



2-year warranty

Type overview

Type	DN
B239VS	40

Technical data

<b>Functional data</b>	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 $\Delta$ ps	600 psi
	Flow characteristic	modified equal percentage
	Max Differential Pressure (Steam)	35 psi
	Flow Pattern	2-way
	Leakage rate	ANSI Class VI
	Controllable flow range	90° rotation
	Cv	84
	Maximum Inlet Pressure (Steam)	35 psi [241 kPa]
	Maximum Velocity	15 FPS
<b>Materials</b>	Valve body	Bronze B584-C84400
	Housing seal	PTFE
	Spindle	316 stainless steel
	Spindle seal	RPTFE
	Seat	RPTFE
	Lock nut	stainless steel
	Pipe connection	NPT female ends
	Retainer	B584-C84400 bronze
Ball	316 stainless steel	
<b>Suitable actuators</b>	Non-Spring	GMB(X) PRB(X) GRCB(X) GRB(X)
	Spring	AF
	Electrical fail-safe	PKRB(X)

Safety notes



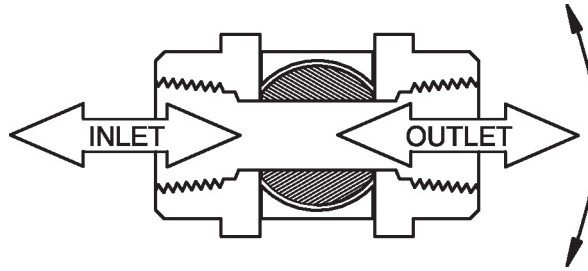
- WARNING: This product can expose you to lead which is known to the State of California to cause cancer and reproductive harm. For more information go to [www.p65warnings.ca.gov](http://www.p65warnings.ca.gov)

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 functionally which facilitates the use of various control input.

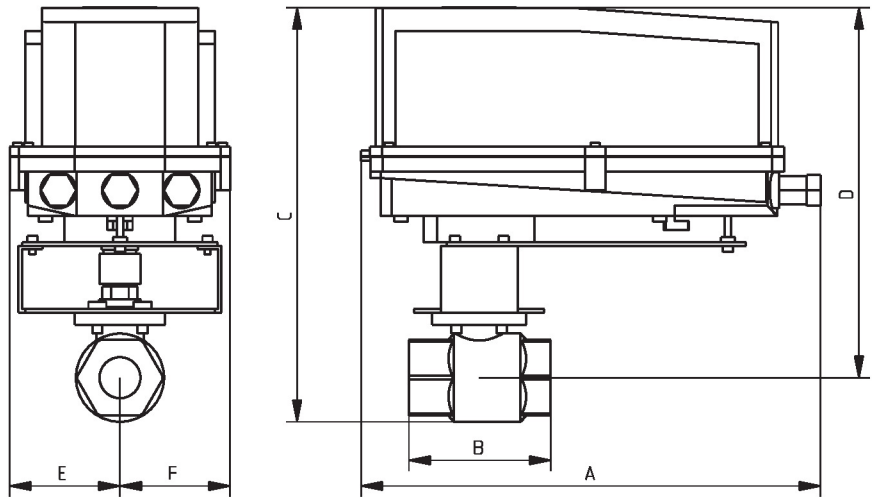
Up to 35 psi steam  
 1/2" - 2" 600 PSIG WOG, Cold Non-Shock  
 Federal Specification: WW-V-35C, Type II  
 Composition: BZ  
 Style: 3

Flow/Mounting details



Dimensions

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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]



5-year warranty



Technical data

<b>Electrical data</b>	Nominal voltage	AC 24 V	
	Nominal voltage frequency	50/60 Hz	
	Power consumption in operation	11 W	
	Power consumption in rest position	3 W	
	Power consumption for wire sizing	21 VA	
	Transformer sizing	21 VA (class 2 power source)	
	Electrical Connection	18 GA plenum cable, 3 ft [1 m], with 1/2" conduit connector, degree of protection NEMA 2 / IP54	
	Overload Protection	electronic throughout 0...95° rotation	
<b>Functional data</b>	Bridging time (PF)	2 s	
	Pre-charging time	5...20 s	
	Direction of motion motor	selectable with switch 0/1	
	Direction of motion fail-safe	reversible with switch	
	Manual override	external push button	
	Angle of rotation	Max. 95°	
	Angle of rotation note	adjustable with mechanical stop	
	Running Time (Motor)	150 s / 90°	
	Running time motor note	constant, independent of load	
	Running time fail-safe	<35 s	
	Noise level, motor	52 dB(A)	
	Noise level, fail-safe	61 dB(A)	
	Position indication	Mechanically, 30...65 mm stroke	
<b>Safety data</b>	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; Listed to UL 2043 - suitable for use in air plenums per Section 300.22(c) of the NEC and Section 602.2 of the IMC	
	Quality Standard	ISO 9001	
	Ambient temperature	-22...122°F [-30...50°C]	
	Storage temperature	-40...176°F [-40...80°C]	
	Ambient humidity	Max. 95% RH, non-condensing	
	Servicing	maintenance-free	
	<b>Materials</b>	Housing material	Galvanized steel and plastic housing

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

Electrical installation

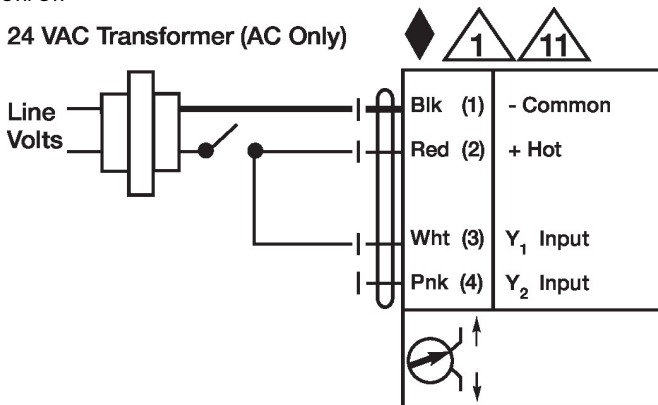
**✂ INSTALLATION NOTES**

- 1** Provide overload protection and disconnect as required.
- 2** Actuators may be connected in parallel. Power consumption and input impedance must be observed.
- 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.
- 1** **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**

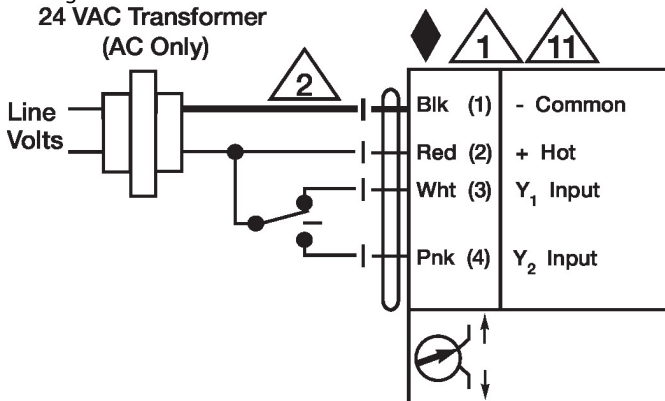
On/Off

24 VAC Transformer (AC Only)



Floating Point

24 VAC Transformer (AC Only)



Installation notes

Negative torque SY2~3 Replacement Handwheel