



5-year warranty

**Type overview**

Type	Stroke
BGVL	0.6" [15 mm] LV, 3/4" [20 mm] SV

**Technical data**

<b>Functional data</b>	Fluid	chilled or hot water and steam
	Fluid Temp Range (water)	Please Refer to Manufacturer's Valve Specifications
	Mounting Position	360°
	Applicable valve size	0.5...2" [15...50]
<b>Materials</b>	Hardware	SS and Nickel plated steel
	Frame, plate, base	aluminum
	Coupling	GF Nylon supplied
<b>Suitable actuators</b>	Non-Spring	LVB(X) SVB(X)
	Electrical fail-safe	LVKB(X) SVKB(X)

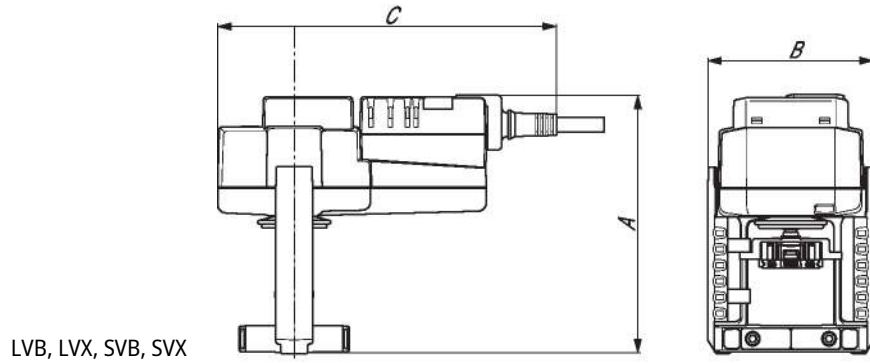
For close-off pressure reference Select Pro or retrofit technical documentation.

**Product features**

<b>Default/Configuration</b>	The default set up for a BGVL linkage will be factory installed along with a LV or SV series actuator. Included in the kit will be all the necessary hardware to facilitate mounting to the Belimo Globe Valve.
<b>Application</b>	The BGVL kit is designed to easily attach LV and SV series actuators to Belimo Globe Valves. The tapered bonnet and notched stem design allow easy installation of the BGVL on 1/2" to 2" two-way or three-way valves in both normally open and normally closed configurations.
<b>Operation</b>	The BGVL linkage with actuator will provide 20 mm of linear travel to accommodate a wide range of valve sizes.

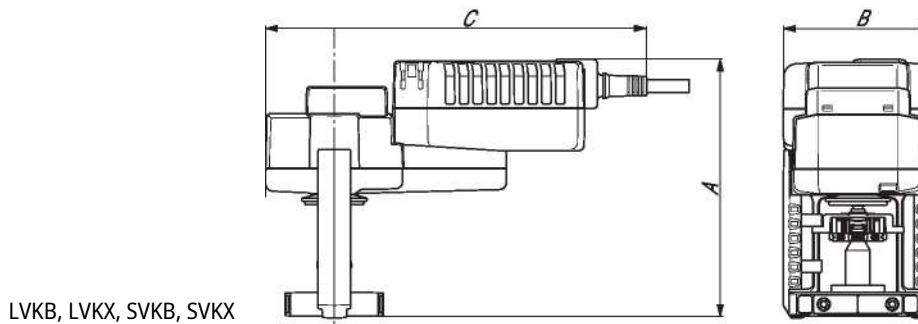
**Dimensions**

Type	Weight
BGVL	1.1 lb [0.50 kg]



LVB, LVX, SVB, SVX

A	B	C
6.0" [152]	3.8" [97]	7.9" [201]



LVKB, LVKX, SVKB, SVKX

A	B	C
6.7" [171]	3.8" [97]	8.1" [206]



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## Technical data

<b>Electrical data</b>	Nominal voltage	AC/DC 24 V	
	Nominal voltage frequency	50/60 Hz	
	Power consumption in operation	3 W	
	Power consumption in rest position	2 W	
	Transformer sizing	7 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	
	<b>Functional data</b>	Actuating force motor	1500 N [340 lbf]
Operating range Y		2...10 V	
Operating range Y note		4...20 mA w/ ZG-R01 (500 Ω, 1/4 W resistor)	
Input Impedance		100 kΩ for 2...10 V (0.1 mA), 500 Ω for 4...20 mA, 1500 Ω for PWM, On/Off and Floating point	
Operating range Y variable		Start point	0.5...30 V
		End point	2.5...32 V
Options positioning signal		variable (VDC, PWM, on/off, floating point)	
Position feedback U		2...10 V	
Position feedback U note		Max. 0.5 mA	
Position feedback U variable		VDC variable	
Bridging time (PF)		2 s	
Pre-charging time		5...20 s	
Direction of motion motor		selectable with switch	
Direction of motion fail-safe		reversible with switch	
Manual override		4 mm hex crank (shipped w/actuator)	
Stroke		0.75" [19 mm]	
Running Time (Motor)		90 s /	
Running time motor variable		35...150 s	
Running time fail-safe		<35 s	
Noise level, motor		45 dB(A)	
Noise level, fail-safe	60 dB(A)		
Position indication	Mechanically, with pointer		
<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	
	Quality Standard	ISO 9001	
	Ambient temperature	-22...122°F [-30...50°C]	

<b>Safety data</b>	Storage temperature	-40...176°F [-40...80°C]
	Ambient humidity	Max. 95% RH, non-condensing
	Servicing	maintenance-free

<b>Materials</b>	Housing material	Die cast aluminium and plastic casing
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**Footnotes** † 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.

## 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>
	Belimo PC-Tool, Software for adjustments and diagnostics	MFT-P
	Auxiliary switch 2 x SPDT for NG GV Actuators	S2A-GV
	Service Tool, with ZIP-USB function, for programmable and communicative Belimo actuators, VAV controller and HVAC performance devices	ZTH US
<b>Service tools</b>	<b>Description</b>	<b>Type</b>
	Connection cable 10 ft [3 m], A: RJ11 6/4 ZTH EU, B: 3-pin Weidmüller and supply connection	ZK4-GEN
	Service Tool, with ZIP-USB function, for programmable and communicative Belimo actuators, VAV controller and HVAC performance devices	ZTH US

## Electrical installation

### **INSTALLATION NOTES**

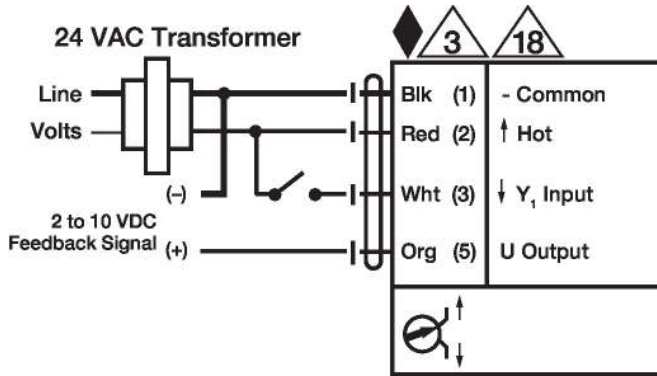
- Actuators may be connected in parallel. Power consumption and input impedance must be observed.
- Actuators may also be powered by DC 24 V.
- A 500 Ω resistor (ZG-R01) converts the 4...20 mA control signal to 2...10 V.
- Control signal may be pulsed from either the Hot (Source) or Common (Sink) 24 V line.
- For triac sink the common connection from the actuator must be connected to the hot connection of the controller. Contact closures A & B also can be triacs. A & B should both be closed for the triac source and open for triac sink.
- 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!**

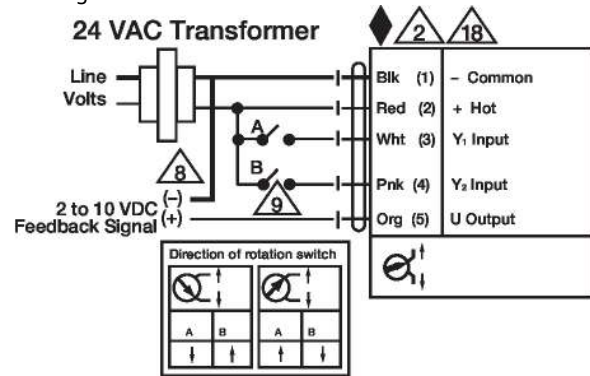
During installation, testing, servicing and troubleshooting of this product, it may be necessary to work with live electrical components. Have a qualified licensed electrician or other individual who has been properly trained in handling live electrical components perform these tasks. Failure to follow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

Wiring diagrams

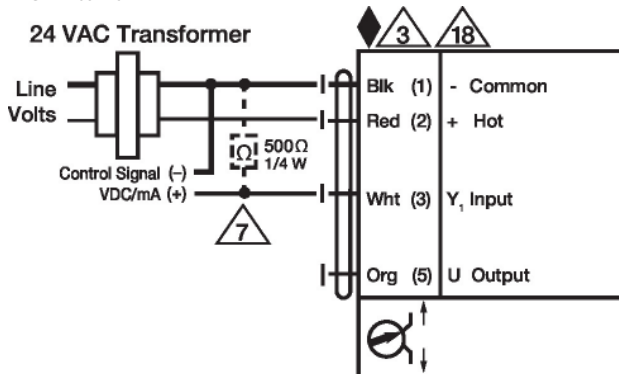
On/Off



Floating Point



VDC / 4 to 20 mA



Override Control Min, Mid, Max Positions

