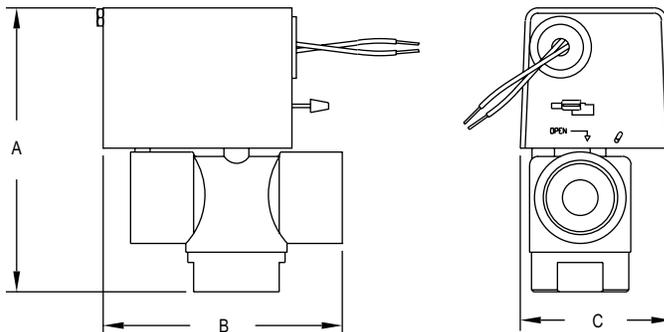
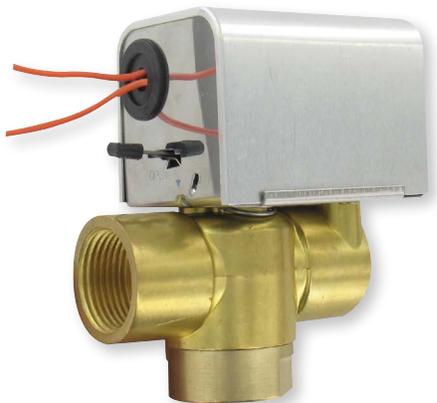




Series 3ZV1 Three-Way Zone Valves

Specifications - Installation and Operating Instructions



| Size | A in (mm) | C in (mm) | B in (mm) |
|------|--------------|--------------|--------------|
| 1/2" | 4.57 (116) | 2.48 (63) | 3.54(90) |
| 3/4" | 4.69 (119) | 2.48 (63) | 3.66 (93) |
| 1" | 4.92 (125) | 2.48 (63) | 3.74 (95) |

Series 3ZV1 Three-Way Zone Valves are ideal for flow control in hot and cold water HVAC systems. The 3ZV1 is electrically driven to open and spring to close. Units are available in 1/2", 3/4", and 1" sizes with 24 or 120 VAC power supply. Easy to install these units are direct replacements for competitor units. Manual override lever is easily accessible externally. Consult factory for 220 VAC power supply, optional auxiliary switches, and BSP or sweat connections.

| MODEL CHART | | | | |
|-------------|------|------|----------------|---------------------------------|
| Model | Cv | Size | Supply Voltage | Close-off Pressure psi (bar) |
| 3ZV1022 | 3.78 | 1/2" | 120 VAC | 22 (1.5) |
| 3ZV1024 | 3.78 | 1/2" | 24 VAC | 22 (1.5) |
| 3ZV1032 | 3.78 | 3/4" | 120 VAC | 14.5 (1.0) |
| 3ZV1034 | 3.78 | 3/4" | 24 VAC | 14.5 (1.0) |
| 3ZV1042 | 8.02 | 1" | 120 VAC | 10 (.70) |
| 3ZV1044 | 8.02 | 1" | 24 VAC | 10 (.70) |

Instructions for Operation

Normally-closed 2-way and diverting 3-way valve are installed as Figure 1, 2 and 3 shows. For high building, pressure-reducing valves should be installed on branch pipes at ground floor.

Note: When the valve is mounted on a horizontal pipe, the angle must be positioned less than 85° (see Figure 4).

When the valve is mounted on a vertical pipe, prevent from dripping. Manual operating lever: Move the manual operating lever slowly and hold in the retaining notch, and then the valve is in normal-opened position. When the valve is first powered on, the lever goes back to the automatic position again.

SPECIFICATIONS

Service: Compatible fluids.

Body: 3-way.

Line Size: 1/2" to 1".

End Connections: Female NPT (optional BSP, sweat connections).

Pressure Limits: Maximum: 300 psi (20.7 bar); Close-off: See model chart.

Temperature Limits: Ambient: 32 to 104°F (0 to 40°C); Process: 32 to 201°F (0 to 94°C).

Wetted Materials: Brass, SS, NBR.

Flow Characteristic: Quick opening.

Power Requirements: 120 VAC or 24 VAC, ±10%, 50/60 Hz. (optional 220 VAC).

Power Consumption: 6.5 W.

Input: On/off.

Electrical Connection: 22 AWG, 5" (127 mm) long.

Cycle Time: Opening time: 11 s; Closing time: 5 s.

Enclosure Rating: General purpose.

Housing Material: Aluminum.

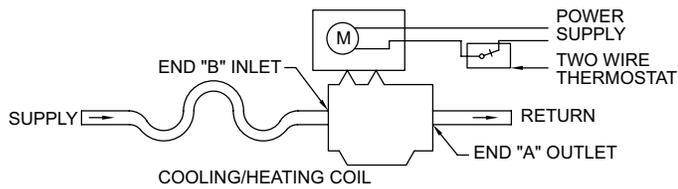


Figure 1: Two-way valve

When install normal-closed 2-way valve, the flow direction is from end "B" to "A", for normal-open valve, it is from end "A" to "B". In both situations, the valve closing direction is opposite.

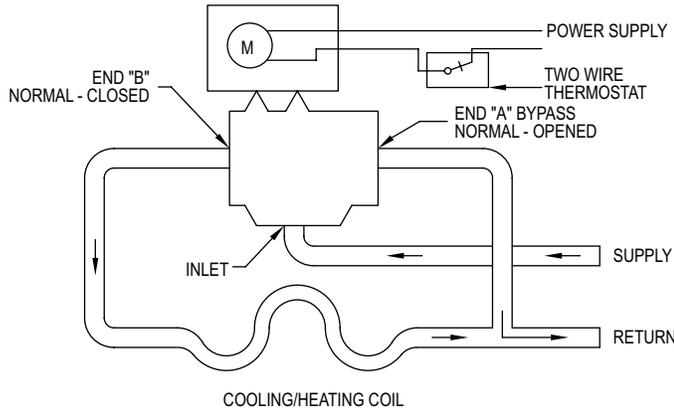


Figure 2: Three-way valve

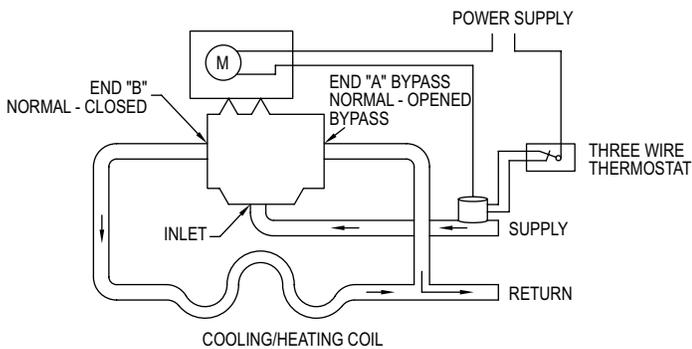


Figure 3: Three-way valve with box change-over switch

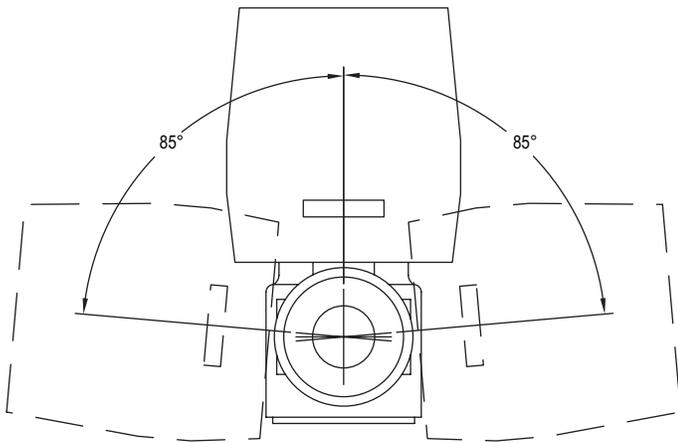
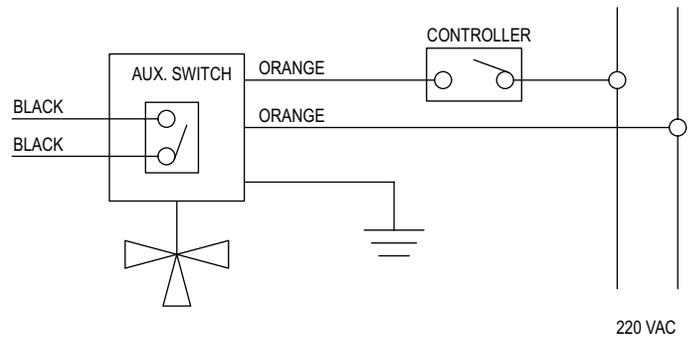


Figure 4

When installing a diverting 3-way valve, end "B" is the supply to the coil, end "A" is the by-pass. There is no mark for an inlet. End "A" and "B" are marked on the bottom of the valve.

When the valve has an auxiliary micro switch, the wiring diagram is as follows:



MAINTENANCE

Upon final installation of the Series 3ZV1 Three-Way Zone Valves, no routine maintenance is required. A periodic check of the system calibration is recommended. The Series 3ZV1 is not field serviceable and should be returned if repair is needed (field repair should not be attempted and may void warranty). Be sure to include a brief description of the problem plus any relevant application notes. Contact customer service to receive a return good authorization number before shipping.