN</b>
B225VS	1" [25]

**Technical data**

<b>Functional data</b>	Valve size [mm]	1" [25]
	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	68
	Maximum Inlet Pressure (Steam)	35 psi [241 kPa]
	<b>Materials</b>	Valve body
Housing seal		PTFE
Stem		316 stainless steel
Stem seal		RPTFE
Seat		RPTFE
Lock nut		stainless steel
Retainer		B16 Brass
Ball		316 stainless steel
<b>Suitable actuators</b>	Non Fail-Safe	AMB(X) GRCB(X) GRB(X)
	Spring	AF

**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

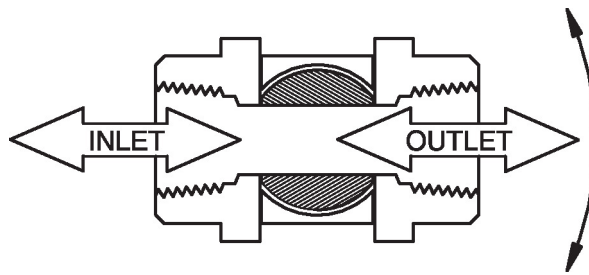
1/2" - 2" 600 PSIG WOG, Cold Non-Shock

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

Composition: BZ

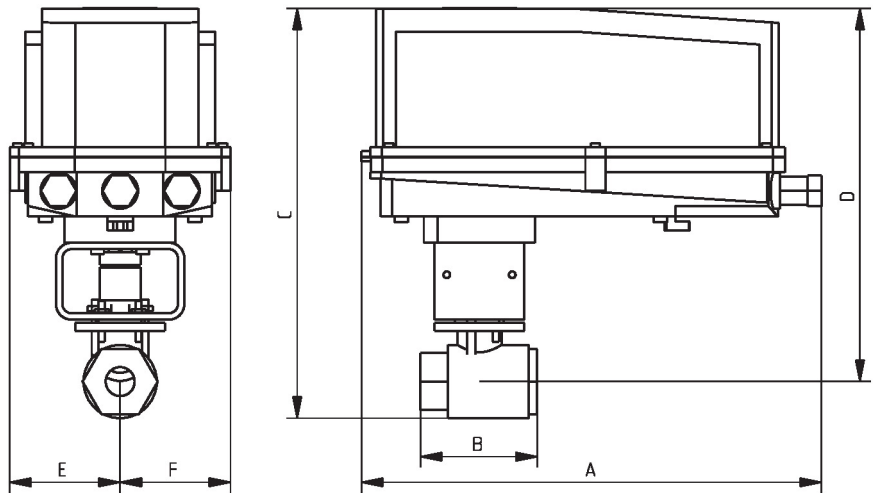
Style: 3

Flow/Mounting details



Dimensions

Type	DN	Weight
B225VS	1" [25]	3.5 lb [1.6 kg]



B225VS+GRC..N4

A	B	C	D	E	F
14.1" [358]	3.6" [92]	12.6" [320]	11.5" [292]	3.4" [86]	3.4" [86]

MFT/programmable, Non fail-safe, 24 V



5-year warranty



## Technical data

<b>Electrical data</b>	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	8 W	
	Power consumption in rest position	2.5 W	
	Transformer sizing	11 VA	
	Electrical Connection	Terminal blocks	
	Overload Protection	electronic throughout 0...90° rotation	
<b>Functional data</b>	Operating range Y	2...10 V	
	Operating range Y note	4...20 mA w/ ZG-R01 (500 Ω, 1/4 W resistor)	
	Input impedance	600 Ω	
	Operating range Y variable	Start point	0.5...30 V
		End point	2.5...32 V
	Operating modes optional	variable (VDC, on/off, floating point)	
	Position feedback U	2...10 V	
	Position feedback U note	Max. 0.5 mA	
	Position feedback U variable	VDC variable	
	Direction of motion motor	selectable with switch 0/1	
	Manual override	under cover	
	Angle of rotation	90°	
	Angle of rotation note	adjustable with mechanical stop	
	Running Time (Motor)	35 s / 90°	
Running time motor variable	35...150 s		
Noise level, motor	45 dB(A)		
Position indication	Mechanical, 5...20 mm stroke		
<b>Safety data</b>	Power source UL	Class 2 Supply	
	Degree of protection IEC/EN	IP66/67	
	Degree of protection NEMA/UL	NEMA 4X	
	Housing	UL Enclosure Type 4X	
	Agency Listing	cULus acc. to UL60730-1A/-2-14, CAN/CSA E60730-1:02, CE acc. to 2014/30/EU and 2014/35/EU	

<b>Safety data</b>	Quality Standard	ISO 9001
	Ambient humidity	Max. 100% RH
	Ambient temperature	-22...122°F [-30...50°C]
	Ambient temperature note	-40...50°C [104...122°F] for actuator with integrated heating
	Storage temperature	-40...176°F [-40...80°C]
	Servicing	maintenance-free
<b>Weight</b>	Weight	4.6 lb [2.1 kg]
<b>Materials</b>	Housing material	Die cast aluminium and plastic casing
<b>Footnotes</b>	†Rated Impulse Voltage 800V, Type of action 1.AA, Control Pollution Degree 3	

**Accessories**

<b>Gateways</b>	<b>Description</b>	<b>Type</b>
	Gateway MP to BACnet MS/TP	UK24BAC
	Gateway MP to Modbus RTU	UK24MOD
	Gateway MP to LonWorks	UK24LON
<b>Electrical accessories</b>	<b>Description</b>	<b>Type</b>
	Auxiliary switch 1x SPDT add-on	S1A
	Auxiliary switch 2x SPDT add-on	S2A
	Feedback potentiometer 140 Ω add-on, grey	P140A GR
	Feedback potentiometer 1 kΩ add-on, grey	P1000A GR
	Feedback potentiometer 10 kΩ add-on, grey	P10000A GR
	Feedback potentiometer 2.8 kΩ add-on, grey	P2800A GR
	Feedback potentiometer 500 Ω add-on, grey	P500A GR
	Feedback potentiometer 5 kΩ add-on, grey	P5000A GR
<b>Tools</b>	<b>Description</b>	<b>Type</b>
	Connecting cable 10 ft [3 m], A: RJ11 6/4 LINK.10, B: 3-pin Weidmüller and supply connection	ZK4-GEN
	Service tool, with ZIP-USB function, for configurable and communicative Belimo actuators, VAV controller and HVAC performance devices	ZTH US
<b>Factory add-on option only</b>	<b>Description</b>	<b>Type</b>
	Heater, with adjustable thermostat	ACT_PACK_H

**Electrical installation**
**INSTALLATION NOTES**

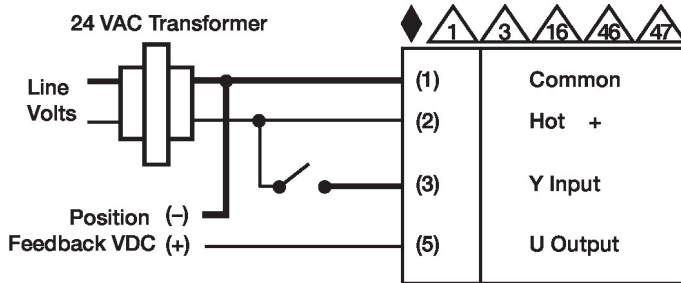
- Provide overload protection and disconnect as required.
- Actuators may also be powered by DC 24 V.
- Only connect common to negative (-) leg of control circuits.
- A 500 Ω resistor (ZG-R01) converts the 4...20 mA control signal to 2...10 V.
- Actuators are provided with a numbered screw terminal strip instead of a cable.
- Actuators may be controlled in parallel. Current draw and input impedance must be observed.
- Master-Slave wiring required for piggy-back applications. Feedback from Master to control input(s) of Slave(s).
- 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.

Electrical installation

Failure to follow all electrical safety precautions when exposed to live electrical components could result in death or serious injury.

Wiring diagrams

On/Off



VDC/mA Control

