

Submittal

Switching Relay 304P



Zoning

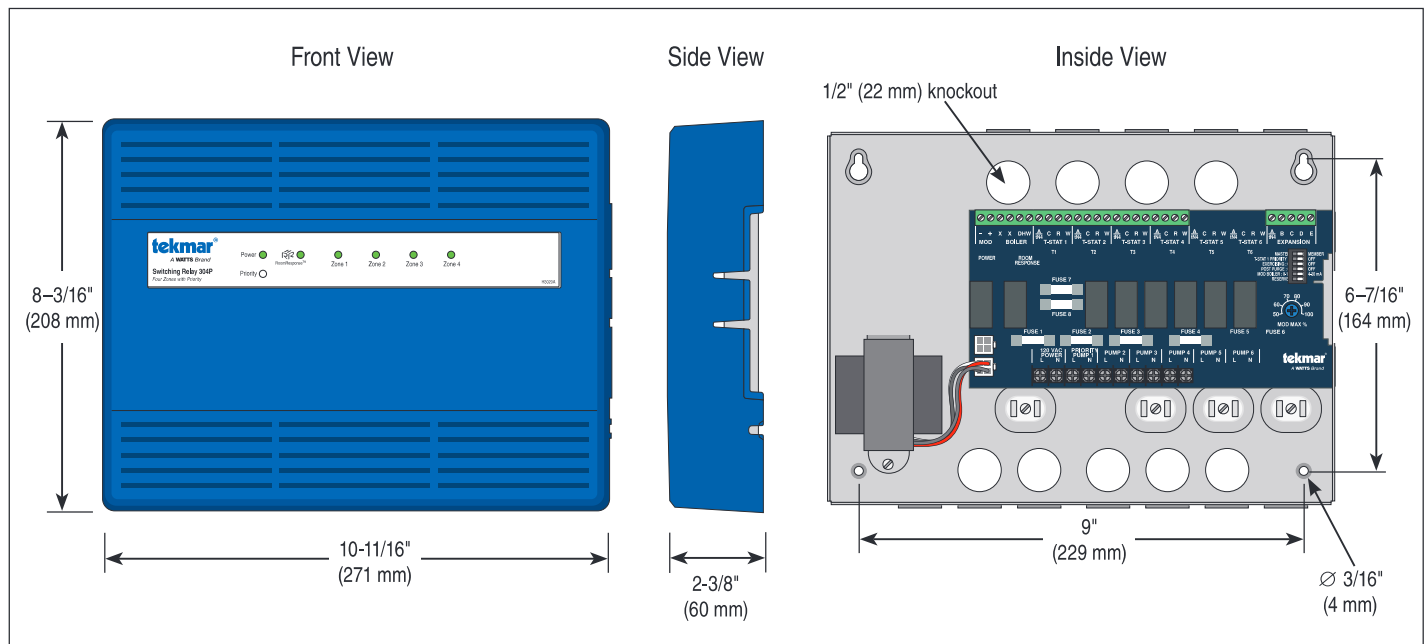
304P_C

11/16

Replaces: 10/16

Job _____ Designer _____ Contact _____

The Switching Relay 304P connects up to four thermostats and operates circulators to provide heating to a zoned hydronic heating system. Zone 1 has optional priority over zones 2 through 4 and can be used to provide heat to an indirect domestic hot water tank. The 304P includes optional exercising to prevent circulator seizure when not in use, and optional post purge operation of the last operating zone to maximize energy savings. The 304P provides aRoomResponse™ signal to modulating-condensing boilers to optimize comfort while improving boiler efficiency.



Specifications

Switching Relay 304P Four Zones with Priority	
Literature	304P_C, 304P_D, 304P_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, 20 A
Transformer	40 VA, expandable to 80 VA with additional transformer M3069 (sold separately)
Control load	7 VA
Fuses	T5A, 250 V slow blow, two spare fuses included
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 304P_D for full warranty)

Features

- RoomResponse™ signal (Patent Pending)
- Compatible with all low voltage thermostats
- 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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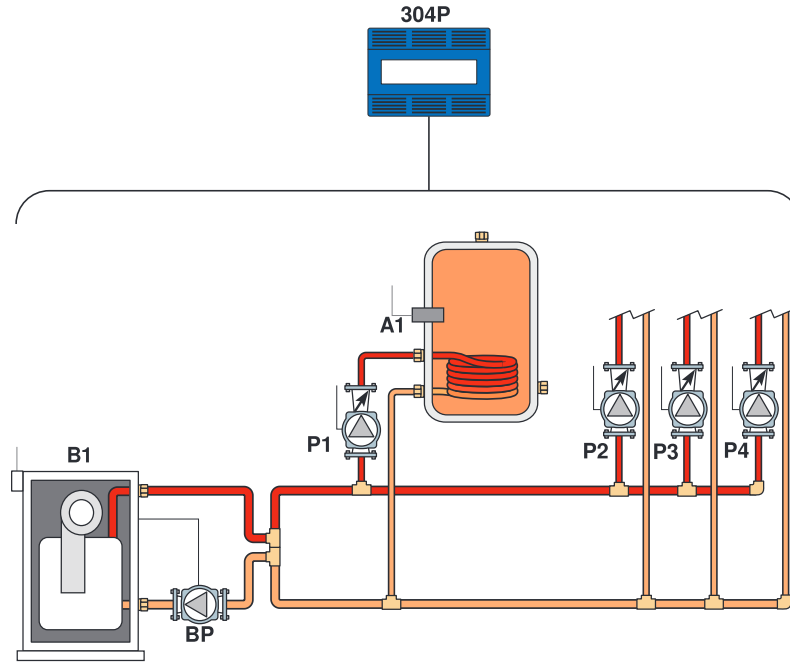
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Sample Application Drawing

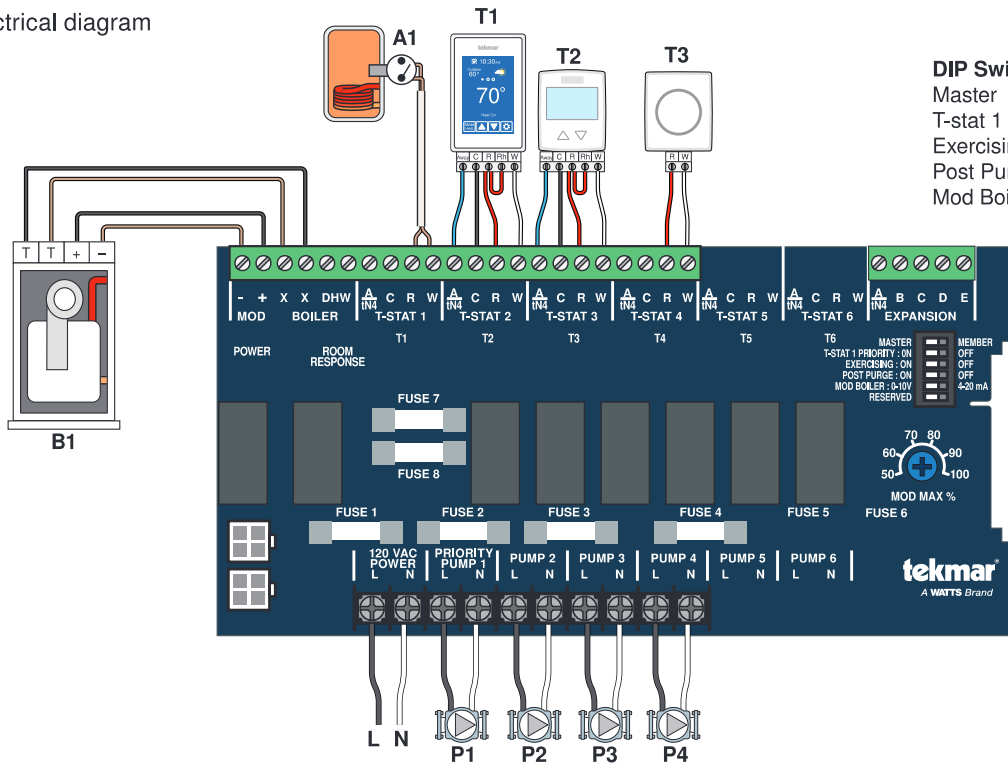
Sample Mechanical diagram

Legend

- A1 = DHW Tank Aquastat
- B1 = Modulating Condensing Boiler
- BP = Boiler Pump
- P1 = Zone 1 DHW Tank Pump
- P2 to P4 = Zone 2 through 4 Pump
- T1 = WiFi Thermostat 561 or 562
- T2 = Thermostat 518 or 519
- T3 = Generic Bi-Metallic Strip Thermostat



Sample Electrical diagram



- DIP Switches**
- Master
 - T-stat 1 Priority On
 - Exercising On
 - Post Purge On
 - Mod Boiler - depends on boiler

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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