

Auto Tune PID Temperature Controller



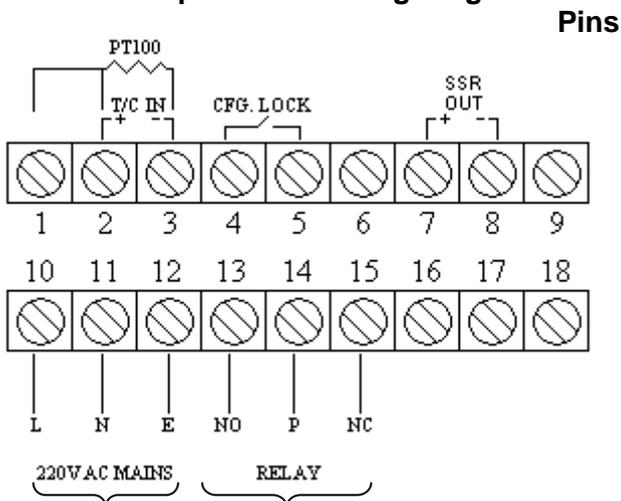
Features

- Microprocessor based controller, linearised for PT100 sensor & 3 thermocouples (J,K,R) with Auto cold junction compensation
- Auto/Manual tuning selectable
- PID/On-Off control user selectable
- Separate displays for Temperature and Set Point
- Output selectable as Heater/Cooler logic in On/off mode
- Relay/SSR output selectable
- Offset digitally programmable from front
- Configuration lockable by rear jumper
- User programmable hysteresis band in On/Off mode
- Non-volatile memory to save settings
- Aesthetically designed front panel with membrane switches

Specifications

- Display : 4 digit 0.56" 7 segment Red LED display for Temperature
4 digit 0.56" 7 segment Red LED display for Set Point
- Sensor : J,K,R or 3 wire PT100
- Range : J T/C : 0 to 750°C K T/C : 0 to 1250°C
R T/C : 0 to 1700°C PT100: -100.0 to +600.0°C
- Accuracy : $\pm 0.1\%$ of Full Scale ± 1 digit
- Relay Logic : In On/Off mode (P=0), Relay programmable as Heater/Cooler logic
In PID mode, cycle time of 5sec for SSR and 20sec for Relay
5 Amps/220V AC Relay Contact outputs
+10V output for SSR
- Proportional Band (P) : Settable from 0-200.0
- Integral Time (I) : Settable from 0-3000secs
- Derivative Time (D) : Settable from 0-3000secs
- Hysteresis Band : Settable from 0°C to 20.0°C (For On/Off mode i.e. P=0)
- Offset Band : Settable from -20.0°C to +20.0°C
- Memory : Non-volatile EEPROM to save settings
- Configuration Lock : Open terminals 4&5 to lock the Sensor type, Relay logic and SSR/Relay selection
- Supply : 220V AC $\pm 15\%$ @ 50/60Hz
- Dimensions : Front Fascia: 96mm x 96mm x 135mm. Cut Out : 91mm x 91mm
- Weight : 800 grams

Pin Description and Wiring Diagram



Pins

1. Third terminal of 3 wire PT100 sensor
2. Positive terminal for Thermocouple/PT100 sensor
3. Negative terminal for Thermocouple/PT100 sensor
4. Configuration lock terminal (Open to lock)
5. Configuration lock terminal
7. +ve of SSR out
8. -ve of SSR out
10. Line (220V AC)
11. Neutral
12. Earth
13. Normally Open contact of Relay
14. Pole contact of Relay
15. Normally Closed contact of Relay