

# tekmar® Submittal

## Thermostat 509



Zoning

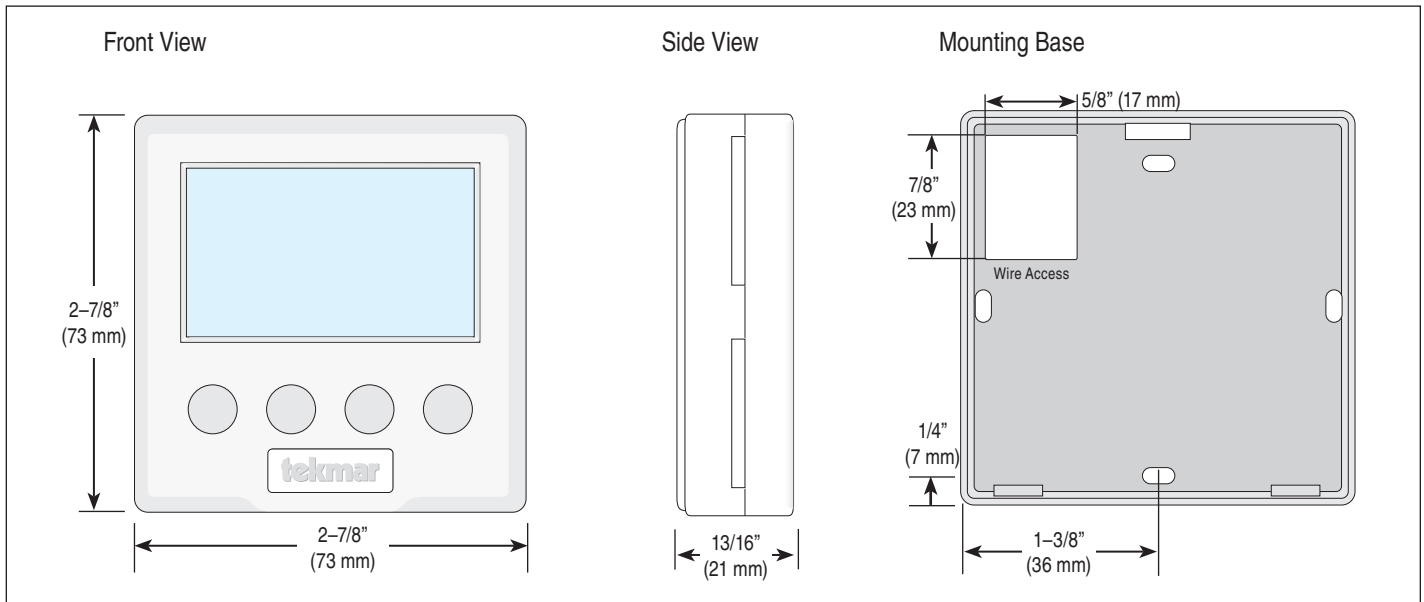
**C 509**

01/11

Replaces: New

Job \_\_\_\_\_ Designer \_\_\_\_\_ Contact \_\_\_\_\_

The Thermostat 509 is a micro-processor based control designed to operate mechanical equipment to deliver heat to a single zone within a hydronic heating system. It can be used with any terminal unit type, including radiant floor, baseboard, and fan coils. This product maintains very accurate and even air temperature with Pulse Width Modulation and Auto Cycling. It is capable of controlling a zone valve or zone pump directly or through a tekmarNet® 4 Wiring Center or Zone Manager to maintain air temperature and an auxiliary temperature. This temperature is typically floor, but could be remote air.



### Specifications

<b>Thermostat 509 (508 + 079) One Stage Heat</b>	
Literature	D508, U508, D079
Control	Microprocessor control. This is not a safety (limit) control
Packaged weight	0.5 lb. (230 g)
Dimensions	2-7/8" H x 2-7/8" W x 13/16" D (73 x 73 x 21 mm)
Enclosure	White PVC plastic, NEMA type 1
Approvals	CSA C US, meets class B: ICES & FCC Part 15
Ambient conditions	Indoor use only, -22 to 131°F (-30 to 55°C), RH ≤90% Non-condensing
Power supply	24 V (ac) ±10%, 50/60 Hz, 1.5 VA
Relay	24V (ac) 2 A max, Class 2
Sensors	NTC thermistor, 10 kΩ @ 77°F (25°C ±0.2°C) β=3892
-Included	Slab Sensor 079
-Optional	tekmar type #: 070, 071, 072, 073, 076, 077, 078, 079, 082, 084
Warranty	Limited 3 Year (See D508 for full warranty)

### Features

- Auto Heating Cycle
- Pulse Width Modulation
- CSA C US Approved for use in USA and Canada
- Freeze Protection
- Auxiliary sensor input
- Included slab sensor
- Slab max. and min. settings with installed slab sensor

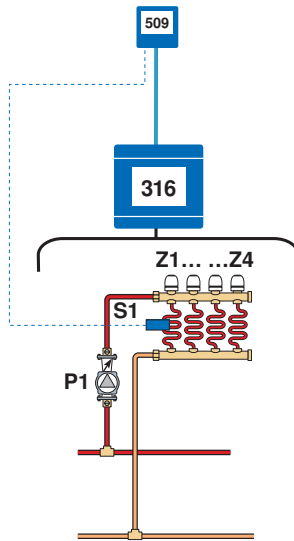
### SPECIAL REQUIREMENTS

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](http://www.tekmarcontrols.com).

Sample Mechanical diagram



Sample Electrical diagram

### Legend

- S1 = Slab Sensor
- P1 = Zone Manifold Pump
- Z1 = Zone 1
- Z2 = Zone 2
- Z3 = Zone 3
- Z4 = Zone 4

