

APC - 5000

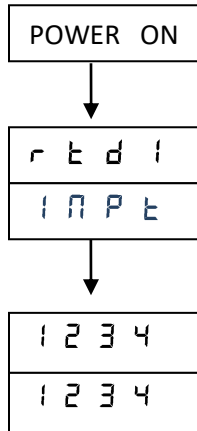
Technical Specification:

Model	APC-5000	APC-1000
DISPLAY	UPPER: 4 Digit 0.56",Red Led Display Lower: 4 Digit 0.34",Red Led Display	UPPER: 4 Digit 0.39",Red Led Display Lower: 4 Digit 0.31",Red Led Display
SIZE	96 X 96 X 50	48 X 48 X 110
PANEL CUT OUT	92 X 92	44 X 44
INPUT	RTD, RTD.1, J, K, R, S, 4-20mA, 0-10 VDC (selectable through Front Keypad)	
CONTROL ACTION	PID / HEATING / COOLING (SELECTABLE through Front Keypad)	
OUTPUT:	4 RELAY / 4 SSR / 4-20 mA (Retransmission) / 24 VDC (TPS) / RS-485(MODBUS)	
POWER	230 VAC,50 Hz	

NOTE:

- 1) Press + key for 3 second to go to Menu.
- 2) Press key to go to next parameter.
- 3) Press or to enter Value or to select option.
- 4) Press key for save changes in settings.
- 5) IF NO is selected by lock parameter than Auto Tune PID is Activated by press for 5 second.

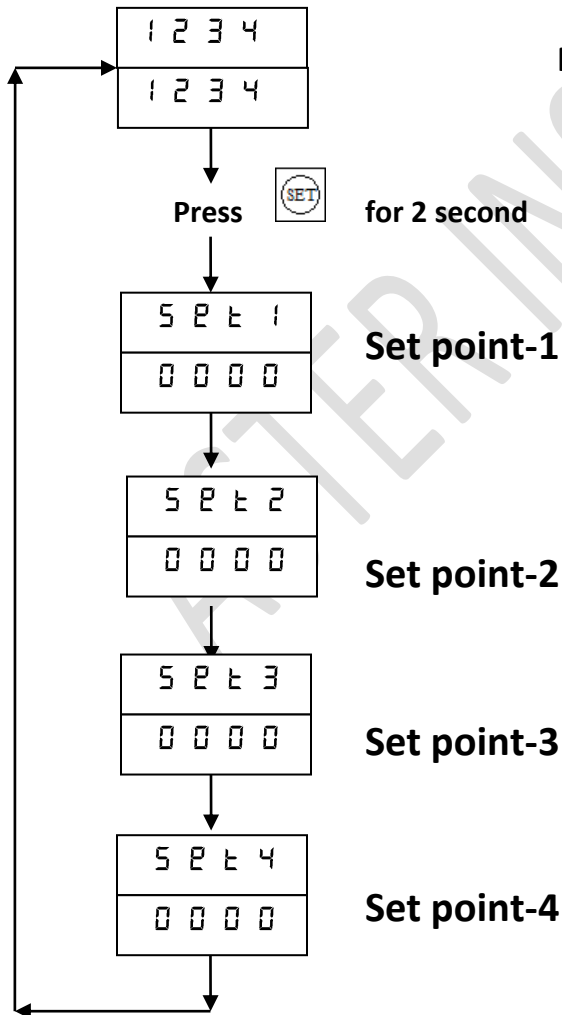
6) Every time the instrument is turned ON, Following pattern will be displayed.



Previous or Default Sensor Input Display for 2 Second

Process Value
Set Value

SET POINT SETTING:



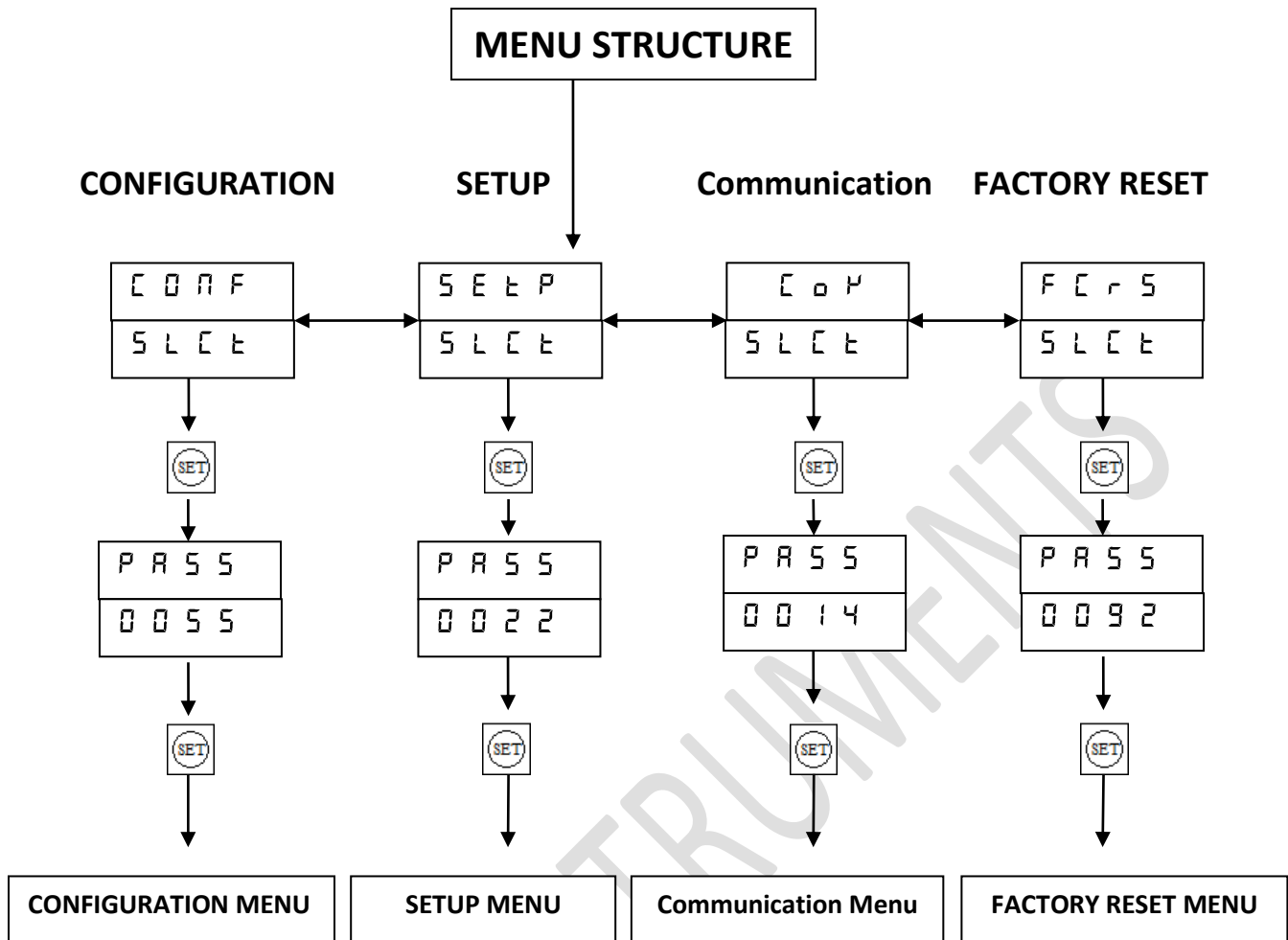
Process Value
Set Value

Set point-1

Set point-2

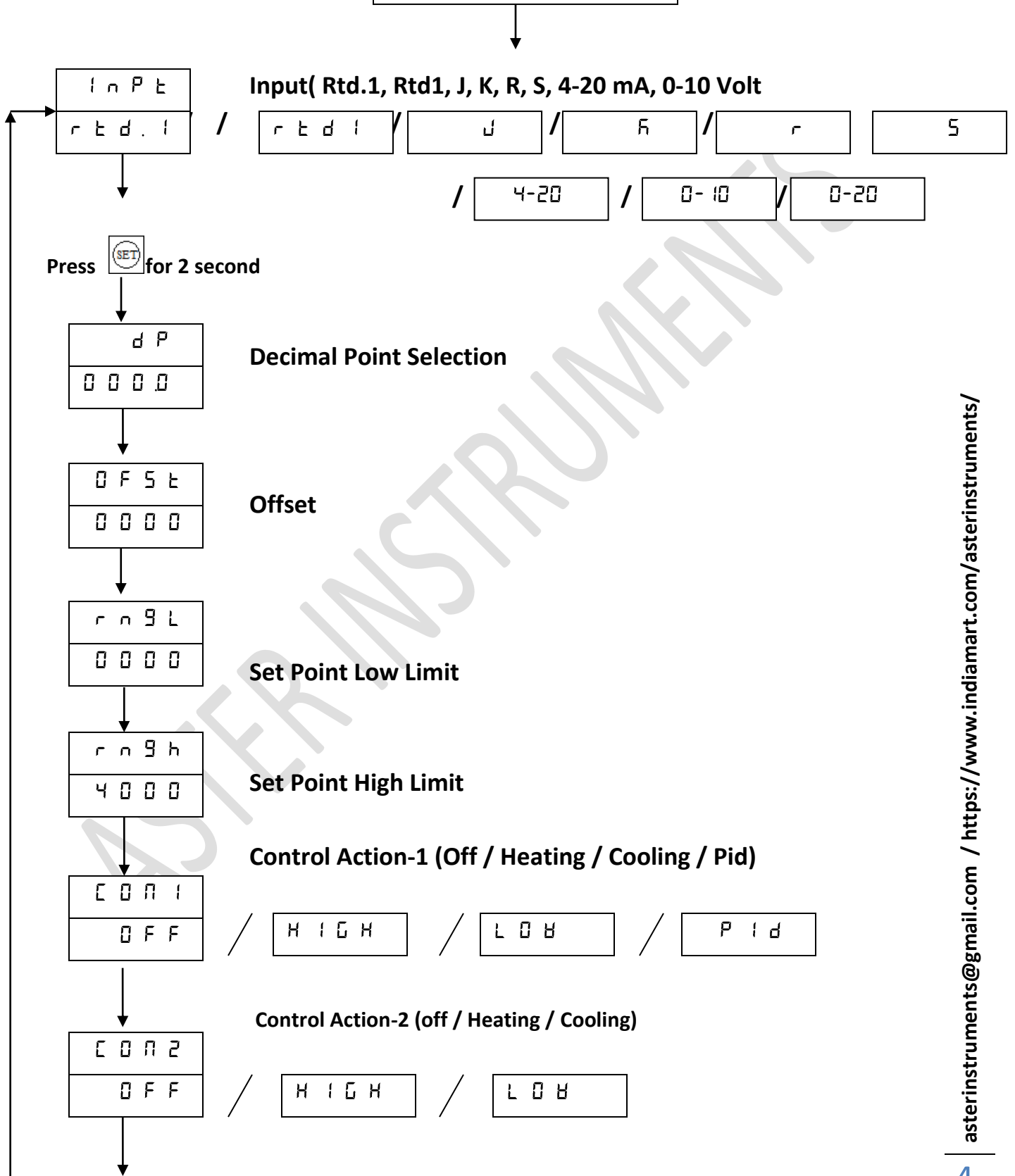
Set point-3

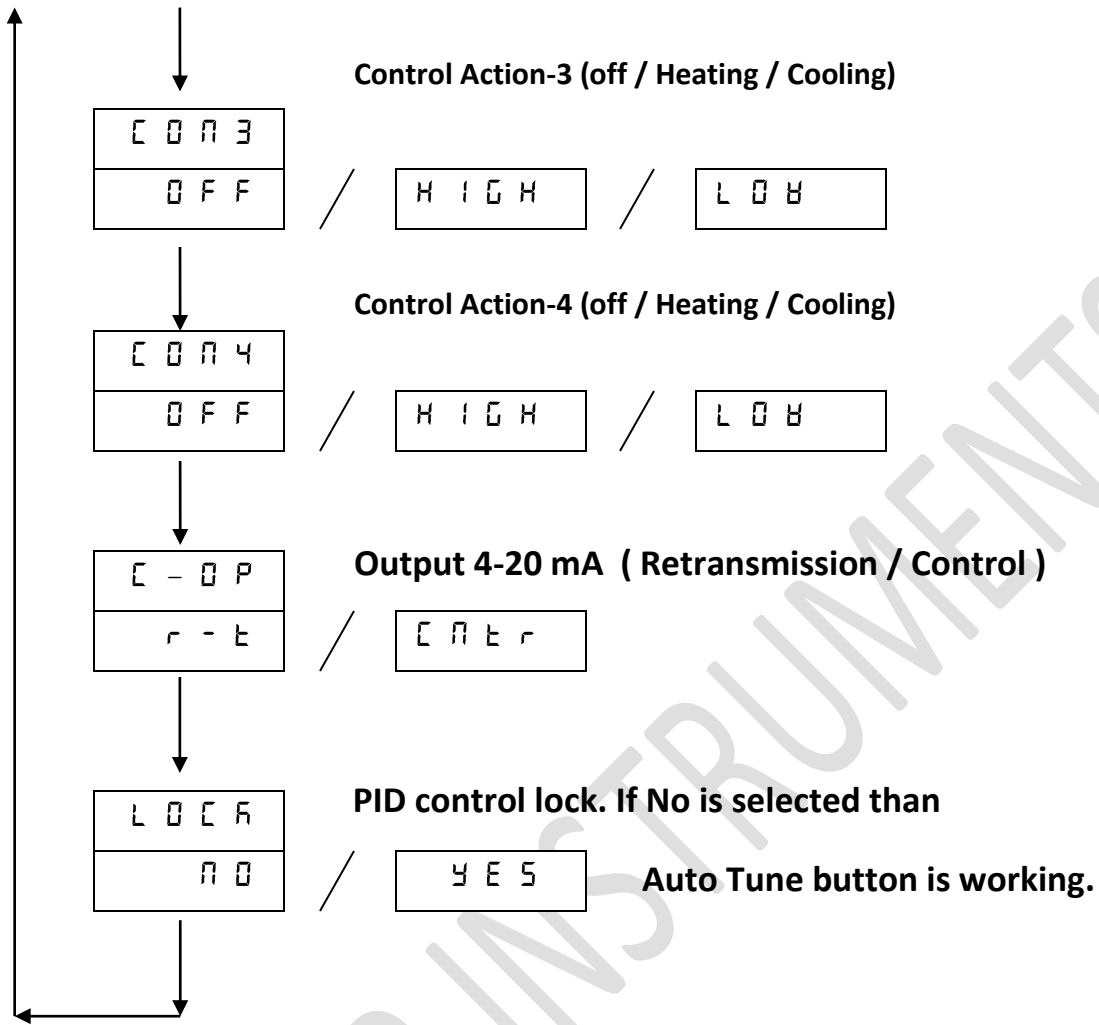
Set point-4



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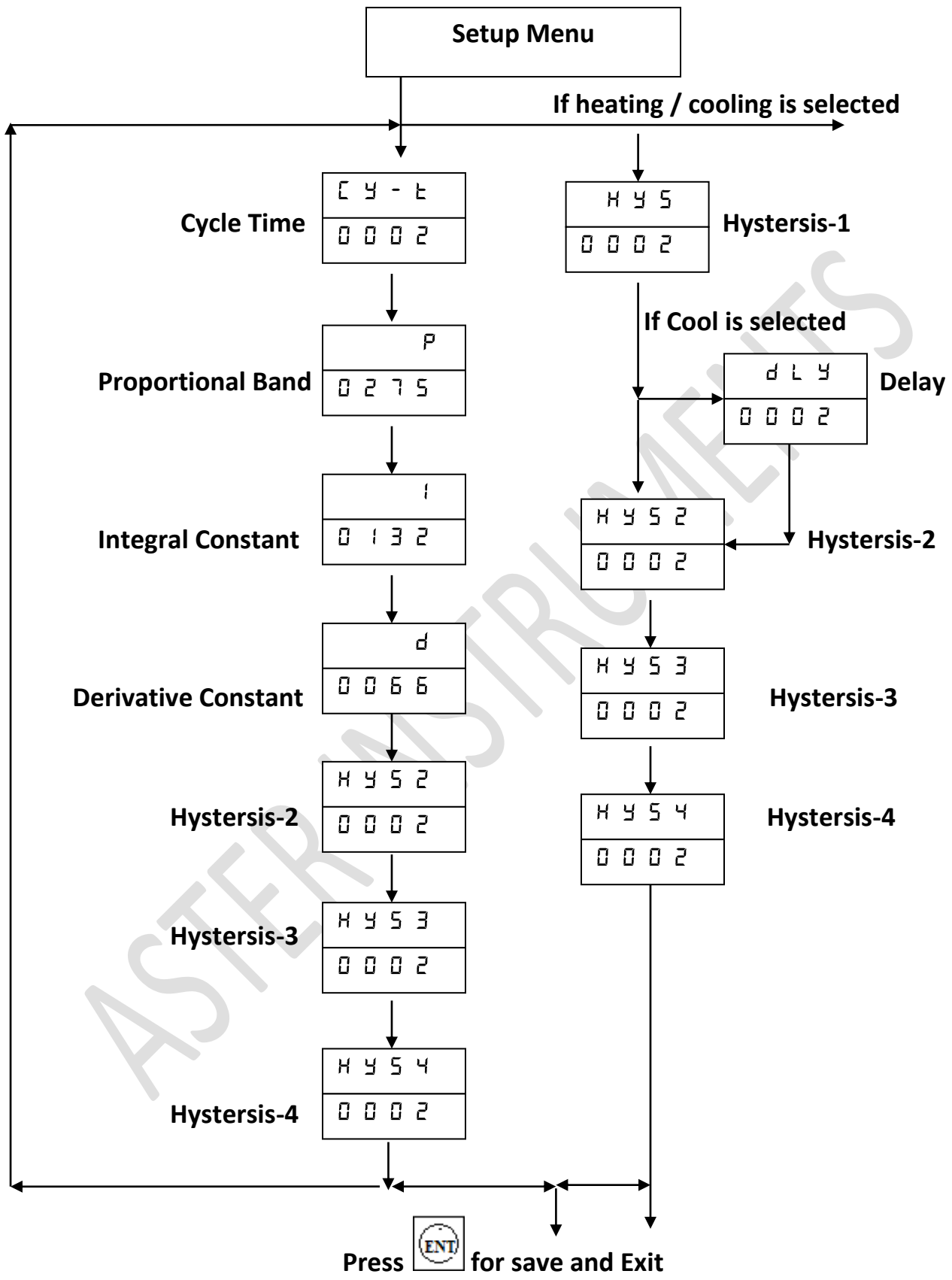
Configuration Menu



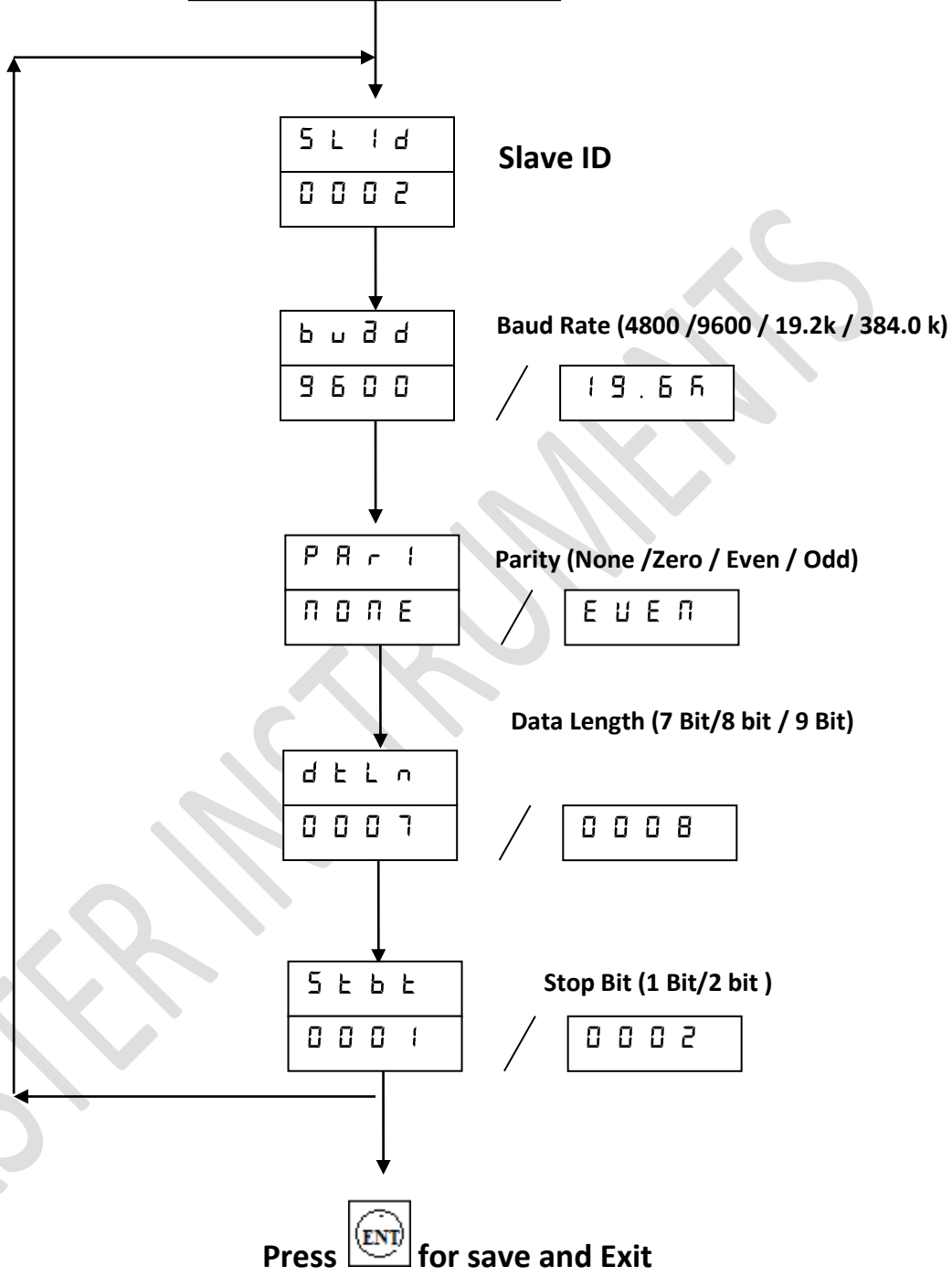


Press  for Save and Exit

ASTER INSTRUMENTS

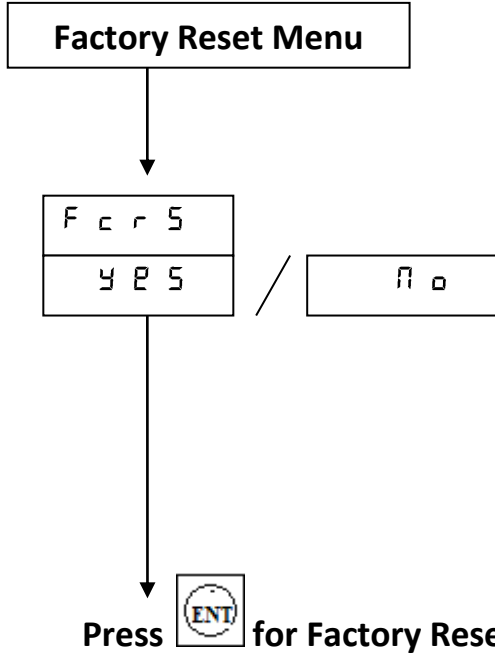


Communication Menu



Modbus Register Map

SR NO	ADDRESS	DESCRIPTION	TYPE	R/W	NOTE
1	40000	PROCESS VALUE	Signed int	R	
2	40001	DECIMAL POINT	Signed int	R/W	0-1000, 1-100.0, 2-10.00, 3-1.000
3	40002	OFFSET	Signed int	R/W	
4	40003	SENSOR	Signed int	R/W	0-RTD.1, 1-RTD1, 2-J TC, 3-K TC, 4-R TC, 5- S TC, 6- 4-20mA, 7-0-10V
5	40004	Low Range for Linear Input	Signed int	R/W	
6	40005	High Range for Linear Input	Signed int	R/W	
7	40006	4-20mA output Selection	Signed int	R/W	0-Retrans, 1- Control output
8	40007	Relay-1 Control	Signed int	R/W	0- Off, 1- High, 2- Low, 3- 3-PID
9	40008	HYSTERISIS-1	Signed int	R/W	
10	40009	Delay for Relay-1	Signed int	R/W	
11	40010	P	Signed int	R/W	
12	40011	I	Signe Int	R/W	
13	40012	D	Signed int	R/W	
14	40013	Cycle Time	Signed int	R/W	
15	40014	Lock	Signed int	R/W	0-No, 1-Yes
16	40015	Relay-2 Control	Signed int	R/W	0- Off, 1- High, 2- Low,
17	40016	HYSTERISIS-1	Signed int	R/W	
18	40017	Zero Cal for output 4-20mA	Signed int	R/W	
19	40018	Span Cal for Output 4-20 mA	Signed int	R/W	
20	40019	Set Point-1	Signed int	R/W	
21	40020	Set Point-2	Signed int	R/W	



FACTORY SETTINGS		
SR NO	PARAMETER	VALUES
1	Offset	0
2	Cycle time	5
3	P	275
4	I	136
5	D	66
6	Hysteresis for Relay-1	2
7	Delay for Relay-1	1
8	Hysteresis for Relay-2	2
9	Hysteresis for Relay-3	2
10	Hysteresis for Relay-4	2

Parameter Range:

Sr.	Parameter	Range for Rtd1, J,K,R,S	4-20 mA, 0-10 V	Rtd.1
1	Offset	-999 to 9999°C	-999 to 9999 (with DP 0,1,2,3)	-99.9 to 99.99 °C
2	Cycle time	0 to 60 Sec	0 to 60 Sec	0 to 60 Sec
3	P	0.0 to 100.0	0.0 to 100.0	0.0 to 100.0
4	I	0 to 2000	0 to 2000	0 to 2000
5	D	0 to 1000	0 to 1000	0 to 1000
6	Hysteresis for Relay-1	0 to 100°C	0 to 100°C (with DP 0,1,2,3)	0.0 to 10.0' C
7	Delay for Relay-1	1 to 254 Sec	1 to 254 Sec	1 to 254 Sec
8	Hysteresis for Relay-2	0 to 100°C	0 to 100°C (with DP 0,1,2,3)	0.0 to 10.0°C
9	Hysteresis for Relay-3	0 to 100°C	0 to 100°C (with DP 0,1,2,3)	0.0 to 10.0°C
10	Hysteresis for Relay-4	0 to 100°C	0 to 100°C (with DP 0,1,2,3)	0.0 to 10.0°C

Connection Diagram

X	X	-	+	X	24V	X	X	X	X
		4-20 mA							
ASTER INSTRUMENTS AHMEDABAD									
UNIVERSAL PROCESS CONTROLLER									
SR NO: 20221112003									
SUPPLY		NO	C	NC	NO	C	NC	COM	
L	N	RELAY-1			RELAY-2			A	B

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