

J Series

LIT-1900095

## Electric Zone Valves – Three-Way Spring Return, On/Off Control

### Description

J Series Electric Zone Valves accurately control the flow of saturated steam, hot water, and chilled water through coils and heat exchanges of all types. 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
- can be piped for mixing or diverting configuration
- buna-N (standard temperature) or nitrile disk (high temperature) provides tight closeoff



Standard Closeoff



High 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

### Selection Charts

Note: Three-way valves are shipped from the factory in the normally closed configuration (Port B closed); for normally open configuration, simply turn the valve around during installation.

#### J Series Electric Zone Valve – Three-Way Spring Return, On/Off Control

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
					JG13A020 JH13A020	JG13B020 JH13B020	JG14A020 JH14A020	JG14B020 JH14B020
<b>Sweat Connections – Standard Pressure Closeoff</b>								
JT3213	JS3213	1/2"	4.0	25	JT3213G13A020	JT3213G13B020	JS3213G14A020	JS3213G14B020
JT3315	JS3315	3/4"	5.0	20	JT3315G13A020	JT3315G13B020	JS3315G14A020	JS3315G14B020
JT3417	JS3417	1"	8.0	17	JT3417G13A020	JT3417G13B020	JS3417G14A020	JS3417G14B020
JT3517	JS3517	1-1/4"	8.0	17	JT3517G13A020	JT3517G13B020	JS3517G14A020	JS3517G14B020
<b>NPT Connections – Standard Pressure Closeoff</b>								
JT3223	JS3223	1/2"	4.0	25	JT3223G13A020	JT3223G13B020	JS3223G14A020	JS3223G14B020
JT3325	JS3325	3/4"	5.0	20	JT3325G13A020	JT3325G13B020	JS3325G14A020	JS3325G14B020
JT3427	JS3427	1"	8.0	17	JT3427G13A020	JT3427G13B020	JS3427G14A020	JS3427G14B020
<b>Inverted Flare Connections – Standard Pressure Closeoff</b>								
JT3343	JS3343	3/4"	4.0	25	JT3343G13A020	JT3343G13B020	JS3343G14A020	JS3343G14B020
<b>Sweat Connections – High Pressure Closeoff</b>								
JT3213	JS3213	1/2"	4.0	30	JT3213H13A020	JT3213H13B020	JS3213H14A020	JS3213H14B020
JT3315	JS3315	3/4"	5.0	25	JT3315H13A020	JT3315H13B020	JS3315H14A020	JS3315H14B020
JT3417	JS3417	1"	8.0	20	JT3417H13A020	JT3417H13B020	JS3417H14A020	JS3417H14B020
JT3517	JS3517	1-1/4"	8.0	20	JT3517H13A020	JT3517H13B020	JS3517H14A020	JS3517H14B020
<b>NPT Connections – High Pressure Closeoff</b>								
JT3223	JS3223	1/2"	4.0	30	JT3223H13A020	JT3223H13B020	JS3223H14A020	JS3223H14B020
JT3325	JS3325	3/4"	5.0	25	JT3325H13A020	JT3325H13B020	JS3325H14A020	JS3325H14B020
JT3427	JS3427	1"	8.0	20	JT3427H13A020	JT3427H13B020	JS3427H14A020	JS3427H14B020
<b>Inverted Flare Connections – High Pressure Closeoff</b>								
JT3343	JS3343	3/4"	4.0	30	JT3343H13A020	JT3343H13B020	JS3343H14A020	JS3343H14B020

**J Series Electric Zone Valves – Three-Way Spring Return, On/Off Control (Continued)**
**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 – Three-Way Spring Return, On/Off Control fails to operate within its specifications, refer to *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 – Three-Way Spring Return, On/Off Control			
<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.