

**31050  
Thru  
31058  
Submittal**

**1/2" through 1-1/4" Zone Valve  
2 way and 3 way bodies  
24 Volt through 277 Volt**



**Function**

Z-one valves are used to automatically shut-off the flow or redirect hot and chilled water in hydronic heating and air conditioning systems. The motorized two position, on/off, spring return Z1 series actuator has a end mounted push button for quick installation to valve body. The actuator is equipped with or without auxiliary switch and configured Normally Closed or Normally Opened with wire or terminal connections. The zero leakage high temperature zone valve body Z2 series is 2-way straight through and the valve body Z3 series is 3-way diverting. The Z1 series actuator is easily attached by a push button lock and without tools. The high temperature and high close-off performance characteristics of these zone valves, combined with the compact size, makes them suitable to fit inside baseboard or directly in fan coils units.

**Technical specification**

**Valve body**

Material: - body: forged brass  
 - seat: machined brass  
 - stem: stainless steel  
 - two o-ring seals and paddle: EPDM  
 Flow: 1 to 7.5 Cv (0.9 to 115°C)  
 Medium: water and glycol, low pressure steam  
 Maximum percent of glycol: 50%  
 Temperature range: 32 to 240°F (0 to 115°C)  
 Max. static pressure: 15 psi (1 bar) steam  
 300 psi (20 bar)  
 Max. closeoff pressure: 20 to 75 psi (138 to 517 kPa)  
 Connection: - sweat: 1/2", 3/4" & 1 1/4"  
 - NPT female: 1/2", 3/4" & 1"  
 - SAE flare: 1/2"  
 - inverted flare: 1/2", 3/4" & 1" sweat

**Actuator**

Material: - base and cover: polycarbonate  
 - base plate: aluminum  
 Motor: - AC voltage: 24 V - 120 V - 208 V - 230 V - 277 V; 50/60 Hz  
 Power requirements: 5.0 W, 7 VA  
 Power connections: - Terminal screws with auxiliary switch: 24 V only  
 - Wire lead length: 18" (45 cm), 24 V only  
 6" (15 cm), 120, 208, 230, 277 V  
 Auxiliary switch: 0.0 A min, 0.4 A max, 24 V (24V only)  
 5.0 A, 250 V (120, 208, 230, 277 V actuators)  
 Ambient temperature range: 32 to 104°F (0 to 40°C) 24, 120 V  
 32 to 170°F (0 to 77°C) 208, 230, 277 V  
 Humidity: 95% non-condensing  
 Full Stroke Time: - On: <60 seconds

Date: \_\_\_\_\_

Project Name: \_\_\_\_\_

Engineer: \_\_\_\_\_

Submitted By: \_\_\_\_\_