

# Pakstat® Series I Electronic Thermostat

## Specifications

### Input Voltage:

120 VAC  $\pm$  10%, 50/60 Hz.  
208/240 VAC  $\pm$  10%, 50/60 Hz.

### Stability:

Better than  $\pm$ 1% of span or  $\pm$ 4°, whichever is greater.

**Static Deadband:**  $\pm$ 1°  
(nominal)

### Operating Conditions:

Ambient Temperature:  
0°C to +70°C  
Relative Humidity: 5% to 95%  
(noncondensing)

### Output Options

Normally open (1 form A) relay contact.

### Relay Contact Ratings:

2 to 20 Amps at 12 to 240Vac,  
resistive load. (RC Snubber recommended with inductive loads)

1 to 20 Amps at 5 to 28 Vdc\*  
(Arc suppression required)

Solid State Relay (SSR) Option:  
Switched 24Vdc @ 30mA to control external SSR.

### Control Operation:

ON/OFF control.

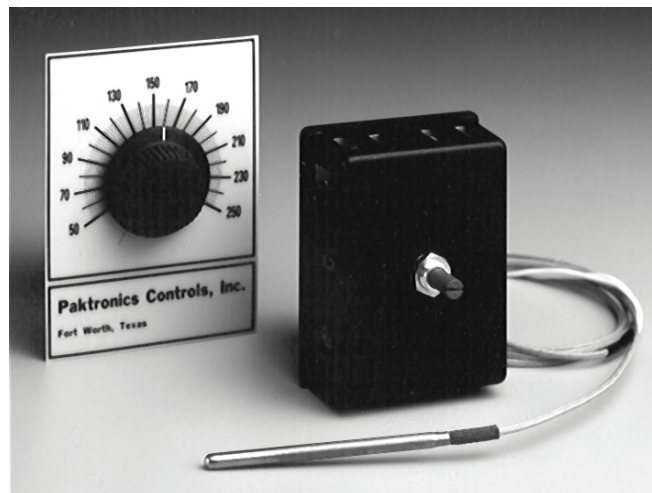
### Heating version:

Load is turned OFF with temperature rise above set point.

### Cooling Version:

Load is turned ON with temperature rise above set point.

NOTE: Other options are available. Please consult factory.



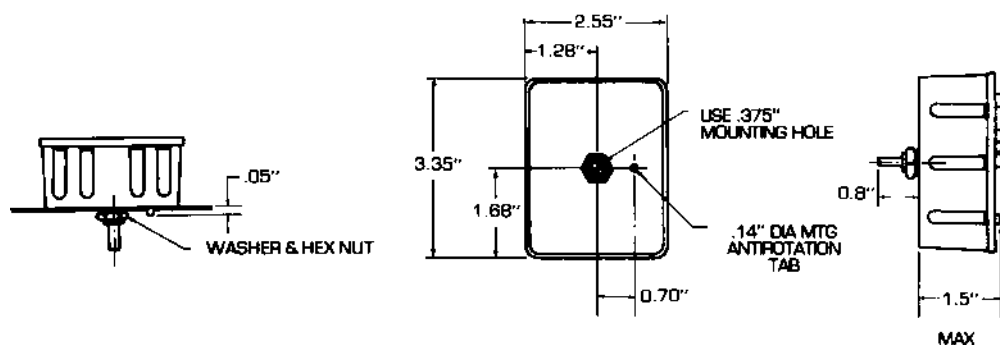
## Product Description

The PAKSTAT SERIES I electronic thermostat by Paktronics is a low cost alternative to the use of mechanical, pneumatic or DIN packaged controllers. Part of the PAKSTAT SERIES of OEM controls, the PAKSTAT Series I offers a degree of flexibility and economy unavailable in other packaged controls.

With its flexible wire sensor, the PAKSTAT SERIES I controller eliminates the problems of capillary tube kinking and breakage. The quick connect terminals allow fast installation and service.

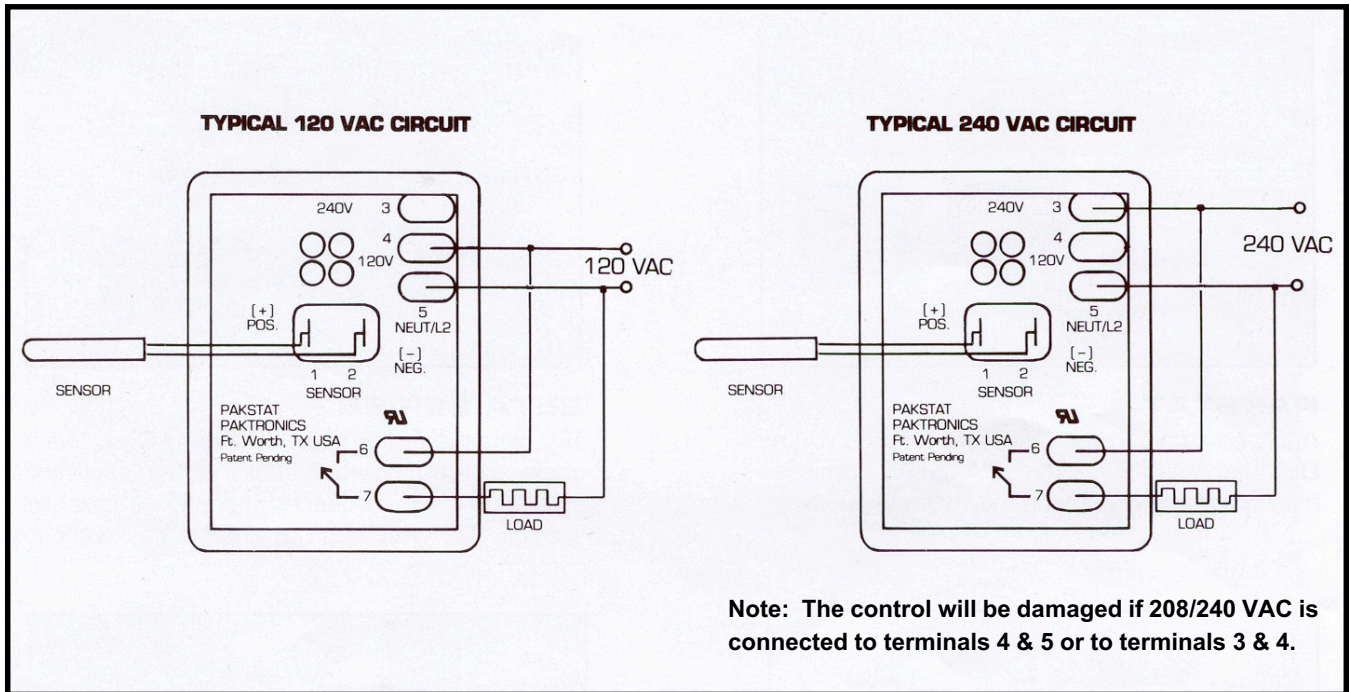
The PAKSTAT SERIES I is used where it is desirable to have accurate, repeatable temperature control through a narrow deadband. The result is better temperature control and a better product for your customer.

**PAKSTAT is also available in digital indicating and cooling versions. For more information, contact your local PAKTRONICS representative or the factory.**



# Wiring Diagram Pakstat Series I

1. Connect sensor leads to terminals 1 and 2. For thermocouples, the red (negative) lead attaches to terminal 2. (RTD SENSOR LEADS ARE NOT POLARIZED).
2. For 120 VAC operation, connect LINE to terminals 4 and 5. For 208 to 240 VAC operation, connect LINE to terminals 3 and 5.
3. Terminals 6 and 7 connect to an internal normally open relay contact that is independent of the controller's operating voltage.
4. Connect AC line to load using external wiring, as shown below.



## Calibration Pakstat Series I

Simplified calibration decreases maintenance time without compromising accuracy. Our temperature controllers can be factory calibrated for convenience or calibrated as necessary at your facility.

1. Connect the PAKSTAT according to the wiring diagram and instructions.
2. Attach the knob with the setscrews provided.
3. Turn the knob until the potentiometer is located at the center of the dial.
4. Turn the power ON and allow 5 minutes for the system to stabilize.
5. Measure the temperature with an accurate thermometer next to the Pakstat sensor.
6. Loosen the knob setscrews and turn the knob, without turning the potentiometer, until the dial is set according to the thermometer reading.
7. Tighten the knob setscrews.

Calibration can now be performed on identical installations by noting the position of the potentiometer and duplicating the setting. Offsets to compensate for sensor location can be calibrated. Contact the factory for details.

# Resistance Table for 1000 OHM Platinum Sensors

TEMP °F	RES OHMS	TEMP °F	RES OHMS	TEMP °F	RES OHMS	TEMP °F	RES OHMS
0	930	160	1275	320	1610	480	1937
10	952	170	1296	330	1631	490	1957
20	974	180	1317	340	1652	500	1977
30	996	190	1339	350	1672	510	1997
40	1017	200	1360	360	1693	520	2017
50	1039	210	1381	370	1713	530	2037
60	1061	220	1402	380	1734	540	2057
70	1082	230	1423	390	1754	550	2077
80	1104	240	1444	400	1775	560	2097
90	1125	250	1465	410	1795	570	2117
100	1147	260	1486	420	1816	580	2136
110	1168	270	1507	430	1836	590	2156
120	1190	280	1527	440	1856	600	2176
130	1211	290	1548	450	1876	610	2196
140	1232	300	1569	460	1897	620	2215
150	1254	310	1590	470	1917	630	2235

## RTD Units Only

Specify Model Number:

**P14 A0318 -**

↑  
**cooling versions = F**

901— 50° to 250°F  
 903—150° to 550°F  
 904—200° to 400°F

Other Ranges Are Available - Contact Factory

Sensor [Other Models Available]  
P/N 01724601-001

Example of Scale Plate

Paktronics Controls, Inc.  
Fort Worth, Texas

## Type J or K Thermocouple

**Type J**  
**P14 A0318 -**

↑  
**cooling versions = F**

351 - 50 to 250°F  
 353 - 150 to 550°F  
 318 - 0 to 1,000°F

**Type K**  
**P14 A0318 -**

417 - 0 to 2,300°F

Other Ranges Are Available - Contact Factory

Example of Scale Plate

Paktronics Controls, Inc.  
Fort Worth, Texas