

# OPERATION MANUAL OF DIGITAL VOLTMETER&AMMETER

V15.1/J

## Chapter 1. General instruction

Digital voltmeter/ammeter are used in the real-time measurement and indication on AC/DC voltage/current in the electric circuit. And it can be added one channel of alarm output.

## Chapter 2. Technical parameters

2.1 Measuring range(can be overload 1.2times, please ask us if you need other specifications)

2.1.1 AC voltmeter      direct measurement : AC 0~100V or AC 0~500V  
                                 need PT external : AC \*/100V

2.1.2 AC ammeter      direct measurement : AC 0~1A or AC 0~5A  
                                 need CT external : AC \*/1A or AC \*/5A

2.2 Accuracy: 0.5

2.3 Frequency of AC input signal : 45~65Hz

2.4 Sampling rate : 1.5 times/s

2.5 Input circle power consumption : <0.5VA

2.6 Auxiliary power supply : 220V  $\pm$  15% , 50/60Hz, <3VA

2.7 Overflow indication : plus overflow display —, minus overflow display \_\_\_\_

2.8 Working environment : places which is free of gas corruption with temperature  
-10~50°C , humidity  $\leq$ 85%RH

## Chapter 3. Programming

3.1 Key explanations

**Set** key: under the measuring value display mode, it can enter the CT setting menu by pressing SET key for 2s. CT=Primary side rated value of transformer

**◀** key: Under the programming mode, pressing SHIFT key once can move the cursor to the left one.

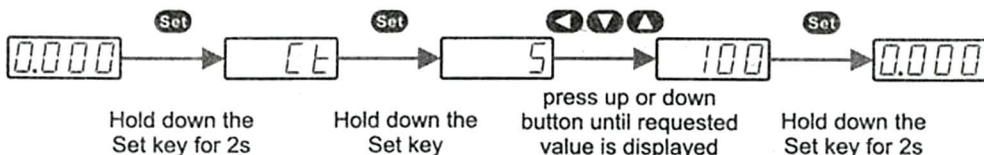
**▼** key: under the CT setting mode, pressing DOWN key to decrease the CT parameter values(Take 5 as the step value).  
It can accelerate the decrease when holding the key.

**▲** Key: under the CT setting mode, pressing UP key to increase the CT parameter values(Take 5 as the step value).  
It can accelerate the increase when holding the key.

Under the programming mode, it will automatically return to the measuring value display mode if no key operation for more than 120s.

### Appendix: programming examples

Change the primary current value Ct of the current transformer to 100



## Chapter 4 Installation and Connection

### 4.1 Shape and hole cutout dimension( unit: mm)

| Instrument shape | Panel dimension |     | Case dimension |     |    | Hole cutout dimension |     |
|------------------|-----------------|-----|----------------|-----|----|-----------------------|-----|
|                  | W               | H   | W              | H   | H  | W                     | H   |
| 120X120          | 120             | 120 | 110            | 110 | 80 | 112                   | 112 |
| 96X48            | 96              | 48  | 90             | 44  | 80 | 92                    | 45  |
| 72X72            | 72              | 72  | 67             | 67  | 80 | 68                    | 68  |
| 48X48            | 48              | 48  | 44             | 44  | 70 | 45                    | 45  |
| 96X96            | 96              | 96  | 91             | 91  | 80 | 92                    | 92  |

Slideway type : long 88 × wide 36 × high 60

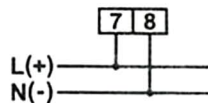
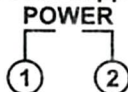
### 4.2 Method of installation

Choose the corresponding hole cutout dimension according to the meter's dimension from the table above, make a hole in the installation screen, insert the meter into the hole, place the two clamping pieces into the clamping holder, push and tighten them by hand.

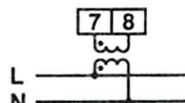
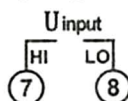
### 4.3 Description of Wiring and terminal

POWER: Auxiliary power input port, default 220V  $\pm$  15%, 50/60Hz, if you need other specification please tell us when ordering

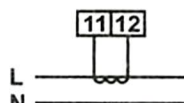
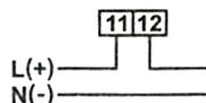
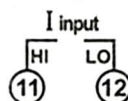
#### Instrument auxiliary power supply



#### Voltage signal input



#### Current signal input



Input directly when voltage  $\leq$  600V

Input via PT when voltage  $>$  600V

Input directly when AC/DC current  $\leq$  6A

Input directly when AC current  $>$  6A

## Chapter 5. Cautions

- 5.1 Please confirm if the power supply, input signal and each terminal wiring of the meter are correct and reliable before applying the power.
- 5.2 The instrument must be preheated for 15 minutes to guarantee the precision of measurement.
- 5.3 The instrument should not be rapped, knocked and vibrate excessively and its using environment should meet the technical requirements.
- 5.4 The meter has been calibrated according to the measuring range required by the customer upon order. The user should check again if the measuring range of the meter is fit with the specifications of the transformer or shunt and set the measuring range again if not.
- 5.5 When you forget the password, please use the factory password 5643 to enter the setting menu.

## Chapter 6. Packing and Storage

The instrument and accessories with packing should keep storage conditions cool and dry and free of wet and gas corruption with temperature not more than 70°C and not less than -40°C, and relative humidity  $\leq$  85%