

Submittal

Zone Valve Control 304V



Zoning

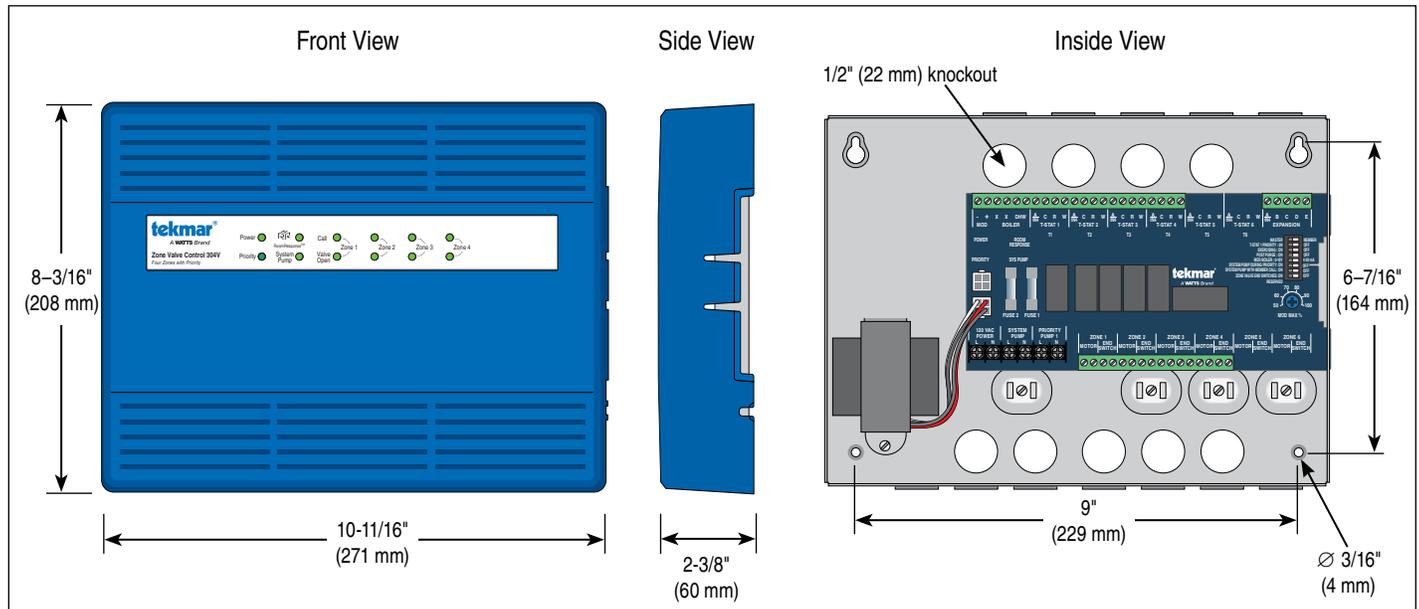
304V_C

11/16

Replaces: 10/16

Job _____ Designer _____ Contact _____

The Zone Valve Control 304V connects up to four thermostats and operates zone valves to provide heating to a zoned hydronic heating system. The 304V operates a system pump whenever a zone valve opens. Zone 1 can operate either a zone valve or a circulator to provide heat to an indirect domestic hot water tank with optional priority over zones 2 through 4. The 304V includes optional exercising to prevent circulator seizure when not in use, and optional post purge operation of domestic hot water tank to maximize energy savings. The 304V provides a RoomResponse™ signal to modulating-condensing boilers to optimize comfort while improving boiler efficiency.



Specifications

Zone Valve Control 304V Four Zones with Priority	
Literature	304V_C, 304V_D, 304V_J
Control	Microprocessor control. This is not a safety (limit) control.
Packaged weight	5.0 lb. (2250 g)
Dimensions	8-3/16" H x 10-11/16" W x 2-3/8" D (208 x 271 x 60 mm)
Enclosure	Cover: ABS plastic, Base: galvanized steel, NEMA type 1
Approvals	CSA C US
Ambient conditions	Indoor use only, 32 to 122°F (0 to 50°C), RH ≤90% non-condensing
Power supply	115 V (ac) ±10%, 60 Hz, 11 A
Transformer	40 VA, expandable to 80 VA with additional transformer M3069 (sold separately)
Control load	7 VA
Fuses	T5 250 V slow blow, two spare fuses included
Zone valve outputs	24 V (ac), 2 A max each, one transformer 33 VA, two transformer 73 VA
Zone valve end switch	24 V (ac)
Pump relays	230 V (ac), 5 A, 1/3 hp
Boiler XX end switch	24 V (ac), 5 A
DHW end switch	24 V (ac), 5 A
Mod boiler output	0-10 V (dc) 500 Ω min load impedance 4-20 mA 1kΩ max load impedance
Warranty	Limited 3 Year (See 304V_D for full warranty)

Features

- RoomResponse™ signal (Patent Pending)
- Compatible with all low voltage thermostats
- Compatible with 2, 3, and 4-wire zone valves
- Unlimited zone expansion
- Zone priority
- Priority override
- Pump exercising
- Post purge
- LED for each zone, priority, end switch and RoomResponse™
- Away signal shared between tekmar thermostats
- Four ground screws
- Top, bottom and back conduit knockouts
- Fuses protect transformers and pumps
- Two spare fuses included
- CSA approved

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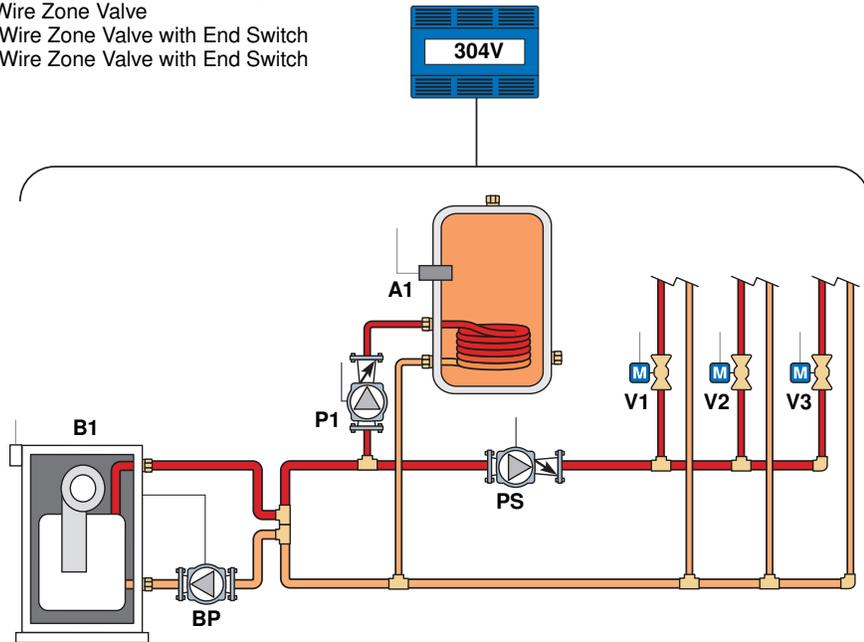
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Sample Application Drawing

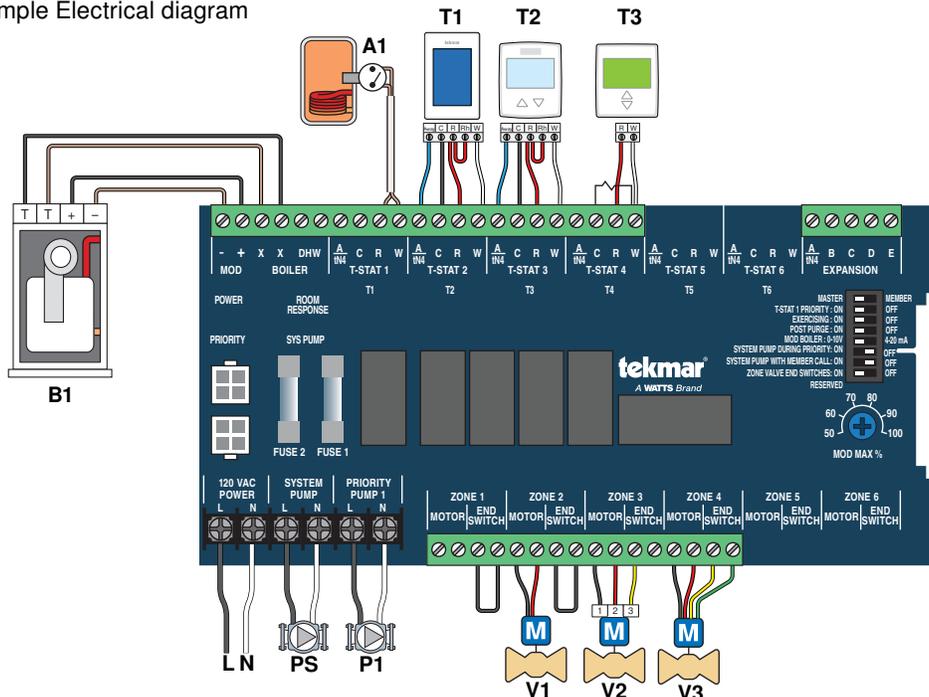
Sample Mechanical diagram

Legend

- A1 = DHW Tank Aquastat
- B1 = Boiler
- BP = Boiler Pump
- P1 = Zone 1 DHW Tank Pump
- PS = System Pump
- T1 = WiFi Thermostat 561 or 562
- T2 = Thermostat 518 or 519
- T4 = Generic Digital Power-Stealing Thermostat
- V1 = 2-Wire Zone Valve
- V2 = 3-Wire Zone Valve with End Switch
- V3 = 4-Wire Zone Valve with End Switch



Sample Electrical diagram



DIP Switches

Master

- T-stat 1 Priority = On
- Exercising = On
- Post Purge = On
- Mod Boiler = depends on boiler
- System Pump During Priority = Off
- System Pump With Member Call = Off
- Zone Valve End Switches = On

Notice

End switch jumper required for Zone 1 when using a pump and Zone Valve End Switch DIP = On

Included resistor must be installed when using power stealing thermostats (e.g. Thermostat T3)

CAUTION

This Submittal is not intended to provide full installation instructions and safety information. In order to avoid property damage or injury, please refer to the complete installation manual and product safety information provided with the product.

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All specifications are subject to change without notice.

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