

OPERATING MANUAL

UNIVERSAL TEMPERATURE + TIMER CONTROLLER

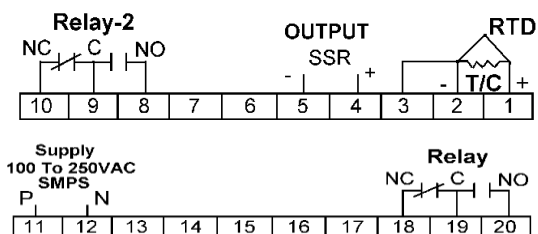
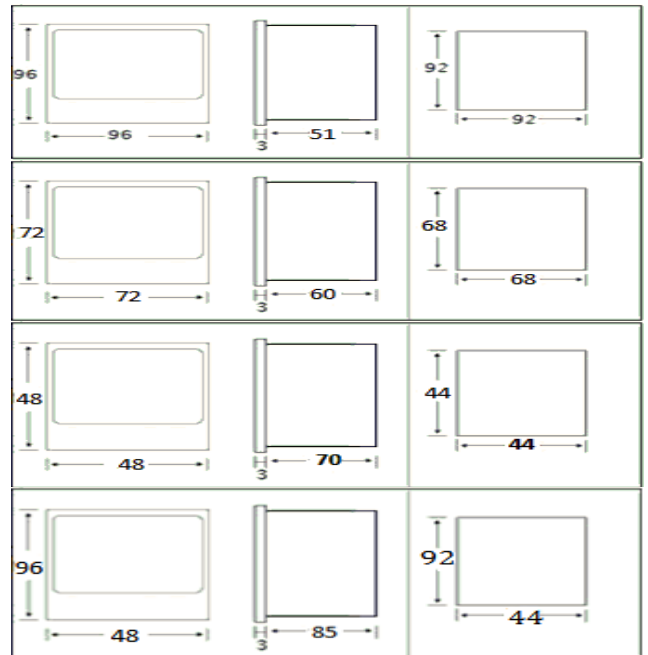
PID 9612,7212,4812,4912

MISTURA

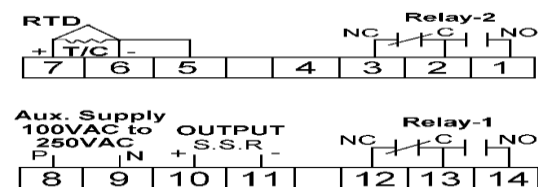
SPECIFICATION

AUXILIARY SUPPLY		
Supply voltage	100 to 250V AC, 50-60Hz	
Power consumption (VA RATING)	Approx. 7 VA @ 230V AC MAX	
ENVIRONMENT CONDITION		
Operating Temp.	0°C to 55°C	
Relative Humidity	UP to 95% RH (non-condensing)	
Protection Level	IP-65 (Front side) As per IS/IEC 60529 : 2001	
OUTPUT SPECIFICATION		
Relay/SSR	2 Nos./1 No	
Rating	2-Relay (230V AC-10A) 1-SSR (12V-30mA)	
DISPLAY		
PID_9612	Upper: 4 Digit Seven Segment, 0.70" White Lower: 4 Digit Seven Segment, 0.50" Green	
PID_7212	Upper: 4 Digit Seven Segment, 0.70" White Lower: 4 Digit Seven Segment, 0.50" Green	
PID_4812	Upper: 4 Digit Seven Segment, 0.39" White Lower: 4 Digit Seven Segment, 0.32" Green	
PID_4912	Upper: 4 Digit Seven Segment, 0.39" White Lower: 4 Digit Seven Segment, 0.32" Green	
DIMENSION		
	Size (HxWxD)	Panel Cut-out
PID_9612	96 X 96 X 51 mm	92x92
PID_7212	72 X 72 X 60 mm	72x72
PID_4812	48X 48 X 70 mm	44x44
PID_4912	96X 48 X 85 mm	92x44

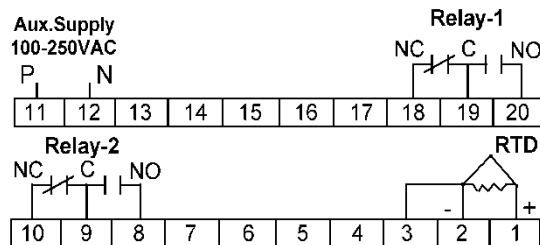
Sr.	INPUT	Symbol	Range
1	TC-J	J	0 To 650 °C
2	TC-K	K	0 To 1250 °C
3	TC-T	T	0 To 350 °C
4	TC-R	R	0 To 1600°C
5	TC-S	S	0 To 1600°C
6	TC-E	E	0 To 600°C
7	TC-N	N	0 To 1150°C
8	PT	PT	-100 To 400°C
9	PT-1	PT-1	-100.0 To 400.0°C
Indication Accuracy		±1% of FSD ± 1°C (FSD: full scale deflection)	
Resolution		J,K,T,R,S,E,N,PT-100 = 1°C PT-1 = 0.1°C	



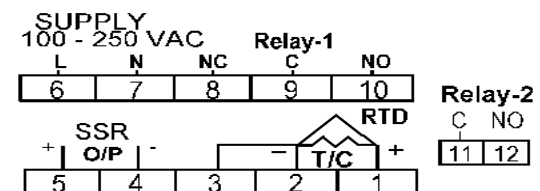
PID 9612



PID 7212

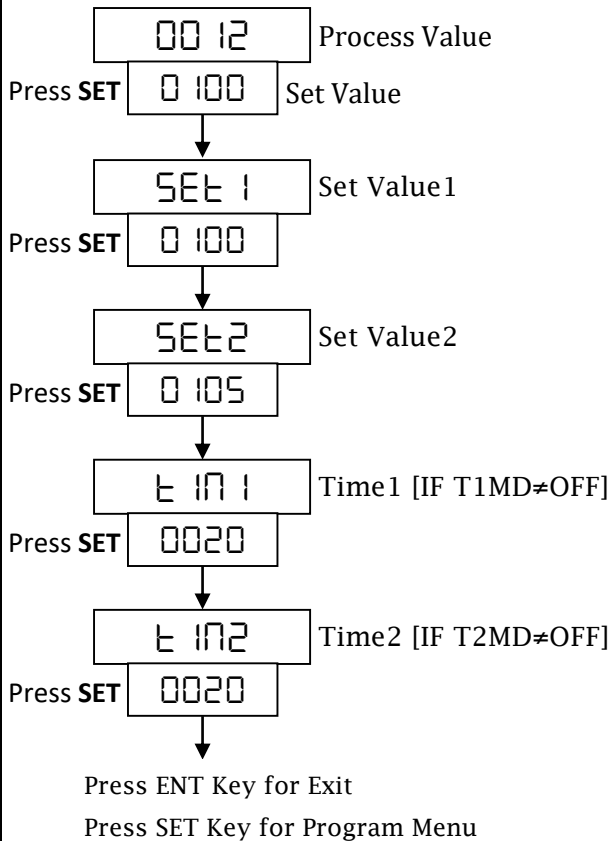


PID 4912V

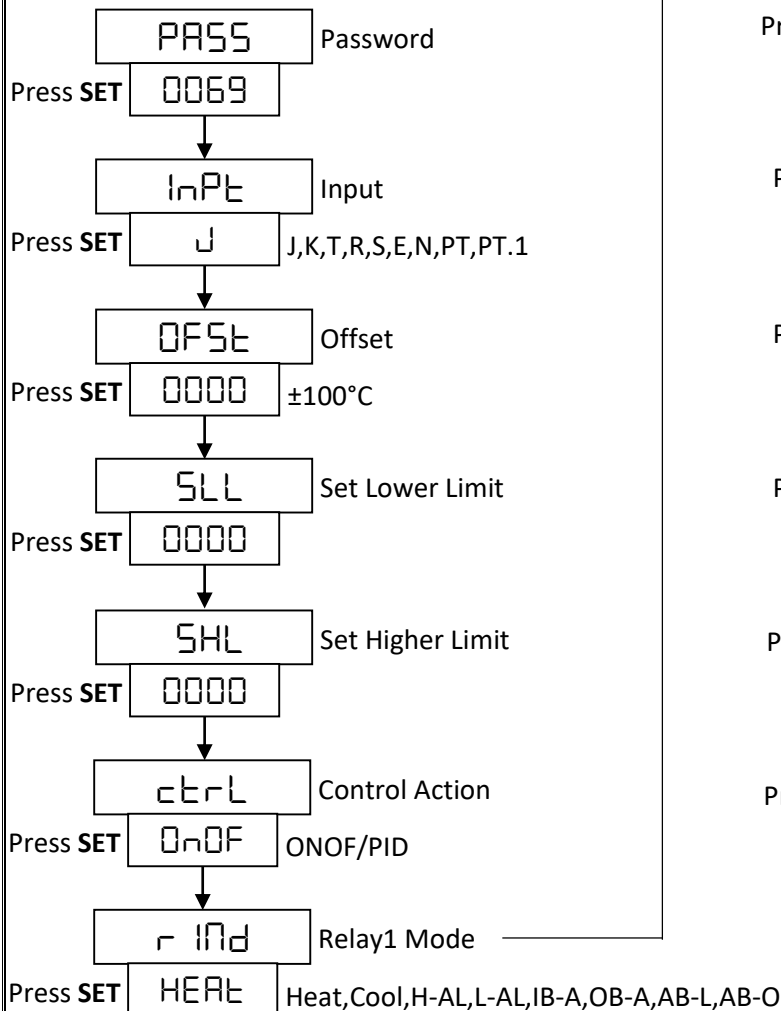


PID 4812

Set Point Setting:



Basic Configuration:

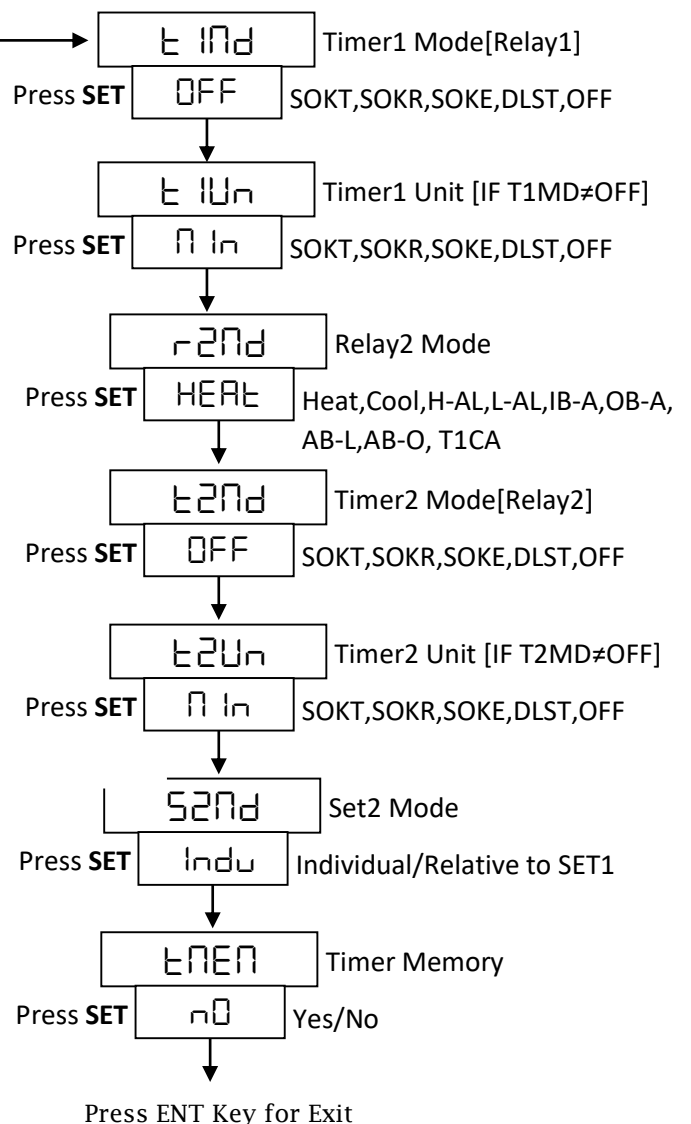


Key Operations:

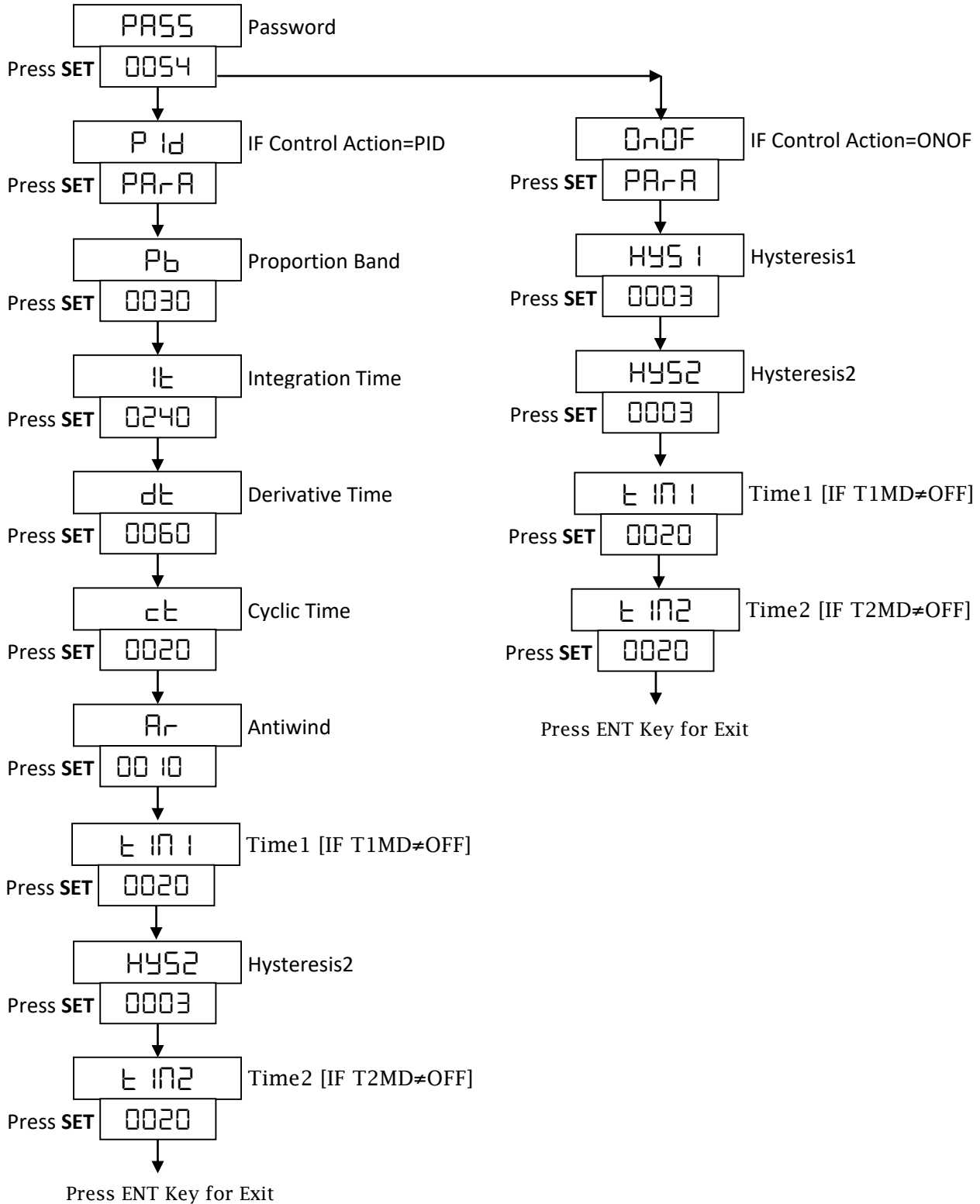
- Press SET Key 2 sec. to enter in programming mode.
- Press SET Key to go to next parameter.
- Use Up Or Down key to change value of parameter.
- Press ENT Key to save changes in setting & Exit.
- To start Auto-Tuning Press Up key for 6 sec. (In PID Mode).

PID Auto-Tuning:

- The Auto-tuning function automatically computes and sets the proportional band (P), integral time (I), Derivative time (D), and Cycle Time (CT) as per process characteristics.
- Press **UP (↑)** Key 6 sec. to start tuning (In PID Mode)



Control Parameter:



Relay1& Relay2 with Timer:

SOAK Timers (SOKT, SOKE, SOKR)

When Process Value equal to Set Point, timer will turn on. After completion Delay time Relay will turn off until next start.

SOKE: When timer on, Lower Display shows elapsed time & Time setting Available in front menu.

SOKR: When timer on, Lower Display shows remaining time & Time setting Available in front menu.

SOKT: When timer on, Lower Display's first digit dot blinking.

Set Point Delay Timer (DLST) [only for Heat/cool]

Heat Mode with DLST:

Initially Relay will be on condition. When Process value equals to Set Point timer will turn on. After completion of delay Relay will turn off. When Process value equal to Set Point- Hysteresis then again Relay will be on

Cool Mode with DLST:

Initially Relay will be off condition. When Process value equals to Set Point timer will turn on. After completion of delay Relay will turn on. When Process value equal to Set Point- Hysteresis then again Relay will turn off.

Relay1 & Relay2 Operating Modes:

- **Heat Mode:**

Initially Relay will be on condition. When Process value equals to Set Point Relay will turn off. When Process value equal to Set Point- Hysteresis then again Relay will be on.

- **Cool Mode:**

Initially Relay will be off condition. When Process value equals to Set Point Relay will turn on. When Process value equal to Set Point- Hysteresis then again Relay will turn off.

- **High Alarm Mode [H-AL]:**

Initially Relay will be off condition. When Process value equals to Set Point + Hysteresis Relay will turn on. When Process value equal to Set Point then again Relay will turn off.

- **Low Alarm Mode [L-AL]:**

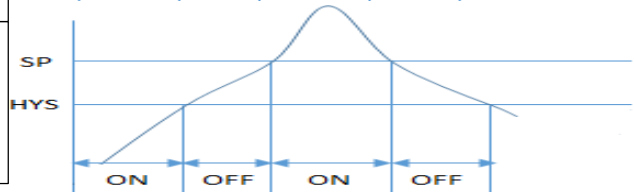
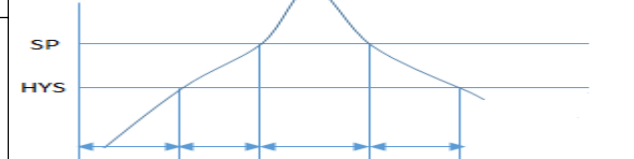
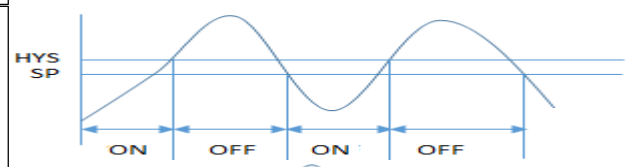
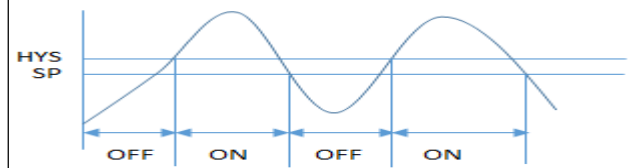
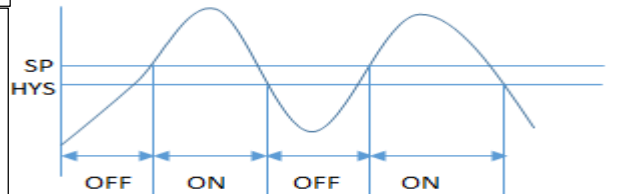
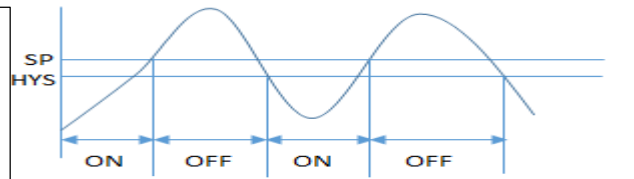
Initially Relay will be on condition. When Process value equals to Set Point + Hysteresis Relay will turn off. When Process value equal to Set Point then again Relay will turn on.

- **In Band Alarm Mode [IB-A]:**

Relay will be off between Set point & Hysteresis condition. If Set Point=100 & Hysteresis=3 than Relay off between 97to100.

- **Out Band Alarm Mode [OB-A]:**

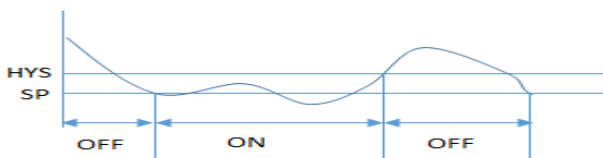
Relay will be off between Set point & Hysteresis condition. If Set Point=100 & Hysteresis=3 than Relay off between 97to100.



- **Relay1 Timing Complete [R1TC] (only for Relay2):**

When Relay1 with soak timer mode, after completion of Delay time Relay2 will be on until next start.

Absolute Low Alarm Mode [AB-L]:



Absolute Out Band Alarm Mode [AB-O]:

