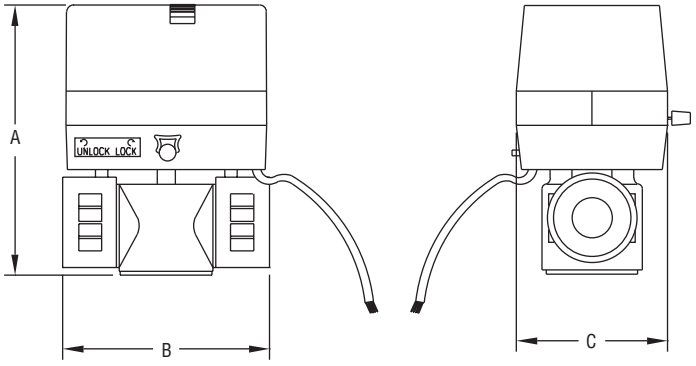
Series ZV2 Two-Way Detachable Zone Valves

Specifications - Installation and Operating Instructions



Size	A [in (mm)]	B [in (mm)]	C [in (mm)]
1/2″	4.53 (115)	3.15 (80)	2.64 (67)
3/4″	4.53 (115)	3.50 (89)	2.64 (67)
1″	4.61 (117)	3.66 (93)	2.64 (67)
1-1/4″	5.16 (131)	4.13 (105)	2.64 (67)

ZV2 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 ZV2 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.

ZV2 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 ZV2 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
ZV20212	3.8	1/2″	120 VAC	Floating
ZV20214	3.8	1/2″	24 VAC	Floating
ZV20224	3.8	1/2″	24 VAC	Modulating
ZV20312	3.8	3/4″	120 VAC	Floating
ZV20314	3.8	3/4″	24 VAC	Floating
ZV20324	3.8	3/4″	24 VAC	Modulating
ZV20412	8.0	1″	120 VAC	Floating
ZV20414	8.0	1″	24 VAC	Floating
ZV20424	8.0	1″	24 VAC	Modulating
ZV20512	11.7	1-1/4″	120 VAC	Floating
ZV20514	11.7	1-1/4″	24 VAC	Floating
ZV20524	11.7	1-1/4″	24 VAC	Modulating

SPECIFICATIONS
Service: Compatible fluids.
Body: 2-way, normally closed.
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.

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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, make another axis of the valve body aim at the corresponding hole in the actuator. Use a little force to press the actuator. Turn the locking key clockwise to lock the actuator into place. The assembly of the actuator and valve body is finished. When disassembling, turn the locking key counterclockwise, and use a little force to pull out the actuator in the opposite direction used during assembly.

2. 2-way valves are installed as Figure 2 and 3 shows. For high building, 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 less than 85° (see Figure 4). When the valve is mounted on a vertical pipe, prevent 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 a 2-way valve, the flow direction is from end “B” to “A”. For a normal-open valve, it is from end “A” to “B”. In both situations, the valve closing direction is opposite.

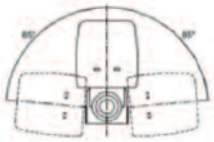
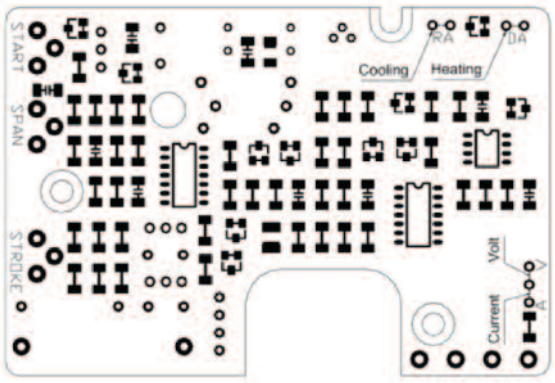


Fig. 4

Electronic Card Setting Diagram



MAINTENANCE

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

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