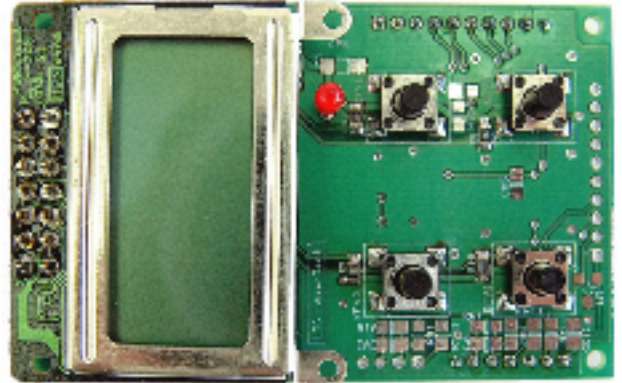


## Features

- Microprocessor-based smart controller
- LCD display
- RS-232/RS-485 for setup and data acquisition
- Analog output circuit with low output ripple
- Bi-directional output with single power supply



## Description

The module TM-200 is Microprocessor-based Temperature Controller for Thermoelectric Cooler (TEC) used in fixed temperature applications. The on board LCD and Keyboard provide precise set points for temperature, proportion gain, integral gain, and current limit. In addition, TM-200 is PC programmable via a RS232 or RS485 port. The module is designed to operate with a Negative Temperature Coefficient (NTC) thermistor or temperature sensors, such as AD590. The TM-200 can provide 0.01°C temperature stability.

Power to the TEC is delivered via a MOSFET analog current driver. The special design of the driver enables TM-200 to power a TEC with  $\pm 2$  Amp bipolar current while operating on a +5 V single power supply.

TM-201 is the non-LCD version of TM-200. It is of low cost, but the TM-201 is only PC programmable. The on board EEPROM can keep the set-up. Thus the TM-201 is more suitable to embedded applications.

## Specifications

0-50°C control range  
Temperature stability:  $\pm 0.01$  °C  
Keyboard or RS-232 temperature setting  
Character LCD available  
 $\pm 2$  Amp bi-polar drive capability  
Current ripple < 0.5%  
0.5 Amp-2 Amp current limit  
5 VDC single power supply  
2.62" x 1.70" x 1.19" in size (67mm x 43 mm x 30mm)

We reserve the right to change the details of design, materials and finish in any way that will not alter function performance.