



# Z-one™

## ZONE VALVES AND CONTROLS

# CALEFFI

Hydronic Solutions



Heating & Cooling

Components for today's modern hydronic systems



## PRODUCT FEATURES

### 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.

### Z-ONE™ MOTORIZED ZONE VALVES

- Extremely reliable design:**  
 Clutch-protected drive train, durable synchronous motor. Millions installed in North America.
- 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.

### 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

ZONES	CODE
1	ZSR101
3	ZSR103
4	ZSR104
6	ZSR106

Scan to view

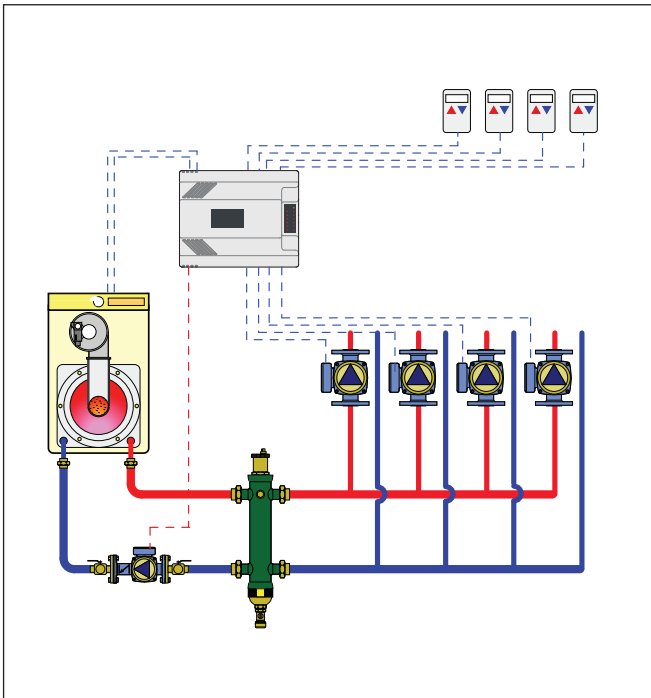


Wiring Guide



Certified to CSA C22-2 No.24  
Conforms to UL Standard 873

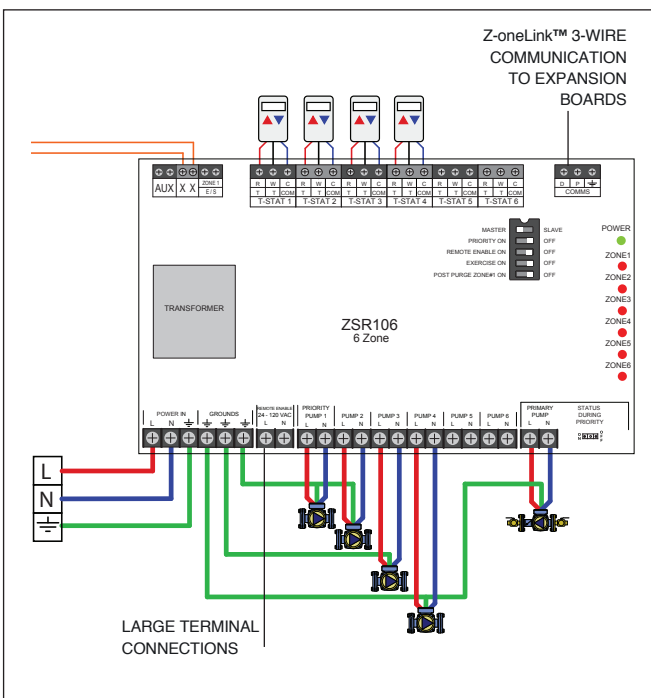
APPLICATION DIAGRAM



PERFORMANCE

POWER SUPPLY	120 VAC, 50/50 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

WIRING DIAGRAM



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

PRODUCT RANGE - ZVR MULTI-ZONE VALVE CONTROLS



ZVR106

ZONES	CODE
3	ZVR103
4	ZVR104
6	ZVR106

Scan to view



Wiring Guide



Certified to CSA C22-2 No.24  
Conforms to UL Standard 873

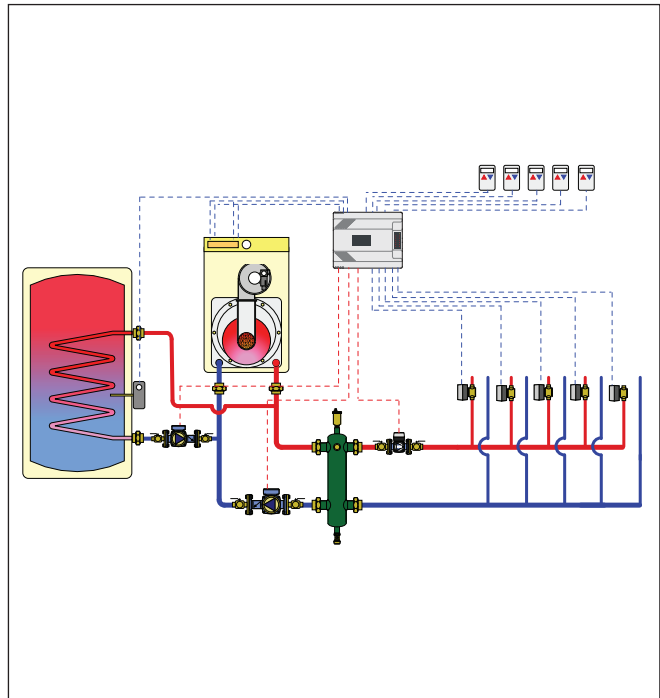
PERFORMANCE

POWER SUPPLY	120 VAC, 50/50 Hz
TRANSFORMER VOLTAGE	24 VAC
MAX. TRANSFORMER LOAD	40 VA (ZVR103/104)
	80 VA (ZVR106)
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

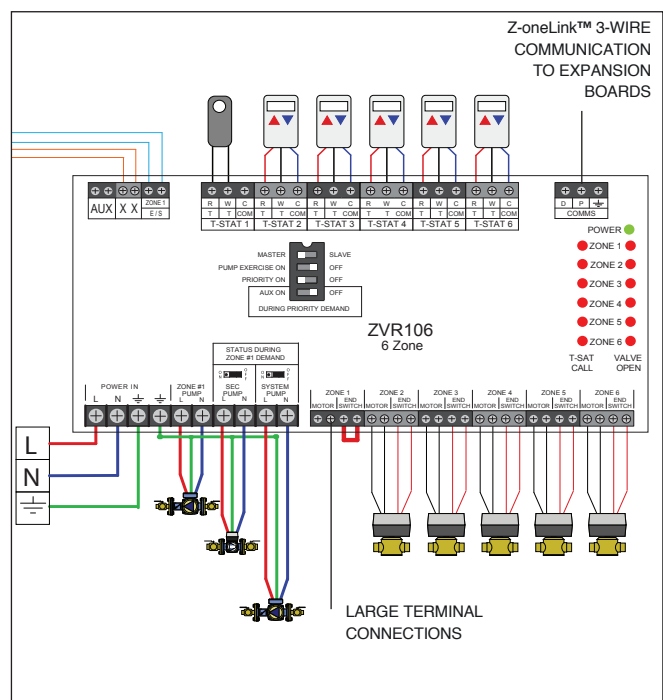
Multi-Zone Valve Control

- 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

CODE	DESCRIPTION	Cv	ΔP
Z40	Inverted flare	3.5	30 psi
Z40F*	¾" inv flare	3.5	30 psi
Z42	½" SAE flare	3.5	30 psi
Z44	½" sweat	2.5	50 psi
Z44P	½" press	3.5	30 psi
Z45	¾" sweat	7.5	20 psi
Z45P	¾" press	7.5	20 psi
Z45PL**	¾" press	7.5	20 psi
Z46	1" sweat	7.5	20 psi
Z46P	1" press	7.5	20 psi
Z47	1¼" sweat	7.5	20 psi

\*Two ¾" sweat fittings (NA10006) included.

\*\*One extra long press fitting for retrofit.



### Z5 SERIES Z-ONE™ TERMINAL BLOCKS

CODE	DESCRIPTION	Cv	ΔP
Z50	Inverted flare	3.5	30 psi
Z50F*	¾" inv flare*	3.5	30 psi
Z54	½" sweat	2.5	50 psi
Z54P	½" press	3.5	30 psi
Z55	¾" sweat	7.5	20 psi
Z55P	¾" press	7.5	20 psi
Z55PL**	¾" press	7.5	20 psi
Z56	1" sweat	7.5	20 psi
Z56P	1" press	7.5	20 psi
Z57	1¼" sweat	7.5	20 psi

\*Two ¾" sweat fittings (NA10006) included.

\*\*One extra long press fitting for retrofit.

### PERFORMANCE

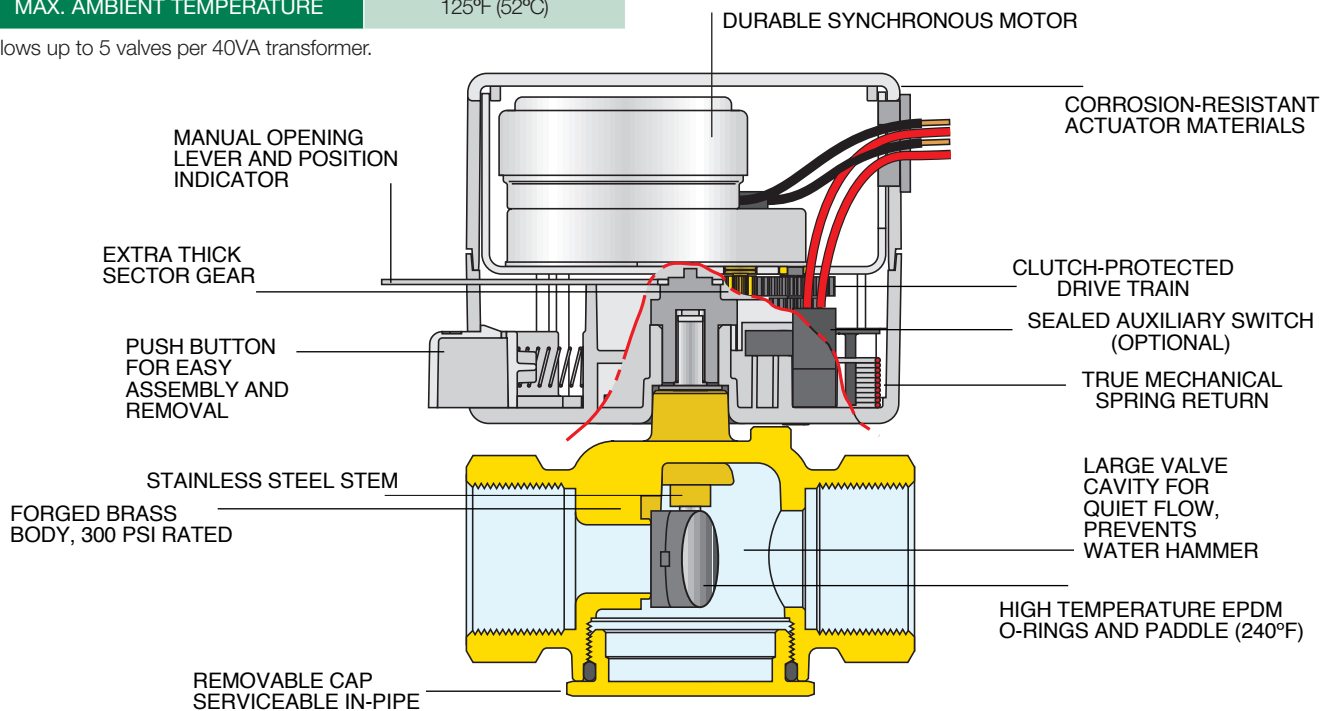
WORKING TEMPERATURE RANGE	32 — 240°F (0-115°C)
MAX. PERCENTAGE OF GLYCOL	50%
POWER SUPPLY	24 V AC
POWER CONSUMPTION	5 W, 7VA*
MAX. AMBIENT TEMPERATURE	125°F (52°C)

\*Allows up to 5 valves per 40VA transformer.



US Patent 7,048,251

### CONSTRUCTION



Caleffi Partner:

ONLINE



CATALOG

**CALEFFI**  
Hydronic Solutions

Caleffi North America, Inc.  
sales@caleffi.com · www.caleffi.com  
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