

ZoneValves

VZ Series

VZ Series Zone Valves are ideal for control of fan coil units, baseboard radiation units, unit heaters, and or any hot water/chilled water application requiring two-position, spring return control.

VZ Series valves are available in sizes from 1/2" to 1," with sweat or threaded connections. All valves feature a Synchon™ motor, proven worldwide for quality, reliability and long life.

A manual opening lever is provided to unseat the valve while sweating in the connections. The manual lever also allows for flushing the piping system upon completion of the installation. The manual lever automatically releases when the controller or thermostat sends an “open” signal to the valve.



VZ Series Zone Valves

SPECIFICATIONS

Product	VZ Series Zone Valves	
Flow Characteristic	Quick Opening	
Flow Coefficient (Cv)	See Table 1	
Closeoff Pressure Rating	See Table 1	
Fluid/Ambient Temperature Limits	200° F Max. Fluid Temperature at 104° F Ambient (94° C Max. Fluid Temperature at 40° C Ambient)	
Power Consumption	5W, 6.8 VA	
Stroke Timing	Power Stroke (Open): 9 to 11 seconds Return Stroke (Close): 4 to 5 seconds	
Motor Leads	6" (150 mm) 22 AWG wire, with 3/4" conduit provision	
Seat Leakage	Zero Leakage (100% bubble tight closeoff) at rated differential pressure	
Materials	Body	Forged Brass
	Stem	Nickel Plated Brass
	Seat	Brass
	Paddle	Buna N
	Enclosure	Stainless Steel Baseplate/Aluminum Cover
	Motor	UL Recognized, CSA and CE Certified
Shipping Weight	3 lb. (1.4 kg) Maximum	
Agency Compliance	UL Listed, File No. MH 28700	

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

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MODELS

Sweat Connections

Closeoff ΔP (PSI)	Voltage	2-Way Normally Closed Valves*		3-Way Mixing or Diverting Valves	
		Description	2-Way Item No.	Description	3-Way Item No.
25	24 VAC	1/2" Sweat, 2.5Cv	VZ222SCA0	1/2" Sweat, 3.0Cv	VZ322SCA0
25	24 VAC	3/4" Sweat, 2.5Cv	VZ232SCA0	3/4" Sweat, 3.0Cv	VZ332SCA0
10	24 VAC	3/4" Sweat, 4.0Cv	VZ234SCA0	3/4" Sweat, 5.0Cv	VZ334SCA0
8	24 VAC	1" Sweat, 7.0Cv	VZ247SCA0	1" Sweat, 7.0Cv	VZ347SCA0
25	120 VAC	1/2" Sweat, 2.5Cv	VZ222SCB0	1/2" Sweat, 3.0Cv	VZ322SCB0
25	120 VAC	3/4" Sweat, 2.5Cv	VZ232SCB0	3/4" Sweat, 3.0Cv	VZ332SCB0
10	120 VAC	3/4" Sweat, 4.0Cv	VZ234SCB0	3/4" Sweat, 5.0Cv	VZ334SCB0
8	120 VAC	1" Sweat, 7.0Cv	VZ247SCB0	1" Sweat, 7.0Cv	VZ347SCB0
25	220/240 VAC	1/2" Sweat, 2.5Cv	VZ222SCU0	1/2" Sweat, 3.0Cv	VZ322SCU0
25	220/240 VAC	3/4" Sweat, 2.5Cv	VZ232SCU0	3/4" Sweat, 3.0Cv	VZ332SCU0
10	220/240 VAC	3/4" Sweat, 4.0Cv	VZ234SCU0	3/4" Sweat, 5.0Cv	VZ334SCU0
8	220/240 VAC	1" Sweat, 7.0Cv	VZ247SCU0	1" Sweat, 7.0Cv	VZ347SCU0

NPT Connections

Closeoff ΔP (PSI)	Voltage	2-Way Normally Closed Valves*		3-Way Mixing or Diverting Valves	
		Description	2-Way Item No.	Description	3-Way Item No.
25	24 VAC	1/2" NPT, 2.5Cv	VZ222NCA0	1/2" NPT, 3.0Cv	VZ322NCA0
25	24 VAC	3/4" NPT, 2.5Cv	VZ232NCA0	3/4" NPT, 3.0Cv	VZ332NCA0
10	24 VAC	3/4" NPT, 4.0Cv	VZ234NCA0	3/4" NPT, 5.0Cv	VZ334NCA0
15	24 VAC	1" NPT, 8.0Cv	VZ248NCA0	1" NPT, 7.5Cv	VZ348NCA0
25	120 VAC	1/2" NPT, 2.5Cv	VZ222NCB0	1/2" NPT, 3.0Cv	VZ322NCB0
25	120 VAC	3/4" NPT, 2.5Cv	VZ232NCB0	3/4" NPT, 3.0Cv	VZ332NCB0
10	120 VAC	3/4" NPT, 4.0Cv	VZ234NCB0	3/4" NPT, 5.0Cv	VZ334NCB0
15	120 VAC	1" NPT, 8.0Cv	VZ248NCB0	1" NPT, 7.5Cv	VZ348NCB0
25	220/240 VAC	1/2" NPT, 2.5Cv	VZ222NCU0	1/2" NPT, 3.0Cv	VZ322NCU0
25	220/240 VAC	3/4" NPT, 2.5Cv	VZ232NCU0	3/4" NPT, 3.0Cv	VZ332NCU0
10	220/240 VAC	3/4" NPT, 4.0Cv	VZ234NCU0	3/4" NPT, 5.0Cv	VZ334NCU0
15	220/240 VAC	1" NPT, 8.0Cv	VZ248NCU0	1" NPT, 7.5Cv	VZ348NCU0

*Note: For 2-way Normally Open valves, change the "C" to an "N"

PIPING & INSTALLATION

VZ Series valves must be piped with the paddle closing against the direction of flow (except in 3-way diverting applications). The manual opening lever can be used upon installation to leave all valves open for flushing. The lever will automatically release upon receiving the control signal to open.

NOTE: VZ Series Valves are designed for use on closed hydronic systems. These valves are not recommended for use on applications requiring high amounts of make-up water. High levels of dissolved oxygen and chlorine may attack the rubber and result in premature failure.

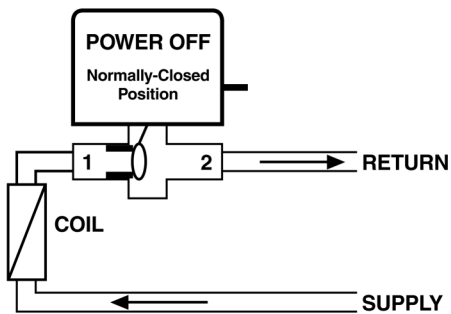


Figure 2: 2-Way Normally Closed Piping

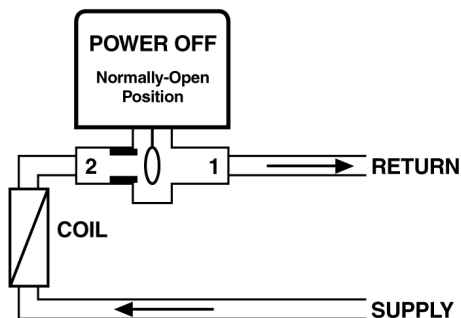


Figure 3: 2-Way Normally Open Piping

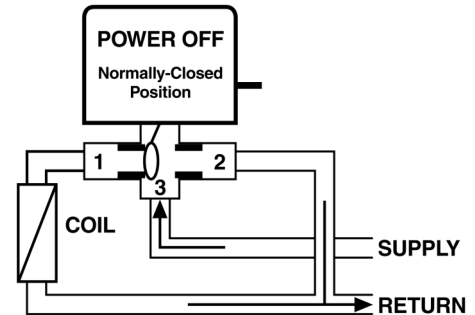


Figure 4: 3-Way Normally Closed Bypass Piping

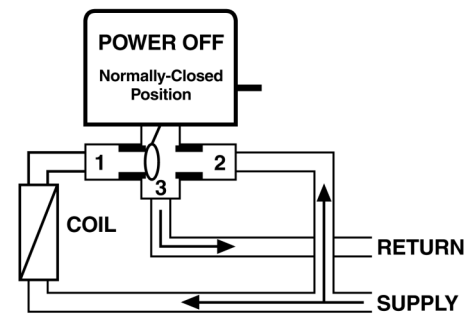


Figure 5: 3-Way Normally Closed Mixing Piping

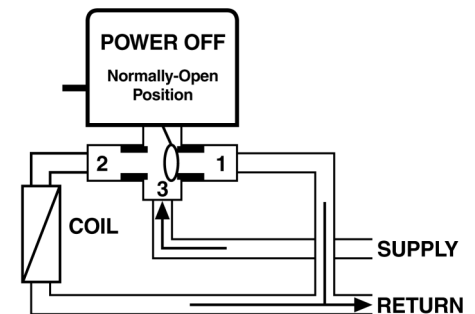


Figure 6: 3-Way Normally Open Bypass Piping

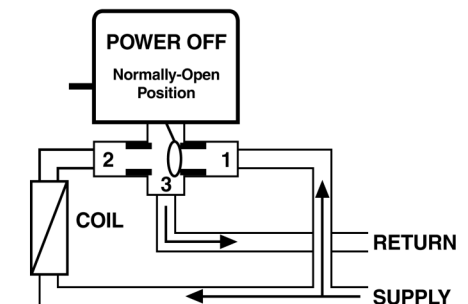


Figure 7: 3-Way Normally Open Mixing Piping

DIMENSIONS

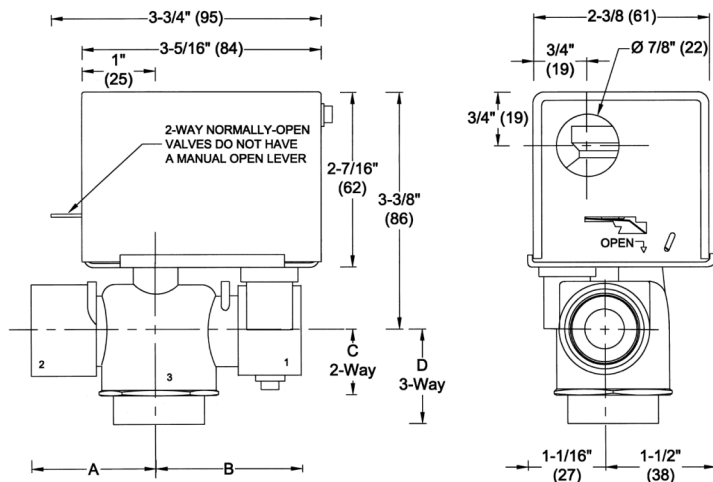


Figure 9: Dimensions in. (mm)

Valve	A	B	C	D
1/2" Sweat	1-5/16" (33)	2-3/16" (55)	5/16" (24)	1-5/16" (33)
3/4" Sweat	1-5/16" (33)	2-3/16" (55)	5/16" (24)	1-1/2" (39)
1" Sweat	1-11/16" (43)	1-15/16 (50)	5/16" (24)	1-1/2" (39)
1 1/4" Sweat	1-13/16" (46)	1-15/16 (50)	1-1/8" (29)	2-3/16" (55)
1/2" NPT/BSP	1-5/16" (33)	2-3/16" (55)	5/16" (24)	1-5/16" (33)
3/4" NPT/BSP	1-11/16" (43)	1-15/16 (50)	5/16" (24)	1-7/16" (36)
1" NPT/BSP	1-13/16" (46)	1-15/16 (50)	1-1/8" (29)	2-3/16" (55)

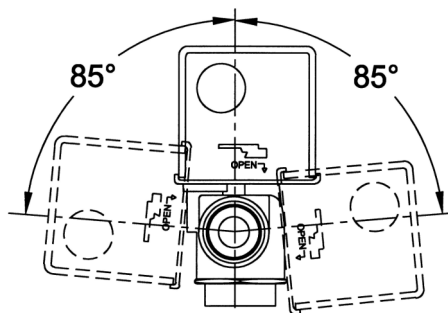


Figure 10: Mounting Orientation

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