

tekmar® Submittal

Mixing Expansion Module 444



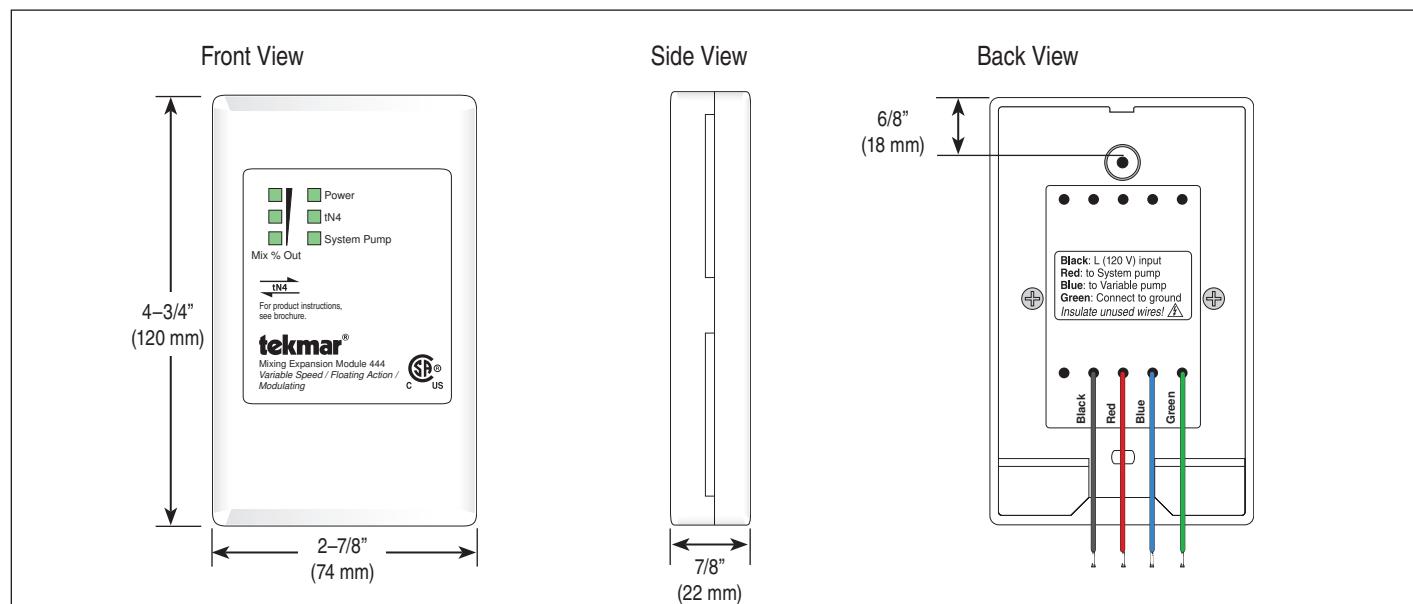
C444

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HVAC Systems Replaces: New

Job _____ Designer _____ Contact _____

The Mixing Expansion Module 444 is designed to operate a mixing device within a hydronic heating system as part of a tekmarNet® control system. It is capable of controlling a mixed system pump and six optional outputs for mixing: a variable speed injection pump, a floating action actuator, or an analog 0-10 V (dc), 2-10 V (dc), 0-20 mA, or 4-20 mA signal.



Specifications

Mixing Expansion Module 444 Variable Speed / Floating Action / Modulating	
Literature	D444, W444, J444, D001, D070
Control	Microprocessor control. This is not a safety (limit) control
Packaged weight	1.1 lb. (500 g)
Dimensions	4-3/4" H x 2-7/8" W x 1-7/8" D (120 x 74 x 48 mm)
Enclosure	White PVC plastic
Approvals	CSA C US, meets Class B: ICES & FCC Part 15
Ambient conditions	Indoor use only, 32 to 104°F (0 to 40°C), RH ≤92% to 104°F (40°C), and 50% above 104°F (40°C), Altitude <9840 ft. (3000 m), Pollution Degree 2
Power supply	24 V (ac) ±10%, 50/60 Hz, 4 VA standby, 56 VA fully loaded
System pump relay (front)	24 V (ac) 2A
System pump relay (back)	120 V (ac) 5A, 1/6 hp
Variable speed pump	120 V (ac) 2.4 A, internal overload circuit T2.5 A 250 V
Floating output	24 V (ac) 8 VA maximum, triac output, minimum 0.6 VA
Modulation output (voltage)	0-10V / 2-10 V (dc), minimum 10kΩ load
Modulation output (current)	0-20 mA / 4-20 mA, maximum 1kΩ load
Sensors	NTC thermistor, 10 kΩ @ 77°F (25°C ±0.2°C) β=3892
—Included	Universal Sensor 082
Warranty	Limited 3 Year (See D444 for full warranty)

Features

- Requires a tekmarNet® 4 system control
- Powered variable speed injection pump
- Powered 24 V (ac) floating action output
- Analog 0-20 mA or 4-20 mA
- Analog 0-10 V (dc) or 2-10 V (dc)
- Powered 120 V (ac) system pump
- Powered 24 V (ac) system pump signal
- CSA C US certified for use in USA and Canada

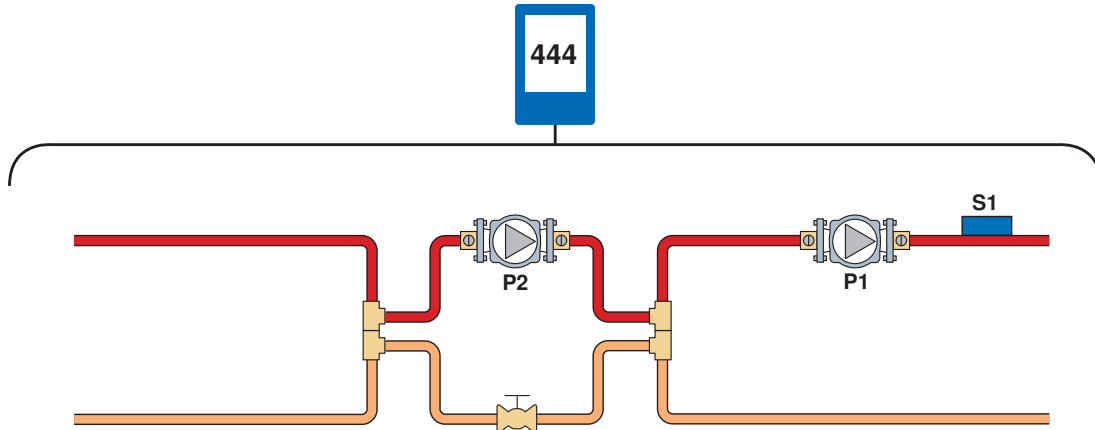
SPECIAL REQUIREMENTS

Requires tekmarNet® system control with a mix bus (422 or 423). Designed for use with tekmarNet® thermostats.

Sample Application Drawing

Below is a sample application drawing for this product. This application may include other tekmar products that are required for installation. More sample applications can be found at www.tekmarcontrols.com.

Sample Mechanical diagram



Sample Electrical diagram

Legend

P1 = Mix System Pump
P2 = Variable Speed Injection Pump
S1 = Mix Supply Sensor

