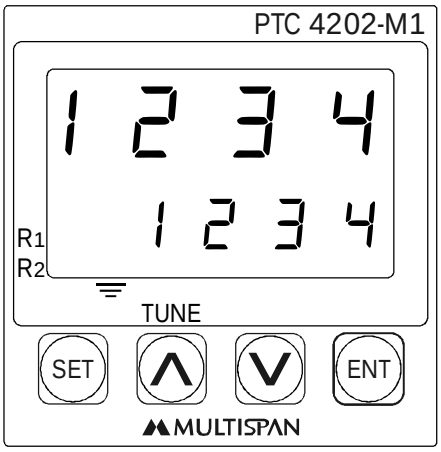


Technical Specification

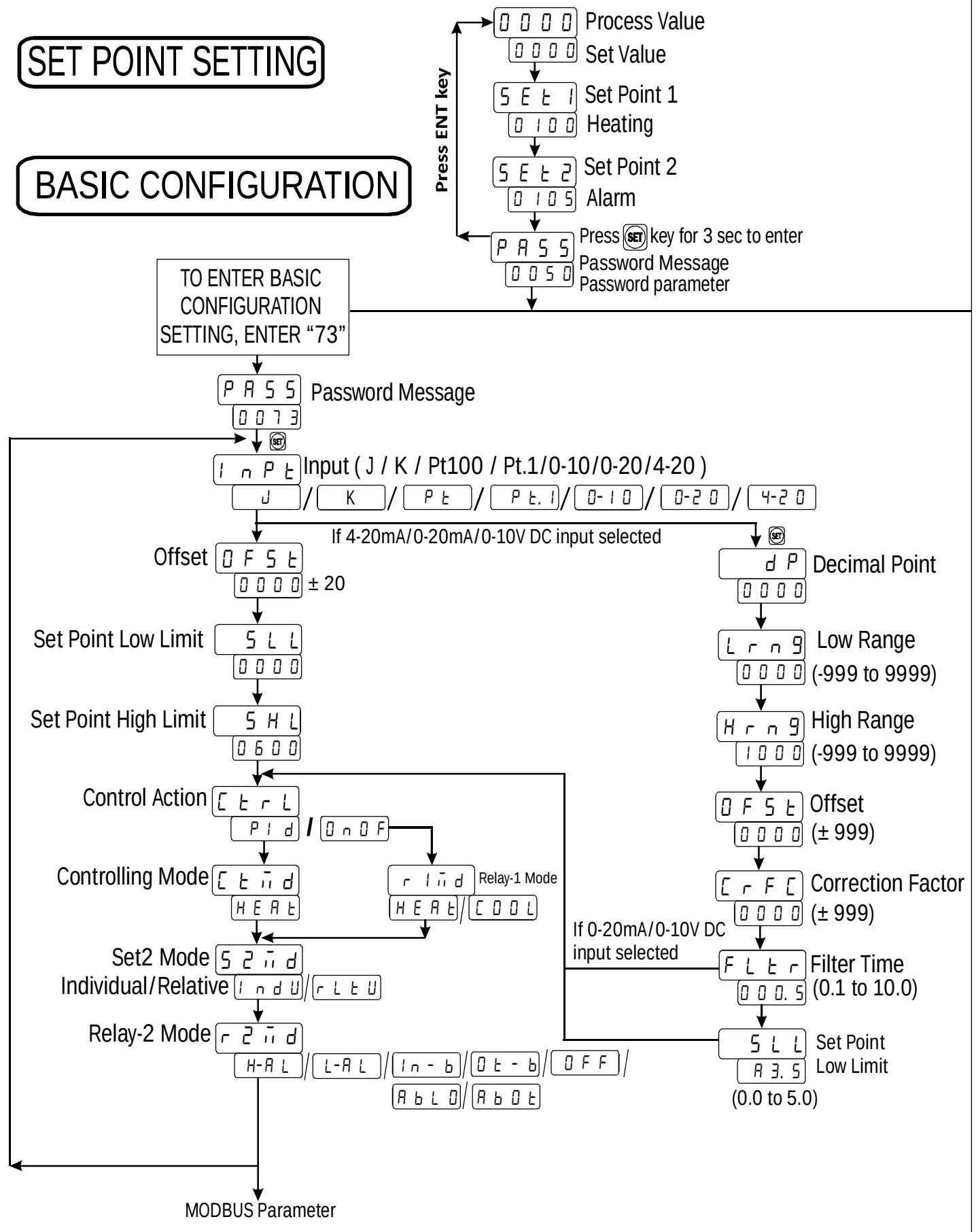
Model	PTC 4202-M1
Display	UPPER:- 4 Digit 7 seg .39",red LED Display LOWER:- 4 Digit 7 seg .28",green LED Display
Size	48 X 48 X 95
Panel Cutout	44 X 44
Input	J, K, PT,PT.1, 4-20mA,0-20mA,0-10V DC
Temperature Range	J: 0 to 600°C / K: 0 to 1200°C / PT-100: -99 to 400ºC /PT.1: -99.0 to 400.0°C
Analog Range	-999 To 9999
Control Action	PID/ON-OFF Selectable
Output 1 Output 2 Output 3	1st Output : Relay or SSR (Any one Fix) 2nd Output: Relay or SSR (Any one Fix) 3rd Output: RS-485 (MODBUS)
Power Supply	100 To 250V AC (SMPS)

Key Operations

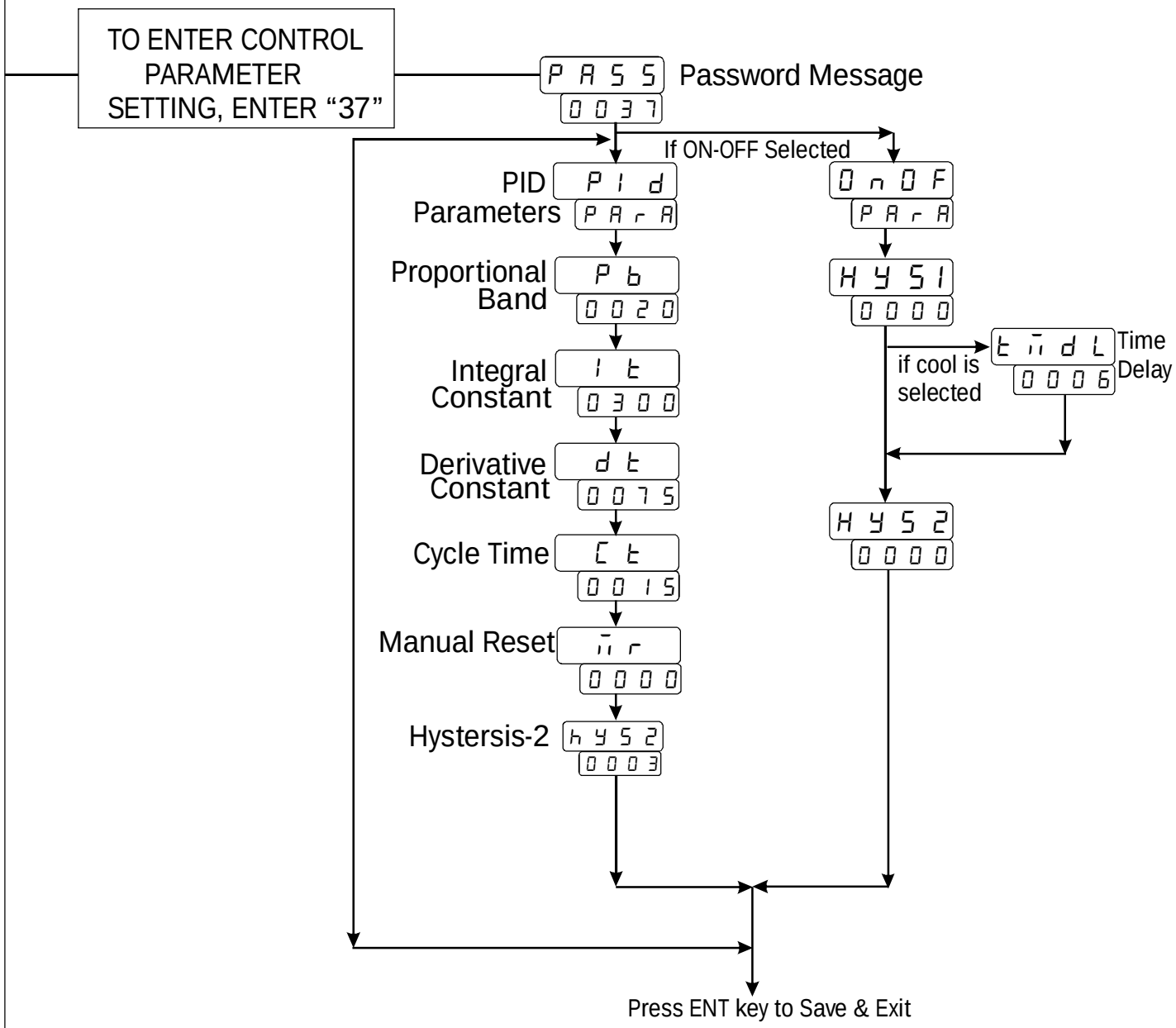
1) Press (SET) Key to enter in programming mode.
2) Press (SET) Key to go to next parameter.
3) Use (∧) Or (∨) key to change value of parameter.
4) Press (ENT) Key to save change in setting
5) To start or stop Auto-Tunning press (∧) key for 6 sec.
6) Press (∧) and (∨) key for 3 sec to go to factory setting mode.

SET POINT SETTING

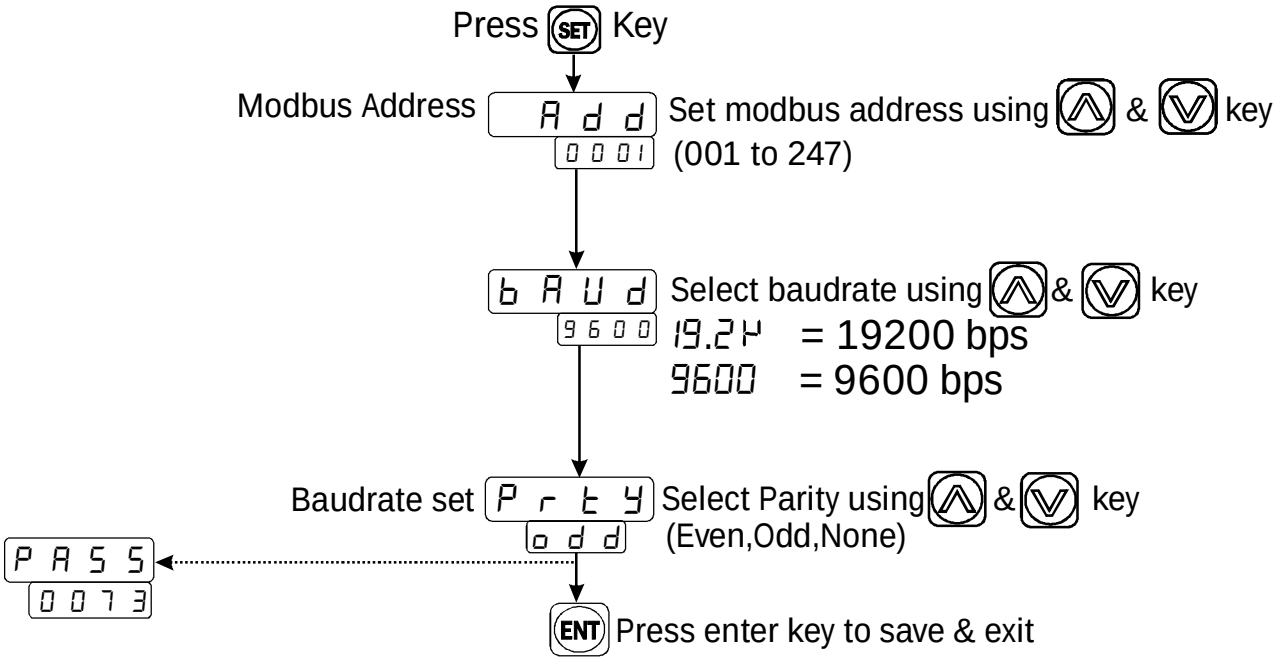
BASIC CONFIGURATION



CONTROL PARAMETER



Modbus Parameter in “73” Password Menu



Register address List for RS-485 modbus

Address		Parameter
0000	→	Process Value (Low 16 Digit)
0001	→	Process Value (High 16 Digit)
0002	→	Set Point 1 (Low 16 Digit)
0003	→	Set Point 1 (High 16 Digit)
0004	→	Set Point 2 (Low 16 Digit)
0005	→	Set Point 2 (High 16 Digit)
0006	→	Set Point 3 (Low 16 Digit)
0007	→	Set Point 3 (High 16 Digit)
0008	→	Input (Low 16 Digit)
0009	→	Input (High 16 Digit)
0010	→	Offset (Low 16 Digit)
0011	→	Offset (High 16 Digit)
0012	→	Set Point Low Limit (SLL) (Low 16 Digit)
0013	→	Set Point Low Limit (SLL) (High 16 Digit)
0014	→	Set Point High Limit (SHL) (Low 16 Digit)
0015	→	Set Point High Limit (SHL) (High 16 Digit)
0016	→	Relay Action Control (Low 16 Digit)
0017	→	Relay Action Control (High 16 Digit)
0018	→	R2 mode Action (Low 16 Digit)
0019	→	R2 mode Action (High 16 Digit)
0020	→	Set 2 mode Action (Low 16 Digit)
0021	→	Set 2 mode Action (High 16 Digit)
0022	→	Proportional Constant (PC) (Low 16 Digit)
0023	→	Proportional Constant (PC) (High 16 Digit)

0024 → Integral Constant (IC) (Low 16 Digit)
0025 → Integral Constant (IC) (High 16 Digit)
0026 → Derivative Constant (DC) (Low 16 Digit)
0027 → Derivative Constant (DC) (High 16 Digit)
0028 → Cycle Time (CT) (Low 16 Digit)
0029 → Cycle Time (CT) (High 16 Digit)
0030 → Manual Reset (MR) (Low 16 Digit)
0031 → Manual Reset (MR) (High 16 Digit)
0032 → Hysteresis-1 (HYS-1) (Low 16 Digit)
0033 → Hysteresis-1 (HYS-1) (High 16 Digit)
0034 → Hysteresis-2 (HYS-2) (Low 16 Digit)
0035 → Hysteresis-2 (HYS-2) (High 16 Digit)
0036 → Tunning Command (Low 16 Digit)
0037 → Tunning Command (High 16 Digit)
0038 → Lock bit (Low 16 Digit)
0039 → Lock bit (High 16 Digit)
0040 → R1 mode action (Low 16 Digit)
0041 → R1 mode action (High 16 Digit)
0042 → Hysteresis-3 (HYS-3) (Low 16 Digit)
0043 → Hysteresis-3 (HYS-3) (High 16 Digit)
0044 → Set-3 Mode Action (Low 16 Digit)
0045 → Set-3 Mode Action (High 16 Digit)
0046 → R3 Mode Action (Low 16 Digit)
0047 → R3 Mode Action (High 16 Digit)

Note :

- Register Address 0008 & 0009 are use for input selection (J,K).
- Where 0 value Indicate J Type input & 1 Value indicate K Type Input.
- Register Address 0016 & 0017 are use for select Relay Control Action (PID/ON-OFF).
- Where 1 value Indicate PID Action & 0 Value indicate ON-OFF Action.
- Register Address 0036 & 0037 are use for select Tunning Start & Stop
- Where 1 Command For Tunning Start & 2 Command For Tunning Stop.
- Register Address 0038 & 0039 are use for parameter Locked & Unlocked
- Where 1 value Indicate Parameter Locked & 0 Value indicate Parameter Unlocked.
- For Reading Register, Function Code OX03 & 0X04
  For Writing Register, Function Code OX10

R1 Mode
0 → HEAT
1 → COOL

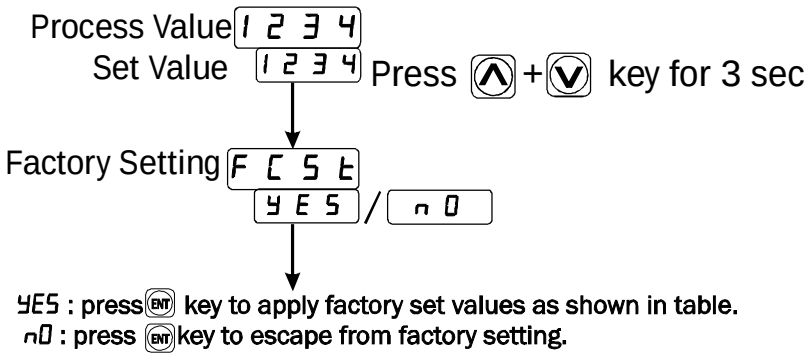
R2 Mode/R3 Mode
0 → COOL
1 → HEAT
2 → HIGH ALARM
3 → LOW ALARM
4 → IN-BAND
5 → OUT-BAND
6 → ABSOLUTE LOW ALARM
7 → ABSOLUTE OUTBAND ALARM

S2 Mode/S3 Mode
0 → INDIVIDUAL
1 → RELATIVE

Range for Control Parameter

Sr.	Parameter	Range for J, K, PT100	Range for PT.1 sensor	Range For Analog Input
1	PB	0000 to 9999	0000 to 9999	0000 to 9999
2	IT	0000 to 9999	0000 to 9999	0000 to 9999
3	DT	0 to 9999	0 to 9999	0 to 9999
4	CT	1 sec to 99 sec	1 sec to 99 sec	1 sec to 99 sec
5	MR	-9 to +9	-9.0 to +9.0	-99 to +99
6	Hysteresis-2	1°C to 50°C	0.1°C to 50.0°C	± 999
7	Off-set correction	-20°C to +20°C	-20.0°C to +20.0°C	± 999
8	correction factor			± 999

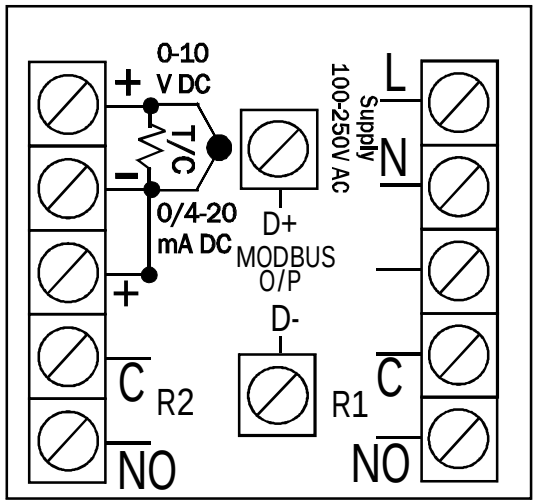
FACTORY SETTING



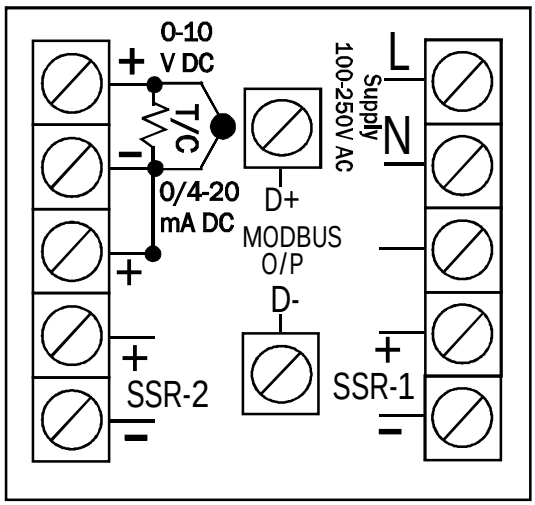
FACTORY SETTING		
SR.	PARAMETER	VALUES
1	PB	0020
2	IT	0300
3	DT	0075
4	CT	15 sec
5	MR	0°C
6	OFFSET	0°C
7	HYSTERESIS-2	3°C
8	TIME DELAY	6 Sec

Connection Diagram

FOR RELAY



FOR SSR



Note :

Note :