

J SERIES Zone Valves



Two-Way Spring Closed, Standard Closeoff

- Provides economical control of hot or chilled water and 15 psig steam for fan coil, baseboard radiator, and VAV reheat applications
- On/Off control from two-wire thermostat
- Forged brass body – 300 psig static pressure rating
- Buna-N (Standard Temperature) or Nitrile Disk (High Temperature) provides tight shutoff
- PopTop™ Actuator snaps in place for easy removal and assembly during installation
- Product Bulletin – LIT-977282

Valve	Size, inches	Cv	Closeoff	Actuator	
				24 VAC, 60 Hz JG13A020 – Standard Temperature JG14A020 – High Temperature	120 VAC, 60 Hz JG13B020 – Standard Temperature JG14B020 – High Temperature
Sweat Connections – Standard Temperature: 32 to 200°F Fluid Temperature, 32 to 104°F Ambient					
JT2211	1/2	1	60	JT2211G13A020	JT2211G13B020
JT2212	1/2	2.5	40	JT2212G13A020	JT2212G13B020
JT2213	1/2	3.5	25	JT2213G13A020	JT2213G13B020
JT2312	3/4	2.5	40	JT2312G13A020	JT2312G13B020
JT2313	3/4	3.5	25	JT2313G13A020	JT2313G13B020
JT2417	1	8	17	JT2417G13A020	JT2417G13B020
JT2517	1-1/4	8	17	JT2517G13A020	JT2517G13B020
Threaded NPT Connections – Standard Temperature: 32 to 200°F Fluid Temperature, 32 to 104°F Ambient					
JT2221	1/2	1	60	JT2221G13A020	JT2221G13B020
JT2222	1/2	2.5	40	JT2222G13A020	JT2222G13B020
JT2223	1/2	3.5	25	JT2223G13A020	JT2223G13B020
JT2322	3/4	2.5	40	JT2322G13A020	JT2322G13B020
JT2323	3/4	3.5	25	JT2323G13A020	JT2323G13B020
JT2427	1	8	17	JT2427G13A020	JT2427G13B020
Inverted Flare Connections – Standard Temperature: 32 to 200°F Fluid Temperature, 32 to 104°F Ambient					
JT2343	3/4	3.5	25	JT2343G13A020	JT2343G13B020
Sweat Connections – High Temperature: 32 to 250°F Fluid Temperature, 15 psig Steam, 32 to 169°F Ambient					
JS2211	1/2	1	60	JS2211G14A020	JS2211G14B020
JS2212	1/2	2.5	40	JS2212G14A020	JS2212G14B020
JS2213	1/2	3.5	25	JS2213G14A020	JS2213G14B020
JS2312	3/4	2.5	40	JS2312G14A020	JS2312G14B020
JS2313	3/4	3.5	25	JS2313G14A020	JS2313G14B020
JS2417	1	8	17	JS2417G14A020	JS2417G14B020
JS2517	1-1/4	8	17	JS2517G14A020	JS2517G14B020
Threaded NPT Connections – High Temperature: 32 to 250°F Fluid Temperature, 15 psig Steam, 32 to 169°F Ambient					
JS2221	1/2	1	60	JS2221G14A020	JS2221G14B020
JS2222	1/2	2.5	40	JS2222G14A020	JS2222G14B020
JS2223	1/2	3.5	25	JS2223G14A020	JS2223G14B020
JS2322	3/4	2.5	40	JS2322G14A020	JS2322G14B020
JS2323	3/4	3.5	25	JS2323G14A020	JS2323G14B020
JS2427	1	8	17	JS2427G14A020	JS2427G14B020
Inverted Flare Connections – High Temperature: 32 to 250°F Fluid Temperature, 15 psig Steam, 32 to 169°F Ambient					
JS2343	3/4	3.5	25	JS2343G14A020	JS2343G14B020

Note: JG13-style actuators can only be used with JT series valves; JG14-style actuators can only be used with JS series valves. Actuators and valve bodies can be ordered separately using the actuator and valve code numbers shown.

Assemblies – Two-Position On/Off Control

Two-Way Spring Open, Standard Closeoff



- Provides economical control of hot or chilled water and 15 psig steam for fan coil, baseboard radiator, and VAV reheat applications
- On/Off control from two-wire thermostat
- Forged brass body – 300 psig static pressure rating
- Buna-N (Standard Temperature) or Nitrile Disk (High Temperature) provides tight shutoff
- PopTop™ Actuator snaps in place for easy removal and assembly during installation
- Product Bulletin – LIT-977282

Valve	Size, inches	Cv	Closeoff	Actuator	
				24 VAC, 60 Hz JG23A020 – Standard Temperature JG24A020 – High Temperature	120 VAC, 60 Hz JG23B020 – Standard Temperature JG24B020 – High Temperature
Sweat Connections – Standard Temperature: 32 to 200°F Fluid Temperature, 32 to 104°F Ambient					
JT2211	1/2	1	60	JT2211G23A020	JT2211G23B020
JT2212	1/2	2.5	40	JT2212G23A020	JT2212G23B020
JT2213	1/2	3.5	25	JT2213G23A020	JT2213G23B020
JT2312	3/4	2.5	40	JT2312G23A020	JT2312G23B020
JT2313	3/4	3.5	25	JT2313G23A020	JT2313G23B020
JT2417	1	8	17	JT2417G23A020	JT2417G23B020
JT2517	1-1/4	8	17	JT2517G23A020	JT2517G23B020
Threaded NPT Connections – Standard Temperature: 32 to 200°F Fluid Temperature, 32 to 104°F Ambient					
JT2221	1/2	1	60	JT2221G23A020	JT2221G23B020
JT2222	1/2	2.5	40	JT2222G23A020	JT2222G23B020
JT2223	1/2	3.5	25	JT2223G23A020	JT2223G23B020
JT2322	3/4	2.5	40	JT2322G23A020	JT2322G23B020
JT2323	3/4	3.5	25	JT2323G23A020	JT2323G23B020
JT2427	1	8	17	JT2427G23A020	JT2427G23B020
Inverted Flare Connections – Standard Temperature: 32 to 200°F Fluid Temperature, 32 to 104°F Ambient					
JT2343	3/4	3.5	25	JT2343G23A020	JT2343G23B020
Sweat Connections – High Temperature: 32 to 250°F Fluid Temperature, 15 psig Steam, 32 to 169°F Ambient					
JS2211	1/2	1	60	JS2211G24A020	JS2211G24B020
JS2212	1/2	2.5	40	JS2212G24A020	JS2212G24B020
JS2213	1/2	3.5	25	JS2213G24A020	JS2213G24B020
JS2312	3/4	2.5	40	JS2312G24A020	JS2312G24B020
JS2313	3/4	3.5	25	JS2313G24A020	JS2313G24B020
JS2417	1	8	17	JS2417G24A020	JS2417G24B020
JS2517	1-1/4	8	17	JS2517G24A020	JS2517G24B020
Threaded NPT Connections – High Temperature: 32 to 250°F Fluid Temperature, 15 psig Steam, 32 to 169°F Ambient					
JS2221	1/2	1	60	JS2221G24A020	JS2221G24B020
JS2222	1/2	2.5	40	JS2222G24A020	JS2222G24B020
JS2223	1/2	3.5	25	JS2223G24A020	JS2223G24B020
JS2322	3/4	2.5	40	JS2322G24A020	JS2322G24B020
JS2323	3/4	3.5	25	JS2323G24A020	JS2323G24B020
JS2427	1	8	17	JS2427G24A020	JS2427G24B020
Inverted Flare Connections – High Temperature: 32 to 250°F Fluid Temperature, 15 psig Steam, 32 to 169°F Ambient					
JS2343	3/4	3.5	25	JS2343G24A020	JS2343G24B020

Note: JG23-style actuators can only be used with JT series valve; JG24-style actuators can only be used with JS series valves. Actuators and valve bodies can be ordered separately using the actuator and valve code numbers shown.

Ordering Guide

Three-Way Spring Closed, Standard Closeoff



- Provides economical control of hot or chilled water for fan coil, baseboard radiator, and VAV reheat applications
- On/Off control from two-wire thermostat
- Forged brass body – 300 psig static pressure rating
- Buna-N (Standard Temperature) or Nitrile Disk (High Temperature) provides tight shutoff
- PopTop™ Actuator snaps in place for easy removal and assembly during installation
- Product Bulletin – LIT-977282

Valve	Size, inches	Cv	Closeoff	Actuator	
				24 VAC, 60 Hz JG13A020 – Standard Temperature JG14A020 – High Temperature	120 VAC, 60 Hz JG13B020 – Standard Temperature JG14B020 – High Temperature
Sweat Connections – Standard Temperature: 32 to 200°F Fluid Temperature, 32 to 104°F Ambient					
JT3213	1/2	4	25	JT3213G13A020	JT3213G13B020
JT3315	3/4	5	20	JT3315G13A020	JT3315G13B020
JT3417	1	8	17	JT3417G13A020	JT3417G13B020
JT3517	1-1/4	8	17	JT3517G13A020	JT3517G13B020
Threaded NPT Connections – Standard Temperature: 32 to 200°F Fluid Temperature, 32 to 104°F Ambient					
JT3223	1/2	4	25	JT3223G13A020	JT3223G13B020
JT3325	3/4	5	20	JT3325G13A020	JT3325G13B020
JT3427	1	8	17	JT3427G13A020	JT3427G13B020
Inverted Flare Connections – Standard Temperature: 32 to 200°F Fluid Temperature, 32 to 104°F Ambient					
JT3343	3/4	4	25	JT3343G13A020	JT3343G13B020
Sweat Connections – High Temperature: 32 to 250°F Fluid Temperature, 32 to 169°F Ambient					
JS3213	1/2	4	25	JS3213G14A020	JS3213G14B020
JS3315	3/4	5	20	JS3315G14A020	JS3315G14B020
JS3417	1	8	17	JS3417G14A020	JS3417G14B020
JS3517	1-1/4	8	17	JS3517G14A020	JS3517G14B020
Threaded NPT Connections – High Temperature: 32 to 250°F Fluid Temperature, 32 to 169°F Ambient					
JS3223	1/2	4	25	JS3223G14A020	JS3223G14B020
JS3325	3/4	5	20	JS3325G14A020	JS3325G14B020
JS3427	1	8	17	JS3427G14A020	JS3427G14B020
Inverted Flare Connections – High Temperature: 32 to 250°F Fluid Temperature, 32 to 169°F Ambient					
JS3343	3/4	4	25	JS3343G14A020	JS3343G14B020

Note: JG13-style actuators can only be used with JT series valves; JG14-style actuators can only be used with JS series valves.

Actuators and valve bodies can be ordered separately using the actuator and valve code numbers shown.

Inverted Flare Copper Sweat Fittings	
Code Number	Description
J647-601	Adapter, Elbow, 15/16 inches long, for 1/2 inch (5/8 inch O.D.) Copper Tubing
J647-602	Adapter, Straight, 1-11/16 inches long, for 1/2 inch (5/8 inch O.D.) Copper Tubing
J647-603	Adapter, Straight, 3 inches long, for 1/2 inch (5/8 inch O.D.) Copper Tubing
J647-604	Adapter, Straight, 1-27/32 inches long, for 3/4 inch (7/8 inch O.D.) Copper Tubing
J647-605	Adapter, Elbow, 1-15/16 inches long, for 1/2 inch (5/8 inch O.D.) Copper Tubing
J647-606	Adapter, Straight, 2-3/8 inches long, for 1 inch (1-1/8 inch O.D.) Copper Tubing
J647-607	Inverted Flare Nut

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Valve	Size, inches	Cv	Closeoff	Actuator	
				24 VAC, 60 Hz JH13A020 – Standard Temperature JH14A020 – High Temperature	120 VAC, 60 Hz JH13B020 – Standard Temperature JH14B020 – High Temperature
Sweat Connections – Standard Temperature: 32 to 200°F Fluid Temperature, 32 to 104°F Ambient					
JT2211	1/2	1	75	JT2211H13A020	JT2211H13B020
JT2212	1/2	2.5	50	JT2212H13A020	JT2212H13B020
JT2213	1/2	3.5	30	JT2213H13A020	JT2213H13B020
JT2312	3/4	2.5	50	JT2312H13A020	JT2312H13B020
JT2313	3/4	3.5	30	JT2313H13A020	JT2313H13B020
JT2417	1	8	20	JT2417H13A020	JT2417H13B020
JT2517	1-1/4	8	20	JT2517H13A020	JT2517H13B020
Threaded NPT Connections – Standard Temperature: 32 to 200°F Fluid Temperature, 32 to 104°F Ambient					
JT2221	1/2	1	75	JT2221H13A020	JT2221H13B020
JT2222	1/2	2.5	50	JT2222H13A020	JT2222H13B020
JT2223	1/2	3.5	30	JT2223H13A020	JT2223H13B020
JT2322	3/4	2.5	50	JT2322H13A020	JT2322H13B020
JT2323	3/4	3.5	30	JT2323H13A020	JT2323H13B020
JT2427	1	8	20	JT2427H13A020	JT2427H13B020
Inverted Flare Connections – Standard Temperature: 32 to 200°F Fluid Temperature, 32 to 104°F Ambient					
JT2343	3/4	3.5	30	JT2343H13A020	JT2343H13B020
Sweat Connections – High Temperature: 32 to 250°F Fluid Temperature, 15 psig Steam, 32 to 169°F Ambient					
JS2211	1/2	1	75	JS2211H14A020	JS2211H14B020
JS2212	1/2	2.5	50	JS2212H14A020	JS2212H14B020
JS2213	1/2	3.5	30	JS2213H14A020	JS2213H14B020
JS2312	3/4	2.5	50	JS2312H14A020	JS2312H14B020
JS2313	3/4	3.5	30	JS2313H14A020	JS2313H14B020
JS2417	1	8	20	JS2417H14A020	JS2417H14B020
JS2517	1-1/4	8	20	JS2517H14A020	JS2517H14B020
Threaded NPT Connections – High Temperature: 32 to 250°F Fluid Temperature, 15 psig Steam, 32 to 169°F Ambient					
JS2221	1/2	1	75	JS2221H14A020	JS2221H14B020
JS2222	1/2	2.5	50	JS2222H14A020	JS2222H14B020
JS2223	1/2	3.5	30	JS2223H14A020	JS2223H14B020
JS2322	3/4	2.5	50	JS2322H14A020	JS2322H14B020
JS2323	3/4	3.5	30	JS2323H14A020	JS2323H14B020
JS2427	1	8	20	JS2427H14A020	JS2427H14B020
Inverted Flare Connections – High Temperature: 32 to 250°F Fluid Temperature, 15 psig Steam, 32 to 169°F Ambient					
JS2343	3/4	3.5	30	JS2343H14A020	JS2343H14B020

Note: JH13-style actuators can only be used with JT series valves; JH14-style actuators can only be used with JS series valves. Actuators and valve bodies can be ordered separately using the actuator and valve code numbers shown.

Assemblies – Two-Position On/Off Control

Two-Way Spring Open, High Closeoff



- Provides economical control of hot or chilled water and 15 psig steam for fan coil, baseboard radiator, and VAV reheat applications
- On/Off control from two-wire thermostat
- Forged brass body – 300 psig static pressure rating
- Buna-N (Standard Temperature) or Nitrile Disk (High Temperature) provides tight shutoff
- PopTop™ Actuator snaps in place for easy removal and assembly during installation
- Product Bulletin – LIT-977282

Valve	Size, inches	Cv	Closeoff	Actuator	
				24 VAC, 60 Hz JH23A020 – Standard Temperature JH24A020 – High Temperature	120 VAC, 60 Hz JH23B020 – Standard Temperature JH24B020 – High Temperature
Sweat Connections – Standard Temperature: 32 to 200°F Fluid Temperature, 32 to 104°F Ambient					
JT2211	1/2	1	75	JT2211H23A020	JT2211H23B020
JT2212	1/2	2.5	50	JT2212H23A020	JT2212H23B020
JT2213	1/2	3.5	30	JT2213H23A020	JT2213H23B020
JT2312	3/4	2.5	50	JT2312H23A020	JT2312H23B020
JT2313	3/4	3.5	30	JT2313H23A020	JT2313H23B020
JT2417	1	8	20	JT2417H23A020	JT2417H23B020
JT2517	1-1/4	8	20	JT2517H23A020	JT2517H23B020
Threaded NPT Connections – Standard Temperature: 32 to 200°F Fluid Temperature, 32 to 104°F Ambient					
JT2221	1/2	1	75	JT2221H23A020	JT2221H23B020
JT2222	1/2	2.5	50	JT2222H23A020	JT2222H23B020
JT2223	1/2	3.5	30	JT2223H23A020	JT2223H23B020
JT2322	3/4	2.5	50	JT2322H23A020	JT2322H23B020
JT2323	3/4	3.5	30	JT2323H23A020	JT2323H23B020
JT2427	1	8	20	JT2427H23A020	JT2427H23B020
Inverted Flare Connections – Standard Temperature: 32 to 200°F Fluid Temperature, 32 to 104°F Ambient					
JT2343	3/4	3.5	30	JT2343H23A020	JT2343H23B020
Sweat Connections – High Temperature: 32 to 250°F Fluid Temperature, 15 psig Steam, 32 to 169°F Ambient					
JS2211	1/2	1	75	JS2211H24A020	JS2211H24B020
JS2212	1/2	2.5	50	JS2212H24A020	JS2212H24B020
JS2213	1/2	3.5	30	JS2213H24A020	JS2213H24B020
JS2312	3/4	2.5	50	JS2312H24A020	JS2312H24B020
JS2313	3/4	3.5	30	JS2313H24A020	JS2313H24B020
JS2417	1	8	20	JS2417H24A020	JS2417H24B020
JS2517	1-1/4	8	20	JS2517H24A020	JS2517H24B020
Threaded NPT Connections – High Temperature: 32 to 250°F Fluid Temperature, 15 psig Steam, 32 to 169°F Ambient					
JS2221	1/2	1	75	JS2221H24A020	JS2221H24B020
JS2222	1/2	2.5	50	JS2222H24A020	JS2222H24B020
JS2223	1/2	3.5	30	JS2223H24A020	JS2223H24B020
JS2322	3/4	2.5	50	JS2322H24A020	JS2322H24B020
JS2323	3/4	3.5	30	JS2323H24A020	JS2323H24B020
JS2427	1	8	20	JS2427H24A020	JS2427H24B020
Inverted Flare Connections – High Temperature: 32 to 250°F Fluid Temperature, 15 psig Steam, 32 to 169°F Ambient					
JS2343	3/4	3.5	30	JS2343H24A020	JS2343H24B020

Note: JH23-style actuators can only be used with JT series valves; JH24-style actuators can only be used with JS series valves. Actuators and valve bodies can be ordered separately using the actuator and valve code numbers shown.

Ordering Guide

Three-Way Spring Closed, High Closeoff



- Provides economical control of hot or chilled water for fan coil, baseboard radiator, and VAV reheat applications
- On/Off control from two-wire thermostat
- Forged brass body – 300 psig static pressure rating
- Buna-N (Standard Temperature) or Nitrile Disk (High Temperature) provides tight shutoff
- PopTop™ Actuator snaps in place for easy removal and assembly during installation
- Product Bulletin – LIT-977282

Valve	Size, inches	Cv	Closeoff	Actuator	
				24 VAC, 60 Hz JH13A020 – Standard Temperature JH14A020 – High Temperature	120 VAC, 60 Hz JH13B020 – Standard Temperature JH14B020 – High Temperature
Sweat Connections – Standard Temperature: 32 to 200°F Fluid Temperature, 32 to 104°F Ambient					
JT3213	1/2	4	30	JT3213H13A020	JT3213H13B020
JT3315	3/4	5	25	JT3315H13A020	JT3315H13B020
JT3417	1	8	20	JT3417H13A020	JT3417H13B020
JT3517	1-1/4	8	20	JT3517H13A020	JT3517H13B020
Threaded NPT Connections – Standard Temperature: 32 to 200°F Fluid Temperature, 32 to 104°F Ambient					
JT3223	1/2	4	30	JT3223H13A020	JT3223H13B020
JT3325	3/4	5	25	JT3325H13A020	JT3325H13B020
JT3427	1	8	20	JT3427H13A020	JT3427H13B020
Inverted Flare Connections – Standard Temperature: 32 to 200°F Fluid Temperature, 32 to 104°F Ambient					
JT3343	3/4	4	30	JT3343H13A020	JT3343H13B020
Sweat Connections – High Temperature: 32 to 250°F Fluid Temperature, 32 to 169°F Ambient					
JS3213	1/2	4	30	JS3213H14A020	JS3213H14B020
JS3315	3/4	5	25	JS3315H14A020	JS3315H14B020
JS3417	1	8	20	JS3417H14A020	JS3417H14B020
JS3517	1-1/4	8	20	JS3517H14A020	JS3517H14B020
Threaded NPT Connections – High Temperature: 32 to 250°F Fluid Temperature, 32 to 169°F Ambient					
JS3223	1/2	4	30	JS3223H14A020	JS3223H14B020
JS3325	3/4	5	25	JS3325H14A020	JS3325H14B020
JS3427	1	8	20	JS3427H14A020	JS3427H14B020
Inverted Flare Connections – High Temperature: 32 to 250°F Fluid Temperature, 32 to 169°F Ambient					
JS3343	3/4	4	30	JS3343H14A020	JS3343H14B020

Note: JH13-style actuators can only be used with JT series valves; JH14-style actuators can only be used with JS series valves. Actuators and valve bodies can be ordered separately using the actuator and valve code numbers shown.

Contact customer service at:

1 (800) ASK JNSN

1 (800) 275 5676



J SERIES Zone Valves



Non-Spring Return

- 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
- Product Bulletin – LIT-977282

Valve	Size, inches	Cv	Closeoff	Actuator	
				Three-Wire Floating JT33A00T	0 to 10 VDC Proportional JP33A000
Two-Way – Sweat Connections: 32 to 200°F Fluid Temperature, 32 to 125°F Ambient					
JM2211	1/2	1	50	JM2211T33A00T	JM2211P33A000
JM2212	1/2	2	50	JM2212T33A00T	JM2212P33A000
JM2213	1/2	4	35	JM2213T33A00T	JM2213P33A000
JM2312	3/4	2	50	JM2312T33A00T	JM2312P33A000
JM2313	3/4	4	35	JM2313T33A00T	JM2313P33A000
JM2317	3/4	7.5	35	JM2317T33A00T	JM2317P33A000
JM2413	1	4	35	JM2413T33A00T	JM2413P33A000
JM2417	1	8	35	JM2417T33A00T	JM2417P33A000
JM2517	1-1/4	8	35	JM2517T33A00T	JM2517P33A000
Two-Way – Threaded NPT Connections: 32 to 200°F Fluid Temperature, 32 to 125°F Ambient					
JM2221	1/2	1	50	JM2221T33A00T	JM2221P33A000
JM2222	1/2	2	50	JM2222T33A00T	JM2222P33A000
JM2223	1/2	4	35	JM2223T33A00T	JM2223P33A000
JM2322	3/4	2	50	JM2322T33A00T	JM2322P33A000
JM2323	3/4	4	35	JM2323T33A00T	JM2323P33A000
JM2327	3/4	7.5	35	JM2327T33A00T	JM2327P33A000
JM2427	1	8	35	JM2427T33A00T	JM2427P33A000
Three-Way – Sweat Connections: 32 to 200°F Fluid Temperature, 32 to 125°F Ambient - Mixing Configuration Only					
JM3211	1/2	1	50	JM3211T33A00T	JM3211P33A000
JM3212	1/2	2	50	JM3212T33A00T	JM3212P33A000
JM3213	1/2	4	35	JM3213T33A00T	JM3213P33A000
JM3312	3/4	2	50	JM3312T33A00T	JM3312P33A000
JM3313	3/4	4	35	JM3313T33A00T	JM3313P33A000
JM3317	3/4	7.5	35	JM3317T33A00T	JM3317P33A000
JM3413	1	4	35	JM3413T33A00T	JM3413P33A000
JM3417	1	8	35	JM3417T33A00T	JM3417P33A000
JM3517	1-1/4	8	35	JM3517T33A00T	JM3517P33A000
Three-Way – Threaded NPT Connections: 32 to 200°F Fluid Temperature, 32 to 125°F Ambient - Mixing Configuration Only					
JM3221	1/2	1	50	JM3221T33A00T	JM3221P33A000
JM3222	1/2	2	50	JM3222T33A00T	JM3222P33A000
JM3223	1/2	4	35	JM3223T33A00T	JM3223P33A000
JM3322	3/4	2	50	JM3322T33A00T	JM3322P33A000
JM3323	3/4	4	35	JM3323T33A00T	JM3323P33A000
JM3327	3/4	7.5	35	JM3327T33A00T	JM3327P33A000
JM3427	1	8	35	JM3427T33A00T	JM3427P33A000

Actuators and valve bodies can be ordered separately using the actuator and valve code numbers shown.

Assemblies – Modulating Control

Spring Return Closed



- 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
- Product Bulletin – LIT-977282

Valve	Size, inches	Cv	Closeoff (Operating /Power Failure)	Actuator	
				Three-Wire Floating JT13A000	0 to 10 VDC Proportional JP13A000
Two-Way – Sweat Connections: 32 to 200°F Fluid Temperature, 32 to 125°F Ambient					
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 – Threaded NPT Connections: 32 to 200°F Fluid Temperature, 32 to 125°F Ambient					
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: 32 to 200°F Fluid Temperature, 32 to 125°F Ambient - Mixing Configuration Only					
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 – Threaded NPT Connections: 32 to 200°F Fluid Temperature, 32 to 125°F Ambient - 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

Actuators and valve bodies can be ordered separately using the actuator and valve code numbers shown.

Ordering Guide

Spring Return Open



- 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
- Product Bulletin – LIT-977282

Valve	Size, inches	Cv	Closeoff	Actuator	
				Three-Wire Floating JT23A000	0 to 10 VDC Proportional JP23A000
Two-Way – Sweat Connections: 32 to 200°F Fluid Temperature, 32 to 125°F Ambient					
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
Two-Way – Threaded NPT Connections: 32 to 200°F Fluid Temperature, 32 to 125°F Ambient					
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

Actuators and valve bodies can be ordered separately using the actuator and valve code numbers shown.

Contact customer service at:

1 (800) ASK JNSN

1 (800) 275 5676



JM Series Modulating Valves

To provide adequate valve authority for good control, the valve should be sized to provide the required GPM at a pressure drop of one to two times the pressure drop across the coil at design flow.

Example: Coil requirements 6 GPM @ 5 psig pressure drop. The valve should be selected to provide 6 GPM with a pressure drop between 5 and 10 psig (1 to 2 times the pressure drop across the coil).

Solution: From the table below, a 2 Cv valve will provide 6 GPM with a pressure drop across the valve of 9 psig. The 2 Cv valve should be selected as the pressure drop across the valve (9 psig) is between 1 and 2 times the pressure drop across the coil (5 psig) at the required flow of 6 GPM.

JM Series Modulating Valve Sizing Table

Pressure Drop psig	Flow Rate in GPM (Gallons Per Minute)				
	1.0 Cv	2.0 Cv	4.0 Cv	7.5 Cv	8.0 Cv
1	1.0	2.0	4.0	7.5	8.0
2	1.4	2.8	5.7	10.6	11.3
3	1.7	3.5	6.9	13.0	13.9
4	2.0	4.0	8.0	15.0	16.0
5	2.2	4.5	8.9	16.8	17.9
6	2.4	4.9	9.8	18.4	19.6
7	2.6	5.3	10.6	19.8	21.2
8	2.8	5.7	11.3	21.2	22.6
9	3.0	6.0	12.0	22.5	24.0
10	3.2	6.3	12.6	23.7	25.3
11	3.3	6.6	13.3	24.9	26.5
12	3.5	6.9	13.9	26.0	27.7
13	3.6	7.2	14.4	27.0	28.8
14	3.7	7.5	15.0	28.1	29.9
15	3.9	7.7	15.5	29.0	31.0
16	4.0	8.0	16.0	30.0	32.0
17	4.1	8.2	16.5	30.9	33.0
18	4.2	8.5	17.0	31.8	33.9
19	4.4	8.7	17.4	32.7	34.9
20	4.5	8.9	17.9	33.5	35.8
21	4.6	9.2	18.3	34.4	36.7
22	4.7	9.4	18.8	35.2	37.5
23	4.8	9.6	19.2	36.0	38.4
24	4.9	9.8	19.6	36.7	39.2
25	5.0	10.0	20.0	37.5	40.0
26	5.1	10.2	20.4	38.2	40.8
27	5.2	10.4	20.8	39.0	41.6
28	5.3	10.6	21.2	39.7	42.3
29	5.4	10.8	21.5	40.4	43.1
30	5.5	11.0	21.9	41.1	43.8

Note: JM Series valves cannot be used with steam systems.

Sizing JS and JT Series Water Valves

JS and JT Series Two-Position On/Off Valves

Valves are normally sized to the pipe size with the largest Cv possible that will meet the closeoff requirements. The sum of the pressure drop across the valve and the pressure drop across the coil at design flow must be less than the total pressure drop available between the supply and the return.

Example: A coil requires 6 GPM of chilled water at design conditions to provide rated cooling output. At 6 GPM, the pressure drop across the coil is 5 psig. The total pressure drop between the supply and the return at the coil is 30 psig. 1/2" pipe is being used to pipe the coil between the supply and the return.

Solution: A 2.5 Cv valve will supply 6.1 GPM at a pressure drop of 6 psig. The 2.5 Cv valve has a closeoff rating of 30 psig and therefore meets the needs of this application.

Two temperature ratings are available:

- JT (standard temperature ratings) ambient temperature 32 to 104°F, fluid temperature 32 to 200°F
- JS (high temperature ratings) ambient temperature 32 to 169°F, fluid temperature 32 to 250°F

JS and JT Series On/Off Valve Sizing Table

Pressure Drop psig	Flow Rate in GPM (Gallons Per Minute)			
	1.0 Cv	2.5 Cv	3.5 Cv	8.0 Cv
1	1.0	2.5	3.5	8.0
2	1.4	3.5	4.9	11.3
3	1.7	4.3	6.1	13.9
4	2.0	5.0	7.0	16.0
5	2.2	5.6	7.8	17.9
6	2.4	6.1	8.6	19.6
7	2.6	6.6	9.3	21.2
8	2.8	7.1	9.9	22.6
9	3.0	7.5	10.5	24.0
10	3.2	7.9	11.1	25.3
11	3.3	8.3	11.6	26.5
12	3.5	8.7	12.1	27.7
13	3.6	9.0	12.6	28.8
14	3.7	9.4	13.1	29.9
15	3.9	9.7	13.6	31.0
16	4.0	10.0	14.0	32.0
17	4.1	10.3	14.4	33.0
18	4.2	10.6	14.8	33.9
19	4.4	10.9	15.3	34.9
20	4.5	11.2	15.7	35.8
21	4.6	11.5	16.0	36.7
22	4.7	11.7	16.4	37.5
23	4.8	12.0	16.8	38.4
24	4.9	12.2	17.1	39.2
25	5.0	12.5	17.5	40.0
26	5.1	12.7	17.8	40.8
27	5.2	13.0	18.2	41.6
28	5.3	13.2	18.5	42.3
29	5.4	13.5	18.8	43.1
30	5.5	13.7	19.2	43.8

Sizing JS Series Steam Valves

JS Series Two-Position On/Off Valves

Steam valves for On/Off service are normally sized to be the same as the pipe with the largest Cv available. The table below provides the maximum Btu/H output for a given Cv and steam inlet pressure.

Steam Sizing Table (Maximum 15 psig) - Maximum Btu/H

Steam Pressure psig	1.0 Cv	2.5 Cv	3.5 Cv	8.0 Cv
1	11,310	28,280	39,600	90,510
2	16,470	41,180	57,660	131,780
3	20,710	51,760	72,470	165,650
4	24,560	61,390	85,940	196,440
5	28,110	70,270	98,380	224,880
6	31,550	78,870	110,410	252,370
7	34,810	87,020	121,830	278,470
8	38,020	95,060	133,080	304,180
9	41,140	102,840	143,980	329,090
10	44,230	110,570	154,790	353,810
11	47,250	118,120	165,360	377,970
12	50,220	125,540	175,760	401,730
15	59,070	147,670	206,740	472,550

Note: JI and JM series valves cannot be used with steam systems.