

Submittal

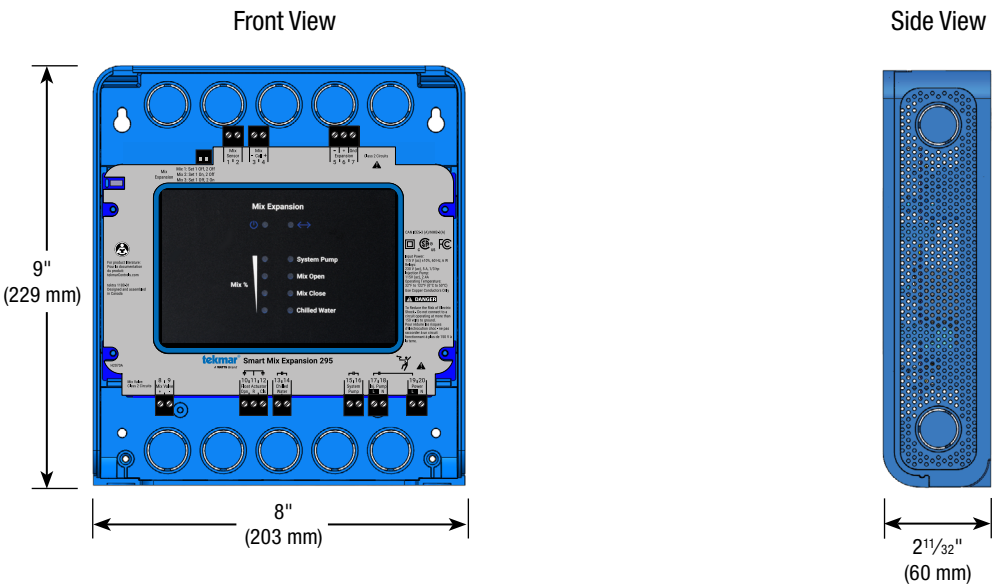
Job _____

Designer _____

Contact _____

Smart Mix Expansion 295

The Smart Mix Expansion 295 is designed to operate a mix device within a hydronic heating/cooling system as an expansion to the tekmar Smart Heat Pump Control 291. It is capable of controlling a mixed system pump and optional outputs for mixing: a variable speed injection pump, a floating action actuator, or an analog 0-10 V (dc), or 4-20 mA signal and a diverting valve for switching between hot and chilled water.



Features

- Requires a tekmar Smart Heat Pump Control 291
- Powered variable speed injection pump
- Powered 24 V (ac) floating action output
- Analog 4-20 mA
- Analog 0-10 V (dc)
- Powered 120 V (ac) system pump
- Powered 24 V (ac) system pump signal

Specifications

Smart Mix Expansion 295

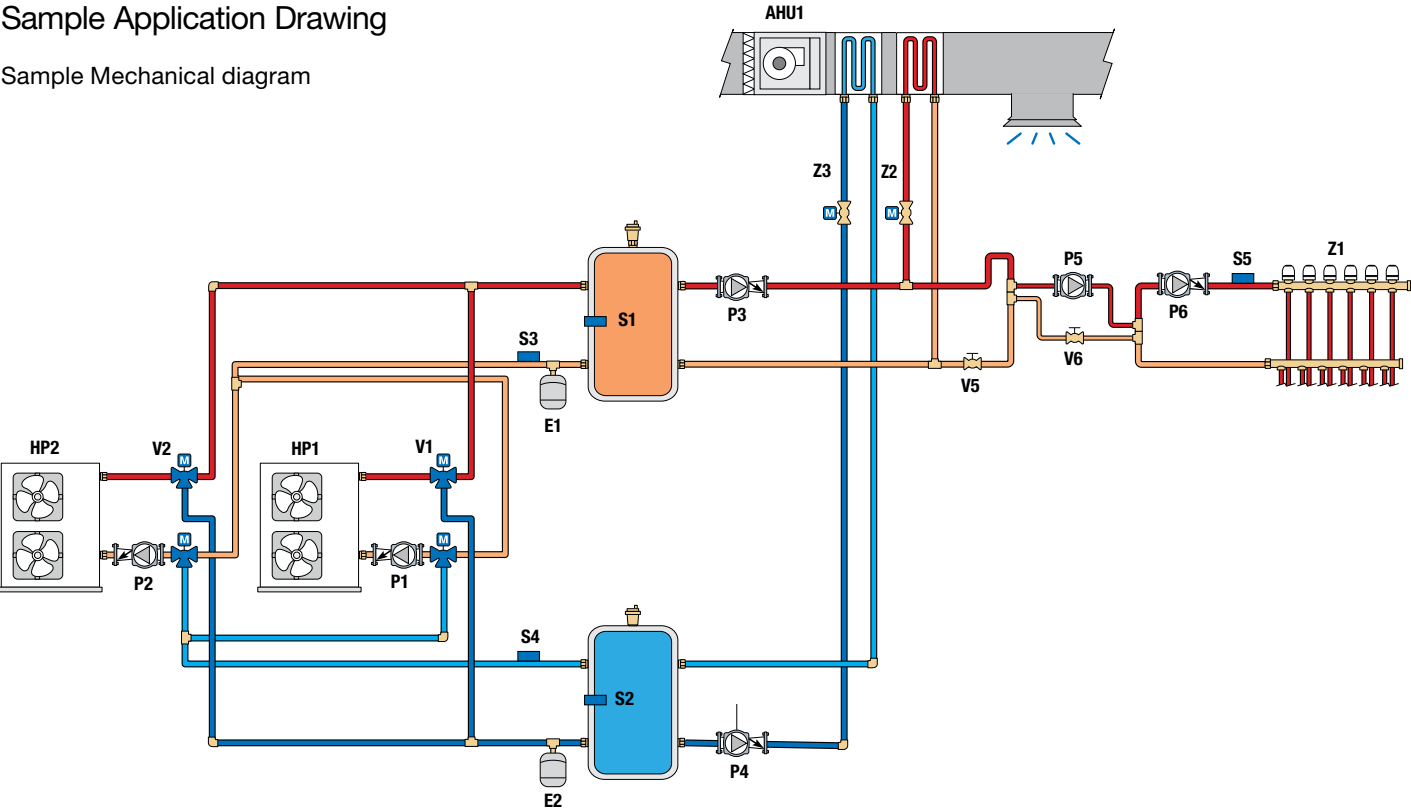
Call customer support if you need assistance with technical details.

Literature	IOM-T-295, ES-T-295
Packaged weight	2.4 lbs (1.10 kg)
Dimensions	9" H x 8" W x 2 11/16" D (229 x 203 x 60 mm)
Enclosure	Blue ABS plastic, NEMA type 1
Approvals	CSA C US, FCC Part 15B, CAN ICES-3 (B)/NMB-3(B)
Ambient conditions	Indoor use only, 32 to 122°F (0 to 50°C), < 90% RH non-condensing, Installation Category II, Pollution Degree 2
Power supply	115 V (ac) ±10%, 60 Hz, 6 W
Relays	230 V (ac), 5 A, 1/3 hp
Variable Pump	115V (ac), 2.4A
Modulating Outputs	0-10 V (dc) 500 Ω minimum load impedance or 4-20 mA 1 kΩ max load impedance
Calls	24 V (ac) or Short
Warranty	Limited 3 Year (See IOM for full warranty)

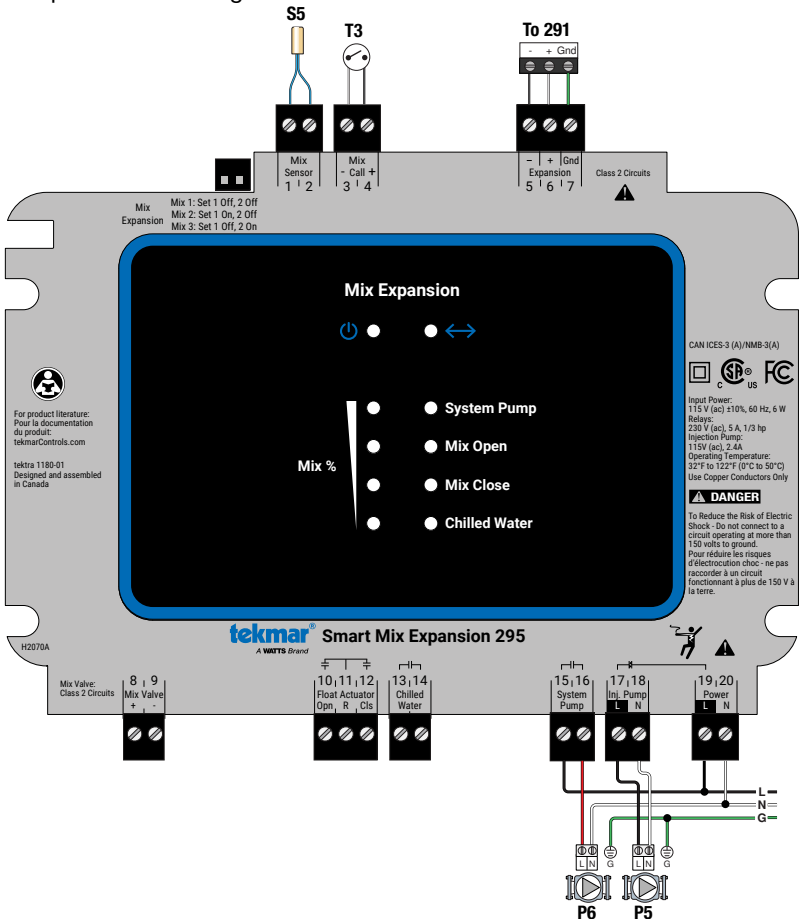
tekmar product specifications in U.S. customary units and metric are approximate and are provided for reference only. For precise measurements, please contact tekmar Technical Service. Watts reserves the right to change or modify product design, construction, specifications, or materials without prior notice and without incurring any obligation to make such changes and modifications on tekmar products previously or subsequently sold.

Sample Application Drawing

Sample Mechanical diagram



Sample Electrical diagram



Legend

- AHU1 = Air Handling Unit 1
- HP1-HP2 = Heat Pumps 1-2
- V1-V2 = 6-Way Diverting Valve Panel 731 or 732
- P1-P2 = Heat Pump Pumps 2-3
- E1-E2 = Expansion Tanks
- P3 = Hot Loop Pump
- P4 = Cold Loop Pump
- P5 = Variable Speed Injection Pump
- P6 = Mix Loop System Pump
- S1 = Hot Tank Sensor 082
- S2 = Cold Tank Sensor 082
- S3 = Hot Tank Return Sensor 082
- S4 = Cold Tank Return Sensor 082
- S5 = Mix Supply Sensor
- Z1 = Radiant Heating Zone Manifold
- Z2 = Air Heating Zone Valve
- Z3 = Air Cooling Zone Valve
- V5-V6 = Globe or Balancing Valve
- T1 = Optional Thermostat Heating Call
- T2 = Optional Thermostat Cooling Call
- tN4-1 = Optional tekmarNet® Call

NOTICE

The information contained herein is not intended to replace the full product installation and safety information available or the experience of a trained product installer. You are required to thoroughly read all installation instructions and product safety information before beginning the installation of this product.



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