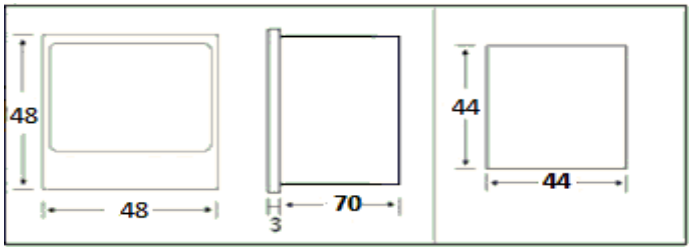
OPERATING MANUAL
PROCESS TEMPERATURE CONTROLLER
PTC 4815

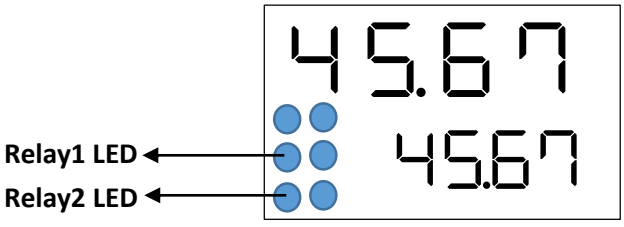
MISTURA

TECHNICAL SPECIFICATION

INPUT SPECIFICATION:			
Sr.	INPUT		Range
1	TC-J	J	0 To 700 °C
2	TC-K	F	0 To 1300 °C
3	TC-T	t	0 To 350 °C
4	TC-R	r	0 To 1650°C
5	TC-S	S	0 To 1650°C
6	TC-E	E	0 To 650°C
7	TC-N	n	0 To 1250°C
8	PT	Pt	-100 To 400°C
9	PT-1	Pt.1	-100.0 To 400.0°C
10	0-10VDC	0-10	-1999 To 9999
11	0-5VDC	0-5U	-1999 To 9999
12	4-20mA	4-20	-1999 To 9999
13	0-20mA	0-20	-1999 To 9999
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
			0-10V DC,0-5VDC,0-20mA DC,4-20mA DC = 0.1,0.01,0.001,0001
OUTPUT SPECIFICATION:			
1) Relay Output/ SSR Output (Factory Set)			
Relay/SSR			2
Relay Type			(NO-C)
Rating			Relay:10A, 230VAC/30V DC SSR: 12VDC,30mA
2) 24VDC Transmitter supply			

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
DIMENSION & DISPLAY:	
Size	48(H) X 48(W) X 70(D)/ Cutout 44(H) X 44(W)
Display	Upper: 4 digit, 7 segment, 0.70" White Lower: 4 digit, 7 segment, 0.50" Green

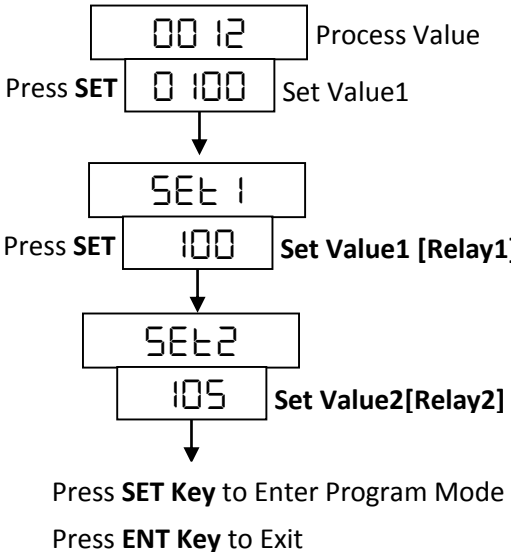




Key Operations:

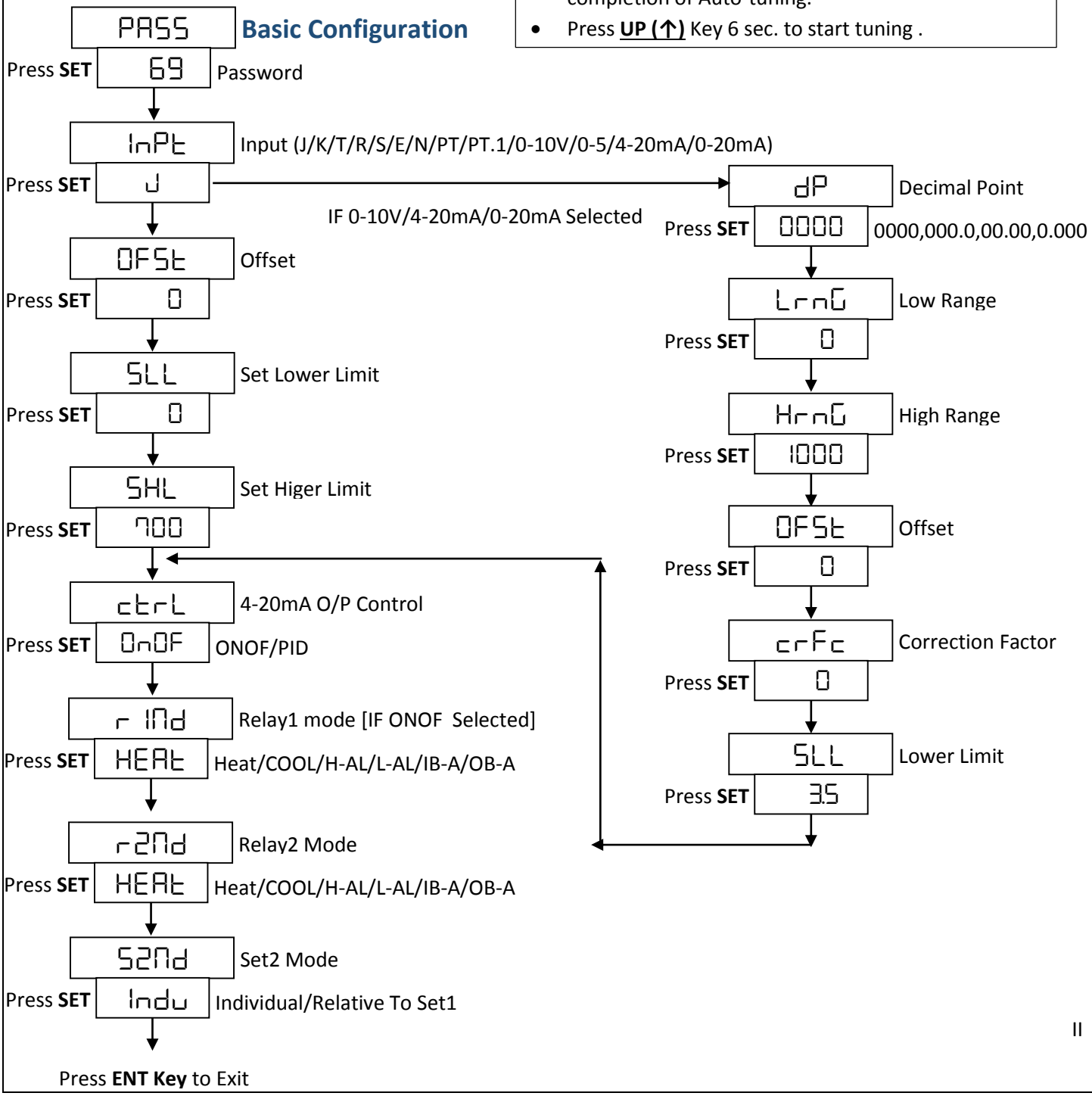
- Press SET Key to enter in programming mode.
- Press SET Key to go to next parameter.
- Use Up Or Down key to change value of parameter.
- Press ENT Key to save change in setting
- To start Auto-Tuning Press Up key for 6 sec. (In PID Mode).

Set point Setting:



PID Auto-Tuning

- The Auto-tuning function automatically computes and sets the proportional band (P), integral time (I), Derivative time (D), cycle time as per process characteristics.
- While Auto-tune is in progress, lower display alternate shows AT & set-point. Lower display stops alternating between AT & set-point at the completion of Auto-tuning.
- Press **UP (↑)** Key 6 sec. to start tuning .



Control Parameter

PASS
Press **SET** 54 Password

IF Control Action:PID

Pb Proportion Band
Press **SET** 300

It Integration Time
Press **SET** 240

dt Derivative Time
Press **SET** 60

ct Cyclic Time
Press **SET** 20

Ar Filter
Press **SET** 100

HYS2 Hysteresis2
Press **SET** 3

Press **ENT** for Exit

IF Control Action: ONOF

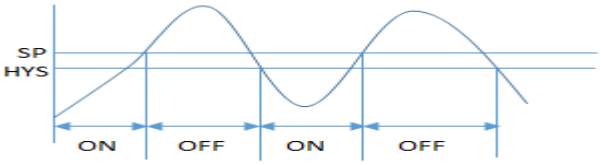
HYS 1 Hysteresis1
Press **SET** 3

HYS2 Hysteresis2
Press **SET** 3

Press **ENT** for Exit

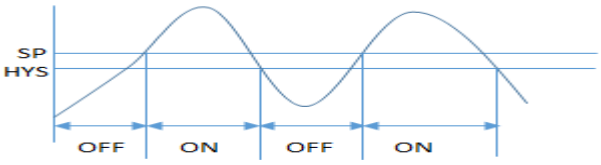
Relay1 & Relay2 Operating Modes

- **Heat Mode:**



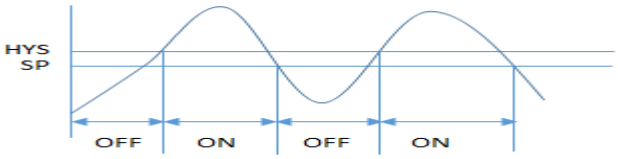
Initially Relay will be on condition. When Process value equals to Set Point Relay will turn off. When Process value equal to Set Point-Hysteresis then again Relay will be on.

- **Cool Mode:**



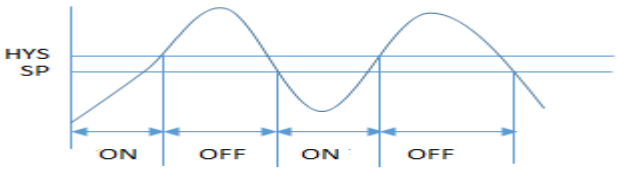
Initially Relay will be off condition. When Process value equals to Set Point Relay will turn on. When Process value equal to Set Point-Hysteresis then again Relay will turn off.

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



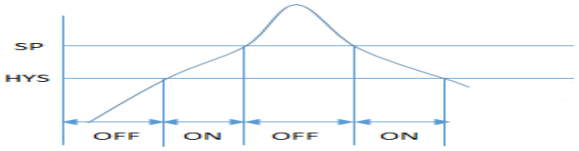
Initially Relay will be off condition. When Process value equals to Set Point + Hysteresis Relay will turn on. When Process value equal to Set Point then again Relay will turn off.

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



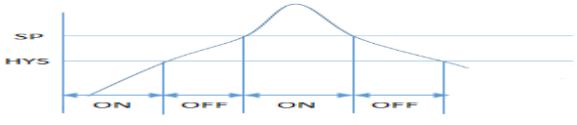
Initially Relay will be on condition. When Process value equals to Set Point + Hysteresis Relay will turn off. When Process value equal to Set Point then again Relay will turn on.

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



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