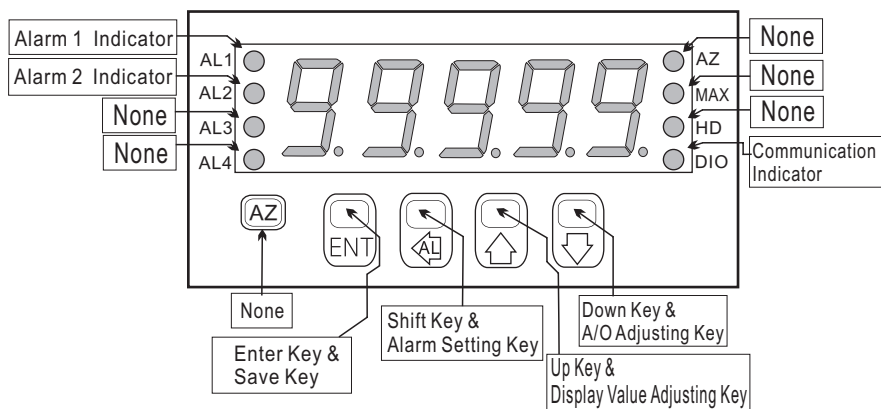


* Please understand key indicators & functions at the first operation.

FRONT PANEL & KEY FUNCTIONS



Key Name	Symbol	Descriptions
Reset Key	Ⓩ	1. Press this key to enable the reset function & reset indicator (Z) is light; press this key again to disable the reset function & reset indicator (Z) is dark.
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 & Alarm Setting Key	←AL	1. In the measuring page, press this key for 3 sec can enter to alarm setting page (The selecting digit will be flashed) 2. In the parameter setting, press this key can move the cursor left.
Up Key & Display Value Adjusting Key	↑	1. In the measuring status, press this key for 3 sec can enter to display value adjustment of "ZERO" & "SPAN" 2. In the parameter setting, press this key can increase the digits.
Down Key & A/O Adjusting Key	↓	1. In the measuring status, press this key for 3 sec can enter to analog output adjustment. 2. In the parameter setting, press this key can decrease the digits.

- **1. The following block charts are parameters codes, parameter codes & parameters will alternate flashing if the parameters can be modified.
- 2. To modify the parameters, please press ←, ↑, ↓, and press ENT to save the parameter after the modification.
- 3. Please don't forget the new pass code after modification.
- 4. In any pages, press ↑ & ↓, or don't press any keys for 2 minutes that will back to measuring status.

GENERAL MODE OPERATING PROCEDURES

Block Charts	Display	Descriptions	Default
Alarm Setpoint			
	Measuring Status	Present value for measurement	
	Alarm 1 Setpoint (AL1)	Press ←, ↑, ↓ to modify alarm 1 setpoint.	00000
	Alarm 2 Setpoint (AL2)	Press ←, ↑, ↓ to modify alarm 2 setpoint.	00000
Display: "ZERO" & "SPAN" Adjustment			
	Measuring Status	Present value for measurement.	
	Display Zero Adjustment (dZEro)	Press ← for 3 sec to select adjusting speed rate, press ↑, ↓ to modify the zero value. PS: To use this function to adjust the real zero value.	00000
	Display Span Adjustment (dSPAN)	Press ← for 3 sec to select adjusting speed rate, press ↑, ↓ to modify the span value. PS: To use this function to adjust the real span value.	00000
Analog Output: "ZERO" & "SPAN" Adjustment			
	Measuring Status	The following steps are only available for analog output.	
	A/O Zero Adjustment (AZEro)	Press ← for 3 sec to select adjusting speed rate, press ↑, ↓ to modify the A/O zero. PS: To use this function to adjust the real A/O zero.	00000
	A/O Span Adjustment (ASPAAn)	Press ← for 3 sec to select adjusting speed rate, press ↑, ↓ to modify the A/O span. PS: To use this function to adjust the real A/O span.	00000

- Remark: 1. There are 4 parameter groups of "System Setting Group(SYS)", "Alarm Setting Group(roP)", "Analog Output Setting Group (AoP)" & "RS485 Setting Group(doP)" for modification.
2. Press ← to select each group page, and press ENT to enter each group or parameter page for modification or saving the parameters.
3. Some of optional functions of parameter pages still exist, but the functions are disable.

PROGRAMMING MODE OPERATING PROCEDURES

Block Charts	Display	Descriptions	Default
Parameter Group Setting Procedures			
	Measuring Status	Present value for measurement.	
	Pass Code (P.Cod)	Press ←, ↑, ↓ to enter pass code.	00000
	P.Code Correct	Pass code is correct that will enter to parameter groups. Pass code is wrong that will back to measuring status.	
	System Setting Group (SYS)	Alarm Setting Group (roP)	A/O Setting Group (AoP)
			RS485 Setting Group (doP)

Display	Descriptions	Default
System Setting Group Procedures		
5YS System Setting Page (SYS)		
dP Decimal Point Setting (dP)	Press \uparrow \downarrow to select decimal point (0, 1, 2, 3, 4). EX: if the value shows "0.00" that means the decimal point is 2 digits.	Customers specify
dSPL Display Low Scale Setting (dSPL)	Press \leftarrow \uparrow \downarrow to modify display low scale for the input signal zero value. EX: If the input signal is 4~20mA; 4mA is shown display 0.00, this parameter must be set for 000.00.	Customers specify
dSPH Display Hi Scale Setting (dSPH)	Press \leftarrow \uparrow \downarrow to modify display high scale for the input signal span value. Display Hi Scale Calculation: (If there are no PT & CT ratio, they can be omitted.) DSPH = Basic Watt x PT ratio x CT ratio	Customers specify
AvG Display Average Setting (AvG)	Press \leftarrow \uparrow \downarrow to modify display average (1~99). PS: Please use this function for stable display value when input signal is unstable.	00005
LCuT Display Low Cut Setting (LCuT)	Press \leftarrow \uparrow \downarrow to modify display low cut to 0 (0~99).	00000
CodE Pass Code Setting (CodE)	Press \leftarrow \uparrow \downarrow to modify pass code (0~19999). PS: Please don't forget the new pass code after modification.	00000
LoCK Key Lock Setting (LoCK)	Press \uparrow \downarrow 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
Alarm Setting Group Procedures		
roP Alarm Setting Page (roP)	The following steps are only available for alarm output.	
ACt1 Alarm 1 (ACt1)	Alarm Action Setting	Hi
ACt2 Alarm 2 (ACt2)		
HYS1 Hysteresis 1 (HYS1)	Alarm Hysteresis Setting	00000
HYS2 Hysteresis 2 (HYS2)		
dEL1 Delay Time 1 (dEL1)	Alarm Run Delay Setting	00000
dEL2 Delay Time 2 (dEL2)		
Sb Alarm Start Band Setting (Sb)	Press \leftarrow \uparrow \downarrow to modify the value (-99~+99), if the display value don't over this range; the alarm will not be act.	00000
Sdt Alarm Start Band Time Setting (Sdt)	Press \leftarrow \uparrow \downarrow to modify the value (0~99 sec), if the display value reach alarm start band value; the alarm will be act after this value (sec).(The function is used with "Sb" function.)	00000

Display	Descriptions	Default
A/O Setting Group Procedures		
RoP A/O Setting Page (AoP)	The following steps are only available for analog output.	
PolAr A/O Polarity Setting (PoLAR)	Press \uparrow \downarrow 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
AnLo A/O Low Scale Setting (AnLo)	Press \leftarrow \uparrow \downarrow 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
AnHi A/O Hi Scale Setting (AnHi)	Press \leftarrow \uparrow \downarrow 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 1 0V, this value must be set for 90.0.	99999
RS485 Setting Group Procedures		
doP RS485 Setting Page (doP)	The following steps are only available for RS-485.	
Addr Address Setting (Addr)	Press \leftarrow \uparrow \downarrow to modify address (0~255).	00000
bAUd Baud Rate Setting (bAUd)	Press \uparrow \downarrow to select baud rate (38400/19200/9600/4800).	19200
PARi Parity Setting (PAri)	Press \uparrow \downarrow to select parity (n.8.2/n.8.1/even/odd).	n82.

Error Code of Self-Diagnosis

Display	Descriptions
, oFL	Input signal is over 120% of input range.
-, oFL	Input signal is under -20% of input range.
AdEr	Input signal is over 180% of input range or meter error.
doFL	Input signal is over display range (99999)
-doFL	Input signal is under display range (-19999)
E-00	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; DC5P is "08"	R
40002	0001	STATUS	Current alarm output & external control input status display; range: 0000~0030 (0~48) (Bit5: AL2, Bit4: AL1)	R
40003	0002	TYPE	Input type setting; range: 0000~0002 (0~2) 0:FACT, 1:ANGLE, 2:POWER	R/W
40004	0003	ACT1	Alarm 1 act setting; range: 0000~0001 (0~1) 0:HI, 1:LO	R/W
40005	0004	ACT2	Alarm 2 act setting; range: 0000~0001 (0~1) 0:HI, 1:LO	R/W
40006	0005	POLAR	Analog output polarity setting; range: 0000~0001 (0~1) 0:NO, 1:YES	R/W
40007	0006	LOCK	Key lock setting; range: 0000~0001 (0~1) 0:NO, 1:YES	R/W
40008	0007	DP	Decimal point setting; range: 0000~0004 (0~4) 0:10 ⁰ , 1:10 ¹ , 2:10 ² , 3:10 ³ , 4:10 ⁴	R/W
40009	0008	BAUD	Baud rate setting; range: 0000~0003 (0~3) 0:38400, 1:19200, 2:9600, 3:4800	R/W
40010	0009	PARI	Parity setting; range: 0000~0003 (0~3), 0:N.8.2., 1:N.8.1., 2:EVEN, 3:ODD	R/W
40011	000A	AVG	Display average setting; range: 0001~0063 (1~99)	R/W
40012	000B	LCUT	Display low cut setting; range: 0000~0063 (0~99)	R/W
40013	000C	ADDR	Address setting; range: 0000~00FF (0~255)	R/W
40014	000D	DEL1	Alarm 1 act delay time setting; range: 0000~0063 (0~99)	R/W
40015	000E	DEL2	Alarm 2 act delay time setting; range: 0000~0063 (0~99)	R/W
40016	000F	SB	Alarm start band setting; range: FF9D~0063 (-99~99)	R/W
40017	0010	SDT	Alarm start delay time setting; range: 0000~0063 (0~99)	R/W
40018	0011	HYS1	Alarm 1 hysteresis setting; range: 0000~03E7 (0~999)	R/W
40019	0012	HYS2	Alarm 2 hysteresis setting; range: 0000~03E7 (0~999)	R/W
40020	0013	CODE	Pass code setting; range: 0000~4E1F (0~19999)	R/W
40021	0014	AZERO	Analog output zero setting; range: D8F1~270F (-9999~9999)	R/W
40022	0015	ASPAN	Analog output span setting; range: D8F1~270F (-9999~9999)	R/W
40023	0016	DSPL	Display low scale setting; range: B1E1~4E1F (-19999~19999)	R/W
40024	0017	DSPH	Display hi scale setting; range: B1E1~4E1F (-19999~19999)	R/W
40025	0018	AL1	Alarm 1 setpoint setting; range: B1E1~4E1F (-19999~19999)	R/W
40026	0019	AL2	Alarm 2 setpoint setting; range: B1E1~4E1F (-19999~19999)	R/W
40027	001A	ANLO	Analog output low scale setting; range: B1E1~4E1F (-19999~19999)	R/W
40028	001B	ANHI	Analog output hi scale setting; range: B1E1~4E1F (-19999~19999)	R/W
40029	001C	DISPLAY	Current display; range: B1E1~4E1F (-19999~19999)	R

CALIBRATION OPERATING PROCEDURES

Display	Descriptions	Default
Calibration		
<p>Press: ENT & < together for 3 sec</p> <p>Press: ENT</p> <p>Press: ENT</p> <p>Press: < & > together for 3 sec</p>	<p>Measuring Status: Present value for measurement Press ENT & < together for 3 sec will enter to calibration operating procedures.</p> <p>Input Low Scale Calibration (inLo): 1. Input standard low scale signal. 2. Press < > to calibrate input low scale.</p> <p>Input Hi Scale Calibration (inHi): 1. Input standard hi scale signal. 2. Press < > to calibrate input hi scale.</p> <p>System Setting Page (SYS): 1. Finish calibration operating procedures will enter to system setting group. 2. Press < & > together to back to measuring status.</p>	

Warning: Calibration of this meter requires a standard signal with 0.01% accuracy or better and an external meter with 0.005% accuracy or better.