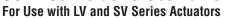
# SGVL Schneider Globe Valve Linkage





# BELIMO

#### Application

The SGVL retrofit kit is designed to easily attach LV and SV series actuators to select Schneider globe valves. Its casted base and free spinning collar allow the SGVL to be mounted on  $\frac{1}{2}$ " to 2" two-way or three-way valves in both normally open and normally closed configurations.

#### Operation

The SGVL linkage with actuator will provide 20 mm of linear travel to accommodate a wide range of valve sizes.

#### Default/Configuration

The default set up for a SGVL 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 Schneider valve.

Suitable Actuators			
	Non-Spring	Electronic Fail-Safe	
SGVL	LVB(X), SVB(X)	LVKB(X), SVKB(X)	

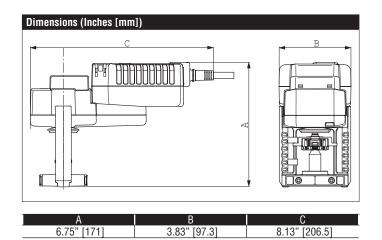
Dimensions (Inches [mm	1)	
C C C C C C C C C C C C C C C C C C C		
A 6" [152]	B 3.83" [97.3]	C 7.87" [200]

Technical Data	
Service	chilled or hot water and steam
Applicable Valve Size	1/2" [13], 3/4" [19], 1" [25], 1-1/4" [32], 1-1/2" [38], 2" [50]
Frame, plate, base	aluminum
Collar	aluminum (fits VB7 1/2" to 2" /VB9 1/2"-1-1/4" valves) also fits post 1994 1-1/2" to 2" valves
Coupling	GF Nylon supplied
Stem Adaptor	steel
Stroke	0.95" [24 mm]
Mounting Position	360°
Media Temperature Range (Water)	20°F to 250°F [-7°C to 120°C]
Media Temperature Range (Steam)	32°F to 338°F [0°C to 170°C]
Weight	1.1 lb [0.5 kg]

For close-off pressure reference Select Pro or Retrofit Technical Documentation.



# SGVL Schneider Globe Valve Linkage For Use with LV and SV Series Actuators







Power Supply24 VAC $\pm$ 20%, 50/60 Hz, 24 VDC $\pm$ 10%Power Consumption Running2.5 WPower Consumption Holding1.5 WTransformer Sizing6 VA (class 2 power source)Electrical Connection3 ft, 18 GA plenum rated cable with 1/2" conduit connector protected NEMA 2 (IP54)Overload Protectionelectronic throughout full strokeElectrical Protectionactuators are double insulatedOperating Range Y2 to 10 VDC, 4 to 20 mA w/ ZG-R01 (500 $\Omega$ , 1/4 W resistor)Input Impedance100 k $\Omega$ for 2 to 10 VDC (0.1 mA), 500 $\Omega$ for 4 to 20 mAFeedback Output U2 to 10 VDCStroke0.6" [15 mm]Linear Force112 lbf [500 N force]Direction of Rotation (Motor)reversible with switchDirection of Rotation (Fail-Safe)reversible with switchPosition Indicationstroke indicator on bracketManual Override4 mm hex crank (shipped w/actuator)Running Time (Motor)90 sec, constant independent of loadRunning Time (Fail-Safe)35 secBridge Time2 sec delay before fail-safe activatesPre-charging Time5 to 20 secondsHumidity5 to 95% RH non-condensingAmbient Temperature Range-40°F to +176°F [-40°C T0 +80°C]Housing MaterialAluminum die cast and plastic casingAgency Listings†cULus acc. to UL60730-1A/-2-14, CAN/CSA E60730-1.02, CE acc. to 2004/108/EC and 2006/95/ECNoise Level (Motor)<55 dB (A)Noise Level (Fail-Safe)<60 dB (A)Servicingmaintenance free <b< th=""><th>Technical Data</th><th></th></b<>	Technical Data	
Power Consumption Holding1.5 WTransformer Sizing6 VA (class 2 power source)Electrical Connection3 ft, 18 GA plenum rated cable with 1/2" conduit connector protected NEMA 2 (IP54)Overload Protectionelectronic throughout full strokeElectrical Protectionactuators are double insulatedOperating Range Y2 to 10 VDC, 4 to 20 mA w/ ZG-R01 (500 Ω, 1/4 W resistor)Input Impedance100 k Ω for 2 to 10 VDC (0.1 mA), 500 Ω for 4 to 20 mAFeedback Output U2 to 10 VDCStroke0.6" [15 mm]Linear Force112 lbf [500 N force]Direction of Rotation (Motor)reversible with switchDirection of Rotation (Fail-Safe)reversible with switchPosition Indicationstroke indicator on bracketManual Override4 mm hex crank (shipped w/actuator)Running Time (Motor)90 sec, constant independent of loadRunning Time (Fail-Safe)35 secBridge Time2 to 20 secondsHumidity5 to 95% RH non-condensingAmbient Temperature Range-22°F to +122°F [-30°C to +50°C]Storage Temperature Range-40°F to +176°F [-40°C TO +80°C]Housing MaterialAluminum die cast and plastic casingAgency Listings†cULus acc. to UL60730-1A/-2-14, CAN/CSA E60730-1:02, CE acc. to 2004/108/EC and 2006/55/ECNoise Level (Motor)<55 dB (A)	Power Supply	24 VAC ± 20%, 50/60 Hz, 24 VDC ± 10%
Transformer Sizing6 VA (class 2 power source)Electrical Connection3 ft, 18 GA plenum rated cable with 1/2" conduit connector protected NEMA 2 (IP54)Overload Protectionelectronic throughout full strokeElectrical Protectionactuators are double insulatedOperating Range Y2 to 10 VDC, 4 to 20 mA w/ ZG-R01 (500 Ω, 1/4 W resistor)Input Impedance100 k Ω for 2 to 10 VDC (0.1 mA), 500 Ω for 4 to 20 mAFeedback Output U2 to 10 VDCStroke0.6" [15 mm]Linear Force112 lbf [500 N force]Direction of Rotation (Motor)reversible with switchPosition Indicationstroke indicator on bracketManual Override4 mm hex crank (shipped w/actuator)Running Time (Motor)90 sec, constant independent of loadRunning Time (Fail-Safe)35 secBridge Time2 sec delay before fail-safe activatesPre-charging Time5 to 20 secondsHumidity5 to 95% RH non-condensingAmbient Temperature Range-40°F to +176°F [-40°C T0 +80°C]HousingNEMA 2, IP54, UL enclosure type 2Housing MaterialAluminum die cast and plastic casingAgency Listings†cULus acc. to UL60730-1A/-2-14, CAN/CSA E60730-1:02, CE acc. to 2004/108/EC and 2006/95/ECNoise Level (Motor)<55 dB (A)	Power Consumption Running	2.5 W
Electrical Connection3 ft, 18 GA plenum rated cable with 1/2" conduit connector protected NEMA 2 (IP54)Overload Protectionelectronic throughout full strokeElectrical Protectionactuators are double insulatedOperating Range Y2 to 10 VDC, 4 to 20 mA w/ ZG-R01 (500 Ω, 1/4 W resistor)Input Impedance100 k Ω for 2 to 10 VDC (0.1 mA), 500 Ω for 4 to 20 mAFeedback Output U2 to 10 VDCStroke0.6" [15 mm]Linear Force112 lbf [500 N force]Direction of Rotation (Motor)reversible with switchDirection of Rotation (Fail-Safe)reversible with switchPosition Indicationstroke indicator on bracketManual Override4 mm hex crank (shipped w/actuator)Running Time (Motor)90 sec, constant independent of loadRunning Time (Fail-Safe)35 secBridge Time2 sec delay before fail-safe activatesPre-charging Time5 to 20 secondsHumidity5 to 95% RH non-condensingAmbient Temperature Range-40°F to +176°F [-40°C TO +80°C]HousingNEMA 2, IP54, UL enclosure type 2Housing MaterialAluminum die cast and plastic casingAgency Listings†cULus acc. to UL60730-1A/-2-14, CAN/CSA E60730-1:02, CE acc. to 2004/108/EC and 2006/95/ECNoise Level (Motor)<55 dB (A)	Power Consumption Holding	1.5 W
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$1/4$ W resistor)Input Impedance $100 \ k \ \Omega$ for 2 to 10 VDC (0.1 mA), 500 $\Omega$ for 4 to 20 mAFeedback Output U2 to 10 VDCStroke0.6" [15 mm]Linear Force112 lbf [500 N force]Direction of Rotation (Motor)reversible with switchDirection of Rotation (Fail-Safe)reversible with switchPosition Indicationstroke indicator on bracketManual Override4 mm hex crank (shipped w/actuator)Running Time (Motor)90 sec, constant independent of loadRunning Time (Fail-Safe)35 secBridge Time2 sec delay before fail-safe activatesPre-charging Time5 to 20 secondsHumidity5 to 95% RH non-condensingAmbient Temperature Range-22°F to +122°F [-30°C to +50°C]Storage Temperature Range-40°F to +176°F [-40°C TO +80°C]HousingNEMA 2, IP54, UL enclosure type 2Housing MaterialAluminum die cast and plastic casingAgency Listings†cULus acc. to UL60730-1A/-2-14, CAN/CSA E60730-1:02, CE acc. to 2004/108/EC and 2006/95/ECNoise Level (Motor)<55 dB (A)	Electrical Protection	actuators are double insulated
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Feedback Output U2 to 10 VDCStroke0.6" [15 mm]Linear Force112 lbf [500 N force]Direction of Rotation (Motor)reversible with switchDirection of Rotation (Fail-Safe)reversible with switchPosition Indicationstroke indicator on bracketManual Override4 mm hex crank (shipped w/actuator)Running Time (Motor)90 sec, constant independent of loadRunning Time (Fail-Safe)35 secBridge Time2 sec delay before fail-safe activatesPre-charging Time5 to 20 secondsHumidity5 to 95% RH non-condensingAmbient Temperature Range-22°F to +122°F [-30°C to +50°C]Storage Temperature Range-40°F to +176°F [-40°C TO +80°C]HousingNEMA 2, IP54, UL enclosure type 2Housing MaterialAluminum die cast and plastic casingAgency Listings†cULus acc. to UL60730-1A/-2-14, CAN/CSAE60730-1:02, CE acc. to 2004/108/EC and2006/95/ECNoise Level (Motor)<55 dB (A)	Input Impedance	
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Direction of Rotation (Fail-Safe)reversible with switchPosition Indicationstroke indicator on bracketManual Override4 mm hex crank (shipped w/actuator)Running Time (Motor)90 sec, constant independent of loadRunning Time (Fail-Safe)35 secBridge Time2 sec delay before fail-safe activatesPre-charging Time5 to 20 secondsHumidity5 to 95% RH non-condensingAmbient Temperature Range-22°F to +122°F [-30°C to +50°C]Storage Temperature Range-40°F to +176°F [-40°C TO +80°C]HousingNEMA 2, IP54, UL enclosure type 2Housing MaterialAluminum die cast and plastic casingAgency Listings†cULus acc. to UL60730-1A/-2-14, CAN/CSA E60730-1:02, CE acc. to 2004/108/EC and 2006/95/ECNoise Level (Motor)<55 dB (A)		
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Manual Override4 mm hex crank (shipped w/actuator)Running Time (Motor)90 sec, constant independent of loadRunning Time (Fail-Safe)35 secBridge Time2 sec delay before fail-safe activatesPre-charging Time5 to 20 secondsHumidity5 to 95% RH non-condensingAmbient Temperature Range-22°F to +122°F [-30°C to +50°C]Storage Temperature Range-40°F to +176°F [-40°C TO +80°C]HousingNEMA 2, IP54, UL enclosure type 2Housing MaterialAluminum die cast and plastic casingAgency Listings†cULus acc. to UL60730-1A/-2-14, CAN/CSA E60730-1:02, CE acc. to 2004/108/EC and 2006/95/ECNoise Level (Motor)<55 dB (A)	· · · · · · · · · · · · · · · · · · ·	reversible with switch
Running Time (Motor)90 sec, constant independent of loadRunning Time (Fail-Safe)35 secBridge Time2 sec delay before fail-safe activatesPre-charging Time5 to 20 secondsHumidity5 to 95% RH non-condensingAmbient Temperature Range-22°F to +122°F [-30°C to +50°C]Storage Temperature Range-40°F to +176°F [-40°C TO +80°C]HousingNEMA 2, IP54, UL enclosure type 2Housing MaterialAluminum die cast and plastic casingAgency Listings†cULus acc. to UL60730-1A/-2-14, CAN/CSAE60730-1:02, CE acc. to 2004/108/EC and2006/95/ECNoise Level (Motor)<55 dB (A)	Position Indication	stroke indicator on bracket
Running Time (Fail-Safe)35 secBridge Time2 sec delay before fail-safe activatesPre-charging Time5 to 20 secondsHumidity5 to 95% RH non-condensingAmbient Temperature Range-22°F to +122°F [-30°C to +50°C]Storage Temperature Range-40°F to +176°F [-40°C TO +80°C]HousingNEMA 2, IP54, UL enclosure type 2Housing MaterialAluminum die cast and plastic casingAgency Listings†cULus acc. to UL60730-1A/-2-14, CAN/CSAE60730-1:02, CE acc. to 2004/108/EC and2006/95/ECNoise Level (Motor)<55 dB (A)	Manual Override	4 mm hex crank (shipped w/actuator)
Bridge Time2 sec delay before fail-safe activatesPre-charging Time5 to 20 secondsHumidity5 to 95% RH non-condensingAmbient Temperature Range-22°F to +122°F [-30°C to +50°C]Storage Temperature Range-40°F to +176°F [-40°C TO +80°C]HousingNEMA 2, IP54, UL enclosure type 2Housing MaterialAluminum die cast and plastic casingAgency Listings†cULus acc. to UL60730-1A/-2-14, CAN/CSAE60730-1:02, CE acc. to 2004/108/EC and2006/95/ECNoise Level (Motor)<55 dB (A)	0 ( )	90 sec, constant independent of load
Pre-charging Time5 to 20 secondsHumidity5 to 95% RH non-condensingAmbient Temperature Range-22°F to +122°F [-30°C to +50°C]Storage Temperature Range-40°F to +176°F [-40°C TO +80°C]HousingNEMA 2, IP54, UL enclosure type 2Housing MaterialAluminum die cast and plastic casingAgency Listings†cULus acc. to UL60730-1A/-2-14, CAN/CSAE60730-1:02, CE acc. to 2004/108/EC and 2006/95/EC2006/95/ECNoise Level (Motor)<55 dB (A)	Running Time (Fail-Safe)	35 sec
Humidity5 to 95% RH non-condensingAmbient Temperature Range-22°F to +122°F [-30°C to +50°C]Storage Temperature Range-40°F to +176°F [-40°C TO +80°C]HousingNEMA 2, IP54, UL enclosure type 2Housing MaterialAluminum die cast and plastic casingAgency Listings†cULus acc. to UL60730-1A/-2-14, CAN/CSAE60730-1:02, CE acc. to 2004/108/EC and2006/95/ECNoise Level (Motor)<55 dB (A)	Bridge Time	2 sec delay before fail-safe activates
Ambient Temperature Range-22°F to +122°F [-30°C to +50°C]Storage Temperature Range-40°F to +176°F [-40°C TO +80°C]HousingNEMA 2, IP54, UL enclosure type 2Housing MaterialAluminum die cast and plastic casingAgency Listings†cULus acc. to UL60730-1A/-2-14, CAN/CSAE60730-1:02, CE acc. to 2004/108/EC and 2006/95/EC2006/95/ECNoise Level (Motor)<55 dB (A)	Pre-charging Time	5 to 20 seconds
Storage Temperature Range-40°F to +176°F [-40°C TO +80°C]HousingNEMA 2, IP54, UL enclosure type 2Housing MaterialAluminum die cast and plastic casingAgency Listings†cULus acc. to UL60730-1A/-2-14, CAN/CSAE60730-1:02, CE acc. to 2004/108/EC and2006/95/ECNoise Level (Motor)<55 dB (A)	Humidity	5 to 95% RH non-condensing
HousingNEMA 2, IP54, UL enclosure type 2Housing MaterialAluminum die cast and plastic casingAgency Listings†cULus acc. to UL60730-1A/-2-14, CAN/CSAE60730-1:02, CE acc. to 2004/108/EC and2006/95/ECNoise Level (Motor)<55 dB (A)	Ambient Temperature Range	-22°F to +122°F [-30°C to +50°C]
Housing MaterialAluminum die cast and plastic casingAgency Listings†cULus acc. to UL60730-1A/-2-14, CAN/CSAE60730-1:02, CE acc. to 2004/108/EC and2006/95/ECNoise Level (Motor)<55 dB (A)	Storage Temperature Range	-40°F to +176°F [-40°C TO +80°C]
Agency Listings†CULus acc. to UL60730-1A/-2-14, CAN/CSA E60730-1:02, CE acc. to 2004/108/EC and 2006/95/ECNoise Level (Motor)<55 dB (A)	Housing	NEMA 2, IP54, UL enclosure type 2
E60730-1:02, CE acc. to 2004/108/EC and 2006/95/ECNoise Level (Motor)<55 dB (A)	Housing Material	Aluminum die cast and plastic casing
Noise Level (Fail-Safe)<60 dB (A)Servicingmaintenance freeQuality StandardISO 9001	Agency Listings†	E60730-1:02, CE acc. to 2004/108/EC and
Servicingmaintenance freeQuality StandardISO 9001	Noise Level (Motor)	<55 dB (A)
Quality Standard ISO 9001	Noise Level (Fail-Safe)	<60 dB (A)
	Servicing	maintenance free
Weight 3.5 lb [1.6 kg]	Quality Standard	ISO 9001
	Weight	3.5 lb [1.6 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

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## 🔀 INSTALLATION NOTES

Actuators may also be powered by 24 VDC.

Only connect common to negative (-) leg of control circuits.

A 500  $\Omega$  resistor (ZG-R01) converts the 4 to 20 mA control signal to 2 to 10 VDC.

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.

