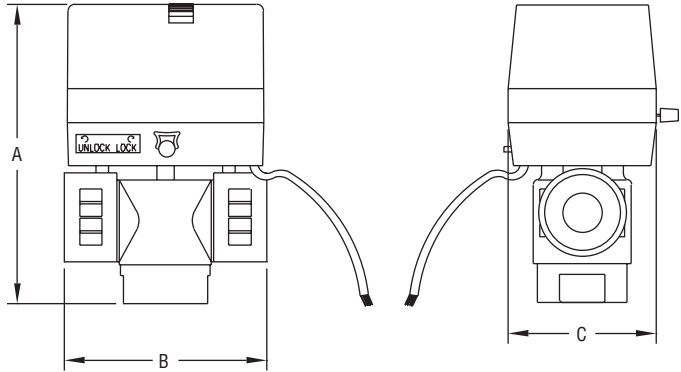




**Series 3ZV2 Three-Way Detachable Zone Valves**

**Specifications - Installation and Operating Instructions**



Size	A [in (mm)]	B [in (mm)]	C [in (mm)]
1/2"	4.92 (125)	3.15 (80)	2.64 (67)
3/4"	5 (127)	3.50 (89)	2.64 (67)
1"	5.47 (139)	3.66 (93)	2.64 (67)
1-1/4"	5.75 (146)	4.13 (105)	2.64 (67)

**3ZV2 Series Zone Valves** are ideal for flow control in hot and cold water HVAC systems. Zone valves are typically used in conjunction with a thermostat to control room temperature. The 3ZV2 is electrically driven to open and or close via a bidirectional motor. Units are available in 1/2", 3/4", 1", and 1-1/4" 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.

3ZV2 models come in floating or modulating input types. Floating units are controlled directly from the thermostat and modulation units accept either a 4 to 20 mA or 0 to 10 VDC input. Modulating models include a motor time out feature that automatically turns off the motor after the full stroke of the valve to increase motor life. Featured in the 3ZV2 is a detachable actuator that is easily removable by a turn key allowing the valve body to be installed without the actuator. Actuator housing is constructed of fire resistant plastic.

**Features:**

- Manual override lever
- Removable actuator
- Motor time out for controllers that do not automatically turn off their signal after the full stroke of the valve

Model	Cv	Size	Supply Voltage	Input
3ZV20212	3.8	1/2"	120 VAC	Floating
3ZV20214	3.8	1/2"	24 VAC	Floating
3ZV20224	3.8	1/2"	24 VAC	Modulating
3ZV20312	5.4	3/4"	120 VAC	Floating
3ZV20314	5.4	3/4"	24 VAC	Floating
3ZV20324	5.4	3/4"	24 VAC	Modulating
3ZV20412	6.7	1"	120 VAC	Floating
3ZV20414	6.7	1"	24 VAC	Floating
3ZV20424	6.7	1"	24 VAC	Modulating
3ZV20512	9.8	1-1/4"	120 VAC	Floating
3ZV20514	9.8	1-1/4"	24 VAC	Floating
3ZV20524	9.8	1-1/4"	24 VAC	Modulating

**SPECIFICATIONS**

- Service:** Compatible fluids.
- Body:** 3-way.
- Line Size:** 1/2" to 1-1/4".
- End Connections:** Female NPT (optional BSP, sweat connections).
- Pressure Limits:** Maximum: 300 psi (20.7 bar), Close-off: 43 psi (2.96 bar).
- Temperature Limits:** Ambient: 32 to 104°F (0 to 40°C), Process: 37 to 201°F (3 to 94°C).
- Wetted Materials:** Brass, stainless steel, NBR.
- Flow Characteristic:** Quick opening.
- Input: Floating:** 3-wire, Modulating: 0 to 10 VDC or 4 to 20 mA (24 VAC power only).
- Power Requirements:** 120 VAC or 24 VAC, ±10%, 50/60 Hz. (Optional 220 VAC).
- Power Consumption:** Floating: 2.5 VA; Modulating: 3.5 VA.
- Electrical Connection:** 18 AWG jacketed, 9" (228 mm) long.
- Cycle Time:** Opening Time: 50 to 65 seconds.
- Enclosure Rating:** General purpose.
- Housing Material:** PVC and polycarbonate.

### Instructions for Operation and Use

1. Assembly and disassembly of the actuator and valve body fit the square axis of the valve body with the square hole in the actuator and insert (make sure that another axis will not touch the actuator). Rotate the actuator or valve body and make another axis of the valve body aim at the corresponding hole in the actuator. Use a small amount of force to press the actuator. Turn the key clockwise to lock the actuator into place. The assembly of the actuator and valve body is finished. When disassembling, turn the locking key counter clockwise, and use a little force to pull out the actuator in the opposite direction used for assembly.
2. 3-way valve installed (Figure 2 and 3). For high building, the pressure-reducing valve should be installed on branch pipe at ground floor.
3. Note: When the valve is mounted on a horizontal pipe, the angle must be positioned at less than 85° (see Figure 4). When the valve is mounted on a vertical pipe, it must also be prevented from dripping.
4. Manual operating lever: The valve is unlocked when you press the manual operating button. Moving the manual lever can make the valve return. When releasing the button, the valve will be locked again automatically.
5. When installing 3-way valve, end "B" supplies to the coil, end "A" is bypass, there is no mark for inlet, end "A" and "B" are marked on the bottom of the valve body.

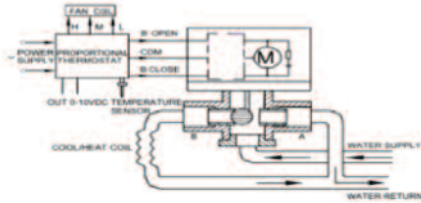


Fig. 3

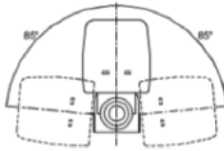
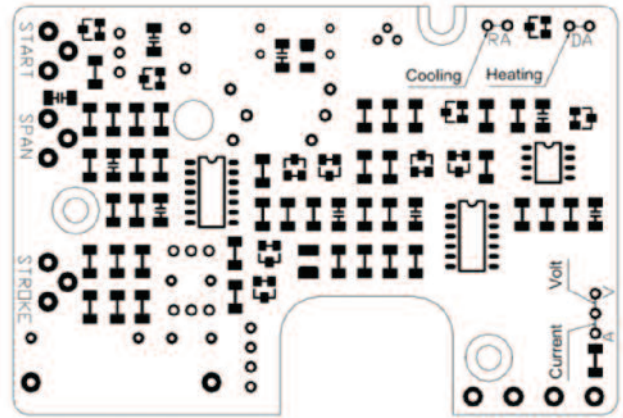


Fig. 4

### Electronic Card Setting Diagram



### MAINTENANCE

Upon final installation of the Series 3ZV2 Three-Way Detachable Zone Valves, no routine maintenance is required. A periodic check of the system calibration is recommended. The Series 3ZV2 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.