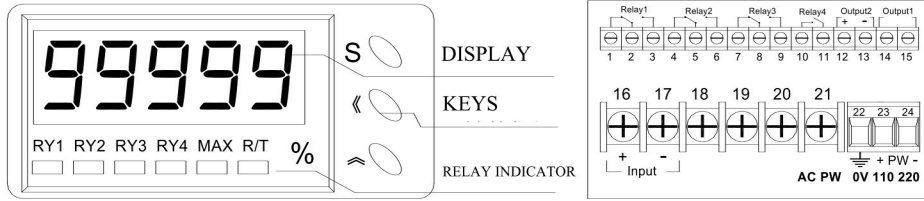


1.Panel and Keys



2.Keys Function

S	:	Setting / Select
△	:	Change number / Enter
>	:	Change position

3.Parameter Setting

3-1 Basic Setting *In the below setting instruction, P means Press.*

Display	Function	Instruction
Input signal nor	Input signal	No need setting
Low value Lo' 00000	Display	Press > and △ to set the lowest display value. Range: -19999~99999Count
High value H 9H 99999	Display	Press > and △ to set the highest display value. Range: -19999~99999Count
Decimal Point dot 88888	Decimal Point	Press > to set decimal point position.
Output Signal oUt 4-20 OP-H OP-L	Output Signal	Press > to select 4-20mA/0-20mA or 0-10V/1-5V/0-5V Press S to enter OP_H to set corresponding value(high) Press S to enter OP_L to set corresponding value(low) (Note: mA and V can't exchange)
Address Baud rate Format Add 9600 8n1	Address Baud rate Format	Press > and △ to set address Press S and Press > to select 4800-9600-19200-38400 Press S and Press > to select None/Odd/Even/ 8n1-8n2.
Display Adjustment Adj 19999	Display Adjustment	Press > and △ to adjust display value. Range: -19999~19999Count
Advance setting FUnC 0000	Advance setting	No need setting
Save SAvE 0000	Save	Press S to enter no/YES Press > to select YES . Press S to save setting.

3-2 Relay Setting (Alarm) *In the below setting instruction, P means Press.*

Long press "S" to enter menu. Press "△" to enter setting. Press > and △ to set.

Display	Function	Instruction
H L0 HHHH	Relay setting	Press △ to select HI_Alarm or LO_Alarm. Press > to change position (HHHH means 4 sets of HI relays)
r 1-1 00000	RY1 action point	Press > and △ to set. Range ±19999
r 1-2 00000	RY1 deadband	Press > and △ to set. Range ±19999
r 1-3 0000.0	RY1 delay time	Press > and △ to set. Range 0~19999 second
r 2-1 00000	RY2 action point	Press > and △ to set. Range ±19999
r 2-2 00000	RY2 deadband	Press > and △ to set. Range ±19999
r 2-3 0000.0	RY2 delay time	Press > and △ to set. Range 0~19999 second
r 3-1 00000	RY3 action point	Press > and △ to set. Range ±19999
r 3-2 00000	RY3 deadband	Press > and △ to set. Range ±19999
r 3-3 0000.0	RY3 delay time	Press > and △ to set. Range 0~19999 second
r 4-1 00000	RY4 action point	Press > and △ to set. Range ±19999
r 4-2 00000	RY4 deadband	Press > and △ to set. Range ±19999
r 4-3 0000.0	RY4 delay time	Press > and △ to set. Range 0~19999 second
dELy 00000	Start delay time	Press > and △ to set. Range 0~19999 second
SAvE	Press S to enter no/YES	Press > to select YES . Press S to save setting.

4.Meter setting example:

EX.1 Input: DC 0~100V Display: 0~100.0% Output: 4-20mA(0-100.0)

Relay: 4 sets HI-Alarm

Alarm action point RY1=80.00% ; RY2=60.00% ; RY3=40.00% ; RY4=20.00%

Delay time: 0 second

Parameter setting:

IN	4-20	OP	4-20
DS-LO	0000.0		OP-hi 0100.0
DS-HI	0100.0		OP-lo 0000.0
Dot	8888.8	ADJ	No need setting

Relay alarm setting

H-L	HHHH		
RY1	80.00	Delay time	00000
RY2	60.00	Dead band	00000
RY3	40.00	**Please refer to title 7 for alarm function explanation.	
RY4	20.00		

5. Buffer Size (The number of measurements for RMS sliding averaging)

1. Fast speed (**FAST**)
 2. Midium speed (**HI 9H**)
 3. Low speed (**LO!**)
- Preset as medium: (**HI 9H**)

Enter **FUNC 0000** Press > and Δ to enter **00011**

Press **Menu** to enter setting

Display Instruction

HI 9H

Press > to select **FAST / HI 9H / LO!**

Press **Menu** to save setting.

6. Communication Protocol

MODBUS – RTU MODE

Data Format

(ID Number) 1Byte	(Function Code) 1Byte	(Data) N Byte	CRC 2 Byte
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Function Code

03 (03H)	Read parameters of the meter
06 (06H)	Set parameter.

EX1. Read meter display value

Master sends message Tx: 01 03 00 01 00 02 95 CB				
ID Number 1Byte (01H)	Function 1Byte (03H)	Address 2Byte (00 01H)	DATA number 2Byte (00 02H)	CRC 2Byte (95 CBH)

Instruction : Master calls meter ID No.1 to read address 0002.Data number 0001

If meter displays 90000

Meter responses to Master RX : 01 03 04 5F 90 00 01 29 CA				
ID Number (01H)	Function (03H)	Byte (04H)	Data (5F 90 ; 00 01H)	CRC (29 CAH)

Ex2. Read parameters of the Meter

Master sends message to Meter				
ID Number 1Byte (01H)	Function 1Byte (03H)	Address 2Byte (00 02H)	DATA number 2Byte (xxH,xxH = N)	CRC 2Byte (xxH,xxH)
Meter responses to Master				
ID Number (01H)	Function (03H)	Byte (XXH = N)	Data (N*2Byte) XxH,xxH.xxH.....	CRC (xxH,xxH)

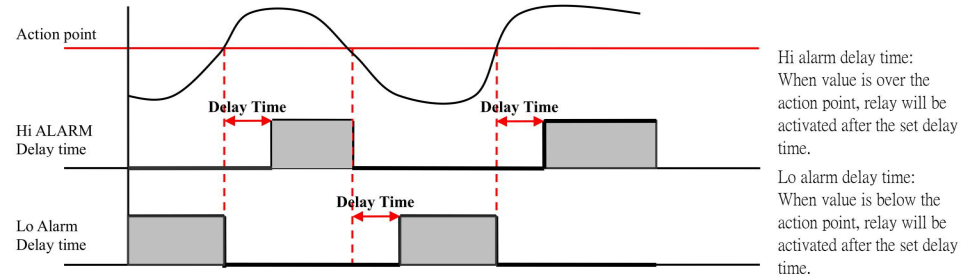
Parameter/Address cross-reference

Add ress	Length	Name	Instruction	(Read/ Write)
01	4Byte	Display value	Range: -19999 – 99999	R
02			01(low) 02(high)	
03	2Byte	Decimal point	Decimal Point Position	R/W

04	2Byte	Relay state	Bit3=RY4 Bit2=RY3 Bit1=RY2 Bit0=RY1 (0 = OFF , 1 = ON)	R
05	4Byte	CT ratio	Setting range: (-19999 – 99999) 05(low) 06(high)	R/W
06				
07	xxxxxxx			
08				
09	4Byte	OP_HI	Setting range: (-19999 – 99999) 01(low) 02(high)	R/W
10				
11	4Byte	OP_LO	Setting range: (-19999 – 99999) 11(low) 12(high)	R/W
12				

7. Alarm Function Explanation

1 - Delay time.



2 - Dead band

