G7100 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.

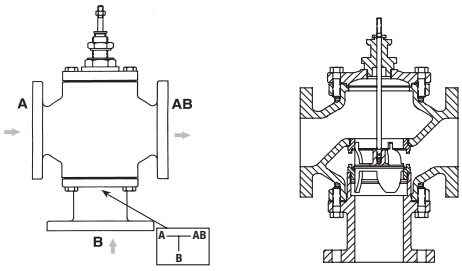
Suitable Actuators

	Non-Spring	Spring	Electronic fail-safe
G7100	EVB(X), RVB(X)	(2*AFB(X))	(2*GKB(X))

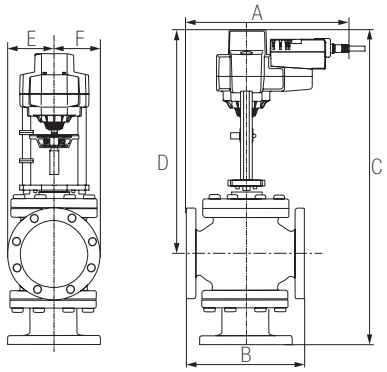
Technical Data

Fluid	chilled or hot water, up to 60% glycol
Flow characteristic	linear
Controllable flow range	stem up - open B – AB
Valve Size [mm]	4” [100]
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	8
Rangeability Sv	50:1
Cv	190
Weight	136.71 lb [62 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
13.7” [349]	13.0” [330]	29.7” [754]	19.8” [502]	4.5” [114]	

Safety Notes

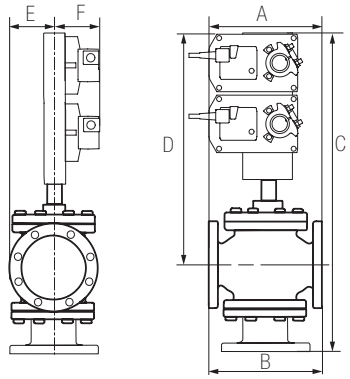
WARNING: This product can expose you to lead which is known to the State of California to cause cancer and reproductive harm. For more information go to www.p65warnings.ca.gov

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.

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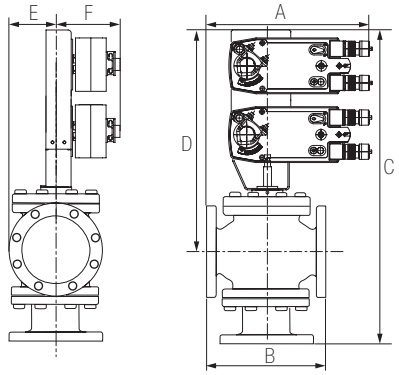
Dimensions (Inches [mm])



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

A	B	C	D	E	F
13.7” [349]	13.0” [330]	33.2” [844]	23.4” [594]	4.5” [114]	5.3” [135]

Dimensions (Inches [mm])



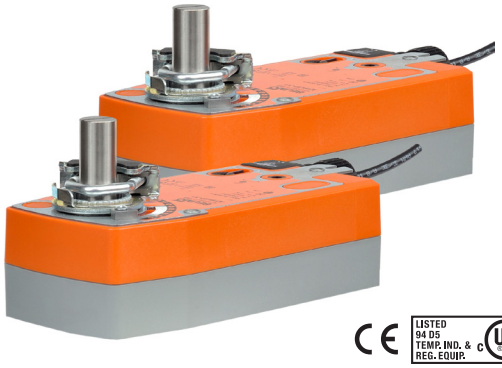
2*AFB, 2*AFX

A	B	C	D	E	F
13.7” [349]	13.0” [330]	33.2” [844]	23.4” [594]	4.5” [114]	5.3” [135]

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2*AFX24-MFT95-X1 Technical Data Sheet

Modulating, Spring Return, 24 V, 0 to 135 Ω Input



5-year warranty

Technical Data	
Power Supply	24 VAC, ±20%, 50/60 Hz, 24 VDC, -10% / +20%
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
Operating Range	0...135 Ω, Honeywell Electronic Series 90, input 0...135 Ω
Position Feedback	2...10 V, Max. 0.5 mA, VDC variable
Angle of rotation	95°, adjustable with mechanical end stop, 35...95°
Direction of motion motor	selectable with switch 0/1
Direction of motion fail-safe	reversible with cw/ccw mounting
Position indication	Mechanical
Manual override	5 mm hex crank (3/16" Allen), supplied
Running Time (Motor)	default 150 s, variable 70...220 s
Running time fail-safe	<20 s
Override control	MIN (minimum position) = 0% MID (intermediate position) = 50% MAX (maximum position) = 100%
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	40 dB(A)
Noise level, fail-safe	62 dB(A)
Servicing	maintenance-free
Quality Standard	ISO 9001
Weight	9.26 lb [4.2 kg]

*Variable when configured with MFT options.
†Rated Impulse Voltage 800V, Type of action 1.AA, Control Pollution Degree 3

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2*AFX24-MFT95-X1 Technical Data Sheet

Modulating, Spring Return, 24 V, 0 to 135 Ω Input

Wiring Diagrams

◆ 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.

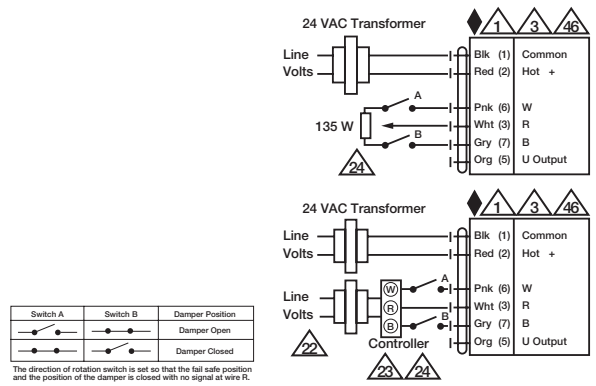
22 Actuators and controller must have separate transformers.

23 Consult controller instruction data for more detailed information.

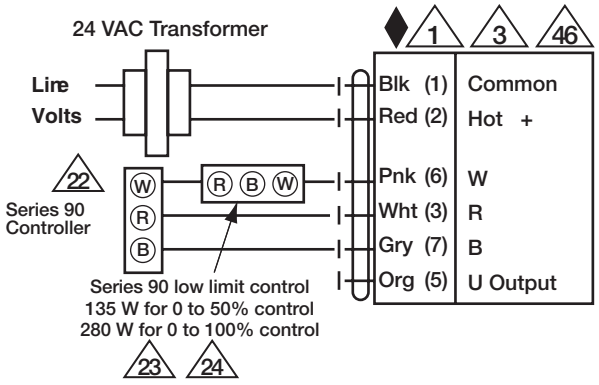
24 Resistor value depends on the type of controller and the number of actuators. No resistor is used for one actuator. Honeywell® resistor kits may also be used.

25 To reverse control rotation, use the reversing switch.

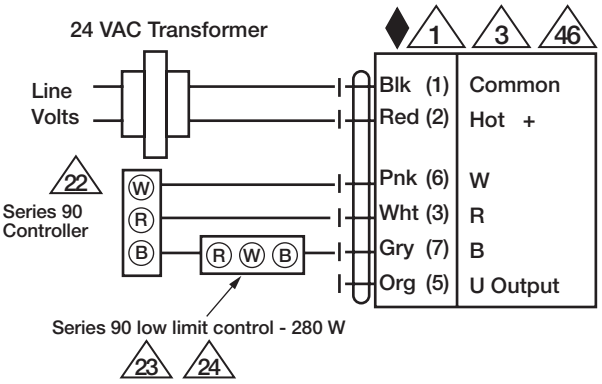
46 Actuators may be controlled in parallel. Current draw and input impedance must be observed.



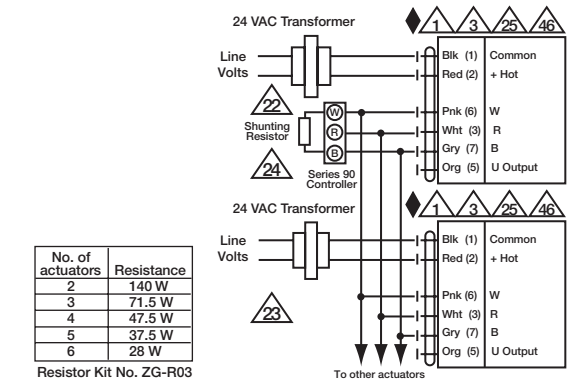
Typical and Override Control



Low Limit Control



High Limit Control

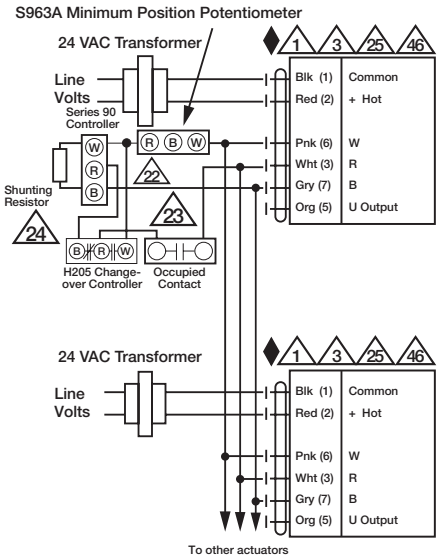


No. of actuators	Resistance
2	140 W
3	71.5 W
4	47.5 W
5	37.5 W
6	28 W

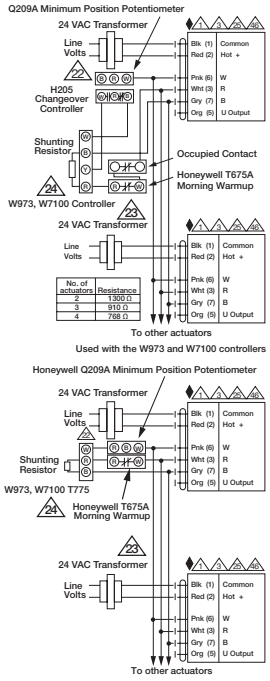
Resistor Kit No. ZG-R03

Multiple Actuators

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Multiple Actuators with Minimum Position Potentiometer



Multiple Actuators Used with W973, W7100 and T775

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