G765 Technical Data Sheet

5-year warranty

Application

This valve is typically used in large Air Handling Units (AHU) on heating or cooling coils. This valve is suitable for use in a hydronic system with variable flow.

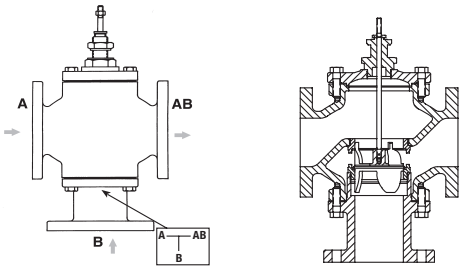
Suitable Actuators

	Non-Spring	Spring	Electronic fail-safe
G765	EVB(X), RVB(X)	AF, (2*AFB(X))	AVKB(X), (2*GKB(X))

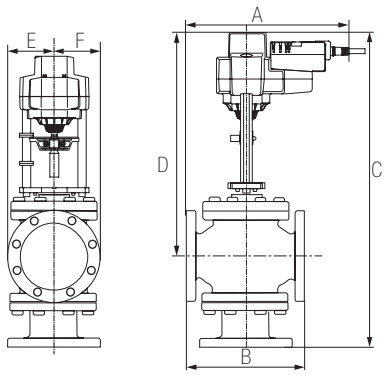
Technical Data

Fluid	chilled or hot water, up to 60% glycol
Flow characteristic	linear
Controllable flow range	stem up - open B – AB
Valve Size [mm]	2.5” [65]
Pipe connection	125 lb flanged
Housing	Cast iron - ASTM A126 Class B
Stem	stainless steel
Stem seal	NLP EPDM (no lip packing)
Seat	Stainless steel AISI 316
Valve plug	bronze
Body Pressure Rating	ANSI Class 125, up to 175 psi below 150°F
ANSI Class	125
Number of Bolt Holes	4
Rangeability Sv	50:1
Cv	68
Weight	61.73 lb [28 kg]
Fluid Temp Range (water)	32...350°F [0...176°C]
Leakage rate	ANSI Class III
Servicing	repack/rebuild kits available

Flow/Mounting Details



Dimensions (Inches [mm])



EVB, EVX, RVB, RVX

A	B	C	D	E	F
11.7” [298]	9.0” [229]	25.4” [646]	18.3” [464]	3.6” [92]	

Safety Notes

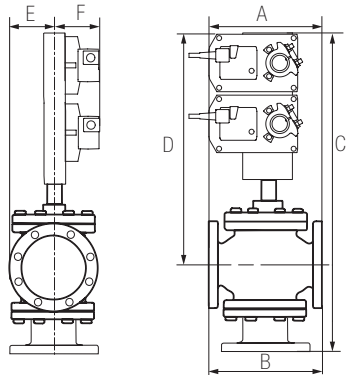
WARNING: This product can expose you to lead which is known to the State of California to cause cancer and reproductive harm. For more information go to www.p65warnings.ca.gov

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 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 valve stem vertical above the valve or up to 45° in relation to the horizontal pipe. The actuators should never be mounted underneath the valve, as condensation can build up and result in a failure of the actuators. Do not reverse flow direction.

Date created, 12/20/2019 - Subject to change. © Belimo Aircontrols (USA), Inc.

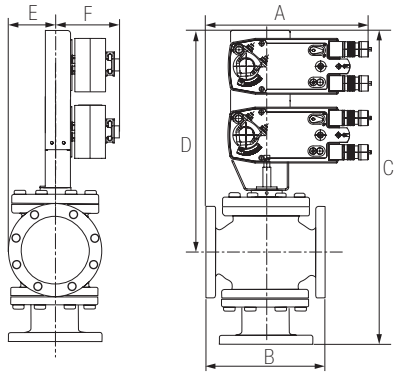
Dimensions (Inches [mm])



2*GMB, 2*GMX, 2*GKB, 2*GKX

A	B	C	D	E	F
11.7” [298]	9.0” [229]	29.0” [736]	21.8” [554]	3.5” [89]	5.3” [135]

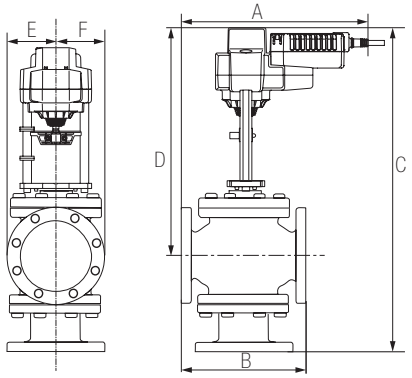
Dimensions (Inches [mm])



2*AFB, 2*AFX

A	B	C	D	E	F
11.7” [298]	9.0” [229]	29.0” [736]	21.8” [554]	3.5” [89]	5.3” [135]

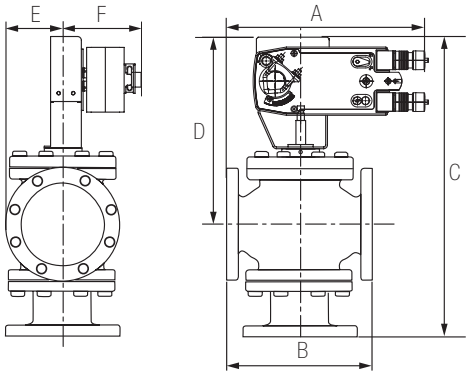
Dimensions (Inches [mm])



AVKB, AVKX

A	B	C	D	E	F
12.8” [325]	9.0” [229]	25.4” [646]	18.3” [464]	3.6” [92]	

Dimensions (Inches [mm])

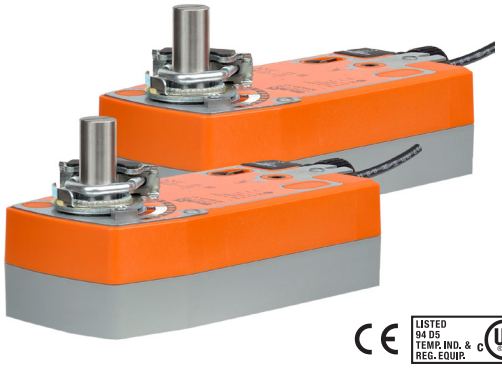


AFB, AFX

A	B	C	D	E	F
11.7” [298]	9.0” [229]	24.0” [610]	16.9” [428]	3.5” [89]	5.3” [135]

Date created, 12/20/2019 - Subject to change. © Belimo Aircontrols (USA), Inc.

2*AFBUP-X1 Technical Data Sheet
On/Off, Spring Return, AC 24…240 V



5-year warranty

Technical Data	
Power Supply	24...240 VAC, -20% / +10%, 50/60 Hz, 24...125 VDC, ±10%
Power consumption in operation	7 W
Power consumption in rest position	3.5 W
Transformer sizing	14 VA @ 24VAC (class 2 power source), 17 VA @ AC 120 V, 36 VA @ AC 240 V
Electrical Connection	18 GA appliance cable, 3 ft [1 m], with 1/2" conduit connector
Overload Protection	electronic thoughout 0...90° rotation
Angle of rotation	95°,
Direction of motion motor	selectable by ccw/cw mounting
Direction of motion fail-safe	reversible with cw/ccw mounting
Position indication	Mechanically, 30...65 mm stroke
Manual override	5 mm hex crank (3/16" Allen), supplied
Running Time (Motor)	75 s
Running time fail-safe	<20 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	Galvanized steel and plastic housing
Agency Listing	cULus acc. to UL60730-1A/-2-14, CAN/CSA E60730-1:02, CE acc. to 2014/30/EU
Noise level, motor	50 dB(A)
Noise level, fail-safe	62 dB(A)
Servicing	maintenance-free
Quality Standard	ISO 9001
Weight	9.03 lb [4.1 kg]

†Rated Impulse Voltage 4kV, Type of action 1.AA, Control Pollution Degree 3.

Date created, 04/03/2020 - Subject to change. © Belimo Aircontrols (USA), Inc.

Wiring Diagrams

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.

(A) Actuators with appliance cables are numbered.

(UP) Universal Power Supply (UP) models can be supplied with 24 VAC up to 240 VAC, or 24 VDC up to 125 VDC.

Apply only AC line voltage or only UL-Class 2 voltage to the terminals of auxiliary switches. Mixed or combined operation of line voltage/safety extra low voltage is not allowed.

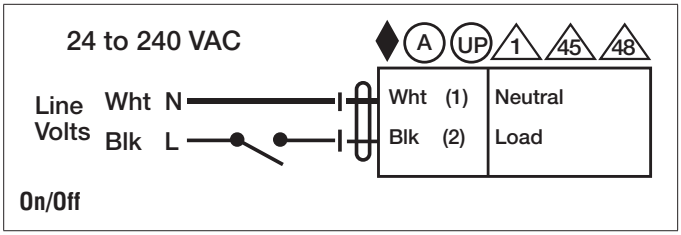
Meets cULus requirements without the need of an electrical ground connection.

1 Provide overload protection and disconnect as required.

3 Actuators may also be powered by 24 VDC.

45 Actuators may be powered in parallel. Power consumption must be observed.

48 Parallel wiring required for piggy-back applications.



Date created, 04/03/2020 - Subject to change. © Belimo Aircontrols (USA), Inc.