

# series 121/122

BARE BOARD TEMPERATURE CONTROL

**ZYTRON**

The Series 121 thermistor controller and the Series 122 thermocouple controller incorporate highly reliable state-of-the-art electronic circuitry in a very economical open board design. Their small size and very low cost make them the ideal choice for cost sensitive OEM applications requiring the accuracy, reliability and versatility only available in an electronic control.

## PRODUCT applications

- Gas Analyzers
- Water Heaters
- Packaging Machines
- Laboratory Baths
- Refrigerators & Freezers
- Environmental Chambers
- Commercial Cooling
- Appliances

### HIGHLIGHTS

- very low cost
- small footprint  
3.4" x 2.5" (121)  
3.625" x 2.625" (122)
- heavy duty 30 AMP relay output
- UL Class 2 low voltage sensor circuit
- full two-year parts & labor warranty

### FEATURES

- 115/230VAC field selectable input
- SPST 30 AMP relay output
- ON-OFF control mode
- Open-On-Rise control action (heating)
- Local SP adj
- 1/4" QC field terminations

### OPTIONS

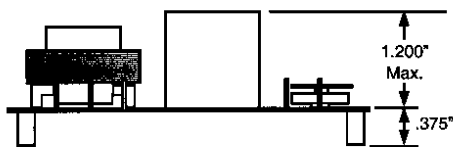
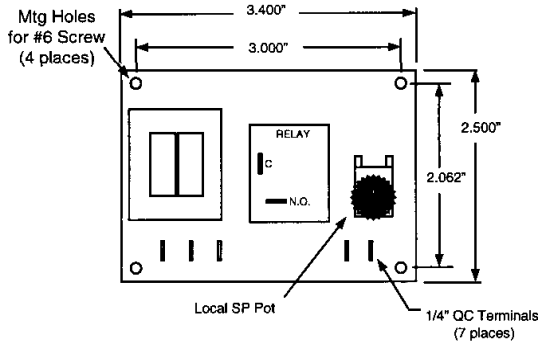
- 24VAC input voltage
- SPDT relay or DC outputs
- Close-On-Rise control action (cooling)
- Fixed or remote SP adj
- Screw terminals for TC connection
- Snap track mounting



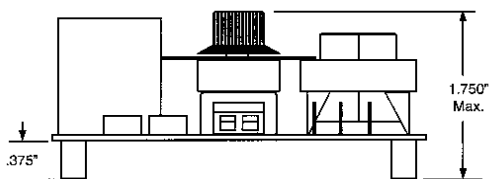
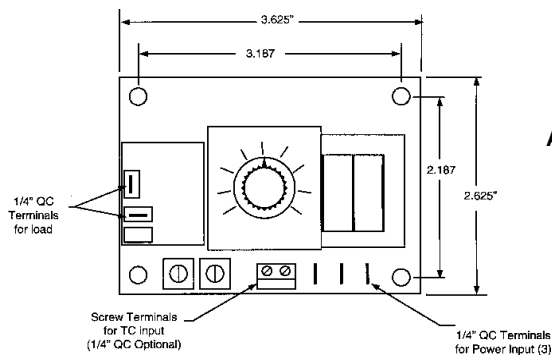
# series 121/122

## BARE BOARD TEMPERATURE CONTROL

# specifications



Series 121 with local pot illustrated above



Series 122 with local SP pot illustrated above

**Power Input:** 115/230VAC +/-10%, 50/60Hz, 3VA max.  
24VAC +/-10% optional

**Control Output:** 30Amp SPST relays, UL rated 20Amps resistive and 1Amp pilot duty @ 120/240VAC for 100,000 cycles; SPDT relays or 24VDC to drive external SSRs optional

**Control Mode:** On-Off with 3°F to 4°F hysteresis standard; Special hysteresis values optional

**Control Action:** Open-on-Rise (heating) standard; Close-on-Rise (cooling) optional

**Sensor Type:** NTC Thermistor \*121 only  
"J", "K", "T" or "E" thermocouple \*122 only

**Setpoint Range:** Overlapping ranges from -50°F to 500°F (series 121) or -100°F to 2500°F (series 122)

**Setpoint Adj:** Fixed setpoint (factory calibrated) with trim pot for field adjustment standard; local or remote setpoint pot optional

**Compensation:** Automatic cold junction compensation (thermocouple sensor only)

**Sensor Fault Protection:** Output de-energizes with open or shorted sensor or thermocouple break

**Amb. Oper. Temp:** 0°C to 70°C

**Oper. Relative Humidity:** 5 to 90% non-condensing

**ZYTRON**

20 LEXINGTON AVENUE, TRENTON, NJ 08618  
TEL 609 771 0101 FAX 609 771 0020

© 2000-2001 Zytron Control Products, Inc. All Rights Reserved.

# series 121/122

BARE BOARD TEMPERATURE CONTROL

## ordering information

MODEL 121 - B18 - TH21 - T

### MODEL NUMBER

- 121 Thermistor Controller
- 122 Thermocouple Controller

### SETPOINT ADJ

- A Remote SP
- B Local SP with graduated dial
- C Fixed SP with blind trim pot adj.

### INPUT VOLTAGE

- 1 115VAC
- 2 230VAC
- 3 115/230VAC (field selectable)
- 4 24VAC

### OUTPUT TYPE/RATING

- 8 20 Amp Relay
- 9 24VDC to drive external SSR

### ADDITIONAL OPTIONS

- T Snap Track Mtg.

### STANDARD RANGES

\* NOTE: Use suffix 00 for un-calibrated ranges

NTC THERMISTOR		THERMOCOUPLE	
21	60F to 250F	01	0F to 250F
22	200F to 400F	02	0F to 500F
23	200F to 550F	03	0F to 1000F
24	150F to 450F	04	0F to 2000F
25	150F to 350F		
26	50F to 160F		
27	0F to 100F		
28	70F to 140F		

### SENSOR TYPE

- TH Thermistor
- PT PRTD
- JT "J" T/C
- KT "K" T/C
- TT "T" T/C
- ET "E" T/C

**ZYTRON**

20 LEXINGTON AVENUE, TRENTON, NJ 08618  
TEL 609 771 0101 FAX 609 771 0020

© 2000-2001 Zytron Control Products, Inc. All Rights Reserved.