## Z-ONE™ SERIES

### ZONE VALVES AND CONTROLS

**Z-ONE™ ZONE CONTROLS**

- **Installer friendly:**
  Ample room for terminations, large screw terminals, automatic resettable fuse, snap-in transformers.

- **Application versatility:**
  3 selectable 120 VAC auxiliary switches for enabling pumps and boilers, dedicated pump outputs, unlimited zone expansion.

- **Universal compatibility:**
  Compatible with 2, 3 and 4 wire zone valves and thermostats. Configurable pump logic.

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**Z-ONE™ MOTORIZED ZONE VALVES**

- **Extremely reliable design:**

- **Easy to install and service:**
  Compact design with snap-on actuator with a convenient in-line push button. Removable bottom cap allows for easy in-pipe service.

- **Application versatility:**
  Hot water, chilled water and low-pressure steam.

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**Dependable Z-one valves and controls**

Whether zoning with pumps, valves or both, Caleffi’s Z-one™ controls are versatile enough for one to unlimited number of zones.
PRODUCT RANGE - ZSR SINGLE-ZONE AND MULTI-ZONE PUMP CONTROLS

ZSR101

ZSR106

APPLICATION DIAGRAM

PERFORMANCE

<table>
<thead>
<tr>
<th>ZONES</th>
<th>CODE</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>ZSR101</td>
</tr>
<tr>
<td>3</td>
<td>ZSR103</td>
</tr>
<tr>
<td>4</td>
<td>ZSR104</td>
</tr>
<tr>
<td>6</td>
<td>ZSR106</td>
</tr>
</tbody>
</table>

POWER SUPPLY | 120 VAC, 50/60 Hz
TRANSFORMER VOLTAGE | 24 VAC
MAX. TRANSFORMER LOAD | 12 VA (ZSR103/104), 20 VA (ZSR106)
ELECTRICAL SWITCH RATING | 20 A max combined
ELECTRICAL SWITCH RATING PUMP OUTPUT | 120 VAC, 5A each
DRY CONTACT RATING, AUX, XX, ZONE1 E/S | 120 VAC max, 2A each

Multi-Zone Pump Control

- 3, 4 and 6 zone controls
- 1 primary pump output and 3 to 6 (model dependent) zone pump outputs (120 VAC/5A each)
- 3 dry contacts for enabling boilers and pumps
- Unlimited board expandability using Z-oneLink™ communications
  Each output individually fused. 2 extra fuses included.
- Selectable with DIP switches:
  - Priority (1 hour timeout)
  - Pump exercise
  - Post purge Zone #1 (after priority demand)
  - Remote Enable
  - Status of primary pump during priority
- Twelve 1/2” electrical knockouts
- Bright LED functional lights on front cover
- Multiple ground screws, eliminates wire nuts
- 3 year warranty

Single-Zone Pump Control

- 2 independent outputs
- Mounts to 4” x 4” junction box
- Rear wiring access

WIRING DIAGRAM
PRODUCT RANGE - ZVR MULTI-ZONE VALVE CONTROLS

ZVR106

ZONES CODE
3 ZVR103
4 ZVR104
6 ZVR106

PERFORMANCE

<table>
<thead>
<tr>
<th>DESCRIPTION</th>
<th>SPECIFICATION</th>
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<tbody>
<tr>
<td>POWER SUPPLY</td>
<td>120 VAC, 50/50 Hz</td>
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<tr>
<td>TRANSFORMER VOLTAGE</td>
<td>24 VAC</td>
</tr>
<tr>
<td>MAX. TRANSFORMER LOAD</td>
<td>40 VA (ZVR103/104)</td>
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<tr>
<td></td>
<td>80 VA (ZVR106)</td>
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<tr>
<td>ELECTRICAL SWITCH RATING</td>
<td>20 A max combined</td>
</tr>
<tr>
<td>ELECTRICAL SWITCH RATING PUMP OUTPUT</td>
<td>120 VAC, 5A each</td>
</tr>
<tr>
<td>DRY CONTACT RATING, AUX, XX, ZONE1 E/S</td>
<td>120 VAC max, 2A each</td>
</tr>
</tbody>
</table>

Multi-Zone Valve Control

- 3, 4 and 6 zone (thermostat and valve) controls
- 3 pump outputs (120 VAC/5A each)
- 3 to 6 zone valve outputs (24 V)
- 3 dry contacts for enabling boilers and pumps
- Unlimited board expandability using Z-oneLink™ communications
- Automatically resettable fuse on 24 V circuit
- Selectable with DIP switches:
  - Priority (1 hour timeout)
  - Pump exercise
  - Status of system pump during Zone #1 call
- Twelve 1/2” electrical knockouts
- Bright LED functional lights on front cover
- Multiple ground screws, eliminates wire nuts
- 3 year warranty
- 5 year warranty when installed with Caleffi Z-one™ motorized zone valves

APPLICATION DIAGRAM

WIRING DIAGRAM
**PRODUCT RANGE - Z-ONE™ VALVES**

**Z4 SERIES Z-ONE™ WIRE LEADS**

<table>
<thead>
<tr>
<th>CODE</th>
<th>DESCRIPTION</th>
<th>Cv</th>
<th>ΔP</th>
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<tbody>
<tr>
<td>Z40</td>
<td>Inverted flare</td>
<td>3.5</td>
<td>30 psi</td>
</tr>
<tr>
<td>Z40F*</td>
<td>¾” inv flare</td>
<td>3.5</td>
<td>30 psi</td>
</tr>
<tr>
<td>Z42</td>
<td>½” SAE flare</td>
<td>3.5</td>
<td>30 psi</td>
</tr>
<tr>
<td>Z44</td>
<td>½” sweat</td>
<td>2.5</td>
<td>50 psi</td>
</tr>
<tr>
<td>Z44P</td>
<td>½” press</td>
<td>3.5</td>
<td>30 psi</td>
</tr>
<tr>
<td>Z45</td>
<td>¾” sweat</td>
<td>7.5</td>
<td>20 psi</td>
</tr>
<tr>
<td>Z45P</td>
<td>¾” press</td>
<td>7.5</td>
<td>20 psi</td>
</tr>
<tr>
<td>Z45PL**</td>
<td>¾” press</td>
<td>7.5</td>
<td>20 psi</td>
</tr>
<tr>
<td>Z46</td>
<td>1” sweat</td>
<td>7.5</td>
<td>20 psi</td>
</tr>
<tr>
<td>Z46P</td>
<td>1” press</td>
<td>7.5</td>
<td>20 psi</td>
</tr>
<tr>
<td>Z47</td>
<td>1¼” sweat</td>
<td>7.5</td>
<td>20 psi</td>
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</tbody>
</table>

*Two ¾” sweat fittings (NA10006) included.

**Z5 SERIES Z-ONE™ TERMINAL BLOCKS**

<table>
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<tr>
<th>CODE</th>
<th>DESCRIPTION</th>
<th>Cv</th>
<th>ΔP</th>
</tr>
</thead>
<tbody>
<tr>
<td>Z50</td>
<td>Inverted flare</td>
<td>3.5</td>
<td>30 psi</td>
</tr>
<tr>
<td>Z50F*</td>
<td>¾” inv flare</td>
<td>3.5</td>
<td>30 psi</td>
</tr>
<tr>
<td>Z54</td>
<td>½” sweat</td>
<td>2.5</td>
<td>50 psi</td>
</tr>
<tr>
<td>Z54P</td>
<td>½” press</td>
<td>3.5</td>
<td>30 psi</td>
</tr>
<tr>
<td>Z55</td>
<td>¾” sweat</td>
<td>7.5</td>
<td>20 psi</td>
</tr>
<tr>
<td>Z55P</td>
<td>¾” press</td>
<td>7.5</td>
<td>20 psi</td>
</tr>
<tr>
<td>Z55PL**</td>
<td>¾” press</td>
<td>7.5</td>
<td>20 psi</td>
</tr>
<tr>
<td>Z56</td>
<td>1” sweat</td>
<td>7.5</td>
<td>20 psi</td>
</tr>
<tr>
<td>Z56P</td>
<td>1” press</td>
<td>7.5</td>
<td>20 psi</td>
</tr>
<tr>
<td>Z57</td>
<td>1¼” sweat</td>
<td>7.5</td>
<td>20 psi</td>
</tr>
</tbody>
</table>

**CONSTRUCTION**

- DURABLE SYNCHRONOUS MOTOR
- CORROSION-RESISTANT ACTUATOR MATERIALS
- CLUTCH-PROTECTED DRIVE TRAIN
- SEALED AUXILIARY SWITCH (OPTIONAL)
- TRUE MECHANICAL SPRING RETURN
- LARGE VALVE CAVITY FOR QUIET FLOW, PREVENTS WATER HAMMER
- HIGH TEMPERATURE EPDM O-RINGS AND PADDLE (240°F)

**PERFORMANCE**

- **WORKING TEMPERATURE RANGE**: 32°F – 240°F (0-115°C)
- **MAX. PERCENTAGE OF GLYCOL**: 50%
- **POWER SUPPLY**: 24 V AC
- **POWER CONSUMPTION**: 5 W, 7VA*
- **MAX. AMBIENT TEMPERATURE**: 125°F (52°C)

*Two ¾” sweat fittings (NA10006) included.
**One extra long press fitting for retrofit.

Subject to changes without notice.

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