

# FGVL Flanged Globe Valve Linkage

For Use with AVK and EV and RV Series Actuators



Technical Data	
Service	chilled or hot water and steam
Applicable Valve Size	2-1/2" [64], 3" [80], 4" [101], 5" [127], 6" [152]
Stem	316 stainless steel
Frame, plate, base	aluminum, steel (fits competitor bonnets up to 2.3" dia.)
Collar	aluminum
Coupling	GF Nylon supplied
Housing Material	Aluminum die cast and plastic casing
Stem Adaptor	steel/Aluminum
Stroke	1.25" [32 mm] AVK, 2" [50 mm] EV/RV
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	9 lb [4.1 kg]

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

## Application

The FGVL retrofit kit is designed to easily attach AVK, EV and RV series actuators to select Flanged globe valves requiring larger stem travels and higher forces. Its casted base and lower locking clamp allow the FGVL to be mounted on 2-1/2" to 6" two-way or three-way valves in both normally open and normally closed configurations.

## Operation

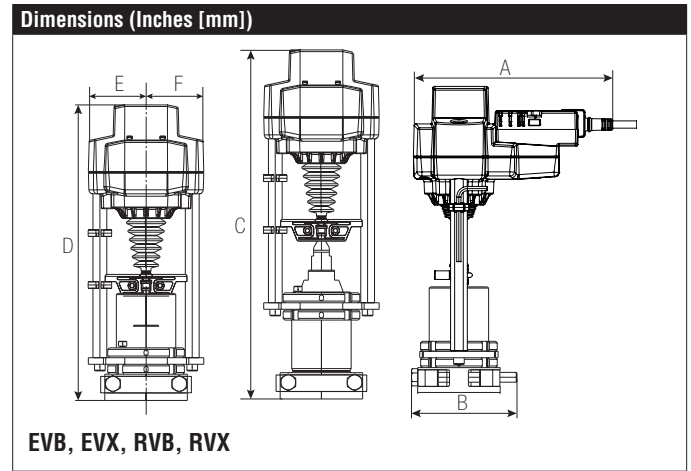
The FGVL linkage with actuator will provide up to 2" [50 mm] of linear travel to accommodate a wide range of valve sizes.

## Default/Configuration

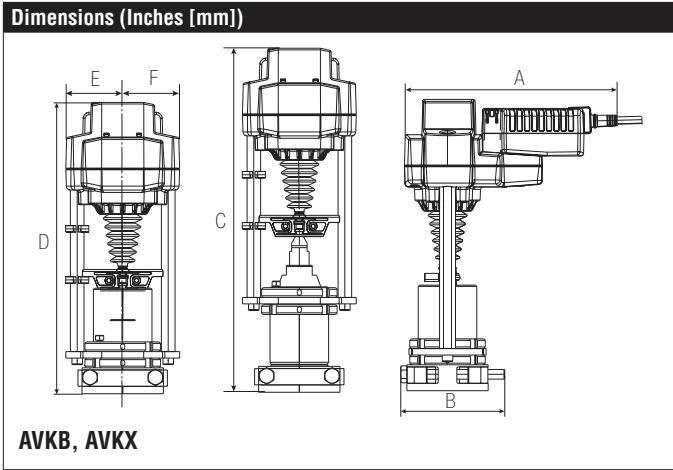
The default set up for a FGVL linkage will be factory installed along with an AVK or EV, RV series actuator. Included in the kit will be all the necessary hardware to facilitate mounting to the valve.

## Suitable Actuators

	Non-Spring	Electronic Fail-Safe
FGVL	EVB(X), RVB(X)	AVKB(X)



A	B	C	D	E	F
9.2" [234]	5.00" [127.0]	16.73" [425]	14.00" [356]	2.78" [71]	



A	B	C	D	E	F
10.25" [260]	5.00" [127.0]	16.73" [425]	14.00" [356]	2.78" [71]	

# AVKB24-3

## On/Off, Floating Point, Electronic Fail-Safe, Linear, 24 V



Technical Data	
Power Supply	24 VAC ± 20%, 50/60 Hz
Power Consumption Running	5 W
Power Consumption Holding	2 W
Transformer Sizing	9.5 VA (class 2 power source)
Electrical Connection	3 ft, 18 GA plenum rated cable with 1/2" conduit connector protected NEMA 2 (IP54)
Overload Protection	electronic throughout full stroke
Electrical Protection	actuators are double insulated
Operating Range Y	on/off, floating point
Input Impedance	100 k Ω (0.1 mA), 500 Ω, 1000 Ω (on/off)
Feedback Output U	No Feedback
Stroke	1.25" [32 mm]
Linear Force	450 lbf [2000 N force]
Direction of Rotation (Motor)	reversible with switch
Direction of Rotation (Fail-Safe)	reversible with switch
Position Indication	stroke indicator on bracket
Manual Override	5 mm hex crank (3/16" Allen), supplied
Running Time (Motor)	90 sec, constant independent of load
Running Time (Fail-Safe)	35 sec
Bridge Time	2 sec delay before fail-safe activates
Pre-charging Time	5 to 20 seconds
Humidity	5 to 95% RH non-condensing
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]
Housing	NEMA 2, IP54, UL enclosure type 2
Housing Material	Aluminum die cast and plastic casing
Agency Listings†	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)	<60 dB (A)
Noise Level (Fail-Safe)	<60 dB (A)
Servicing	maintenance free
Quality Standard	ISO 9001
Weight	6.4 lb [2.9 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.

Date created, 08/12/2016 - Subject to change. © Belimo Aircontrols (USA), Inc.

**Wiring Diagrams**
**INSTALLATION NOTES**

- Meets cULus requirements without the need of an electrical ground connection.
- Provide overload protection and disconnect as required.
- Actuators may be connected in parallel. Power consumption and input impedance must be observed.
- Control signal may be pulsed from either the Hot (Source) or Common (Sink) 24 VAC line.
- Actuators may be connected in parallel if not mechanically linked. Power consumption and input impedance must be observed.
- Actuators with plenum cable do not have numbers; use color codes instead.
- 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.

