5-year warranty

Technical data

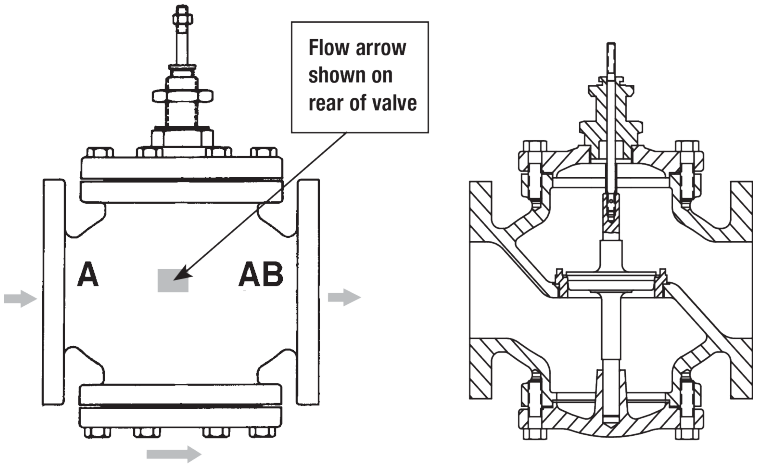
Functional data	Valve Size	4" [100]
	Fluid	chilled or hot water, up to 60% glycol, steam
	Fluid Temp Range (water)	32...350°F [0...176°C]
	Fluid Temp Range (steam)	32...338°F [0...170°C]
	Body Pressure Rating	ANSI Class 250, up to 280 psi below 350°F
	Flow characteristic	equal percentage
	Servicing	repack/rebuild kits available
	Rangeability Sv	98:1
	Max Differential Pressure (Steam)	50 psi [345 kPa]
	Flow Pattern	2-way
	Leakage rate	ANSI Class III
	Controllable flow range	stem up - open A – AB
	Cv	170
	Maximum Inlet Pressure (Steam)	100 psi [690 kPa]
	ANSI Class	250
	Body pressure rating note	up to 280 psi below 350°F
Materials	Valve body	Cast iron - ASTM A126 Class B
	Valve plug	Stainless steel
	Stem seal	NLP EPDM (no lip packing)
	Seat	Stainless steel AISI 316
	Pipe connection	250 lb flanged
Suitable actuators	Non-Spring	EVB(X)
	Electronic fail-safe	AVKB(X)

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
- The valve has been designed for use in stationary heating, ventilation and air-conditioning systems and must not be used outside the specified field of application, especially in aircraft or in any other airborne means of transport.
- Only authorised specialists may carry out installation. All applicable legal or institutional installation regulations must be complied during installation.
- The valve does not contain any parts that can be replaced or repaired by the user.
- When determining the flow rate characteristic of controlled devices, the recognised directives must be observed.

Product features

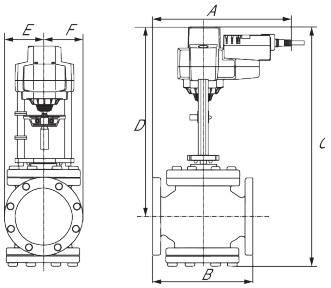
Flow/Mounting details



Dimensions

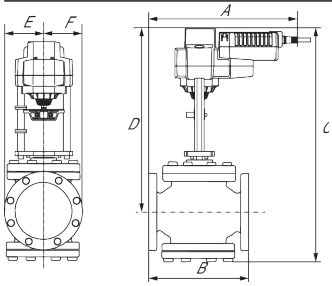
Dimensional drawings

EVB, EVX, RVB, RVX



A	B	D	E	F	Number of Bolt Holes
14.0" [356]	13.6" [346]	19.8" [502]	5.0" [127]	5.0" [127]	8

AVKB, AVKX



A	B	C	D	E	F	Number of Bolt Holes
14.0" [356]	13.6" [346]	24.6" [626]	19.8" [502]	5.0" [127]	5.0" [127]	8

BELIMO

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

Technical data sheet EVX24-MFT

5-year warranty

Technical data

Electrical data	Nominal voltage	AC/DC 24 V
	Nominal voltage frequency	50/60 Hz
	Power consumption in operation	5 W
	Power consumption in rest position	1.5 W
	Transformer sizing	7.5 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	560 lbf [2500 N]
	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
	Direction of motion motor	selectable with switch 0/1
	Manual override	5 mm hex crank (3/16" Allen), supplied
	Stroke	2" [50 mm]
	Running Time (Motor)	default 90 s, variable 90...150 s
	Running time motor variable	90...150 s
	Noise level, motor	60 dB(A)
	Position indication	Mechanically, with pointer
Safety data	Degree of protection IEC/EN	IP54
	Degree of protection NEMA/UL	NEMA 2 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; Listed to UL 2043 - suitable for use in air plenums per Section 300.22(c) of the NEC and Section 602.2 of the IMC
	Quality Standard	ISO 9001
	Ambient temperature	-22...122°F [-30...50°C]
	Storage temperature	-40...176°F [-40...80°C]
	Ambient humidity	max. 95% r.H., non-condensing
	Servicing	maintenance-free
Weight	Weight	5.73 lb [2.6 kg]

Materials	Housing material	Die cast aluminium and plastic casing

Safety notes

- PVC W'Shld for GV w/UGLK (GM)
- Battery Back Up System for SY(7~10)-110
- 120 to 24 VAC, 40 VA transformer.
- 50% voltage divider kit (resistors with wires).
- PC Tool computer programming interface, serial port.

Accessories

	Description	Type
Gateways	Gateway MP to BACnet MS/TP	UK24BAC
	Gateway MP to LonWorks	UK24LON
	Gateway MP to Modbus RTU	UK24MOD
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 parametrisable 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 24 VDC.

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.

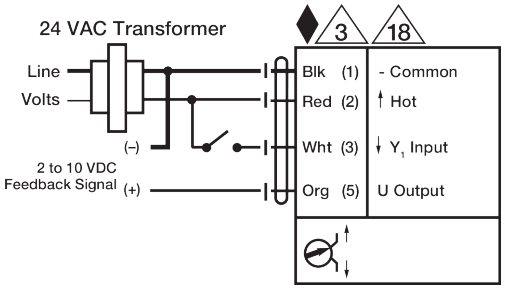
9 For triac sink the common connection from the actuator must be connected to the hot connection of the controller. Contact closures A & B also can be triacs. A & B should both be closed for the triac source and open for triac sink.

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

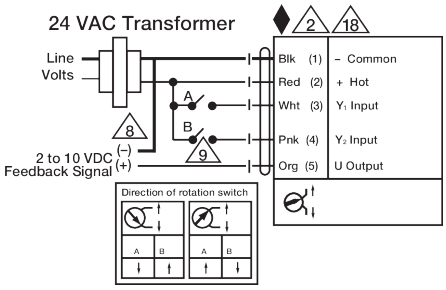
Meets cULus requirements without the need of an electrical ground connection.

Warning! Live Electrical Components!

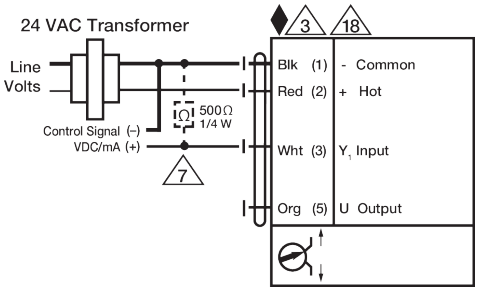
During installation, testing, servicing and troubleshooting of this product, it may be necessary to work with live electrical components. Have a qualified licensed electrician or other individual who has been properly trained in handling live electrical components perform these tasks. Failure to follow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



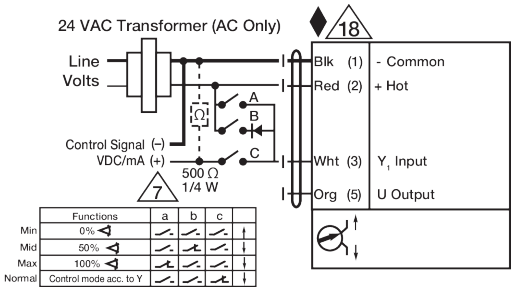
On/Off



Floating Point



VDC / 4 to 20 mA



Override Control Min, Mid, Max Positions