Advanced temperature controller for thermoelectrics

The PR-59 temperature controller is designed for reversible (cooling/heating) control of thermoelectric assemblies/systems with high temperature accuracy.
The controller not only regulates the temperature, but also features two programmable fan outputs and an alarm output relay. The RS232 interface allows you to read and control parameters and settings in real-time. However, the controller can also be used as a stand-alone unit.
An easy-to-use PC software for programming of the controller is included.
Typical applications include analytical instruments, cooling of lasers, thermocyclers and medical equipment.

Supercool®

Features of PR-59:

- Input voltage from 10 to 30 Volts DC
- Handling load up to 15A at 30 VDC
  30A at 30 VDC with additional cooling
- Bi-directional control for heating or cooling applications, using “H” bridge
- PC Programmable via RS232 communications interface with easy-to-use PC program. The advanced Graphical User Interface (GUI) shows temperatures etc. in real-time while setting parameters. Different setups can easily be saved.
- Regulator Proportional (P), Integral (I), Derivative (D) control, selectable; P, PI, PD, PID or ON/OFF mode; all parameters adjustable.
- Real-time control of regulator parameters and temperature readings via RS232 interface.
- Control temperature, from –20°C to +100°C (-4 to +212°F) with the standard NTC sensor. Other temperature range possible with other (NTC, PT1000) sensors.
- Two FAN control outputs, with independent regulator control: ON/OFF or ALGO mode. All parameters adjustable.
- Temperature resolution of max 0.05°C
- Pulse width modulation of output:
  - Base Frequency of 10kHz
  - Control Stability of ±0.05°C (-20 C to + 50 C)
- Set Temperature Selectable
  - PC set with controller stand alone operation
  - Remote user set temperature potentiometer
  - 0 to 5 VDC adjustable range
- Two alarm temperature sensor inputs with adjustable alarm set points
- Alarm relay output, normally closed (will open on alarm); 1A @ 24VDC/120VAC
- Alarm configuration, adjustable set points:
  - Under or over voltage check
  - Output current overload check
  - FAN not connected or not working check
  - Temperature sensor not connected or short circuit check
  - Over or under temperature check
- All parameters storable in FLASH non-volatile memory
- Firmware download via RS232. Gives you access to new features in the future.

For more information, please contact your Supercool representative.

Supercool®

www.supercool.com

SUPERCOOL AB, Box 27, 401 20 Göteborg, Sweden, Tel. +46 31-42 05 30,
Fax. +46 31-24 79 09. E-mail: info@supercool.se