

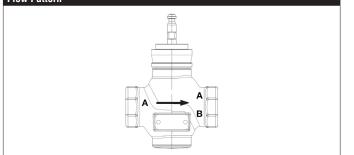
G215S-J, 2-Way, Globe Valve, Stainless Steel Trim



WADDANTY
WARRANTY

Technical Data	
Service	chilled or hot water, up to 60% glycol,
	steam
Flow Characteristic	modified equal percentage
Controllable Flow Range	stem up - open A to AB
Size [mm]	0.5" [15]
End Fitting	NPT female ends
Body	bronze
Stem	316 stainless steel
Stem Packing	EPDM O-ring
Seat	316 stainless steel
Plug	316 stainless steel
Body Pressure Rating [psi]	ANSI 250
ANSI Class	ANSI 250 (up to 400 psi below 150°F)
Max Inlet Pressure (Steam)	100 psi (690 kPa)
Media Temperature Range	20°F to 338°F [-7°C to 170°C]
(Water)	
Media Temperature Range	32°F to 338°F [0°C to 170°C]
(Steam)	
Maximum Differential Pressure	50 psi (345 kPa)
(Steam) Max Differential Pressure (Water)	35 psi (241 kPa)
	100·1
Rangeability	
Cv	4.4
Leakage	ANSI Class VI
Servicing	repack kits available

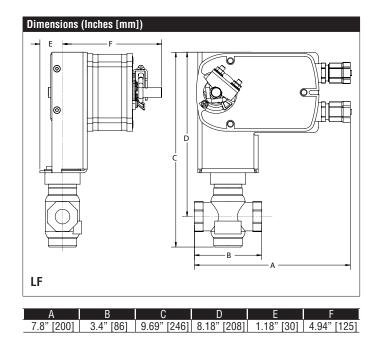
Flow Pattern



Application

This valve is typically used in air handling units on heating or cooling coils, and fan coil unit heating or cooling coils. Some other common applications include unit ventilators, VAV box re-heat coils and bypass loops. This valve is suitable for use in hydronic systems with variable flow. Bronze and stainless steel trim valves can be used for steam applications, depending on actuator and close-off combinations.

Suitable Actuators				
	Non-Spring	Spring	Electronic Fail-Safe	
G215S-J	LVB(X)	LF	LVKB(X)	

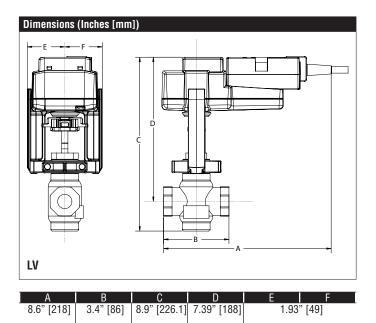


Piping

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 G2 and G3 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 the valve stem vertical or horizontal in relation to the pipe. The actuators should never be mounted underneath the valve, as condensation can build up and result in a failure of the actuators.



G215S-J, 2-Way, Globe Valve, Stainless Steel Trim



Dimensions (Inches [mm])
A B C D E F 9.7" [247] 3.4" [86] 9.6" [244] 8.06" [205] 1.93" [49]





Power Supply24 VAC, ±20%, 50/60 Hz, 24 VDC, ±10%Power Consumption Running2.5 WPower Consumption Holding1.5 WTransformer Sizing6 VA (class 2 power source)Electrical Connection3ft [1m], 18 GA plenum rated cable with 1/2" conduit connector protected NEMA 2 (IP54)Overload Protectionelectronic throughout full strokeElectrical Protectionactuators are double insulatedOperating Range Y2 to 10 VDC, 4 to 20 mA w/ ZG-R01 (500 Ω, 1/4 W resistor)Input Impedance100 k Ω for 2 to 10 VDC (0.1 mA), 500 Ω for 4 to 20 mAFeedback Output U2 to 10 VDCStroke0.75" [19 mm]Actuating force motor112 lbf [500 N]Direction of Rotation (Motor)reversible with switchDirection of Rotation (Motor)90 sec, constant independent of loadRunning Time (Motor)90 sec, constant independent of loadRunning Time (Fail-Safe)35 secBridge Time2 sec delay before fail-safe activatesPre-charging Time5 to 29% RH non-condensingAmbient Humidity5 to 95% RH non-condensingAmbient Humidity5 to 95% CL os 20°C]Storage Temperature Range-40°F to 176°F [-40°C to 80°C]HousingNEMA 2, IP54, UL Enclosure Type 2Housing MaterialAluminum die cast and plastic casingAgency Listings†cULus acc. to UL60730-1A/-2-14, CAN/CSA E60730-1:02, CE acc. to 2004/108/EC and 2006/55/ECNoise Level (Motor)<55 dB (A)Noise Level (Motor)<55 dB (A)Noise Level (Motor)<55 dB	Technical Data		
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conduit connector protected NEMA 2 (IP54)Overload Protectionelectronic throughout full strokeElectrical Protectionactuators are double insulatedOperating Range Y2 to 10 VDC, 4 to 20 mA w/ ZG-R01 (500 Ω, 1/4 W resistor)Input Impedance100 k Ω for 2 to 10 VDC (0.1 mA), 500 Ω for 4 to 20 mAFeedback Output U2 to 10 VDCStroke0.75" [19 mm]Actuating force motor112 lbf [500 N]Direction of Rotation (Motor)reversible with switchDirection of Rotation (Fail-Safe)reversible with switchPosition Indicationstroke indicator on bracketManual Override4 mm hex crank (shipped w/actuator)Running Time (Motor)90 sec, constant independent of loadRunning Time (Fail-Safe)35 secBridge Time2 sec delay before fail-safe activatesPre-charging Time5 to 20 secondsAmbient Humidity5 to 95% RH non-condensingAmbient Temperature Range-40°F to 176°F [-40°C to 80°C]HousingNEMA 2, IP54, UL Enclosure Type 2Housing MaterialAluminum die cast and plastic casingAgency Listings†cULus acc. to UL60730-1A/-2-14, CAN/CSA E60730-1:02, CE acc. to 2004/108/EC and 2006/95/ECNoise Level (Motor)<55 dB (A)	Transformer Sizing	6 VA (class 2 power source)	
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Feedback Output U2 to 10 VDCStroke0.75" [19 mm]Actuating force motor112 lbf [500 N]Direction of Rotation (Motor)reversible with switchDirection of Rotation (Fail-Safe)reversible with switchPosition Indicationstroke indicator on bracketManual Override4 mm hex crank (shipped w/actuator)Running Time (Motor)90 sec, constant independent of loadRunning Time (Fail-Safe)35 secBridge Time2 sec delay before fail-safe activatesPre-charging Time5 to 20 secondsAmbient Humidity5 to 95% RH non-condensingAmbient Temperature Range-22°F to 122°F [-30°C to 50°C]Storage Temperature Range-40°F to 176°F [-40°C to 80°C]HousingNEMA 2, IP54, UL Enclosure Type 2Housing MaterialAluminum die cast and plastic casingAgency Listings†cULus acc. to UL60730-1A/-2-14, CAN/CSAE60730-1:02, CE acc. to 2004/108/EC and2006/95/ECNoise Level (Motor)<55 dB (A)	Input Impedance		
Stroke0.75" [19 mm]Actuating force motor112 lbf [500 N]Direction of Rotation (Motor)reversible with switchDirection of Rotation (Fail-Safe)reversible with switchPosition Indicationstroke indicator on bracketManual Override4 mm hex crank (shipped w/actuator)Running Time (Motor)90 sec, constant independent of loadRunning Time (Fail-Safe)35 secBridge Time2 sec delay before fail-safe activatesPre-charging Time5 to 20 secondsAmbient Humidity5 to 95% RH non-condensingAmbient Temperature Range-22°F to 122°F [-30°C to 50°C]Storage Temperature Range-40°F to 176°F [-40°C to 80°C]HousingNEMA 2, IP54, UL Enclosure Type 2Housing MaterialAluminum die cast and plastic casingAgency Listings†cULus acc. to UL60730-1A/-2-14, CAN/CSAE60730-1:02, CE acc. to 2004/108/EC and2006/95/ECNoise Level (Motor)<55 dB (A)			
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Direction of Rotation (Fail-Safe)reversible with switchPosition Indicationstroke indicator on bracketManual Override4 mm hex crank (shipped w/actuator)Running Time (Motor)90 sec, constant independent of loadRunning Time (Fail-Safe)35 secBridge Time2 sec delay before fail-safe activatesPre-charging Time5 to 20 secondsAmbient Humidity5 to 95% RH non-condensingAmbient Temperature Range-22°F to 122°F [-30°C to 50°C]Storage Temperature Range-40°F to 176°F [-40°C to 80°C]HousingNEMA 2, IP54, UL Enclosure Type 2Housing MaterialAluminum die cast and plastic casingAgency Listings†cULus acc. to UL60730-1A/-2-14, CAN/CSA E60730-1:02, CE acc. to 2004/108/EC and 2006/95/ECNoise Level (Motor)<55 dB (A)			
Position Indicationstroke indicator on bracketManual Override4 mm hex crank (shipped w/actuator)Running Time (Motor)90 sec, constant independent of loadRunning Time (Fail-Safe)35 secBridge Time2 sec delay before fail-safe activatesPre-charging Time5 to 20 secondsAmbient Humidity5 to 95% RH non-condensingAmbient Temperature Range-22°F to 122°F [-30°C to 50°C]Storage Temperature Range-40°F to 176°F [-40°C to 80°C]HousingNEMA 2, IP54, UL Enclosure Type 2Housing MaterialAluminum die cast and plastic casingAgency Listings†cULus acc. to UL60730-1A/-2-14, CAN/CSA E60730-1:02, CE acc. to 2004/108/EC and 2006/95/ECNoise Level (Motor)<55 dB (A)	()		
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Running Time (Motor)90 sec, constant independent of loadRunning Time (Fail-Safe)35 secBridge Time2 sec delay before fail-safe activatesPre-charging Time5 to 20 secondsAmbient Humidity5 to 95% RH non-condensingAmbient Temperature Range-22°F to 122°F [-30°C to 50°C]Storage Temperature Range-40°F to 176°F [-40°C to 80°C]HousingNEMA 2, IP54, UL Enclosure Type 2Housing MaterialAluminum die cast and plastic casingAgency Listings†cULus acc. to UL60730-1A/-2-14, CAN/CSAE60730-1:02, CE acc. to 2004/108/EC and2006/95/ECNoise Level (Motor)<55 dB (A)	Position Indication	stroke indicator on bracket	
Running Time (Fail-Safe)35 secBridge Time2 sec delay before fail-safe activatesPre-charging Time5 to 20 secondsAmbient Humidity5 to 95% RH non-condensingAmbient Temperature Range-22°F to 122°F [-30°C to 50°C]Storage Temperature Range-40°F to 176°F [-40°C to 80°C]HousingNEMA 2, IP54, UL Enclosure Type 2Housing MaterialAluminum die cast and plastic casingAgency Listings†cULus acc. to UL60730-1A/-2-14, CAN/CSAE60730-1:02, CE acc. to 2004/108/EC and2006/95/ECNoise Level (Motor)<55 dB (A)	Manual Override		
Bridge Time2 sec delay before fail-safe activatesPre-charging Time5 to 20 secondsAmbient Humidity5 to 95% RH non-condensingAmbient Temperature Range-22°F to 122°F [-30°C to 50°C]Storage Temperature Range-40°F to 176°F [-40°C to 80°C]HousingNEMA 2, IP54, UL Enclosure Type 2Housing MaterialAluminum die cast and plastic casingAgency Listings†cULus acc. to UL60730-1A/-2-14, CAN/CSAE60730-1:02, CE acc. to 2004/108/EC and2006/95/ECNoise Level (Motor)<55 dB (A)	,	90 sec, constant independent of load	
Pre-charging Time5 to 20 secondsAmbient Humidity5 to 95% RH non-condensingAmbient Temperature Range-22°F to 122°F [-30°C to 50°C]Storage Temperature Range-40°F to 176°F [-40°C to 80°C]HousingNEMA 2, IP54, UL Enclosure Type 2Housing MaterialAluminum die cast and plastic casingAgency Listings†cULus acc. to UL60730-1A/-2-14, CAN/CSAE60730-1:02, CE acc. to 2004/108/EC and 2006/95/EC2006/95/ECNoise Level (Motor)<55 dB (A)	Running Time (Fail-Safe)	35 sec	
Ambient Humidity5 to 95% RH non-condensingAmbient Temperature Range-22°F to 122°F [-30°C to 50°C]Storage Temperature Range-40°F to 176°F [-40°C to 80°C]HousingNEMA 2, IP54, UL Enclosure Type 2Housing MaterialAluminum die cast and plastic casingAgency Listings†cULus acc. to UL60730-1A/-2-14, CAN/CSAE60730-1:02, CE acc. to 2004/108/EC and2006/95/ECNoise Level (Motor)<55 dB (A)	Bridge Time	2 sec delay before fail-safe activates	
Ambient Temperature Range-22°F to 122°F [-30°C to 50°C]Storage Temperature Range-40°F to 176°F [-40°C to 80°C]HousingNEMA 2, IP54, UL Enclosure Type 2Housing MaterialAluminum die cast and plastic casingAgency Listings†cULus acc. to UL60730-1A/-2-14, CAN/CSAE60730-1:02, CE acc. to 2004/108/EC and 2006/95/EC2006/95/ECNoise Level (Motor)<55 dB (A)	Pre-charging Time	5 to 20 seconds	
Storage Temperature Range-40°F to 176°F [-40°C to 80°C]HousingNEMA 2, IP54, UL Enclosure Type 2Housing MaterialAluminum die cast and plastic casingAgency Listings†CULus acc. to UL60730-1A/-2-14, CAN/CSAE60730-1:02, CE acc. to 2004/108/EC and2006/95/ECNoise Level (Motor)<55 dB (A)	Ambient Humidity	5 to 95% RH non-condensing	
HousingNEMA 2, IP54, UL Enclosure Type 2Housing MaterialAluminum die cast and plastic casingAgency Listings†CULus acc. to UL60730-1A/-2-14, CAN/CSAE60730-1:02, CE acc. to 2004/108/EC and 2006/95/EC2006/95/ECNoise Level (Motor)<55 dB (A)	Ambient Temperature Range	-22°F to 122°F [-30°C to 50°C]	
Housing MaterialAluminum die cast and plastic casingAgency Listings†cULus acc. to UL60730-1A/-2-14, CAN/CSAE60730-1:02, CE acc. to 2004/108/EC and2006/95/ECNoise Level (Motor)<55 dB (A)	Storage Temperature Range	-40°F to 176°F [-40°C to 80°C]	
Agency Listings†CULus acc. to UL60730-1A/-2-14, CAN/CSA E60730-1:02, CE acc. to 2004/108/EC and 2006/95/ECNoise Level (Motor)<55 dB (A)	Housing	NEMA 2, IP54, UL Enclosure Type 2	
E60730-1:02, CE acc. to 2004/108/EC and 2006/95/ECNoise Level (Motor)<55 dB (A)	Housing Material	Aluminum die cast and plastic casing	
Noise Level (Fail-Safe)<60 dB (A)Servicingmaintenance freeQuality StandardISO 9001	Agency Listings†	E60730-1:02, CE acc. to 2004/108/EC and	
Noise Level (Fail-Safe)<60 dB (A)Servicingmaintenance freeQuality StandardISO 9001	Noise Level (Motor)	<55 dB (A)	
Quality Standard ISO 9001	Noise Level (Fail-Safe)	<60 dB (A)	
,	Servicing	maintenance free	
Weight 3.5 lb [1.6 kg]	Quality Standard	ISO 9001	
	Weight	3.5 lb [1.6 kg]	

† Use flexible metal conduit. Push the listed conduit fitting device over the actuator's cable to butt against the enclosure. Screw in conduit connector. Jacket the actuators input wiring with listed flexible conduit. Properly terminate the conduit in a suitable junction box. Rated impulse Voltage 800V. Type of action 1. Control pollution degree 3.

†Rated Impulse Voltage 800V, Type of action 1.AA, Control Pollution Degree 3



Wiring Diagrams

 $\sqrt{5}$

/18\

🔀 INSTALLATION NOTES

Actuators may also be powered by 24 VDC.

Only connect common to negative (-) leg of control circuits.

A 500 Ω resistor (ZG-R01) converts the 4 to 20 mA control signal to 2 to 10 VDC.

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.

