Code No. LIT-1900190
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J Series

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**

1. Operating/Power Failure

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

The performance specifications are nominal and conform to acceptable industry standards. For applications at conditions beyond these specifications, consult the local Johnson Controls office. Johnson Controls, Inc. shall not be liable for damages resulting from misapplication or misuse of its products. © 2011 Johnson Controls, Inc.