



5-year warranty



## Technical data

<b>Functional data</b>	Valve Size	6" [150]
	Fluid	chilled or hot water, up to 60% glycol, steam
	Fluid Temp Range (water)	32...338°F [0...138°C]
	Fluid Temp Range (steam)	32...280°F [0...138°C]
	Body Pressure Rating	ANSI Class 125, up to 175 psi below 150°F
	Flow characteristic	equal percentage
	Servicing	repack/rebuild kits available
	Rangeability Sv	98:1
	Max Differential Pressure (Steam)	15 psi [103 kPa]
	Flow Pattern	2-way
	Leakage rate	ANSI Class III
	Controllable flow range	stem up - open A – AB
	Cv	344
	Maximum Inlet Pressure (Steam)	35 psi [241 kPa]
	ANSI Class	125
	Body pressure rating note	up to 175 psi below 150°F
<b>Materials</b>	Valve body	Cast iron - ASTM A126 Class B
	Valve plug	brass
	Stem seal	NLP EPDM (no lip packing)
	Seat	Stainless steel AISI 316
	Pipe connection	125 lb flanged
<b>Suitable actuators</b>	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](http://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

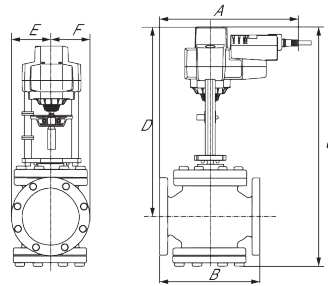
Flow/Mounting details



Dimensions

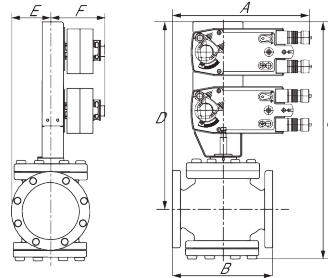
Dimensional drawings

EVB, EVX, RVB, RVX



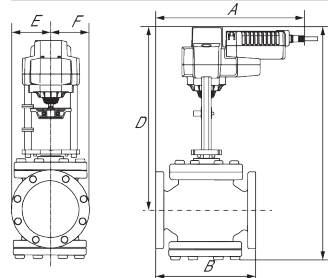
A	B	C	D	E	F	Number of Bolt Holes
16.1" [410]	17.8" [451]	27.9" [708]	19.4" [492]	5.6" [142]	5.6" [142]	8

2\*AFB, 2\*AFX



A	B	C	D	E	F	Number of Bolt Holes
16.1" [410]	17.8" [451]	31.4" [797]	22.8" [578]	5.6" [142]	5.5" [140]	8

AVKB, AVKX



A	B	C	D	E	F	Number of Bolt Holes
16.1" [410]	17.8" [451]	27.9" [708]	19.4" [492]	5.6" [142]	5.6" [142]	8



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Technical data

<b>Electrical data</b>	Nominal voltage	AC/DC 24 V	
	Nominal voltage frequency	50/60 Hz	
	Power consumption in operation	7.5 W	
	Power consumption in rest position	3 W	
	Transformer sizing	20 VA (class 2 power source)	
	Electrical Connection	18 GA appliance cable, 3ft [1m] 10ft [3m] and 16ft [5m], with 1/2" conduit connector, degree of protection NEMA 2 / IP54	
	Overload Protection	electronic throughout 0...95° rotation	
<b>Functional data</b>	Operating range Y	0...135 Ω	
	Operating range Y note	Honeywell Electronic Series 90, input 0...135 Ω	
	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 0/1	
	Direction of motion fail-safe	reversible with cw/ccw mounting	
	Manual override	5 mm hex crank (3/16" Allen), supplied	
	Angle of rotation	95°, adjustable with mechanical end stop, 35...95°	
	Angle of rotation note	adjustable with mechanical end stop, 35...95°	
	Running Time (Motor)	default 150 s, variable 70...220 s	
	Running time motor variable	70...220 s	
	Running time fail-safe	<20 s	
	Override control	MIN (minimum position) = 0% MID (intermediate position) = 50% MAX (maximum position) = 100%	
	Noise level, motor	40 dB(A)	
Noise level, fail-safe	62 dB(A)		
Position indication	Mechanical		
<b>Safety data</b>	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	
	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	
	<b>Weight</b>	Weight	9.26 lb [4.2 kg]

**Materials** Housing material Galvanized steel and plastic housing

**Safety notes**



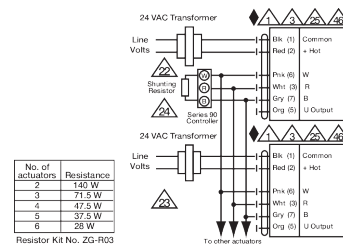
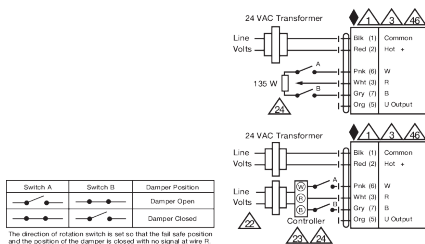
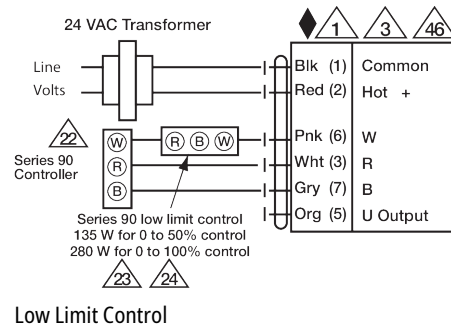
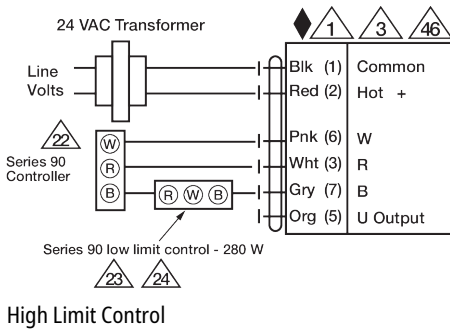
- 3/8"-16 shaft clevis for AHK/AH.
- Battery Back Up System for SY(7-10)-110
- 5/16" shaft clevis for LH.
- Cable to ZIP-RS232 US to diagnostic/programming socket.
- MFT95 resistor kit for 4 to 20 mA control applications.

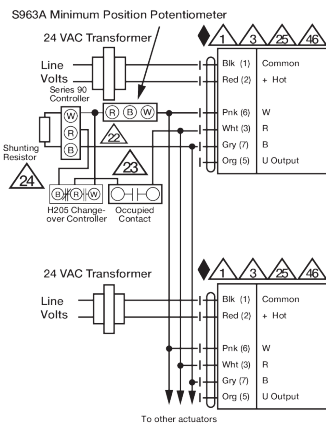
**Accessories**

Gateways	Description	Type
	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

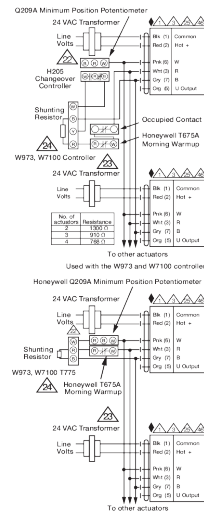
**Electrical installation**

- ◆ 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.
- ▲22 Actuators and controller must have separate transformers.
- ▲23 Consult controller instruction data for more detailed information.
- ▲24 Resistor value depends on the type of controller and the number of actuators. No resistor is used for one actuator. Honeywell® resistor kits may also be used.
- ▲25 To reverse control rotation, use the reversing switch.
- ▲46 Actuators may be controlled in parallel. Current draw and input impedance must be observed.





Multiple Actuators with Minimum Position Potentiometer



Multiple Actuators Used with W973, W7100 and T775