

# J Series Electric Zone Valves — Two-Way Spring Open (Normally Open), Modulating Control

## Description

This electric zone valve with forged brass body offers two-way spring open (normally open), modulating control for hot or chilled water applications.

Refer to the *J Series Electric Zone Valves Product Bulletin (LIT-977282)* for important product application information.

## Features

- economical control of hot or chilled water (up to 50% glycol) for fan coil, baseboard radiator, and VAV reheat applications
- 0 to 10 VDC proportional and three-wire floating control
- 32 to 200°F (0 to 93°C) fluid temperature rating
- 32 to 125°F (0 to 52°C) ambient temperature rating
- 300 psig static pressure rating
- 20 to 30 VAC 50/60 Hz
- forged brass body



**JM Series Two-Way Spring-Return Modulating Zone Valve**

## Selection Chart

Valve	Size, in.	Cv	Closeoff, psig	Actuator	
				Three-Wire Floating JT13A000	0 to 10 VDC Proportional JP13A000
<b>Two-Way — Sweat Connections</b>					
JM2211	1/2	1	50	JM2211T23A000	JM2211P23A000
JM2212	1/2	2	50	JM2212T23A000	JM2212P23A000
JM2213	1/2	4	35	JM2213T23A000	JM2213P23A000
JM2312	3/4	2	50	JM2312T23A000	JM2312P23A000
JM2313	3/4	4	35	JM2313T23A000	JM2313P23A000
JM2317	3/4	7.5	35	JM2317T23A000	JM2317P23A000
JM2413	1	4	35	JM2413T23A000	JM2413P23A000
JM2417	1	8	35	JM2417T23A000	JM2417P23A000
JM2517	1-1/4	8	35	JM2517T23A000	JM2517P23A000
<b>Two-Way — NPT Connections</b>					
JM2221	1/2	1	50	JM2221T23A000	JM2221P23A000
JM2222	1/2	2	50	JM2222T23A000	JM2222P23A000
JM2223	1/2	4	35	JM2223T23A000	JM2223P23A000
JM2322	3/4	2	50	JM2322T23A000	JM2322P23A000
JM2323	3/4	4	35	JM2323T23A000	JM2323P23A000
JM2327	3/4	7.5	35	JM2327T23A000	JM2327P23A000
JM2427	1	8	35	JM2427T23A000	JM2427P23A000

## Repair Information

If the J Series Zone Valve fails to operate within its specifications, replace the valve body, actuator, or entire assembly. For replacement parts, contact the nearest Johnson Controls® representative.

**Note:** Actuators and valve bodies can be ordered separately using the actuator and valve code numbers shown. JM Series Modulating Three-Way Electric Zone Valves must be piped in a mixing configuration only.

## Technical Specifications

J Series Electric Zone Valves — Two-Way Spring Open (Normally Open), Modulating Control	
<b>Service<sup>1</sup></b> Hot Water, Chilled Water, and 50/50 Glycol Solutions for HVAC Systems	
<b>Fluid Temperature Limits</b>	<b>Water</b> 32 to 200°F (0 to 93°C)
	<b>Steam</b> Not Rated for Steam Service
<b>Valve Body Pressure Rating</b> 300 psig (2,067 kPa)	
<b>Leakage</b> 0.01% of Maximum Flow per ANSI/FCI 70-2 Class IV	
<b>Ambient Operating Temperature Limits</b> 32 to 125°F (0 to 52°C)	
<b>Cycle Time</b> Full Close to Full Open 150 Seconds	
<b>Control Signal</b>	<b>T Type Actuator</b> 24 VAC, 60 Hz, Three-Wire Floating Control
	<b>P Type Actuator</b> 0 to 10 VDC (1 to 9 VDC Actual) Factory Setting, 0 to 5 VDC, 5 to 10 VDC Jumper Selectable
<b>Control Action</b>	<b>P Type Actuator</b> Factory Setting: Direct Acting Valve Opens Port B as Signal Increases. Jumper Selectable
<b>Power Requirements</b> 1.6 VA	
<b>Electrical Connection</b> Terminal Block	
<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> High-Temperature Plastic
	<b>Valve Plug</b> High-Temperature Thermoplastic Rubber
	<b>Stem Seals</b> Viton™ O-Rings

1. Refer to the VDI 2035 Guideline for recommended proper water treatment.