



## 5R7-573 THERMOELECTRIC CONTROLLER

This open board temperature controller is specifically designed with a proportional integral control algorithm to provide the most precise control to thermoelectric (Peltier effect) modules at the most economical price.

The H bridge control provides a seamless transition between heating and cooling, eliminating dead spots. A red LED for heat and green LED for cooling indicate mode. Pulse Width Modulation controls the power level in the thermoelectric module at a base frequency of 900Hz. Power resolution is one of  $\pm 255$  steps in the load circuit control.

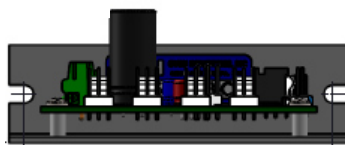
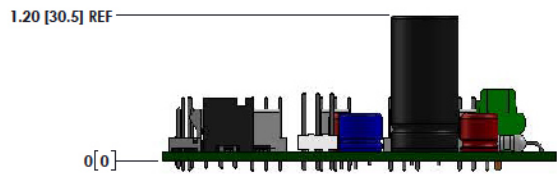
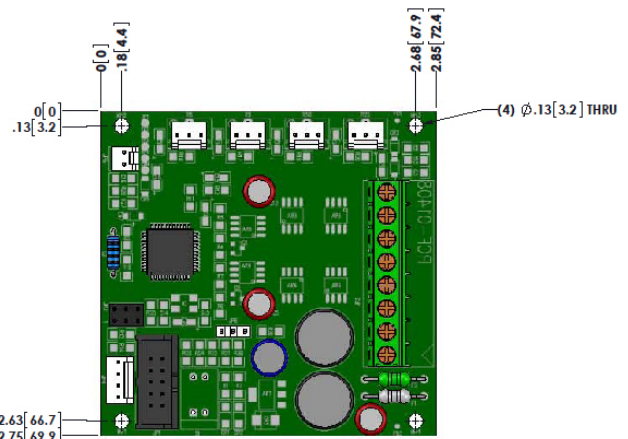


### FEATURES

- Solid State H-Bridge Control
- Bi-Directional Control (Seamless Transition)
  - Red LED Heating Mode
  - Green LED Cooling Mode
- Proportional Integral control algorithm
- Pulse width modulated output
- TTL to USB communication via optional OI-TTL-Cable.
- Support and Digital control through included GUI & DLL.
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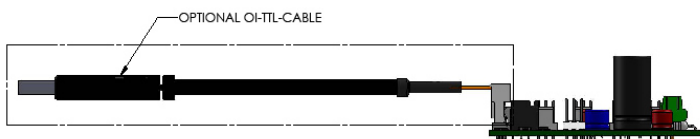
### SPECIFICATIONS

- Input Voltage: 6 to 28 VDC
- Output Voltage: 0 to 28 VDC
- Load Current: 0.1 to 12.5 A
- Temperature Resolution: 0.1°C
- Temperature Range: -40 to 250°C
- Control Stability:  $\pm 0.1^\circ\text{C}$
- 450 W output power control
- 900 Hz base frequency pulse width modulated output
- Adjustable Bandwidth, Integral & Derivative settings (PID) via OI-TTL-Cable and supplied software.
- 1.2" H x 2.7" W x 2.9" D
- Customer Drawing: CDR-00426



Front View

OPTIONAL  
"L" mounting plate  
for easy installation  
1.36" H X 3.5" long



OPTIONAL OI-TTL-CABLE

### ACCESSORIES

- **DISP-573** Remote LED Display.
- **5R7-573A** Remote Set Potentiometers.
- **Sensor Family:**
  - TR67 (15K @ 25°C)  $\pm 1^\circ\text{C}$ , -20 to 100°C
  - TR136 (15K @ 25°C)  $\pm 0.1^\circ\text{C}$ , -20 to 100°C
  - TR91 (10K @ 25°C)  $\pm 1^\circ\text{C}$ , -40 to 150°C
  - TR104 (50K @ 25°C)  $\pm 1^\circ\text{C}$ , 0 to 150°C
  - TR141 (5K @ 25°C)  $\pm 1^\circ\text{C}$ , -40 to 90°C
  - TR165 (231.5K @ 25°C)  $\pm 1^\circ\text{C}$ , 25 to 250°C
- **OI-TTL-Cable** TTL to USB serial communications
- "L" Shape Mounting Plate

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