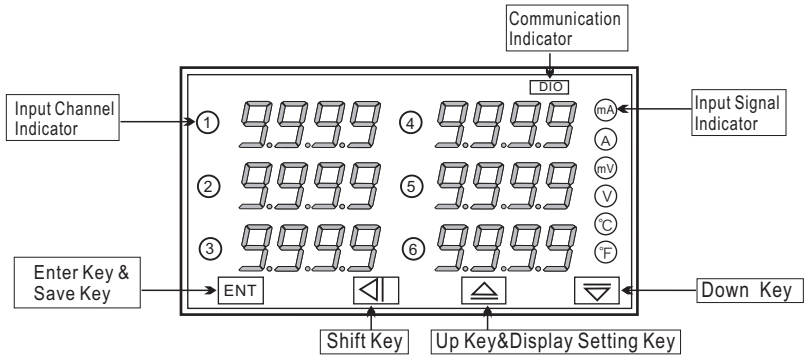
DC6A — 6 CHANNELS 4 DIGITAL MICRO-PROCESS METER with RS-485 — MANUAL

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

FRONT PANEL & KEY FUNCTIONS



Key Name	Symbol	Descriptions
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 status, 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.

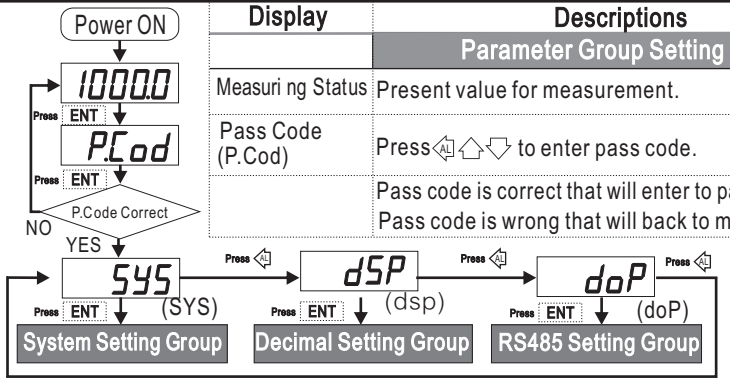
**1. The following block charts are parameters codes, parameter codes & parameters will alternate flashing if the parameters can be modified.

2. To modify the parameters, please press AL △ ▽ , and press **ENT** to save the parameter after the modification.

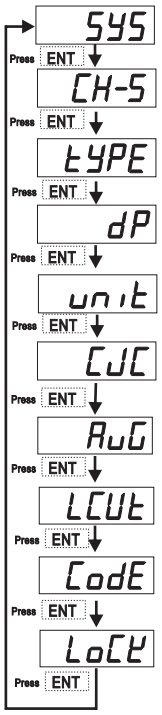
3. Please don't forget the new pass code after modification.

4. In any pages, press △ & ▽ , or don't press any keys for 2 minutes that will back to measuring status.

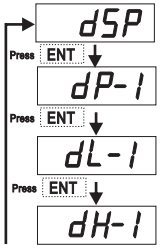
PROGRAMMING MODE OPERATING PROCEDURES



Display	Descriptions	Default
	Parameter Group Setting Procedures	
Measuri ng Status	Present value for measurement.	
Pass Code (P.Cod)	Press AL △ ▽ to enter pass code.	00000
	Pass code is correct that will enter to parameter groups. Pass code is wrong that will back to measuring status.	



Display	Descriptions	Default
	System Setting Group Procedures	
Input Channels Setting (CH-S)	Press △ ▽ to modify the input channels (1~6)	00006
Sensor Type Setting (tYPE)	Press △ ▽ to select sensor type setting. (25mV/50mV/0.1V/0.5V/1V/K/J/E/T/R/S/B)	E
Decimal Point Setting (dP)	Press △ ▽ to select decimal point (0~1).	0001
Temperature Unit Setting (unit)	Press △ ▽ to select the units (℃ or℉).	°C
Cold Junction Compensation (CJC)	Press △ ▽ can switch (on) or (off) cold junction compensation.	no
Display Average Setting (AvG)	Press AL △ ▽ to modify display average (1~99). PS: Please use this function for stable display value when input signal is unstable.	0005
Display Low Cut Setting (LCUt)	Press AL △ ▽ to modify display low cut to 0 (0~99).	0000
Pass Code Setting (CodE)	Press AL △ ▽ to modify pass code (0~19999). PS: Please don't forget the new pass code after modification.	0000
Key Lock Setting (LoCK)	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



Display	Descriptions	Default
	Decimal Setting Group	
Decimal Point 1 Setting (DP-1)	Press △ ▽ to select decimal point 1(0~3).	0002
Display Low Scale 1 Setting (DL-1)	Press AL △ ▽ to modify display low scale 1 for the input signal zero value.(-1999~9999)	0000
Display Hi Scale 1 Setting (DH-1)	Press AL △ ▽ to modify display high scale 1 for the input signal zero value.(-1999~9999)	1000

dP-2	Decimal Point 2 Setting (DP-2)	Press ⌂▽ to select decimal point 2(0~3).	0002
dL-2	Display Low Scale 2 Setting (DL-2)	Press◁⌂▽ to modify display low scale 2 for the input signal zero value.(-1999~9999)	0000
dH-2	Display Hi Scale 2 Setting (DH-2)	Press◁⌂▽ to modify display high scale 2 for the input signal zero value.(-1999~9999)	1000
dP-3	Decimal Point 3 Setting (DP-3)	Press ⌂▽ to select decimal point 3(0~3).	0002
dL-3	Display Low Scale 3 Setting (DL-3)	Press◁⌂▽ to modify display low scale 3 for the input signal zero value.(-1999~9999)	0000
dH-3	Display Hi Scale 3 Setting (DH-3)	Press◁⌂▽ to modify display high scale 3 for the input signal zero value.(-1999~9999)	1000
dP-4	Decimal Point 4 Setting (DP-4)	Press ⌂▽ to select decimal point 4(0~3).	0002
dL-4	Display Low Scale 4 Setting (DL-4)	Press◁⌂▽ to modify display low scale 4 for the input signal zero value.(-1999~9999)	0000
dH-4	Display Hi Scale 4 Setting (DH-4)	Press◁⌂▽ to modify display high scale 4 for the input signal zero value.(-1999~9999)	1000
dP-5	Decimal Point 5 Setting (DP-5)	Press ⌂▽ to select decimal point 5(0~3).	0002
dL-5	Display Low Scale 5 Setting (DL-5)	Press◁⌂▽ to modify display low scale 5 for the input signal zero value.(-1999~9999)	0000
dH-5	Display Hi Scale 5 Setting (DH-5)	Press◁⌂▽ to modify display high scale51 for the input signal zero value.(-1999~9999)	1000
dP-6	Decimal Point 6 Setting (DP-6)	Press ⌂▽ to select decimal point 6(0~3).	0002
dL-6	Display Low Scale 6 Setting (DL-6)	Press◁⌂▽ to modify display low scale 6 for the input signal zero value.(-1999~9999)	0000
dH-6	Display Hi Scale 6 Setting (DH-6)	Press◁⌂▽ to modify display high scale 6 for the input signal zero value.(-1999~9999)	1000
		RS485 Setting Group Procedures	
doP	RS485 Setting Page (doP)	**The following steps are only available for RS485 type.**	
Addr	Address Setting (Addr)	Press◁AL⌂▽ to modify address (0~255).	0000
bAUd	Baud Rate Setting (bAUd)	Press ⌂▽to select baud rate (38400/19200/9600/4800).	19E2
PAri	Parity Setting (PAri)	Press ⌂▽ to select parity (n.8.2/n.8.1/even/odd).	n.8.2.

GENERAL MODE OPERATING PROCEDURES

Block Charts

Power ON → 1000.0 (Press ⌂ for 3 sec) → d?-1 → d5-1 → d?-2 → d5-2 → d?-3 → d5-3 → d?-4 → d5-4 → d?-5 → d5-5 → d?-6 → d5-6 → (ENT)

Display	Descriptions	Default
	Display: "ZERO" & "SPAN" Adjustment	
Measuring Status	Present value for measurement	
Display Zero 1 Adjustment (dZEro)	Press◁ to select adjusting speed rate, press ⌂▽ to modify the zero value.	0000
Display Span 1 Adjustment (dSPAn)	Press◁ to select adjusting speed rate, press ⌂▽ to modify the span value.	1000
Display Zero 2 Adjustment (dZEro)	Press◁ to select adjusting speed rate, press ⌂▽ to modify the zero value.	0000
Display Span 2 Adjustment (dSPAn)	Press◁ to select adjusting speed rate, press ⌂▽ to modify the span value.	1000
Display Zero 3 Adjustment (dZEro)	Press◁ to select adjusting speed rate, press ⌂▽ to modify the zero value.	0000
Display Span 3 Adjustment (dSPAn)	Press◁ to select adjusting speed rate, press ⌂▽ to modify the span value.	1000
Display Zero 4 Adjustment (dZEro)	Press◁ to select adjusting speed rate, press ⌂▽ to modify the zero value.	0000
Display Span 4 Adjustment (dSPAn)	Press◁ to select adjusting speed rate, press ⌂▽ to modify the span value.	1000
Display Zero 5 Adjustment (dZEro)	Press◁ to select adjusting speed rate, press ⌂▽ to modify the zero value.	0000
Display Span 5 Adjustment (dSPAn)	Press◁ to select adjusting speed rate, press ⌂▽ to modify the span value.	1000
Display Zero 6 Adjustment (dZEro)	Press◁ to select adjusting speed rate, press ⌂▽ to modify the zero value.	0000
Display Span 6 Adjustment (dSPAn)	Press◁ to select adjusting speed rate, press ⌂▽ to modify the span value.	1000

Error Code of Self-Diagnosis

Display	Descriptions
AdEr	Input signal is over 120% of input range or meter error.
doFL	Input signal is over display range
-doFL	Input signal is under display range
coFL	Cold junction is over sensor's (PT100) measuring range (0~125℃).
-coF	Cold junction is under sensor's (PT100) measuring range (0~125℃).
oPEn	Input signal or cold junction is disconection.
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

Address	Name	Description	Accep
0000	LOCK	Panel Lock,Input Range 0000~0001(0~1) 0:NO,1:YES	R/W
0001	CH_S	Input Channel Number Select,Input Range 0001~0006(1~6)	R/W
0002	TYPE	Input Range Type,Input Range 0000~000B(0~11)0:25mV,1:50mV,2:0.1V,3:0.5V, 4:1V,5:TYPE K,6:TYPE J,7:TYPE E,8:TYPE T,9:TYPE R,10:TYPE S,11:TYPE B	R/W
0003	DP	Thermocouple Decimal Point,Input Range 0000~0001(0~1) 0:10^{0},1:10^{-1}	R/W
0004	UNIT	Temperature Unit,Input Range 0000~0001(0~1) 0:℃,1:℉	R/W
0005	CJC	Cold Junction CompenSation,Input Range 0000~0001(0~1) 0:ON,1:OFF	R/W
0006	ADDR	Communication Address,Input Range 0000~00FF(0~255)	R/W
0007	BAUD	Baud Rate,Input Range 0000~0004(0~4) 0:38K4,1:19K2,2:9600,3:4800,4:2400	R/W
0008	PARI	Parity Check,Input Range 0000~0003(0~3) 0:N.8.2,1:N.8.1,2:EVEN,3:ODD	R/W
0009	AVG	Display Average Times,Input Range 0001~000a(1~10)	R/W
000a	LCUT	Low Cut,Input Range FF9D~0063(-99~99)	R/W
000b	DP_1	Channel 1 Decimal Point,Input Range 0000~0003(0~3) 0:10^{0},1:10^{-1},2:10^{-2},3:10^{-3}	R/W
000c	DP_2	Channel 2 Decimal Point,Input Range 0000~0003(0~3) 0:10^{0},1:10^{-1},2:10^{-2},3:10^{-3}	R/W
000d	DP_3	Channel 3 Decimal Point,Input Range 0000~0003(0~3) 0:10^{0},1:10^{-1},2:10^{-2},3:10^{-3}	R/W
000e	DP_4	Channel 4 Decimal Point,Input Range 0000~0003(0~3) 0:10^{0},1:10^{-1},2:10^{-2},3:10^{-3}	R/W
000f	DP_5	Channel 5 Decimal Point,Input Range 0000~0003(0~3) 0:10^{0},1:10^{-1},2:10^{-2},3:10^{-3}	R/W
0010	DP_6	Channel 6 Decimal Point,Input Range 0000~0003(0~3) 0:10^{0},1:10^{-1},2:10^{-2},3:10^{-3}	R/W
0011	DL_1	Channel 1 Display Low , Input Range F831~270F(-1999~9999)	R/W
0012	DL_2	Channel 2 Display Low , Input Range F831~270F(-1999~9999)	R/W
0013	DL_3	Channel 3 Display Low , Input Range F831~270F(-1999~9999)	R/W
0014	DL_4	Channel 4 Display Low , Input Range F831~270F(-1999~9999)	R/W
0015	DL_5	Channel 5 Display Low , Input Range F831~270F(-1999~9999)	R/W
0016	DL_6	Channel 6 Display Low , Input Range F831~270F(-1999~9999)	R/W
0017	DH_1	Channel 1 Display High, Input Range F831~270F(-1999~9999)	R/W
0018	DH_2	Channel 2 Display High, Input Range F831~270F(-1999~9999)	R/W
0019	DH_3	Channel 3 Display High, Input Range F831~270F(-1999~9999)	R/W
001a	DH_4	Channel 4 Display High, Input Range F831~270F(-1999~9999)	R/W
001b	DH_5	Channel 5 Display High, Input Range F831~270F(-1999~9999)	R/W
001c	DH_6	Channel 6 Display High, Input Range F831~270F(-1999~9999)	R/W
001d	CODE	Pass Code,Input Range 0000~270F(0~9999)	R/W
00ae	DISPLAY1	Channel 1 Normal Display Value,Display Range F831~270F(-1999~9999)	R
00af	DISPLAY2	Channel 2 Normal Display Value,Display Range F831~270F(-1999~9999)	R
00b0	DISPLAY3	Channel 3 Normal Display Value,Display Range F831~270F(-1999~9999)	R
00b1	DISPLAY4	Channel 4 Normal Display Value,Display Range F831~270F(-1999~9999)	R
00b2	DISPLAY5	Channel 5 Normal Display Value,Display Range F831~270F(-1999~9999)	R
00b3	DISPLAY6	Channel 1 Normal Display Value,Display Range F831~270F(-1999~9999)	R