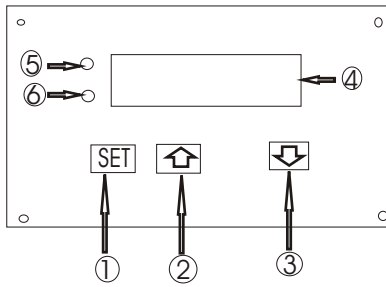


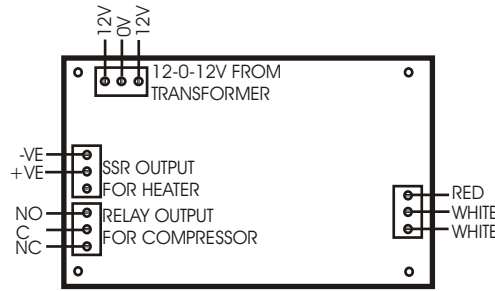
MULTI PID

MULTI PID 72 / 96



SIZE: 110*85

- 1: SET KEY
- 2: INCREMENT KEY
- 3: DECREMENT KEY
- 4: DISPLAY
- 5: RELAY1 INDICATION
- 6: RELAY2 INDICATION



Terminal Connections

- 1) 12V : 12 V AC INPUT OF THE TRANSFORMER SUPPLIED WITH THIS UNIT
- 2) 0V : 0 V INPUT OF THE TRANSFORMER SUPPLIED WITH THIS UNIT.
- 3) +VE: +VE FOR SSR
- 4) -VE: +VE FOR SSR
- 5) NO: NORMALLY OPEN OF COMPRESSOR RELAY
- 6) C : COMMON OF COMPRESSOR RELAY
- 7) NC: NORMALLY CLOSED OF COMPRESSOR RELAY
- 8) RED: RED WIRE OF RTD SENSOR
- 9) WHITE: WHITE WIRE OF RTD SENSOR

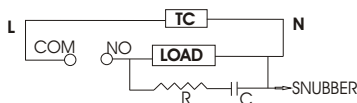
Features

- 1) On/Off control & proportional action & Autopid action
- 2) Proportional band adjustment by front keys.
- 3) Cycle time adjustment for proportional action by front keys.
- 4) Proportion gain, Integration gain, Derivative gain adjustment by front Keys.
- 5) logic selection, heating / cooling (user selectable).
- 6) Input sensor selection by front keys.
- 7) Differential adjustment by front keys
- 8) Time delay adjustment by front keys
- 9) Range lock is provided.
- 10) 5 Amp relay contact for resistive load
- 11) SSR out put for more than 5 Amp. Current consumption

Specifications

- 1) Input sensor : PT-100 (RTD 1 degree resolution, RTD1 0.1 Degree resolution) J-type, K-type Thermocouple, Current
- 2) 4 To 20 mA output.
- 3) Differential : 1 to 100 deg,
- 4) Proportional band: 0 to 100%.
- 5) Time Delay : 1 to 255 seconds,
- 6) Cycle time : 1 to 50 seconds.
- 7) Range: - 99 to 400°C for RTD, 0 to 750°C for J, 0 to 1200°C / 0 to 999°C for K
- 8) Cut-out : 70 x 70 mm / 91 x 91 mm.
- 9) Power consumption : 10 VA max.
- 10) Display : 4 digit 7-seg, red led display.
- 11) Supply : 220 V AC +/- 15% 50 Hz

If load is inductive, connect snubber across load



R=56 OHMS / 2 WATT.
C=0.1 MFD / 250 V AC
TC=TEMPERATURE CONTROLLER

ION ELECTRICALS
PRIVATE LIMITED
आयन् इलेक्ट्रिकल्स प्रा. लि.



Operation manual multi-pid

Check all the connections & switch on the mains supply.
Display will show process temperature

Setting:

Push 'set1' key, display will flashing with previous set no. Set it using up & down key to desired value.

Note

If no key is pressed in set mode then display will go in normal mode after 3 seconds.

Push set1 key,

Hys1 with some number will flash simultaneously. This is differential in degree Celsius. (selectable upto 100 degree Celsius.

Push set1 key,

LOG1 will flash with **HET/COL** simultaneously. It can be set by 'up' & 'down' key. (HET: Heating logic. COL: cooling logic.)

Push set1 key,

dly1 with some number will flash simultaneously. This is time delay in seconds. (selectable upto 254 seconds.)

Push 'set1' key,

SET2 will flashing with previous set no. Set it using up & down key to desired value.

Push set1 key,

Hys2 with some number will flash simultaneously. This is differential in degree Celsius. (selectable upto 100 degree Celsius.

Push set1 key,

LOG2 will flash with **HET/COL** simultaneously. It can be set by 'up' & 'down' key. (HET: Heating logic. COL: cooling logic.)

Push set1 key,

dly2 with some number will flash simultaneously. This is time delay in seconds. (selectable upto 254 seconds.)

Push 'set1' key,

SET3 will flashing with previous set no. Set it using up & down key to desired value.

Push set1 key,

Hys3 with some number will flash simultaneously. This is differential in degree Celsius. (selectable upto 100 degree Celsius.

Push set1 key,

LOG3 will flash with **HET/COL** simultaneously. It can be set by 'up' & 'down' key. (HET: Heating logic. COL: cooling logic.)

Push set1 key,

Dly3 with some number will flash simultaneously. This is time delay in seconds. (selectable upto 254 seconds.)

How to set logic mode?

Push 'up' & 'down' key to enter in logic mode.

SEN will flash with some sensor type (like rtd, rtd1, j, k, cur). Desired sensor type can be set using 'up' & 'down' key.

Push set1 key,

Dp (decimal point) will show 0000 for sensor type rtd, j, k, cur (current). Dp will show 000.0 for sensor type rtd1.

Push set1 key,

rnGL will flash with some number. One can lock minimum limit of range by using 'up' & 'down' key.

Push set1 key,

rnGH will flash with some number. One can lock maximum limit of range by using 'up' & 'down' key.

Push set1 key,

Con (controlling action) will flash with some controlling action (like ON/OFF, pid, Apid). The controlling action can be set by using 'up' & 'down' key.

1) If pid action is selected then,

Push set1 key,

Cy -t (cycle time) will flash with some number. It is in seconds. It can be set by using 'up' & 'down' key. (Setable upto 60 seconds.)

Push set1 key,

P-b (proportional band) will flash with some number. It is in %. It can be set using 'up' & 'down' key. (Setable upto 100).

Push set1 key,

P-G (proportional gain) will flash with some number. It can be set using 'up' & 'down' key. (Setable upto 10.0).

Push set1 key,

I-G (integration gain) will flash with some number. It can be set using 'up' & 'down' key. (Setable upto 10.0).

Push set1 key,

d-G (derivative gain) will flash with some number. It can be set using 'up' & 'down' key. (Setable upto 10.0).

Push set1 key,

AL-t (Algorithm time) will flash with some number. It can be set using 'up' & 'down' key. (Setable upto 100).

2) If Autopid action is selected then,

Push set1 key,

AL-t (Algorithm time) will flash with some number. It can be set using 'up' & 'down' key. (Setable upto 100).

Push set1 key,

.SER : Do not set this parameter. This will damage all the setting .

Trouble Shooting :

- 1) Sensor open indication : Display shows "Err"
- 2) Sensor reverse : If thermocouple not connected according to polarity temp goes on decreasing while heating
- 3) Not show proper temp. : Loose connection on terminal or calibration problem.
- 4) Problem in relay operation - check **ht1** time delay for relay operation. It should not be more than 4 sec. for heating logic.

