Pakstat[®]Series | Electronic Thermostat

Specifications

Input Voltage: 120 VAC ± 10%, 50/60 Hz. 208/240 VAC ± 10%, 50/60 Hz.

Stability: Better than $\pm 1\%$ of span or $\pm 4^\circ$, whichever is greater.

Static Deadband: ±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.

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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.

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Resistance Table for 1000 OHM Platinum Sensors

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

RTD Units Only



Type J or K Thermocouple

