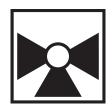






5-year warranty



### **Technical data**

### **Functional data**

Valve Size	4" [100]
Fluid	chilled or hot water, up to 60% glycol
	32350°F [0176°C]
Fluid Temp Range (water)	<u>-</u>
Body Pressure Rating	ANSI Class 250, up to 280 psi below 350°F
Flow characteristic	linear
Servicing	repack/rebuild kits available
Rangeability Sv	50:1
Flow Pattern	3-way Mixing
Leakage rate	ANSI Class III
Controllable flow range	stem up - open B – AB
Cv	190
ANSI Class	250
Body pressure rating note	up to 280 psi below 350°F
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
Non-Spring	EVB(X)

# Safety notes



Electronic fail-safe

Suitable actuators

Materials

 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

RVB(X)

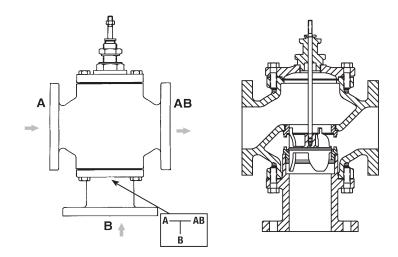
(2\*GKB(X))

- 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**

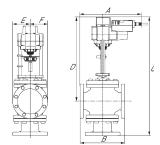


### Flow/Mounting details



### **Dimensions**

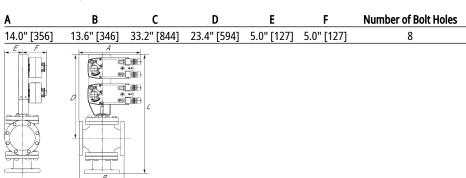
# **Dimensional drawings**



EVB, EVX, RVB, RVX

Α	В	C	D	E	F	<b>Number of Bolt Holes</b>
14.0" [356]	13.6" [346]	29.3" [743]	19.0" [483]	5.0" [127]	5.0" [127]	8
EF		£				

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



2\*AFB, 2\*AFX

Α	В	С	D	E	F	Number of Bolt Holes
14.0" [356]	13.6" [346]	33.7" [857]	23.4" [594]	5.0" [127]	5.3" [135]	8



# Modulating, Spring Return, 24 V, 0 to 135 $\Omega$ Input







Tec	hni	ical	d	ata

Electrical data	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 095° rotation		
Functional data	Operating range Y	0135 Ω		

Operating range Y	0135 Ω
Operating range Y note	Honeywell Electronic Series 90, input 0135 Ω
Position feedback U	210 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, 3595°
Angle of rotation note	adjustable with mechanical end stop, 3595°
Running Time (Motor)	default 150 s, variable 70220 s
Running time motor variable	70220 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
Degree of protection IEC/EN	IP54

# 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
Quality Standard	ISO 9001
Ambient temperature	-22122°F [-3050°C]
Storage temperature	-40176°F [-4080°C]
Ambient humidity	max. 95% r.H., non-condensing
Servicing	maintenance-free
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	туре
	Gateway MP to BACnet MS/TP	UK24BAC
	Gateway MP to LonWorks	UK24LON
	Gateway MP to Modbus RTU	UK24MOD
Service tools	Description	Туре
	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.

Provide overload protection and disconnect as required.

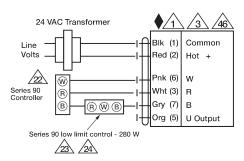
 $\sqrt{3}$  Actuators may also be powered by 24 VDC.

 $\frac{1}{22}$  Actuators and controller must have separate transformers.

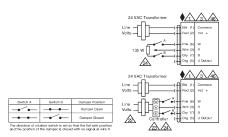
Resistor value depends on the type of controller and the number of actuators. No resistor is used for one actuator. Honeywell® resistor kits may also be used.

 $\sqrt{25}$  To reverse control rotation, use the reversing switch.

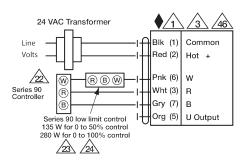
 $_{\!\scriptscriptstyle \Delta}$  Actuators may be controlled in parallel. Current draw and input impedance must be observed.



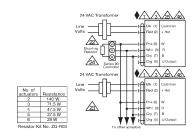
**High Limit Control** 



Typical and Override Control

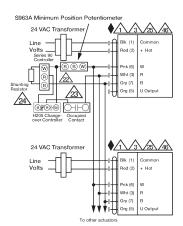


**Low Limit Control** 

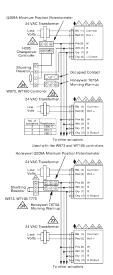


**Multiple Actuators** 





Multiple Actuators with Minimum Position Potentiometer



Multiple Actuators Used with W973, W7100 and T775