BELIMO

Technical data sheet FGVL

• Universal Flanged Globe Valve Linkage with EV, RV, and AVK actuators

5-year warranty

Type overview

Type	Stroke
FGVL	1.25" [32 mm] AVK, 2" [50 mm] EV/RV

Technical data

Functional data	Fluid	chilled or hot water and steam
	Fluid Temp Range (water)	Please Refer to Manufacturer's Valve Specifications
	Mounting Position	360°
	Applicable valve size	2.5...6" [65...150]
Materials	Hardware	SS and Nickel plated steel
	Housing material	Die cast aluminium and plastic casing
	Stem	316 stainless steel
	Stem adapter	steel/Aluminum
	Frame, plate, base	aluminum, steel (fits competitor bonnets up to 2.3" dia.)
	Collar	aluminum
	Coupling	GF Nylon supplied
Suitable actuators	Non-Spring	EVB(X) RVB(X)
	Electrical fail-safe	AVKB(X)

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

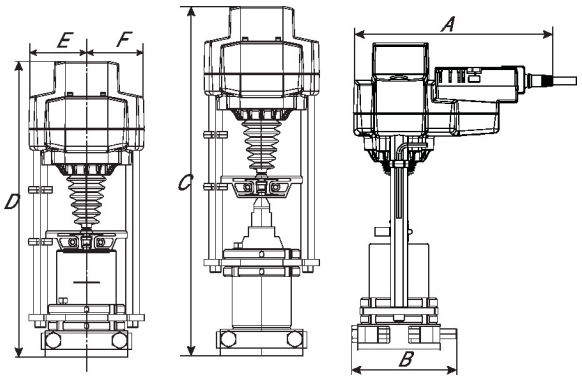
Product features

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.

Dimensions

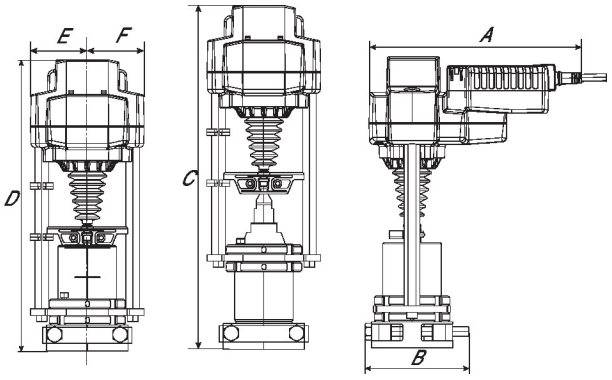
Type	Weight
FGVL	9.0 lb [4.1 kg]

EVB, EVX, RVB, RVX



A	B	C	D	E	F
9.2" [234]	5.0" [127]	16.7" [425]	14.0" [355]	2.8" [71]	2.8" [71]

AVKB, AVKX



A	B	C	D	E	F
10.2" [260]	5.0" [127]	16.7" [425]	14.0" [355]	2.8" [71]	2.8" [71]

BELIMO

Modulating, Non-Spring Return, Linear, 24 V, Multi-Function Technology®

Technical data sheet RVB24-MFT

5-year warranty

Technical data

Electrical data	Nominal voltage	AC/DC 24 V
	Nominal voltage frequency	50/60 Hz
	Power consumption in operation	6 W
	Power consumption in rest position	1.5 W
	Transformer sizing	11 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
Functional data	Actuating force motor	4500 N [1010 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 On/Off
	Operating range Y variable	Start point 0.5...30 V End point 2.5...32 V
	Options positioning signal	variable (VDC, on/off, floating point)
	Position feedback U	2...10 V
	Position feedback U note	Max. 0.5 mA
	Position feedback U variable	VDC variable
	Direction of motion motor	selectable with switch
	Manual override	5 mm hex crank (3/16" Allen), supplied
	Stroke	2" [50 mm]
	Running Time (Motor)	90 s /
	Running time motor note	constant, independent of load
	Noise level, motor	65 dB(A)
	Position indication	Mechanically, with pointer
Safety data	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]
	Storage temperature	-40...176°F [-40...80°C]
	Ambient humidity	Max. 95% RH, non-condensing
	Servicing	maintenance-free

Materials	Housing material	Die cast aluminium and plastic casing

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

Gateways

Description	Type
Gateway MP to BACnet MS/TP	UK24BAC
Gateway MP to Modbus RTU	UK24MOD
Gateway MP to LonWorks	UK24LON

Electrical accessories

Description	Type
Battery backup system, for non-spring return models	NSV24 US
Battery, 12 V, 1.2 Ah (two required)	NSV-BAT
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

Service tools

Description	Type
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

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

3 Actuators may also be powered by DC 24 V.

7 A 500 Ω resistor (ZG-R01) converts the 4...20 mA control signal to 2...10 V.

8 Control signal may be pulsed from either the Hot (Source) or Common (Sink) 24 V line.

9 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.

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

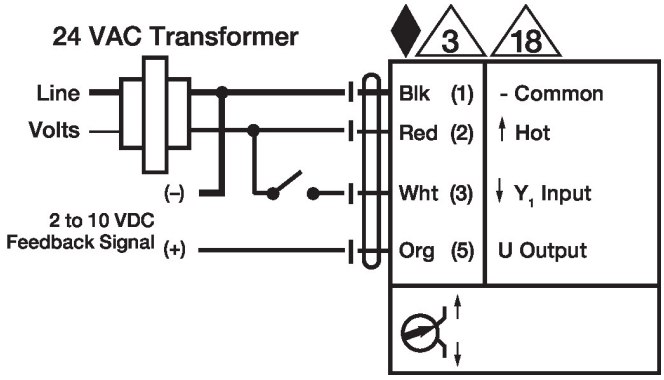
Meets cULus requirements without the need of an electrical ground connection.

Warning! Live electrical components!

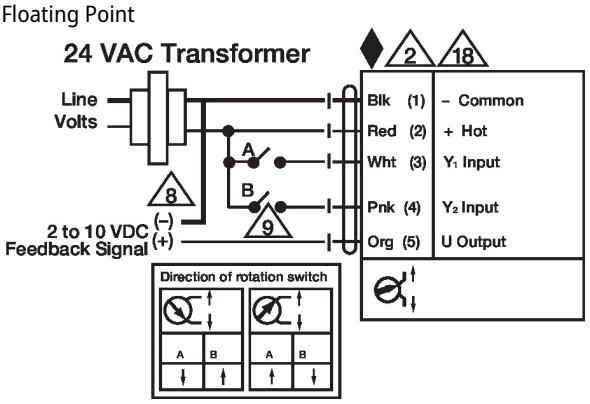
During installation, testing, servicing and troubleshooting of this product, it may be necessary to work with live electrical components. Have a qualified licensed electrician or other individual who has been properly trained in handling live electrical components perform these tasks. Failure to follow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

Wiring diagrams

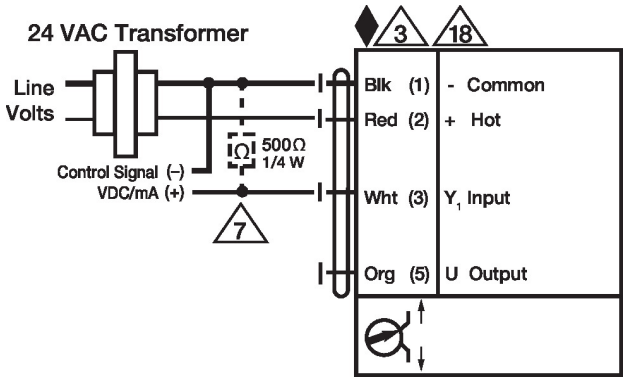
On/Off



Floating Point



VDC / 4 to 20 mA



Override Control Min, Mid, Max Positions