Temperature Controller With Dual Set Point TC - 07

This is a dual set point temperature controller with two output relays and a single PT100 input. Each set point controls its own output relay. It can be configured as a high / low limit, heating / cooling, two stage heating (or cooling) controller or as a heating or cooling controller with alarm.

The main advantage of this controller is the calibration which has been done digitally through software. So there is no need to do the calibration every year and the setting cannot be altered as it is protected with a password.

Digital display, microprocessor based design, electrical noise-resistance even in a rough industrial environment and user friendly key operations are the main features of this instrument.

How to set the temperature

The temperature can be set by pressing the START STOP key which will show TP1 on the main display. Press the SET key which will show the current set temperature of TP1 and change the parameter through ▲ / ▼ key. Press SET key again to save the parameter of TP1 and then TP2 will appear on the main display. The parameter of TP2 can be set by following the instruction as of TP1. After setting TP1 and TP2 the temperature controller can be restarted by using the START STOP key.

Other Specification

1) Input supply: 150-270 VAC.
2) Details of output relay: SPDT, Goodsky RWH-SH-112D, Contact rating 10A/270VAC, Maximum load 250mA
3) Size of the enclosure: 96x96x85, Cut out of panel 92x92.
4) Temperature range: 0 – 300 degree.
5) Display: 3 digits, size ½ x ¾ inch and 7 segment with red color.
6) Temperature sensing probe: PT 100
7) Resolution: 1 degree
8) Status indication: LED for relay status.
9) Sensor break protection: Auto switch off on sensor break, "OPEN / SHORT will be displayed.

Wiring Diagram

S1	S2	C-1	NO	NC	C-2	NO	NC	
P	N	E						

C-1 : COMMON OF TP1 (RELAY 1)
NO : NORMALLY OPEN
NC : NORMALLY CLOSED
C-2 : COMMON OF TP2 (RELAY 2)
NO : NORMALLY OPEN
NC : NORMALLY CLOSED

S1 : PT100 SENSOR
S2 : PT100 SENSOR
P : PHASE.
N : NEUTRAL
E: EARTH