# Pakstat<sup>®</sup> Series II 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  $\pm 4^{\circ}$ , 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)

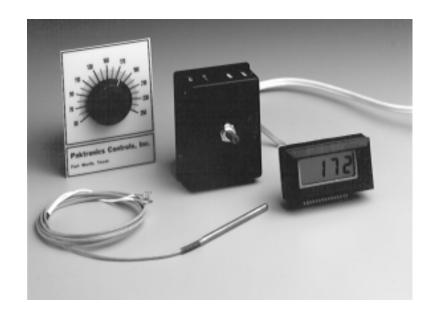
Solid State Relay (SSR) Option: Switched 24Vdc @ 30mA to control external SSR.

# **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.



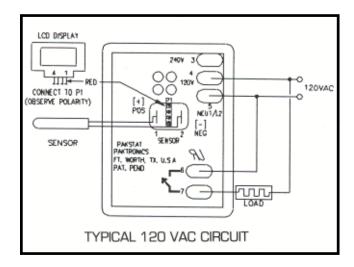
### **Product Description**

The PAKSTAT SERIES II is an upgraded version of its predecessor, the PAKSTAT SERIES I.

When coupled with the model LCD3000 digital display, you can offer your customer the convenience of digital indication of process temperature. The LCD3000 is a  $3\frac{1}{2}$  digit display with resolution of 1°. Accuracy of 1%,  $\pm$  one digit, meets most agency requirements for food storage.



NOTE: Pakstat is also available in non-indicating and cooling versions. For more information, contact your local PAKTRONICS representative or the factory.



## **Wiring Diagram**

- 1. Connect sensor leads to terminals 1 and 2. For thermocouples, the red (negative) lead connects to terminal 2. (RTD's and Thermistors 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. Note: The control will be damaged if 208/240 VAC is connected to terminals 4 & 5 or to terminals 3 & 4.
- 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.
- 5. Connect LCD3000 as shown.

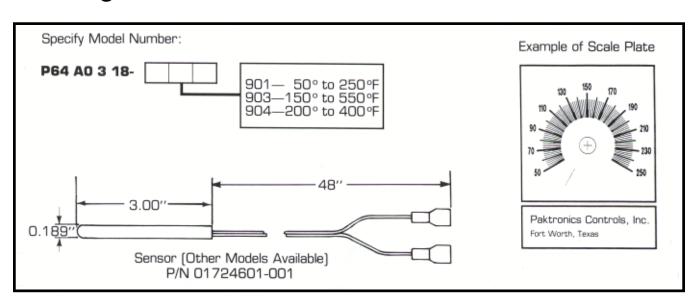
### **Calibration**

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 ample time for the system to stabilize.
- 5. Note the temperature reading on the LCD3000 display.
- Loosen the knob setscrew and turn the knob, without turning the potentiometer, until the dial is set according to the display 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 callibrated. Contact the factory for details.

## **Ordering Information**



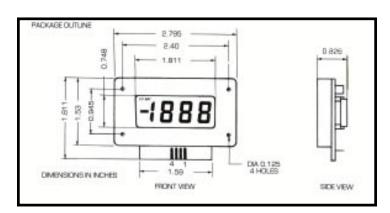
# LCD3000 - Remote Mounted Digital Display

## **Product Description**

The LCD3000 liquid crystal display is the ideal companion to Paktronics PAKSTAT SERIES II controllers. The LCD3000, with its large <sup>3</sup>/<sub>4</sub> inch display, offers high readability in ambient light conditions and at wide viewing angles.

The remote mounting from the PC board allows you to provide a custom look to your control panel, while still using a standard product. The mounting is a simple bezel arrangement.

## **Specifications**



## LED DISPLAY ALSO AVAILABLE

Selected models only-consult factory.

## **Terminal Definitions**

TERMINAL	INPUT	DESCRIPTION
1	IN LO	2V full scale input, if "IN HI" is lower than "IN LO"
2	IN HI	display will show negative.
3	V +	Positive power supply.
4	V –	Negative power supply.

## **Absolute Maximum Ratings**

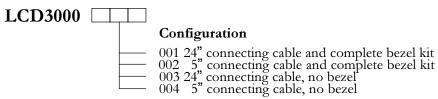
Operating Voltage	1	5Vdc
Operating Temperature		
Storage Temperature	-10 to	80°C

## Electrical Characteristics TA = 25°C, RH below 80%

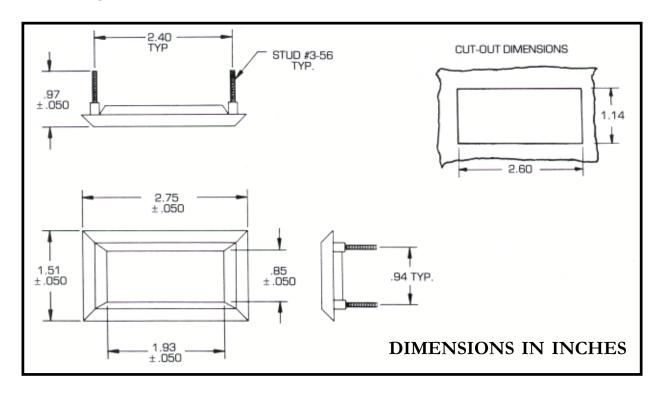
CHARACTERISTICS	MIN	TYP	MAX	UNITS
Power Supply Voltage	7	9	12	V
Power Supply Current		1.3	2.0	mA
Sampling Rate		2.5		Reading/Sec.
Accuracy (Display Only)		0.1% ± 1 digit		% ± digits
Turn-on Voltage for "LO BAT" Indicator	7	7.2	7.5	V
Input Leakage Current (VIN = 0)		1	10	pA

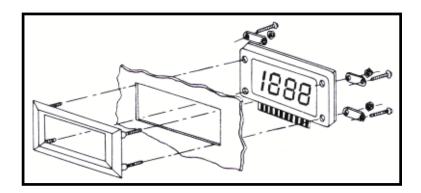
# **Ordering Information**

Specify Model Number:



# **Mounting**





### NOTE:

The following hardware accompanies the mounting bezel:

- (A) #4-48 x 5/8" lg, phillips hd screw, (4).
- (B) #3-56 nut, (4).
- (C) fixing ears, (4).