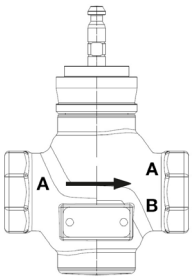
G250B-N Technical Data Sheet

5-year warranty

Technical Data

Fluid	chilled or hot water, up to 60% glycol, steam
Flow characteristic	modified equal percentage
Controllable flow range	stem up - open A – AB
Valve Size [mm]	2" [50]
Pipe connection	NPT female ends
Housing	Bronze
Stem	stainless steel
Stem seal	EPDM O-ring
Seat	Bronze
Valve plug	brass
Body Pressure Rating	ANSI Class 250, up to 400 psi below 150°F
ANSI Class	250
Maximum Inlet Pressure (Steam)	35 psi [241 kPa]
Max Differential Pressure (Steam)	20 psi [103 kPa]
Rangeability Sv	100:1
Cv	40
Weight	7.9 lb [3.6 kg]
Fluid Temp Range (water)	20...280°F [-7...138°C]
Leakage rate	ANSI Class VI
Servicing	repack kits available

Flow/Mounting Details



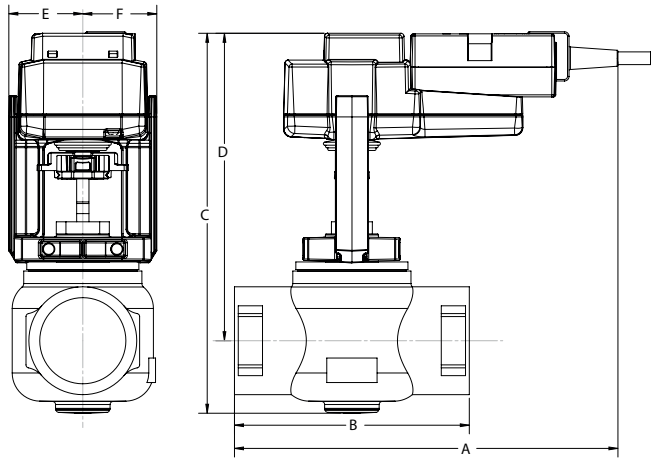
Application

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 hydronic systems with variable flow. Bronze and stainless steel trim valves can be used for steam applications, depending on actuator and close-off combinations.

Suitable Actuators

	Non-Spring	Spring	Electronic fail-safe
G250B-N	LVB(X)	NF	LVKB(X)

Dimensions (Inches [mm])



LV

A	B	C	D	E	F
10.0" [254]	6.1" [156]	9.9" [252]	8.0" [203]	1.9" [48]	

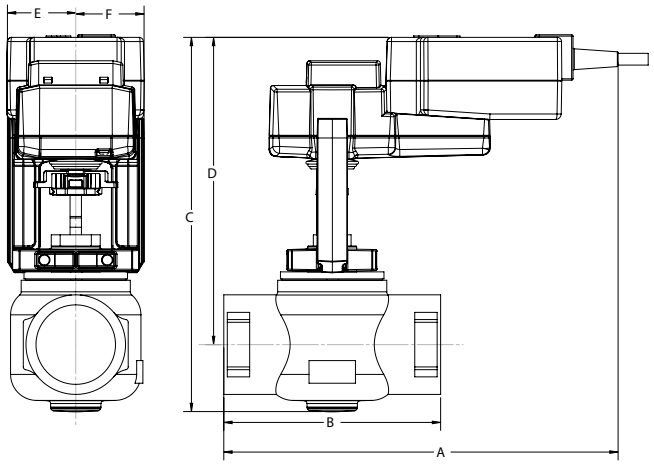
Safety Notes

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

Piping

The valves should be mounted in a weather-protected area in a location that is within the ambient limits of the actuator. Allow sufficient room for valve with actuator and for service. The G2 and G3 preferred mounting position of the valve is with the valve stem vertical above the valve body, for maximum life. However, the assemblies can be mounted with the valve stem vertical or horizontal in relation to the pipe. The actuators should never be mounted underneath the valve, as condensation can build up and result in a failure of the actuators.

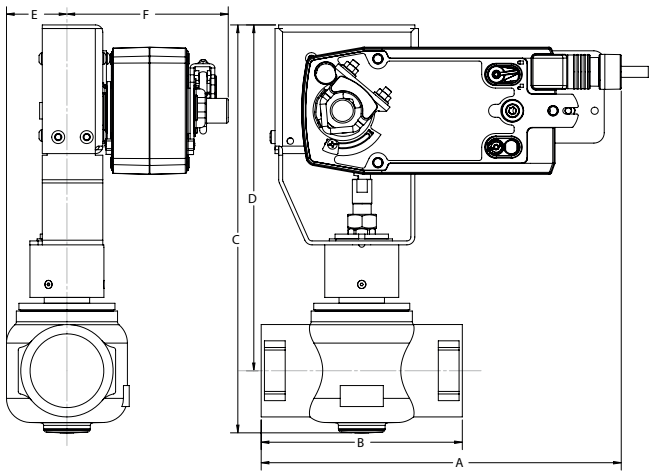
Dimensions (Inches [mm])



LVK

A	B	C	D	E	F
11.0” [280]	6.1” [156]	10.5” [267]	8.8” [224]	1.9” [48]	

Dimensions (Inches [mm])



NF

A	B	C	D	E	F
10.9” [277]	6.1” [156]	12.4” [314]	10.5” [267]	1.8” [46]	4.9” [125]

LVB24-3 Technical Data Sheet

On/Off, Floating Point, Non-Spring Return, Linear, 24 V

5-year warranty

Technical Data	
Power Supply	24 VAC, ±20%, 50/60 Hz, 24 VDC, ±10%
Power consumption in operation	1 W
Power consumption in rest position	0.5 W
Transformer sizing	1 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 full stroke
Electrical Protection	actuators are double insulated
Input Impedance	100 kΩ (0.1 mA), 500 Ω, 1000 Ω (on/off)
Position Feedback	No Feedback
Stroke	0.75" [19 mm]
Actuating force motor	115 lbf [500 N]
Direction of motion motor	selectable with switch 0/1
Position indication	Mechanically, with pointer
Manual override	4 mm hex crank (shipped w/actuator)
Running Time (Motor)	default 90 s, variable 90 or 150 s
Ambient humidity	max. 95% r.H., non-condensing
Ambient temperature	-22...122°F [-30...50°C]
Storage temperature	-40...176°F [-40...80°C]
Degree of Protection	IP54, NEMA 2, UL Enclosure Type 2
Housing material	Die cast aluminium and plastic casing
Agency Listing	cULus acc. to UL60730-1A/-2-14, CAN/CSA E60730-1:02, CE acc. to 2004/108/EC and 2006/95/EC
Noise level, motor	55 dB(A)
Servicing	maintenance-free
Quality Standard	ISO 9001
Weight	2.43 lb [1.1 kg]

† Use flexible metal conduit. Push the listed conduit fitting device over the actuator's cable to butt against the enclosure. Screw in conduit connector. Jacket the actuators input wiring with listed flexible conduit. Properly terminate the conduit in a suitable junction box. Rated impulse Voltage 800V. Type of action 1. Control pollution degree 3.

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

Wiring Diagrams

INSTALLATION NOTES

2 Actuators may be connected in parallel. Power consumption and input impedance must be observed.

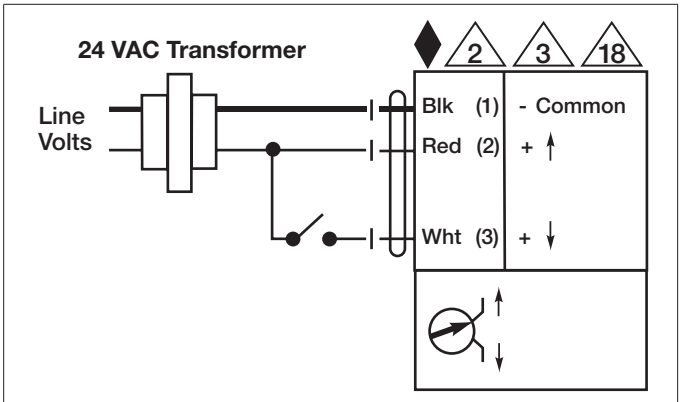
3 Actuators may also be powered by 24 VDC.

18 Actuators with plenum cable do not have numbers; use color codes instead.

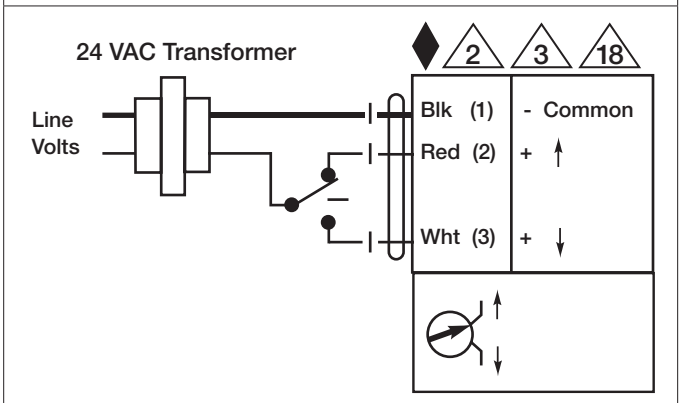
Meets cULus requirements without the need of an electrical ground connection.

WARNING! LIVE ELECTRICAL COMPONENTS!

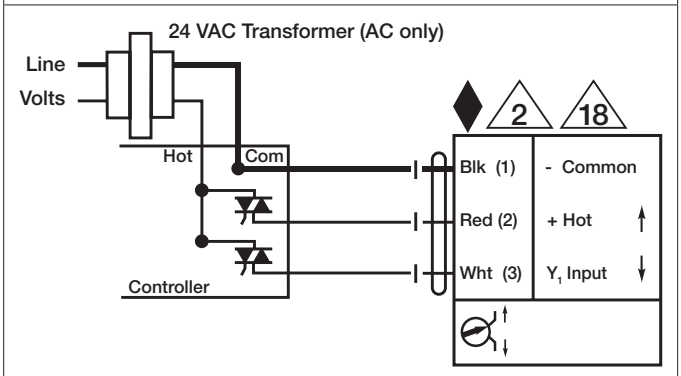
During installation, testing, servicing and troubleshooting of this product, it may be necessary to work with live electrical components. Have a qualified licensed electrician or other individual who has been properly trained in handling live electrical components perform these tasks. Failure to follow all electrical safety precautions when exposed to live electrical components could result in death or serious injury.



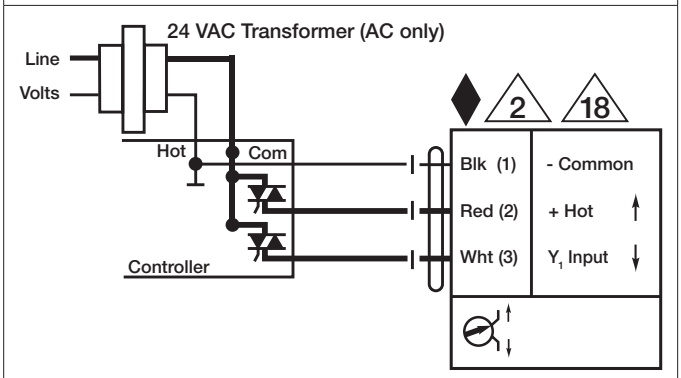
On/Off



Floating Point



Triac Source



Triac Sink