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ZONE VALVES

- Designed to fit in compact areas where On/Off control is required.
- Actuator installation is a snap with an easy, one-handed removal or engagement.
- Actuator has a synchronous motor that winds the return spring and moves the valve paddle to the desired position.
- Economical operation allows for low current draw and multiple valves per transformer.
- Enhanced motion gear action reduces motor wear and provides smooth, quiet operation with no water hammer and dependable close off.

Applications

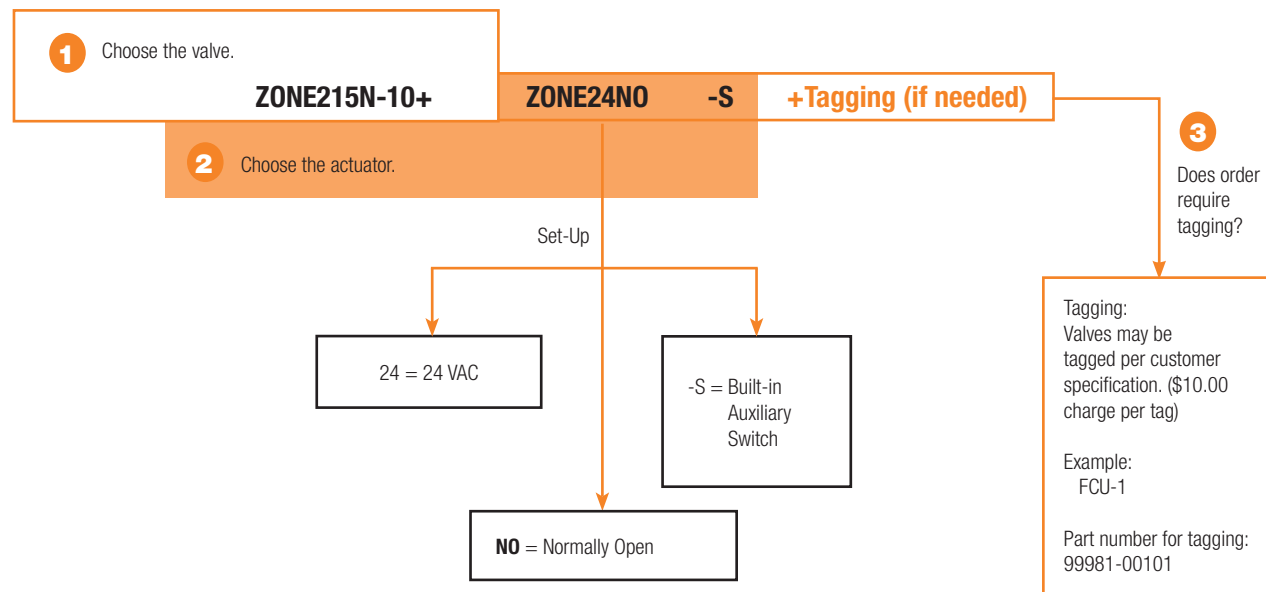
For high rise and commercial applications where higher close-off is required: fin tube casing, fan coils, radiant panels and duct coils. Zone valves control the flow of hot and chilled water through coils and heat exchangers.



Zone Valve Nomenclature

ZONE2	15	N	-10	ZONE24NO	-S
Valve Zone2 = 2-way Zone3 = 3-way	Valve Size 15 = 1/2" 20 = 3/4" 25 = 1"	End Fitting N = NPT Female Connection S = Sweat Connection	Cv Valve -10 = 1.0 -25 = 2.5 -35 = 3.5 -50 = 5.0 -80 = 8.0	Actuator Type 24NC = 24 Volt Normally Closed 24NO = 24 Volt Normally Open 120NC = 120 Volt Normally Closed 120NO = 120 Volt Normally Open	-S = Built-in Auxiliary Switch

Ordering Example



4 Complete Ordering Example: ZONE215N-10+ZONE24NO-S

Control Valve Product Range

Zone Valve Product Range 2-way and 3-way

2-way							
C _v	Valve Nominal Size		Type		Suitable Actuators		
	Inches	DN [mm]	NPT	Sweat	Normally Closed		Normally Open
1	½	15	ZONE215N-10	ZONE215S-10	Zone	Zone (with Switch)	Zone
2.5	½	15	ZONE215N-25	ZONE215S-25			
3.5	½	15	ZONE215N-35	ZONE215S-35			
3.5	¾	20	ZONE220N-35	ZONE220S-35			
5	¾	20	ZONE220N-50	ZONE220S-50			
8	1	25	ZONE225N-80	ZONE225S-80			

3-way							
C _v	Valve Nominal Size		Type		Suitable Actuators		
	Inches	DN [mm]	NPT	Sweat	Normally Closed		Normally Open
1	½	15	ZONE315N-10	ZONE315S-10	Zone	Zone (with Switch)	Zone
2.5	½	15	ZONE315N-25	ZONE315S-25			
3.5	½	15	ZONE315N-35	ZONE315S-35			
3.5	¾	20	ZONE320N-35	ZONE320S-35			
5	¾	20	ZONE320N-50	ZONE320S-50			
8	1	25	ZONE325N-80	ZONE325S-80			



Applications

- Fan coil units and baseboards where fail safe operation or 2-wire control is required
- Hydronic systems with variable or constant flow

Mode of Operation

Zone valves provide a convenient way to create individual zones or equipment isolation in a hydronic system. Utilizing one pump along with multiple zone valves, flow can be started, stopped, or diverted through the system to provide individual room or area comfort control and energy savings.

Product Features

Zone valve is designed to fit in compact areas where on/off control is required using 24 VAC or 120 VAC.

Actuator Specifications

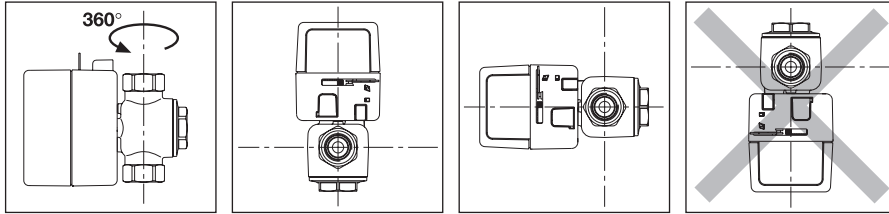
Control type	On/Off, Diverting
Manual override	(only NC versions)
Electrical connection	6" [15cm] wire lead 120 V; 18" [45 cm] wire lead 24 V

Valve Specifications

Service	chilled or hot water, 50% glycol
Flow characteristic	Two-way On/Off Three-way On/Off, Diverting Sizes ½", ¾" and 1"
Type of end fitting	NPT female ends or sweat
Materials	Body forged brass Stem stainless steel Seals EPDM
Pressure rating	300 psi
Media temp range	32°F to 212°F [0°C to 100°C]
Close off pressure	20-75 psi
Leakage	ANSI Class III 0.1%
Cv rating	see product chart for values

INSTALLATION

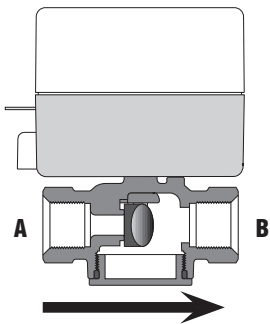
The valve can be installed vertically or horizontally, but not below horizontal.



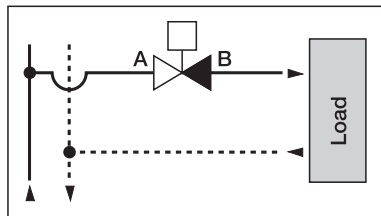
- A 3-way valve cannot be transformed into a 2-way valve and visa versa.
- The 2-way flow is from A to B (see diagram below) and must be installed so the paddle closes against the direction of flow.
- The 2-way valves can be installed on the supply or on the return; for correct installation it is necessary to respect the direction of flow indicated by the arrow on the body valve.
- The NC versions have an override handle.
- 3-way zone valves can be fitted with NC actuator only (rotate the valve body 180° for NO application).

	2-WAY	3-WAY
N.C. without power	Port "A" closed	Port "A" closed Port "B" open Port "AB" open
N.C. open with power	Port "A" open	Port "A" open Port "B" closed Port "AB" open
N.C. manually open	Port "A" open	Port "A" open Port "B" open Port "AB" open

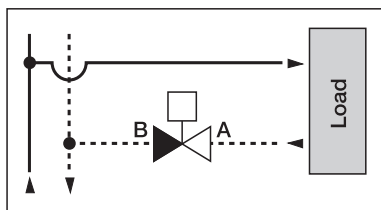
2-way Valve



Normally closed actuator

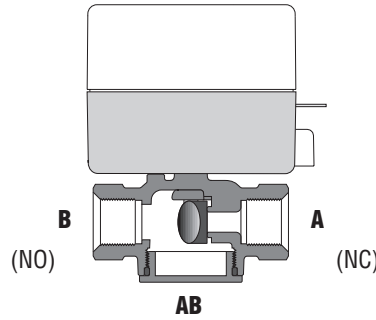


Installed on the supply

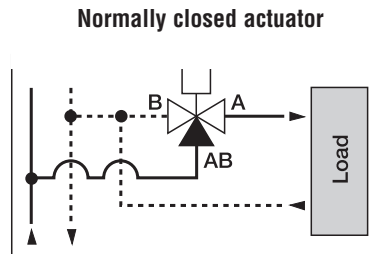


Installed on the return

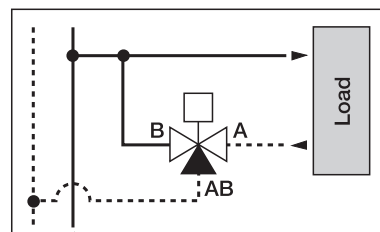
3-way Valve



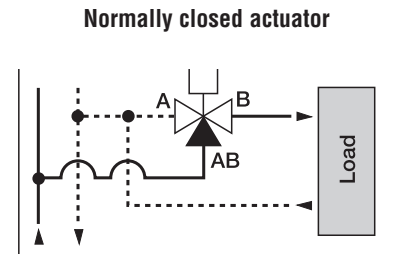
Normally closed actuator



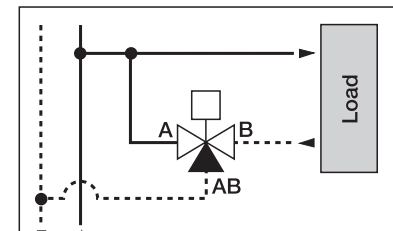
Installed on the supply in diverting configuration



Installed on the return



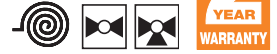
Installed on the supply in diverting configuration



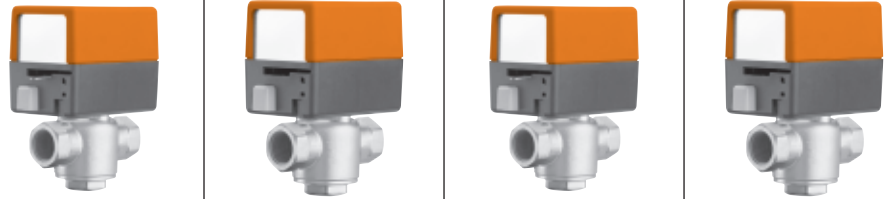
Installed on the return

Valve Specifications

Service	chilled or hot water, 50% glycol
Flow characteristic	two-way: on/off three-way: on/off, diverting
Sizes	½", ¾" and 1"
Type of end fitting	female NPT or sweat
Materials:	
Body	forged brass
Stem	stainless steel
Seats	EPDM
Seals	machined brass
Pressure rating	300 psi
Media temp. range	32°F to 212°F [0°C to 100°C]
Leakage	ANSI Class III 0.1%



Spring Return Actuators



ACTUATOR PART #	ZONE24NC	ZONE24NO	ZONE24NC-S	ZONE24NO-S
Control type	On/Off	On/Off	On/Off	On/Off
Manual override	•		•	
Running time	Motor: 20-40 seconds Spring: 5 seconds	Motor: 20-40 seconds Spring: 5 seconds	Motor: 20-40 seconds Spring: 5 seconds	Motor: 20-40 seconds Spring: 5 seconds
Noise level	max. 35 dB(A)	max. 35 dB(A)	max. 35 dB(A)	max. 35 dB(A)
ELECTRICAL CONNECTION:				
24 V 18" wire	•	•	•	•

Zone Valve Model #	Cv Rating	Valve Nominal Size		Close-Off psi					
		Inches	DN mm						
2-WAY WITH NPT FEMALE CONNECTION									
ZONE215N-10	1	½	15	75	\$162.00	\$162.00	\$174.00	\$174.00	
ZONE215N-25	2.5	½	15	50	\$162.00	\$162.00	\$174.00	\$174.00	
ZONE215N-35	3.5	½	15	30	\$162.00	\$162.00	\$174.00	\$174.00	
ZONE220N-35	3.5	¾	20	30	\$178.00	\$178.00	\$190.00	\$190.00	
ZONE220N-50	5	¾	20	25	\$178.00	\$178.00	\$190.00	\$190.00	
ZONE225N-80	8	1	25	20	\$230.00	\$230.00	\$242.00	\$242.00	
3-WAY WITH NPT FEMALE CONNECTION									
ZONE315N-10	1	½	15	75	\$178.00	†	\$190.00	†	
ZONE315N-25	2.5	½	15	50	\$178.00	†	\$190.00	†	
ZONE315N-35	3.5	½	15	30	\$178.00	†	\$190.00	†	
ZONE320N-35	3.5	¾	20	30	\$192.00	†	\$204.00	†	
ZONE320N-50	5	¾	20	25	\$192.00	†	\$204.00	†	
ZONE325N-80	8	1	25	20	\$246.00	†	\$258.00	†	
2-WAY WITH SWEAT CONNECTION									
ZONE215S-10	1	½	15	75	\$158.00	\$158.00	\$170.00	\$170.00	
ZONE215S-25	2.5	½	15	50	\$158.00	\$158.00	\$170.00	\$170.00	
ZONE215S-35	3.5	½	15	30	\$158.00	\$158.00	\$170.00	\$170.00	
ZONE220S-35	3.5	¾	20	30	\$170.00	\$170.00	\$184.00	\$184.00	
ZONE220S-50	5	¾	20	25	\$170.00	\$170.00	\$184.00	\$184.00	
ZONE225S-80	8	1	25	20	\$224.00	\$224.00	\$236.00	\$236.00	
3-WAY WITH SWEAT CONNECTION									
ZONE315S-10	1	½	15	75	\$172.00	†	\$186.00	†	
ZONE315S-25	2.5	½	15	50	\$172.00	†	\$186.00	†	
ZONE315S-35	3.5	½	15	30	\$172.00	†	\$186.00	†	
ZONE320S-35	3.5	¾	20	30	\$188.00	†	\$200.00	†	
ZONE320S-50	5	¾	20	25	\$188.00	†	\$200.00	†	
ZONE325S-80	8	1	25	20	\$236.00	†	\$248.00	†	

† Three-way valve can be installed in NC or NO configuration using the NC actuator.

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Electronic Zone Valves, Spring Return Actuator

Two-way and Three-way Valves with NPT or Sweat Connection



Valve Specifications

Service	chilled or hot water, 50% glycol
Flow characteristic	two-way: on/off three-way: on/off, diverting
Sizes	½", ¾" and 1"
Type of end fitting	female NPT or sweat
Materials:	
Body	forged brass
Stem	stainless steel
Seats	EPDM
Seals	machined brass
Pressure rating	300 psi
Media temp. range	32°F to 212°F [0°C to 100°C]
Leakage	ANSI Class III 0.1%



Spring Return Actuators



ACTUATOR PART #	ZONE120NC	ZONE120NO	ZONE120NC-S	ZONE120NO-S
Control type	On/Off	On/Off	On/Off	On/Off
Manual override	•	•	•	•
Running time	Motor: 20-40 seconds Spring: 5 seconds	Motor: 20-40 seconds Spring: 5 seconds	Motor: 20-40 seconds Spring: 5 seconds	Motor: 20-40 seconds Spring: 5 seconds
Noise level	max. 35 dB(A)	max. 35 dB(A)	max. 35 dB(A)	max. 35 dB(A)
ELECTRICAL CONNECTION:				
120 V 6" wire	•	•	•	•

Zone Valve Model #	Cv Rating	Valve Nominal Size			Close-Off psi
		VNS IN	DN mm		

2-WAY WITH NPT FEMALE CONNECTION

ZONE215N-10	1	½	15	75	\$162.00	\$162.00	\$174.00	\$174.00
ZONE215N-25	2.5	½	15	50	\$162.00	\$162.00	\$174.00	\$174.00
ZONE215N-35	3.5	½	15	30	\$162.00	\$162.00	\$174.00	\$174.00
ZONE220N-35	3.5	¾	20	30	\$178.00	\$178.00	\$190.00	\$190.00
ZONE220N-50	5	¾	20	25	\$178.00	\$178.00	\$190.00	\$190.00
ZONE225N-80	8	1	25	20	\$230.00	\$230.00	\$242.00	\$242.00

3-WAY WITH NPT FEMALE CONNECTION

ZONE315N-10	1	½	15	75	\$178.00	†	\$190.00	†
ZONE315N-25	2.5	½	15	50	\$178.00	†	\$190.00	†
ZONE315N-35	3.5	½	15	30	\$178.00	†	\$190.00	†
ZONE320N-35	3.5	¾	20	30	\$192.00	†	\$204.00	†
ZONE320N-50	5	¾	20	25	\$192.00	†	\$204.00	†
ZONE325N-80	8	1	25	20	\$246.00	†	\$258.00	†

2-WAY WITH SWEAT CONNECTION

ZONE215S-10	1	½	15	75	\$158.00	\$158.00	\$170.00	\$170.00
ZONE215S-25	2.5	½	15	50	\$158.00	\$158.00	\$170.00	\$170.00
ZONE215S-35	3.5	½	15	30	\$158.00	\$158.00	\$170.00	\$170.00
ZONE220S-35	3.5	¾	20	30	\$170.00	\$170.00	\$184.00	\$184.00
ZONE220S-50	5	¾	20	25	\$170.00	\$170.00	\$186.00	\$184.00
ZONE225S-80	8	1	25	20	\$224.00	\$224.00	\$236.00	\$236.00

3-WAY WITH SWEAT CONNECTION

ZONE315S-10	1	½	15	75	\$172.00	†	\$186.00	†
ZONE315S-25	2.5	½	15	50	\$172.00	†	\$186.00	†
ZONE315S-35	3.5	½	15	30	\$172.00	†	\$186.00	†
ZONE320S-35	3.5	¾	20	30	\$188.00	†	\$200.00	†
ZONE320S-50	5	¾	20	25	\$188.00	†	\$200.00	†
ZONE325S-80	8	1	25	20	\$236.00	†	\$248.00	†

† Three-way valve can be installed in NC or NO configuration using the NC actuator.

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