5R7-002 THERMOELECTRIC CONTROLLER

The Bi-directional or unidirectional H-bridge configuration of this controller creates a seamless transition between heating and cooling as it commands the thermoelectric modules. The included user friendly PC software makes it easy for the user to change control configurations through the RS485 interface which has 1500VAC isolation from the electronic circuitry virtually eliminating interference from noise or errant signals. Once the controller is set-up, the computer may be disconnected and the controller becomes a stand alone unit or the computer can remain connected for data acquisition. The temperature may also be set through the optional display or remote potentiometer. The load circuit is pulse width modulated at 2.7Khz and delivers a load current of .1 to 25 Amps.
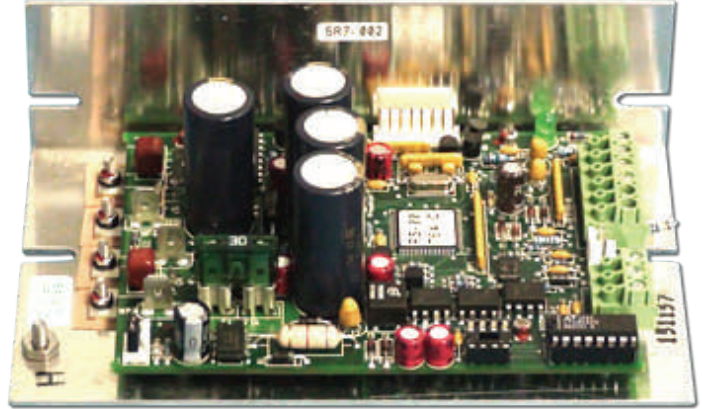

RoHS Compliant

FEATURES

- H-Bridge Control
- PC Programmable
- PID or On/Off Control
- PC Configurable Alarm Circuit
- 0-36 VDC Output using Split Power Supply
- RS485 Communication Port
- RoHS Compliant
- Set Temperature range of –40 to 250°C
- Large program memory space for customization
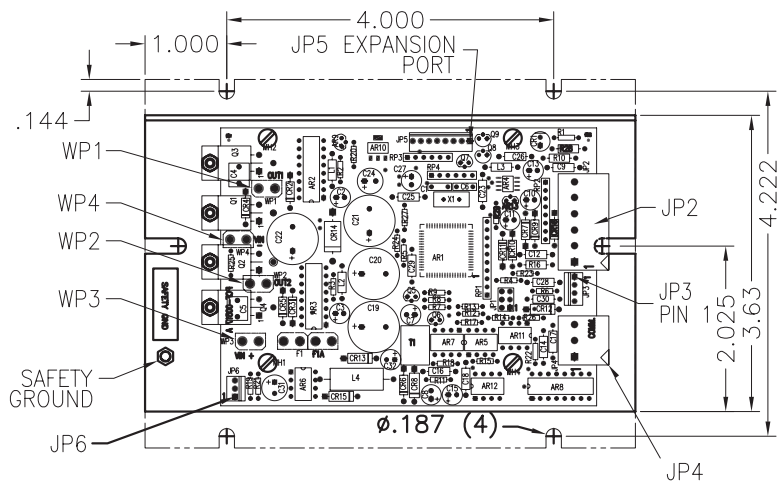
SPECIFICATIONS

- Input Voltage: 12 to 36 VDC
- Output Voltage: 0 to 36 VDC
- Load Current: 0.1 to 25 A
- Temperature Resolution: 0.01°C
- PID Functions:
    - Bandwidth : 0.1 to 50°C
    - Integral: 0 to 10 repeats per minute
    - Derivative: 0 to 10 minutes
- PWM Base Frequency: 2.7 Khz
- Ambient Temperature range: -20 to 70°C
- Power Dissipation: <10 Watts
- Process Control Rate: 90 time per second
- Output Power Resolution: ± 0.2%
- Control Resolution: ± 0.01°C
- 2" H (2.64" with HS) x 6" W x 3.63" D
- Customer Drawing: CDR-00198
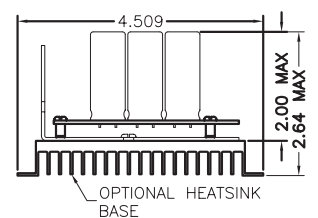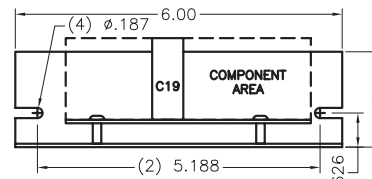
ACCESSORIES

- 5R6-576 Display with 4 digit readout
- Heat sink
- Sensor Selection:

TS67	(15K)	–20 to 110°C
TS91	(10K)	–40 to 150°C
TS104	(50K)	0 to 150°C
TS136	(15K)	–20 to 110°C
TS141	(5K)	–40 to 90°C
TS165	(231.5K)	25 to 250°C