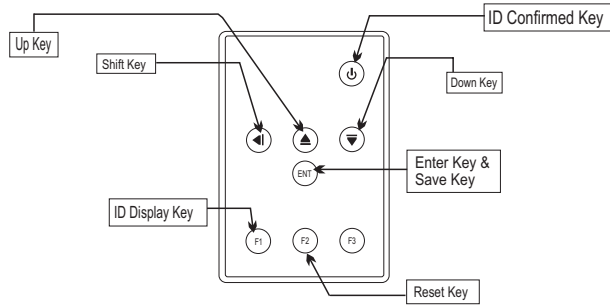


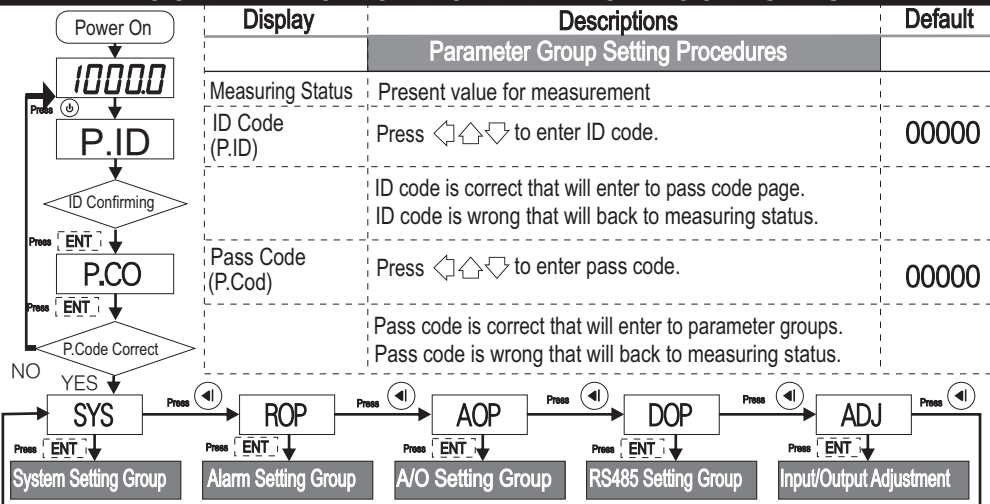
* Please understand key indicators & functions at the first operation.

FRONT PANEL & KEY FUNCTIONS



Key Name	Symbol	Descriptions
ID Confirmed Key		1. In the measuring status, press this key can enter to ID confirmed page. 2. In the parameter setting, press this key can back to the measuring page.
Enter Key & Save Key	ENT	1. In the measuring status, press this key can enter to parameter pages. 2. In the parameter setting, press this key can save the value & go to next parameter.
Shift Key		1. In the parameter setting, press this key can move the cursor left.
Up Key		1. In the parameter setting, press this key can increase the digits.
Down Key		1. In the parameter setting, press this key can decrease the digits.

PROGRAMMING MODE OPERATING PROCEDURES



Display	Descriptions	Default
System Setting Group Procedures		
SYS		
Press ENT ↓ TYP	Sensor Type Setting (tYPE): The page shows temperature sensor's type.	Customers specify
Press ENT ↓ DP	Decimal Point Setting (dP): Press to select decimal point (0, 1, .). EX: if the value shows "0.00" that means the decimal point is 2 digits.	Customers specify
Press ENT ↓ UNI	Temperature Unit Setting (unit): Press to select the units (°C or °F).	Customers specify
Press ENT ↓ CJC	Cold Junction Compensation (CJC): Press can switch (on) or (off) cold junction compensation.	NO
Press ENT ↓ AVG	Display Average Setting (AvG): Press to modify display average (1~99). PS: Please use this function for stable display value when input signal is unstable.	00005
Press ENT ↓ COD	Pass Code Setting (Cod): Press to modify pass code (0~19999). PS: Please don't forget the new pass code after modification.	00000
Press ENT ↓ LOC	Key Lock Setting (LoC): Press to lock the keys, using key lock function only can view the parameters, but cannot modify any values. PS: no (unlock), YES ("ENT" unlock, others lock).	NO
Press ENT ↓ ID	Identification Setting (id): Press to modify identification (00~99). PS: If the ID is 00; Meter can received any Infrared Control.	00000

Display	Descriptions	Default
Alarm Setting Group Procedures		
ROP Press: ENT	Alarm Setting Page (roP) The following steps are only available for alarm output.	
SP Press: ENT	Control Output Setting (S.P) Press ◀ ▶ to modify control output value.	00000
AL1 Press: ENT	Alarm Setpoint	
AL2		
AL3		
ACT Press: ENT	Control Relay Setting (ACt) Press ◀ ▶ can select control relay action (Hi) or (Lo).	HI
AC1 Press: ENT	Alarm Action Setting	
AC2		
AC3		
P.B Press: ENT	Proportion Control Percentage (P.b) Press ◀ ▶ to modify proportion control percentage(0~999)	00000
HY1 Press: ENT	Alarm Hysteresis Setting	
HY2		
HY3		
C.TI Press: ENT	Proportion Time (C.time) Press ◀ ▶ to modify proportion time (0~99 sec).	00000
DE1 Press: ENT	Alarm Run Delay Setting	
DE2		
DE3		
A/O Setting Group Procedures		
AOP Press: ENT	A/O Setting Page (AoP) The following steps are only available for analog output.	
POL Press: ENT	A/O Polarity Setting (PoLAr) Press ◀ ▶ to select output for positive or negative pole. PS: Voltage output ,NO: positive pole output (0~+10V) YES: positive & negative pole output (-10~+10V)	NO
ANL Press: ENT	A/O Low Scale Setting (AnLo) Press ◀ ▶ to adjust A/O low scale to correspond to the display value (programmable). EX: A/O is 0~10V, the display is 10.0 to output 0V, this value must be set for 10.0.	00000
ANH Press: ENT	A/O Hi Scale Setting (AnHi) Press ◀ ▶ to adjust A/O hi scale to correspond to the display value (programmable). EX: A/O is 0~10V, the display is 90.0 to output 10V, this value must be set for 90.0.	99999

Display	Descriptions	Default
RS485 Setting Group Procedures		
DOP Press: ENT	RS485 Setting Page (doP) The following steps are only available for RS-485.	
ADD Press: ENT	Address Setting (Addr) Press ◀ ▶ to modify address (0~255).	00000
BAU Press: ENT	Baud Rate Setting (bAUd) Press ◀ ▶ to select baud rate (38400/19200/9600/4800).	192
PAR Press: ENT	Parity Setting (PAri) Press ◀ ▶ to select parity (n.8.2/n.8.1/even/odd).	n.8.2.
Input / Output Adjustment Procedures		
ADJ Press: ENT		
COF Press: ENT	Cold junction Offset (coF) Press ◀ ▶ to cold junction offset value(-100.0~100.0).	00000
ROF Press: ENT	Temperature Control output Offset (roF) Press ◀ ▶ to temperature control output offset (-100.0~100.0).	00000
DOF Press: ENT	Display Offset Setting (doF) Press ◀ ▶ to display offset value (-100.0~100.0).	00000
DGA Press: ENT	Display Gain Setting (dGA) Press ◀ ▶ to display gain value (~9.9999).	00000
AOF Press: ENT	A/O Offset Setting (AoF) Press ◀ ▶ to analog output offset value (-9999~9999).	00000
AGA Press: ENT	A/O Gain Setting (AGA) Press ◀ ▶ to analog output gain value (-9999~9999).	00000

Error Code of Self-Diagnosis

Display	Descriptions
IO	Input signal is over 120% of input range.
-IO	Input signal is under -20% of input range.
DO	Input signal is over 180% of input range or meter error.
-DO	Input signal is over display range (99999)
OPE	
E00	EEPROM reading/writing suffers the interference (about 1 million times).

**Please check the wiring connection is correct first, if the problem still exist, please return the meter to the factory.

Modbus RTU Mode Protocol Address Table

Data: 16Bit / 32Bit, +/- is 8000~7FFF (-32768~32767), 80000000~7FFFFFFF(-2147483648~2147483647)

Modbus	HEX	Name	Descriptions	Act
40001	0000	ID	Model number identification; GBMT is "35H"	R
40002	0001	STATUS	Current alarm output & external control input status display; range:0000~0030(0~48) (Bit7:OUT, Bit6: AL1, Bit5: AL2, Bit4: AL3)(0:HI,1:LO)	R
40003	0002	TYPE	Input type display	R
40004	0003	UNIT	Temperature unit setting; range:0000~0001 (0~1) 0: °C, 1: °F	R/W
40005	0004	CJC	Cold junction compensation setting; range:0000~0001 (0~1) 0:NO, 1:YES	R/W
40006	0005	LOCK	Key lock setting; range: 0000~0001 (0~1) 0:NO, 1:YES	R/W
40007	0006	ACT	Control Relay act setting; range: 0000~0001 (0~1) 0:HI, 1:LO	R/W
40008	0007	ACT1	Alarm 1 act setting; range: 0000~0001 (0~1) 0:HI, 1:LO	R/W
40009	0008	ACT2	Alarm 2 act setting; range: 0000~0001 (0~1) 0:HI, 1:LO	R/W
40010	0009	ACT3	Alarm 3 act setting; range: 0000~0001 (0~1) 0:HI, 1:LO	R/W
40011	000A	DP	Decimal point setting; range: 0000~0001 (0~1) 0:0,1:1	R/W
40012	000B	POLAR	Analog output polarity setting; range: 0000~0001 (0~1) 0:NO,1:YES	R/W
40013	000C	BAUD	Baud rate setting; range: 0000~0003 (0~3) 0:19200, 1:19600, 2:4800, 3:2400	R/W
40014	000D	PARI	Parity setting; range: 0000~0003 (0~3), 0:N.8.2., 1:N.8.1., 2:EVEN, 3:ODD	R/W
40015	000E	AVG	Display average setting; range: 0001~0063 (1~99)	R/W
40016	000F	DIG	DIG setting; range: D0000~0003(3~5)	R/W
40017	0010	IDNO	Indicator setting; range 0000~0063(0~99)	R/W
40018	0011	ADDR	Address setting; range: 0000~00FF (0~255)	R/W
40019	0012	CTIME	Proportion control time setting; range: 0000~0063 (0~99)	R/W
40020	0013	DEL1	Alarm 1 run delay setting; range: 0001~0063 (1~99)	R/W
40021	0014	DEL2	Alarm 2 run delay setting; range: 0001~0063 (1~99)	R/W
40022	0015	DEL3	Alarm 3 run delay setting; range: 0001~0063 (1~99)	R/W
40023	0016	SB	Alarm start band setting; range: 0001~0063 (0~99)	R/W
40024	0017	HYS1	Alarm 1 hysteresis setting; range: 0000~03E7 (0~999)	R/W
40025	0018	HYS2	Alarm 2 hysteresis setting; range: 0000~03E7 (0~999)	R/W
40026	0019	HYS3	Alarm 3 hysteresis setting; range: 0000~03E7 (0~999)	R/W
40027	001A	CODE	Pass code setting; range: 0000~4E1F(0~19999)	R/W
40028	001B	AOFST	Analog offset setting; range: D8F1~270F(-9999~9999)	R/W
40029	001C	AGAIN	Analog gain setting; range: D8F1~270F(-9999~9999)	R/W
40030	001D	DOFST	Display Offset setting; range: FF9C~0064(-100~100)	R/W
40031	001E	DGAIN	Display gain setting, range: 00000001~000F423F (1~999999)	R/W
40032	001F	COFST	Cold junction compensation off-set setting; range: FF9C~0064 (-100~100)	R/W
40033	0020	ROFST	Temperature off-set setting; range: FF9C~0064 (-100~100)	R/W
40034	0021			R/W
40035	0022	AL1	Present value alarm 1 setpoint setting; range:B1E1~4E1F(-19999~19999)	R/W

Modbus	HEX	Name	Descriptions	Act
40036	0023	AL2	Present value alarm 2 setpoint setting; range:B1E1~4E1F(-19999~19999)	R/W
40037	0024	AL3	Present value alarm 3 setpoint setting; range:B1E1~4E1F(-19999~19999)	R/W
40038	0025	ANLO	Analog output low scale setting; range: FFFF8000~00000000(-19999~99999)	R/W
40039	0026	ANHI	Analog output hi scale setting; range: FFFF8000~00000000(-19999~99999)	R/W
40040	0027	RATE	Current display value A, range: B1E1~4E1F(-19999~19999)	R/W