

H28UI510Product description of DC dual voltage ammeter

Features:

- 1, This dual-display voltage and current meter is small in size, and can display voltage and current on the same screen at the same time;
- 2, The connection mode of this meter is flexible, it can share the power supply with the device under test, or use an independent power supply, just change the wiring!
- 3, Test voltage 0-100V, Additional power supply is required, supply voltage range: DC4-33V;
- 4, the maximum supply voltage cannot exceed 33V, otherwise it will burn and cannot be repaired;
- 5, The measurement current range is optional to meet the needs of different customers;

6, the working current is very small, only 10mA about; **Note: This type of electrical instrument needs to be installed by professionals who understand electrical and electronics. For ordinary consumers who are unclear about installation and use, please purchase with caution!**

technical parameter:

Current range	Resolution	Current range	Resolution
1A (999mA)	1mA	50A/100A	0.1A
2A, 5A, 10A	0.01A	Above 100A	1A

Voltage measurement range	0.0V-100V*	Installation size	Recommended 46×27mm, L×W
Current measurement range	0-999mA, 0-10A, 0-50A, etc. optional	External opening	48×29×22mm, length×width×thickness
Power supply range	DC4-33V*	lead length	150mm
Voltage error	1% (± 1 word)	Operating temperature	-10~+65 degrees
Current error	1% (± 1 word)	Working humidity	10~80% (no condensation)
External Shunt Specifications	75mV*	working pressure	80~106kPa
Working current	<10mA	Sunlight	no direct exposure
refresh rate	≥500mS/time	net Heavy	10A: 25g 50A: 18g
Display method	Dual three-position 0.28" LED nixie tube	hair Heavy	10A: 30g 50A: 22g
display color	Red+Red, Red+Blue optional *	Produce land	Henan ● Zhengzhou

The parameters with "*" in the above parameters can be adjusted according to user needs.

Precautions:

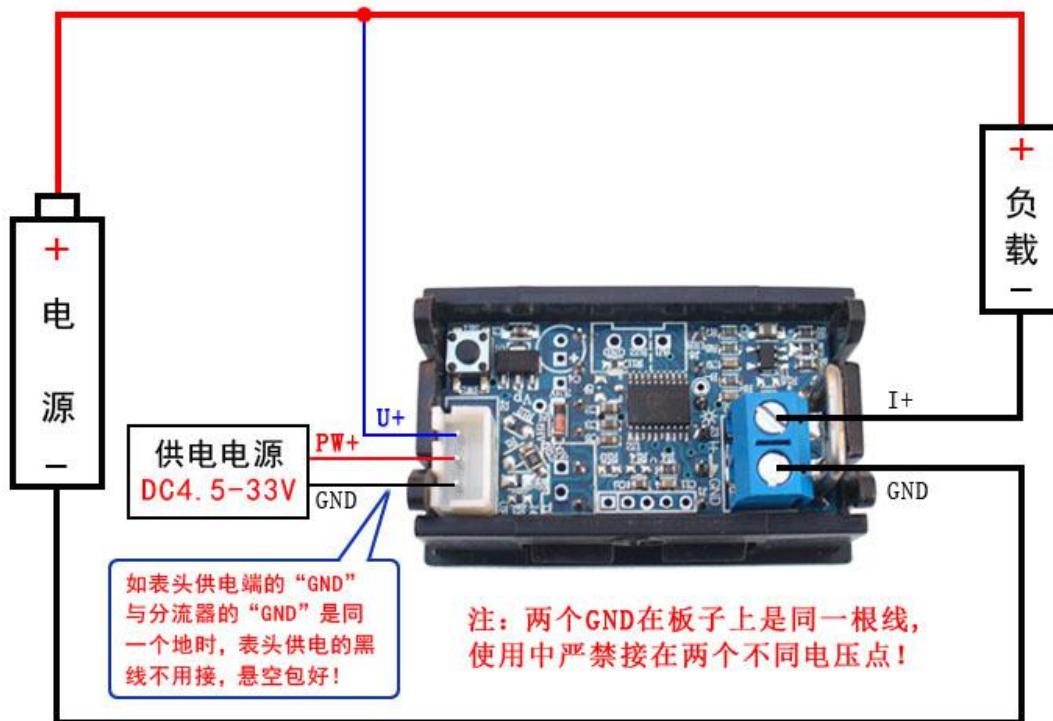
- 1, Usually the minimum measurable current value is the selected range 2%, when selecting the current range (eg: 1A, 5A...100A, 200A etc.), please try to choose a range that is close to the measured current value, so as to achieve the best measurement accuracy!
- 2, the range is 50A. The above table does not matter whether the measured current is less than 10A. Be sure to connect a shunt to measure current! Otherwise, the header will be burnt.

3, The current measurement can only be connected to the terminal GND and terminal +String between the negative pole of the power supply and the negative pole of the load.

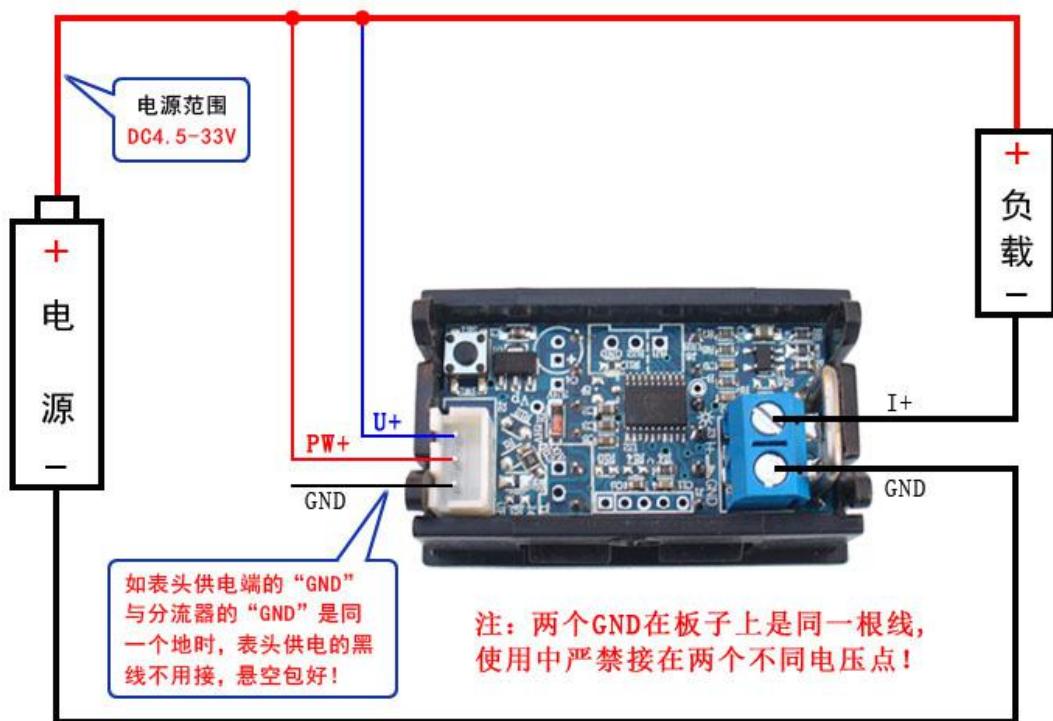
4, the supply voltage of the meter must be 4.5-33V, Exceed 33V independent power supply is required, please connect according to the diagram, the four points of the shunt cannot be changed at will!!!

Wiring diagram:

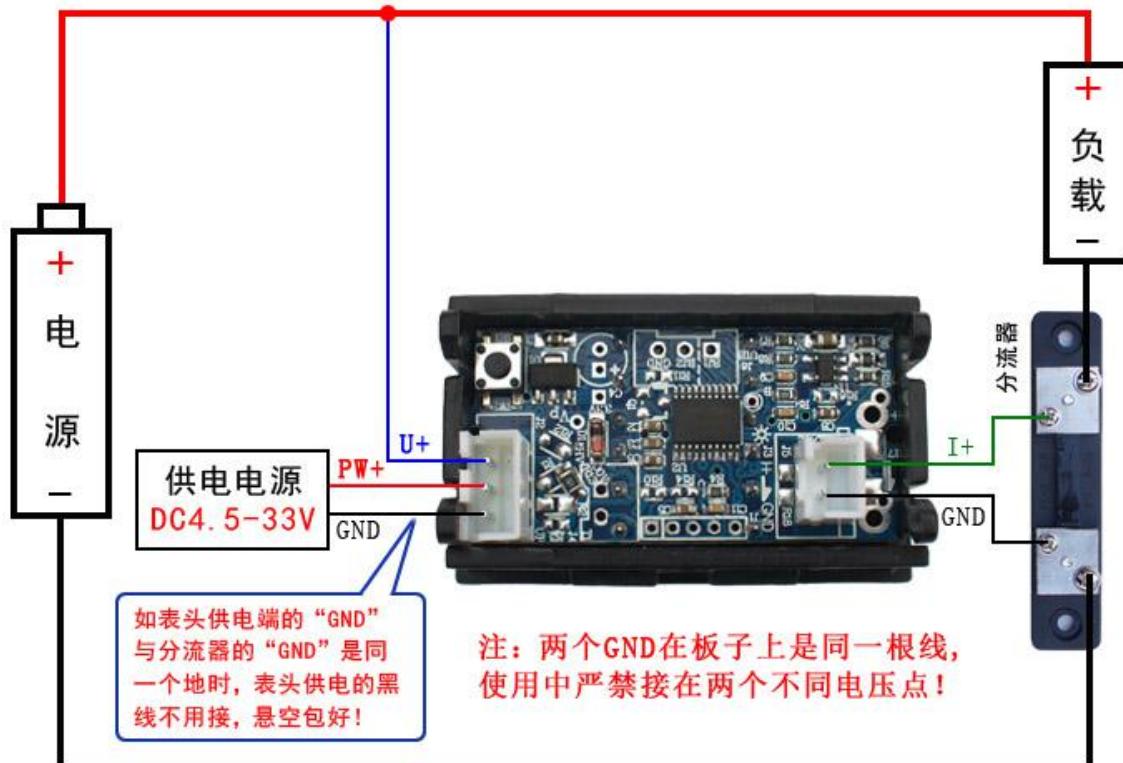
一、内置分流器双显示表独立供电示意图



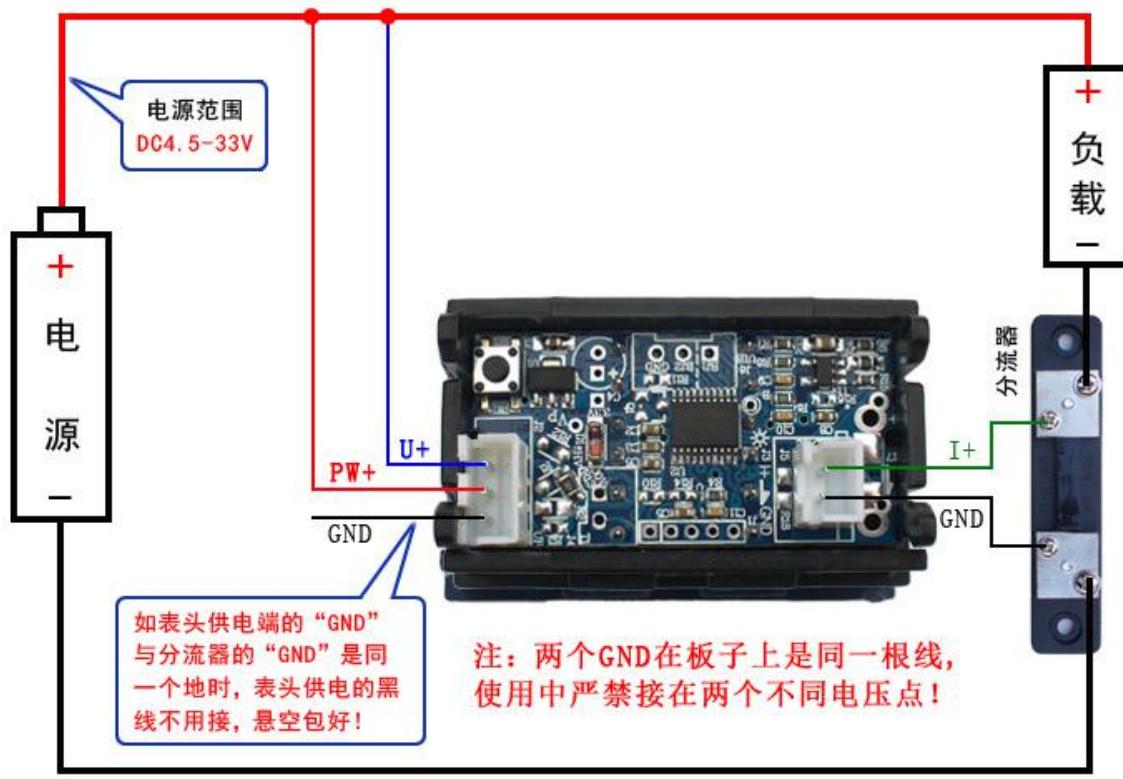
二、内置分流器双显示表直接供电示意图



一、外置分流器双显示表独立供电示意图



二、外置分流器双显示表直接供电示意图



Wiring steps:

one,10Aand10AThe following current ranges come with a shunt wiring process: 1,

When wiring, handle the unconnected wires well, and do not touch other places;

2, Connect the terminals according to the current directionGNDThe line is connected to the negative pole of the power supply, the terminalall+The line of the load is connected to the negative pole of the load, that is, it is connected in series to the negative pole of the system under test;

3, Connect the thin blue wire to the positive pole of the measured system;

4, Connect the power supply thin red wire to the appropriate power supply positive pole (with the terminalGNDVoltage between lines<33V, it is recommended to connect12Vleft and right, and wrap the thin black wire with insulating tape at the same time, do not touch other places, so as to avoid short circuit);

5,above1-4The steps are suitable for use in common ground situations; for independent power supply occasions, the red and black wires of the power supply are respectively connected to the positive and negative ends of the power supply (power supply voltage <33, it is recommended to connect12Vabout);

two,10AThe above current ranges require an external shunt wiring process: 1, When

wiring, handle the unconnected wires well, and do not touch other places;

2, Connect the shunt in series with the negative pole of the system to be measured (the shunt itself does not distinguish the direction, the connection is fixed on the two large screw holes on the left and right of the shunt);

3, Connect the terminals according to the current directionGNDWires and TerminalsI+The wires are respectively screwed on the two small screws of the shunt; 4,

Connect the thin blue wire to the positive pole of the measured system;

5, Connect the power supply red wire to the appropriate power supply positive pole (with the terminalGNDVoltage between lines<33V, it is recommended to connect12Vleft and right, and wrap the thin black wire with insulating tape at the same time, do not touch other places, so as to avoid short circuit);

6,above1-5The steps are suitable for use in common ground situations; for independent power supply occasions, the red and black wires of the power supply are respectively connected to the positive and negative ends of the power supply (power supply voltage <33V, it is recommended to connect12Vabout).

Frequently Asked Questions:

1, Q: The voltage display is normal, the current display0.00or0.0?

A: Make sure the terminalGNDThe line is connected to the negative pole of the power supply, the terminalall+The wire of the load is connected to the negative terminal of the load (the terminal with the shuntGNDWires and TerminalsI+The wires are connected to the corresponding small screws). (Note that the wiring for discharging is not the same as charging, see the concept of load and power at the end). (The meter head uses the original chip, which has been tested and calibrated very strictly before leaving the factory to ensure that100%No quality problems before leaving the factory. encounter current display0Case99.99%The wiring is wrong, please be patient and carefully check the wiring) 2, Q: The current display is not accurate?

Answer: If it is a direct power supply or an independent power supply and the power supply of the device share the same ground, it can be accurate as long as the thin black wire is disconnected. 3, Q: The current shows three horizontal bars "---"?

Answer: The display of three horizontal bars "---" means that the current acquisition line is not connected or exceeds the range. Generally, the measured current does not match the range of the meter or the wiring method is wrong.

4, Connected to the power supply does not display or the display is beating frequently?

Answer: All AC power that has been rectified must be connected to one100uFThe above electrolytic capacitors can only supply power to the meter after filtering.

Concepts about load and power

When discharging: batteries, switching power supplies, and transformers are power sources, and resistors, lamps, motors, and electrical equipment are loads. When charging: chargers, generators, and solar energy are the power sources, and rechargeable batteries and accumulators are the loads.

Parameter adjustment menu description

main menu	first level sub menu	Secondary submenu	Defaults	Remark
The upper screen flashes <small>(Indicates the choice of electricity pressure regulation)</small>	1-U (Voltage value fine-tuning correction)			When the displayed voltage value deviates, it can be to adjust within a certain range
	2-O (The voltage value is restored to the factory set up)	NO (do not restore factory settings) YES (reset)	NO	Select YES, the voltage parameters will be restored to factory settings
	1-A (fine adjustment and correction of current value)			When the displayed current value deviates, it can be to adjust within a certain range
The lower screen flashes <small>(Indicates the choice of electricity flow regulation)</small>	2-E (current value calibration zero point)			Due to device aging/ambient temperature Affect the module to measure small current error The larger the difference, the need to calibrate the zero point
	3-O (The current value is restored to the factory set up)	NO (do not restore factory settings) YES (reset)	NO	Select YES, the current parameter is restored to factory settings

Notes:

1. All key operations in the table are divided into long press and short press; long press: press the button for about 3 seconds and release, short press: press the button for 1 second and release;
2. Long press: enter the next menu, or increase and decrease the digital value;
3. Short press: switch between menu items at the same level;
4. No key operation within 5 seconds: flashing save and automatically return to the previous menu.

Parameter adjustment operation instructions:

● Button function:

All key operations in the table are divided into long press and short press; long press - press the key 3 seconds or so, short press - press the button 1 second to release

● Setting mode:

■ In normal mode, long press the button 3 seconds to enter the setting mode, the upper screen flashes, then release the button and then "Short press the button",

Cyclic display: the lower screen flashes

- ◆ **The upper screen flashes** : Indicates that voltage regulation is selected
- ◆ **The lower screen flashes** : Indicates selection of current regulation

● Voltage regulation settings :

■ In setting mode, press the button to switch to **The upper screen flashes**, long press the button to enter the voltage adjustment setting

■ Release the button at this time and then "Short press the button", the loop displays:

1-U 2-O

◆ : **1-U** Representative Voltage value fine-tuning correction

◆ : **2-O** Representative Voltage value reset to factory settings

● Voltage value fine-tuning correction :

■ Under the voltage adjustment setting, press the key to switch to display **1-U**, long press the button to enter the voltage value fine-tuning correction setting

◆ At this time, release the button and then "long press the button", the value increases upwards, after releasing the key, again "long press the button" value

Decrease downward, and adjust repeatedly to the corresponding voltage value

◆ Wait for the screen to flash to save the settings and return to the previous menu

● Voltage value reset to factory settings :

■ Under the voltage adjustment setting, press the key to switch to display **2-O**, long press the button to enter the factory reset selection

■ Release the button at this time and then "Short press the button", the loop displays: NO_YES

◆ NO:represent **Do not restore factory settings**

◆ YES:represent **reset**

◆ Default displayNO

◆ When switching to the corresponding parameter, release the button, save it and return to the previous menu when the screen flashes

Note: The current parameter adjustment refers to the voltage parameter adjustment,



Current value calibration zero point *

■ When there is no load, under the current adjustment setting, press the button to switch to the display

2-E, long press the button to enter the current value calibration zero point setting

◆ At this time, release the button and then "long press the button" , at this time, the current value is zero calibrated, and the display0.0or0.00

◆ Wait for the screen to flash to save the settings and return to the previous menu