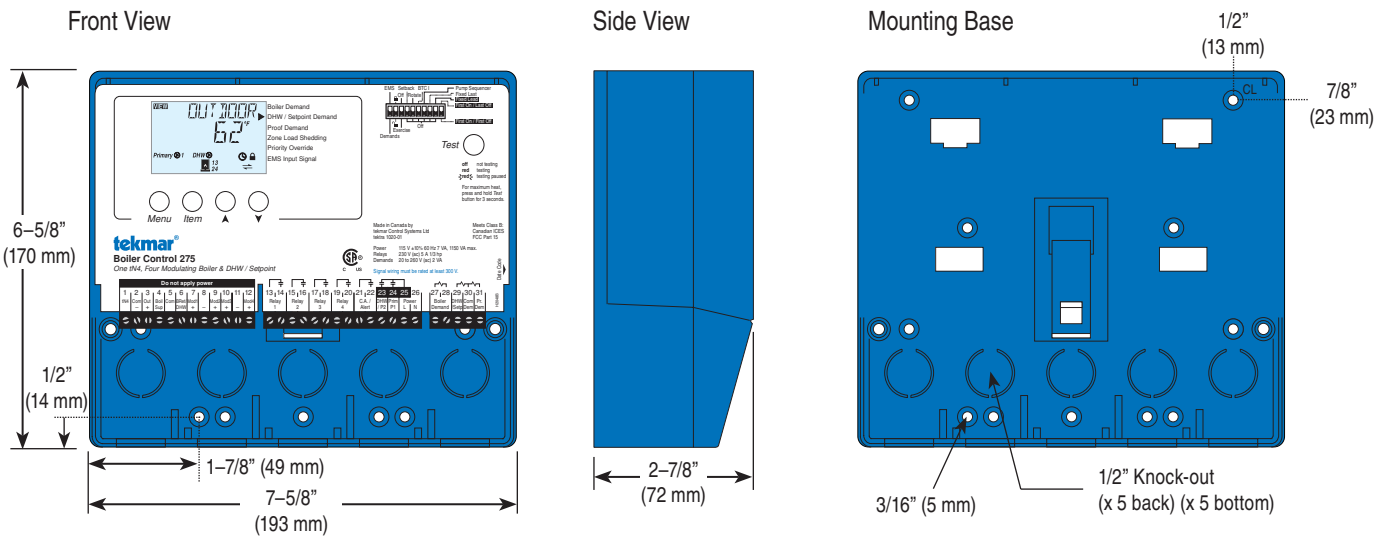
tekmar® Submittal
Boiler Control 275

C 275
01/12

Multi-Staging | Replaces: 01/11

Job _____ Designer _____ Contact _____

The Boiler Control 275 is designed to stage up to four condensing or non-condensing, modulating or on-off boilers using P.I.D. staging to accurately maintain temperature. The control supports hybrid boiler plants that contain both condensing and non-condensing boiler groups. Water temperature is controlled by outdoor reset for space heating applications or a fixed setpoint for Domestic Hot Water (DHW) tank heating or industrial process heating applications. The control will also accept an analog 0-10 V (dc) signal from an Energy Management System (EMS) to control the water temperature. Boiler equal run-time rotation, pump exercising and stand-by system pump operation increase boiler plant reliability. The control is tekmarNet® communication compatible allowing for internet connectivity using an optional Gateway 483.



Specifications

Boiler Control 275 *One tN4, Four Modulating Boiler & DHW / Setpoint*	
Literature	D275, A275, D001, D070
Control	Microprocessor control. This is not a safety (limit) control
Packaged weight	3.3 lb. (1500 g)
Dimensions	6-5/8" H x 7-9/16" W x 2-13/16" D (170 x 193 x 72 mm)
Enclosure	Blue PVC plastic, NEMA type 1
Approvals	CSA C US, meets class B: ICES & FCC Part 15
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, 7 VA, 1150 VA max
Relays	230 V (ac) 5 A, 1/3 hp
Modulating output	0 - 10 V (dc), Minimum 2500 Ω
Demands	20 to 260 V (ac) 2 VA
Sensors	NTC thermistor, 10 kΩ @ 77°F (25°C ±0.2°C) ß=3892
–Included	Outdoor Sensor 070, 2 of Universal Sensor 082, and 500 Ω Resistor
Warranty	Limited 3 Year (See D275 for full warranty)

Energy Saving Features

- Outdoor temperature reset
- Programmable schedule
- Warm weather shut down
- Automatic boiler differential
- tekmarNet® 4 compatible

Additional Features

- Condensing & non-condensing boiler groups
- Control up to 4 modulating or on/off boilers
- Primary pump sequencing
- DHW pump operation
- Optional DHW priority
- Equal run time rotation
- Pump exercising
- Powered system pump output
- Test sequence to ensure proper component operation
- 115 V (ac) power supply
- Optional boiler pump(s) operation
- Access levels
- Alerts

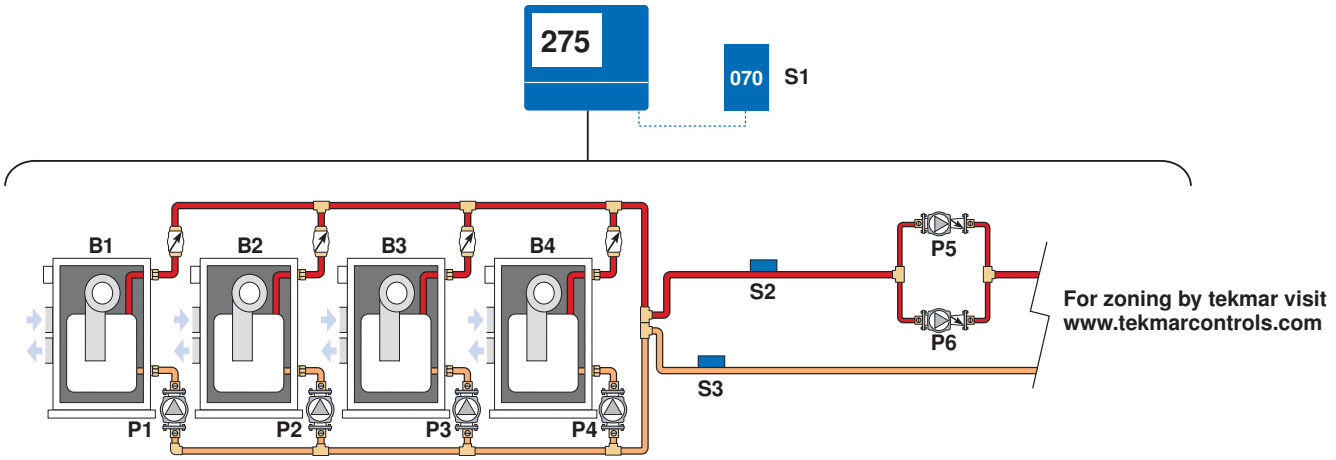
SPECIAL REQUIREMENTS

N / A

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.

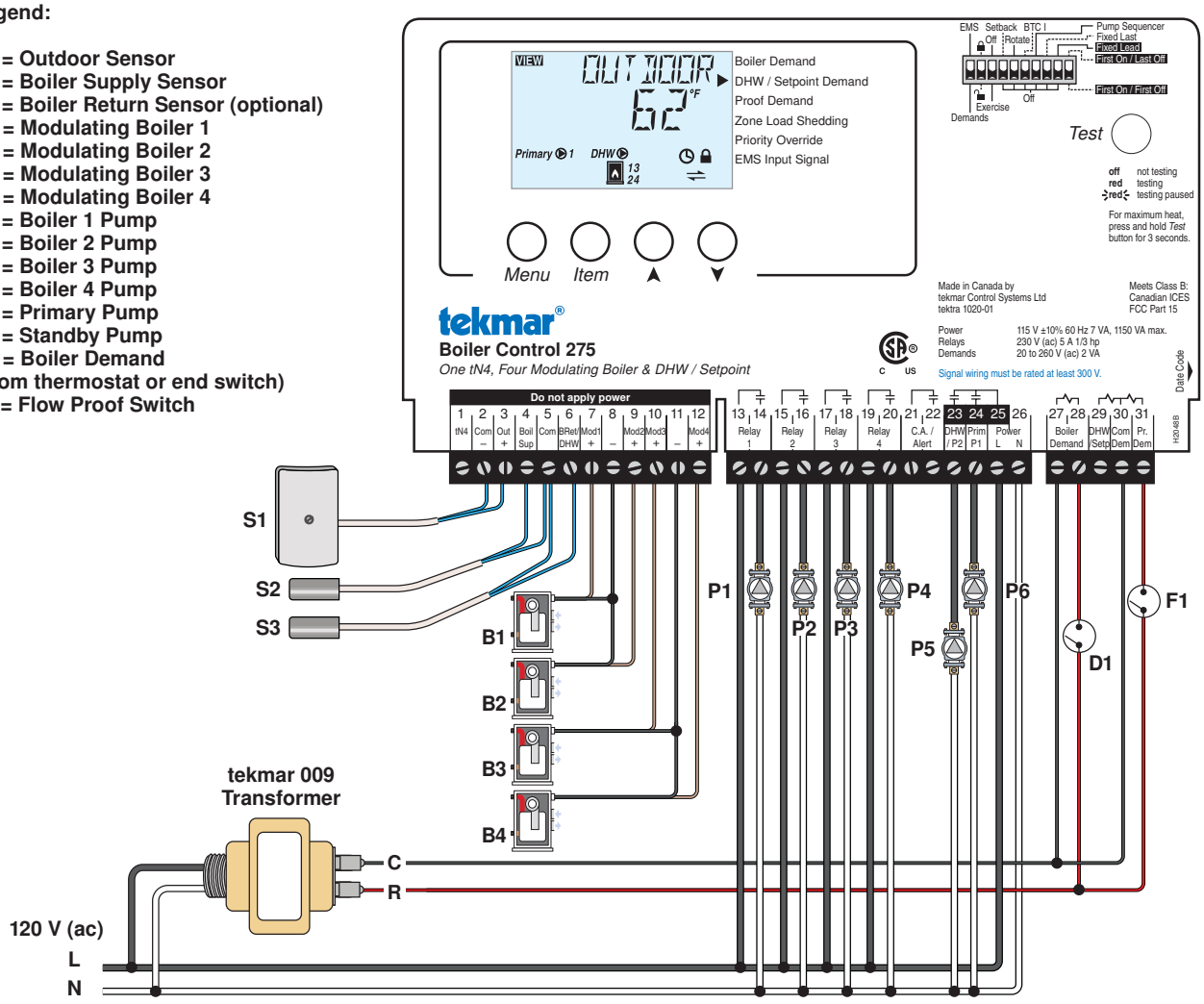
Sample Mechanical diagram



Sample Electrical diagram

Legend:

S1 = Outdoor Sensor
S2 = Boiler Supply Sensor
S3 = Boiler Return Sensor (optional)
B1 = Modulating Boiler 1
B2 = Modulating Boiler 2
B3 = Modulating Boiler 3
B4 = Modulating Boiler 4
P1 = Boiler 1 Pump
P2 = Boiler 2 Pump
P3 = Boiler 3 Pump
P4 = Boiler 4 Pump
P5 = Primary Pump
P6 = Standby Pump
D1 = Boiler Demand
(From thermostat or end switch)
F1 = Flow Proof Switch



All specifications are subject to change without notice.
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