

J Series

LIT-1900094

## Electric Zone Valves – Two-Way Spring Open (Normally Open), On/Off Control

### Description

This electric zone valve with forged brass body offers two-way spring open (normally open), on/off control for hot or chilled water applications. For complete details, refer to *J Series Electric Zone Valves Product Bulletin (LIT-977282)*.

### Features

- forged brass body and hard chrome-plated brass stem
- provides economical control of hot or chilled water for fan coil, baseboard radiator, and VAV reheat applications
- On/Off control from a two-wire thermostat

- 300 psig system operating pressure
- 400 psig static pressure rating
- buna-N (standard temperature) or nitrile disk (high temperature) provides tight closeoff
- 1/2, 3/4, and 1" line sizes
- sweat, NPT, or inverted flare end connections
- actuator can be factory or field installed
- actuator snaps in place for easy removal and assembly during installation



Standard Closeoff

### Selection Charts

#### J Series Electric Zone Valve – Two-Way Spring Open (Normally Open), On/Off Control (Part 1 of 2)

Valve Model Number					Actuator Model Number "G" Style Actuators have Standard Pressure Closeoff "H" Style Actuators have High Pressure Closeoff			
Std. Temp	High Temp	Size	Cv	Close-off	Standard Temperature Rating: 200°F (93°C) Fluid, 104°F (40°C) Ambient		High Temperature Rating: 250°F (121°C) Fluid, 15 psig Steam, 169°F (76°C) Ambient	
					24 VAC, 60 Hz	120 VAC, 60 Hz	24 VAC, 60 Hz	120 VAC, 60 Hz
					JG23A020 JH23A020	JG23B020 JH23B020	JG24A020 JH24A020	JG24B020 JH24B020
<b>Sweat Connections – Standard Pressure Closeoff</b>								
JT2211	JS2211	1/2"	1.0	60	JT2211G23A020	JT2211G23B020	JS2211G24A020	JS2211G24B020
JT2212	JS2212	1/2"	2.5	40	JT2212G23A020	JT2212G23B020	JS2212G24A020	JS2212G24B020
JT2213	JS2213	1/2"	3.5	25	JT2213G23A020	JT2213G23B020	JS2213G24A020	JS2213G24B020
JT2312	JS2312	3/4"	2.5	40	JT2312G23A020	JT2312G23B020	JS2312G24A020	JS2312G24B020
JT2313	JS2313	3/4"	3.5	25	JT2313G23A020	JT2313G23B020	JS2313G24A020	JS2313G24B020
JT2417	JS2417	1"	8.0	17	JT2417G23A020	JT2417G23B020	JS2417G24A020	JS2417G24B020
JT2517	JS2517	1-1/4"	8.0	17	JT2517G23A020	JT2517G23B020	JS2517G24A020	JS2517G24B020
<b>NPT Connections – Standard Pressure Closeoff</b>								
JT2221	JS2221	1/2"	1.0	60	JT2221G23A020	JT2221G23B020	JS2221G24A020	JS2221G24B020
JT2222	JS2222	1/2"	2.5	40	JT2222G23A020	JT2222G23B020	JS2222G24A020	JS2222G24B020
JT2223	JS2223	1/2"	3.5	25	JT2223G23A020	JT2223G23B020	JS2223G24A020	JS2223G24B020
JT2322	JS2322	3/4"	2.5	40	JT2322G23A020	JT2322G23B020	JS2322G24A020	JS2322G24B020
JT2323	JS2323	3/4"	3.5	25	JT2323G23A020	JT2323G23B020	JS2323G24A020	JS2323G24B020
JT2427	JS2427	1"	8.0	17	JT2427G23A020	JT2427G23B020	JS2427G24A020	JS2427G24B020
<b>Inverted Flare Connections – Standard Pressure Closeoff</b>								
JT2343	JS2343	3/4"	3.5	25	JT2343G23A020	JT2343G23B020	JS2343G24A020	JS2343G24B020
<b>Sweat Connections – High Pressure Closeoff</b>								
JT2211	JS2211	1/2"	1.0	75	JT2211H23A020	JT2211H23B020	JS2211H24A020	JS2211H24B020
JT2212	JS2212	1/2"	2.5	50	JT2212H23A020	JT2212H23B020	JS2212H24A020	JS2212H24B020
JT2213	JS2213	1/2"	3.5	30	JT2213H23A020	JT2213H23B020	JS2213H24A020	JS2213H24B020
JT2312	JS2312	3/4"	2.5	50	JT2312H23A020	JT2312H23B020	JS2312H24A020	JS2312H24B020
JT2313	JS2313	3/4"	3.5	30	JT2313H23A020	JT2313H23B020	JS2313H24A020	JS2313H24B020
JT2417	JS2417	1"	8.0	20	JT2417H23A020	JT2417H23B020	JS2417H24A020	JS2417H24B020
JT2517	JS2517	1-1/4"	8.0	20	JT2517H23A020	JT2517H23B020	JS2517H24A020	JS2517H24B020

## J Series Electric Zone Valves – Two-Way Spring Open (Normally Open), On/Off Control (Continued)

### J Series Electric Zone Valve – Two-Way Spring Open (Normally Open), On/Off Control (Part 2 of 2)

Valve Model Number					Actuator Model Number “G” Style Actuators have Standard Pressure Closeoff “H” Style Actuators have High Pressure Closeoff			
					Standard Temperature Rating: 200°F (93°C) Fluid, 104°F (40°C) Ambient		High Temperature Rating: 250°F (121°C) Fluid, 15 psig Steam, 169°F (76°C) Ambient	
Std. Temp	High Temp	Size	Cv	Close-off	24 VAC, 60 Hz	120 VAC, 60 Hz	24 VAC, 60 Hz	120 VAC, 60 Hz
					JG23A020 JH23A020	JG23B020 JH23B020	JG24A020 JH24A020	JG24B020 JH24B020
<b>NPT Connections – High Pressure Closeoff</b>								
JT2221	JT2221	1/2"	1.0	75	JT2221H23A020	JT2221H23B020	JS2221H24A020	JS2221H24B020
JT2222	JT2222	1/2"	2.5	50	JT2222H23A020	JT2222H23B020	JS2222H24A020	JS2222H24B020
JT2223	JT2223	1/2"	3.5	30	JT2223H23A020	JT2223H23B020	JS2223H24A020	JS2223H24B020
JT2322	JT2322	3/4"	2.5	50	JT2322H23A020	JT2322H23B020	JS2322H24A020	JS2322H24B020
JT2323	JT2323	3/4"	3.5	30	JT2323H23A020	JT2323H23B020	JS2323H24A020	JS2323H24B020
JT2427	JT2427	1"	8.0	20	JT2427H23A020	JT2427H23B020	JS2427H24A020	JS2427H24B020
<b>Inverted Flare Connections – High Pressure Closeoff</b>								
JT2343	JS2343	3/4"	3.5	30	JT2343H23A020	JT2343H23B020	JS2343H24A020	JS2343H24B020

### Inverted Flare Fittings (Order Separately)

Code Number	Description	Length, in. (mm)
J647-601	For 1/2 in. (5/8 in. O.D.) Copper Tubing	15/16 (24)
J647-602	For 1/2 in. (5/8 in. O.D.) Copper Tubing	1-11/16 (43)
J647-603	For 1/2 in. (5/8 in. O.D.) Copper Tubing	3 (76)
J647-604	For 3/4 in. (7/8 in. O.D.) Copper Tubing	1-27/32 (47)
J647-605	For 1/2 in. (5/8 in. O.D.) Copper Tubing	1-15/16 (49)
J647-606	For 1 in. (1-1/8 in. O.D.) Copper Tubing	2-3/8 (60)
J647-607	Inverted Flare Nut	----



## Repair Information

If the J Series Electric Zone Valve – Two-Way Spring Closed (Normally Closed), On/Off Control fails to operate within its specifications, refer to the *J Series Electric Zone Valves Product Bulletin (LIT-977282)* for a list of repair parts available. Available repair parts for J Series Electric Zone Valves include replacement valve bodies, replacement actuators, and the end connections listed in the Inverted Flare Fittings chart. No other field repairs should be attempted.

## Technical Specifications

J Series Electric Zone Valves – Two-Way Spring Closed (Normally Closed), On/Off Controls				
<b>Service<sup>1</sup></b>		Hot Water Chill Water, and 50/50 Glycol Solutions for HVAC Systems		
<b>Fluid Temperature Limits</b>	<b>Water</b>	<b>JT Series</b>	32 to 200°F (0 to 93°C)	
		<b>JS Series</b>	32 to 250°F (0 to 121°C)	
	<b>Steam</b>	<b>JT Series</b>	Not rated for steam service	
		<b>JS Series</b>	15 psig (103 kPa) Saturated Steam	
<b>Valve Body Pressure Rating</b>		300 psig (2,067 kPa)		
<b>Leakage</b>		Bubble tight shut off		
<b>Ambient Operating Temperature Limits</b>	<b>JT Series</b>	32 to 104°F (0 to 40°C)		
	<b>JS Series</b>	32 to 169°F (0 to 76°C)		
<b>Cycle Time</b>		Power stroke 9 to 11 seconds, spring return 4 to 5 seconds		
<b>Control Signal</b>		24 VAC or 120 VAC, 60 Hz, Two-wire On/Off		
<b>Power Requirements</b>		7 VA		
<b>Electrical Connection</b>		18 in. (457 mm) wire leads		
<b>Materials</b>	<b>Body</b>	Brass		
	<b>Stem</b>	Brass (Hard Chrome Plated)		
	<b>Base Plate and Bearing Plate</b>	Stainless Steel		
	<b>Actuator Housing</b>	Stainless Steel		
	<b>Actuator Cover</b>	Aluminum		
	<b>Valve Paddle</b>	<b>JT Series</b>	Buna-N Rubber	
		<b>JS Series</b>	Saturated Nitrile	
	<b>Stem Seals</b>	Viton™ O-rings		

1. Refer to VDI 2035 Standard for recommended proper water treatment.