

Electric Zone Valves – Two- and Three-Way Spring Closed (Normally Closed), Modulating Control

Description

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

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 Three-way Spring Return Modulating Zone Valve

Selection Chart

Valve	Size	Cv	Close-off ¹	Actuator	
				Three Wire Floating	0 to 10 VDC Proportional
				JT13A000	JP13A000
Two-Way – Sweat Connections					
JM2211	1/2"	1	50 / 50	JM2211T13A000	JM2211P13A000
JM2212	1/2"	2	50 / 20	JM2212T13A000	JM2212P13A000
JM2213	1/2"	4	35 / 20	JM2213T13A000	JM2213P13A000
JM2312	3/4"	2	50 / 20	JM2312T13A000	JM2312P13A000
JM2313	3/4"	4	35 / 20	JM2313T13A000	JM2313P13A000
JM2317	3/4"	7.5	35 / 15	JM2317T13A000	JM2317P13A000
JM2413	1"	4	35 / 20	JM2413T13A000	JM2413P13A000
JM2417	1"	8	35 / 15	JM2417T13A000	JM2417P13A000
JM2517	1-1/4"	8	35 / 15	JM2517T13A000	JM2517P13A000
Two-Way – NPT Connections					
JM2221	1/2"	1	50 / 50	JM2221T13A000	JM2221P13A000
JM2222	1/2"	2	50 / 20	JM2222T13A000	JM2222P13A000
JM2223	1/2"	4	35 / 20	JM2223T13A000	JM2223P13A000
JM2322	3/4"	2	50 / 20	JM2322T13A000	JM2322P13A000
JM2323	3/4"	4	35 / 20	JM2323T13A000	JM2323P13A000
JM2327	3/4"	7.5	35 / 15	JM2327T13A000	JM2327P13A000
JM2427	1"	8	35 / 15	JM2427T13A000	JM2427P13A000
Three-Way – Sweat Connections					
JM3211	1/2"	1	50 / 50	JM3211T13A000	JM3211P13A000
JM3212	1/2"	2	50 / 20	JM3212T13A000	JM3212P13A000
JM3213	1/2"	4	35 / 20	JM3213T13A000	JM3213P13A000
JM3312	3/4"	2	50 / 20	JM3312T13A000	JM3312P13A000
JM3313	3/4"	4	35 / 20	JM3313T13A000	JM3313P13A000
JM3317	3/4"	7.5	35 / 15	JM3317T13A000	JM3317P13A000
JM3413	1"	4	35 / 20	JM3413T13A000	JM3413P13A000
JM3417	1"	8	35 / 15	JM3417T13A000	JM3417P13A000
JM3517	1-1/4"	8	35 / 15	JM3517T13A000	JM3517P13A000
Three-Way – NPT Connections, mixing configuration only					
JM3221	1/2"	1	50 / 50	JM3221T13A000	JM3221P13A000
JM3222	1/2"	2	50 / 20	JM3222T13A000	JM3222P13A000
JM3223	1/2"	4	35 / 20	JM3223T13A000	JM3223P13A000
JM3322	3/4"	2	50 / 20	JM3322T13A000	JM3322P13A000
JM3323	3/4"	4	35 / 20	JM3323T13A000	JM3323P13A000
JM3327	3/4"	7.5	35 / 15	JM3327T13A000	JM3327P13A000
JM3427	1"	8	35 / 15	JM3427T13A000	JM3427P13A000

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.

Repair Information

If the J Series Electric Zone Valve – Two-Way and Three-Way Spring Closed, Modulating Control fails to operate within its specifications, replace the unit. For a replacement valve, contact the nearest Johnson Controls® representative.

Technical Specifications

J Series Electric Zone Valves – Two-Way and Three-Way Spring Closed, Modulating Control		
Service ¹		Hot Water Chill Water, and 50/50 Glycol Solutions for HVAC Systems
Fluid Temperature Limits	Water	32 to 200°F (0 to 93°C)
	Steam	Not rated for steam service
Valve Body Pressure Rating		300 psig (2,067 kPa)
Leakage		0.01% of Maximum Flow per ANSI/FCI 70-2 Class IV
Ambient Operating Temperature Limits		32 to 125°F (0 to 52°C)
Cycle Time		Full Close to Full Open 150 seconds
Control Signal	“T” Type Actuator	24 VAC, 60 Hz, Three-Wire Floating Control
	“P” Type Actuator	0 to 10 VDC (1 to 9 VDC Actual) Factory Setting, 0 to 5 VDC, 5 to 10 VDC jumper selectable
Control Action	“P” Type Actuator	Factory Setting: Direct Acting Valve opens Port “B” as signal increases. Jumper selectable
Power Requirements		1.6 VA
Electrical Connection		Terminal Block
Materials	Body	Brass
	Stem	Brass (Hard Chrome Plated)
	Base Plate and Bearing Plate	Stainless Steel
	Actuator Housing	High Temperature Plastic
	Valve Plug	High Temperature Thermoplastic Rubber
	Stem Seals	Viton™ O-rings

1. Operating/Power Failure

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