

## DC VOLTMETER DC0-60V, NO BACKLIGHT (IN2000 / 180950)

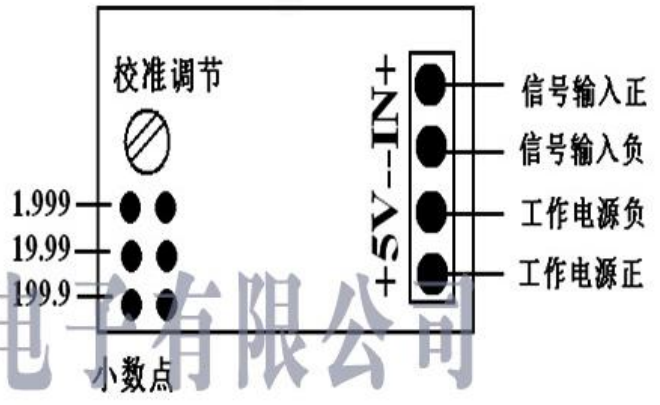
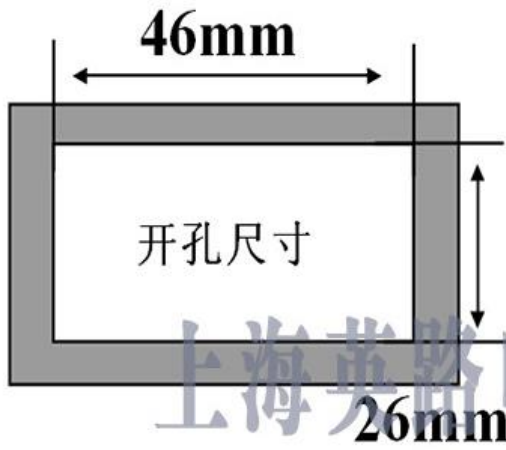


### Product features:

Super small and exquisite mold, totally closed design, energy-saving LCD display, fashionable and beautiful, wide voltage control chip, ultra-low power consumption, energy saving first choice, high quality device, good anti-interference, shell color: black, blue, white optional. LCD viewing angle: 6 o'clock, 12 o'clock optional. Convenient and diversified selection.

### Technical indicators:

1. Power: DC5V+5%	2. Power consumption < = 0.6ma no light	3. Over range display 1 or - 1, the last three digits are not displayed
4. Working temperature: - 10-60 °C, Humidity: below 85%	5. Display font size: 13 * 6mm	6. Measurement rate about 2.5 times / second, Accuracy: 0.2% + - 2 words
7. Support analog signal input such as 0-20mA / 0-10V	8. Maximum display + - 1999	9. Overall dimension: 48 * 28 * 18mm; Recommended hole spacing: 46 * 26mm
10. Automatic polarity identification, automatic conversion	11. Built in calibration potentiometer	12. Backlight effect: blue, yellow green, with backlight current of about 50mA



IN2000 直流电	满量程	分辨率	输入电阻	量程扩展说明
压电流表 常用量程:	±199.9mV	100uV	100MΩ(内阻)	1: 表格列出量程可以直接信号接入测量, 当电流大于 2A 以上需外接分流器来扩展量程, 最大可配 2000 A/75mV 分流器来测量 2000A 之内的大电流. 特殊量程可以定制。 例: 如用户需要测量 50A 的直流电流, 那么就需要 50A/75mV 分流器配合直流 0-75mV 显示 0-50.0 的数字表头来实现测量。 2: 测量电压高于 500V 必须采用机外分压。 例: 如测量直流 2000V 高压, 采用 2000V/100V 分压器分压配合直流 0-100V 输入显示 0-1999 的数字表来扩展测量。
	±1.999V	1mV	1 MΩ	
	±19.99V	10mV	1MΩ	
允许输入满量程的 120%	±199.9V	100mV	1MΩ	
	±500V	1V	3 MΩ	
	±199.9uA	100nA	1KΩ	
注: 如一个直流 20V 电压表只能测量 20V 之内电压, 但不可以测电流。	±1.999mA	1uA	100Ω	
	±19.99mA	10uA	10Ω	
	±199.9mA	100uA	1Ω	
	±1.999A	1mA	0.1Ω	

仪表连接线采用 4 芯杜邦线, 2A 直通, 超过需要外置分流器测量, 仪表电源可以订做 DC: 12V DC: 24V DC: 48V 线上加隔离

Note: for example, a DC 20V voltmeter can only measure the voltage within 20V, but not the current

The instrument connecting line adopts 4-core DuPont wire, 2A straight through. If it exceeds the requirement needs peripheral shunt measurement, the instrument power supply can be customized as DC12V / 24V / 48V, with isolation added on the line

### Range extension description

1. The measuring range listed in the table can be directly measured by signal access. When the current is more than 2a, external shunt is needed to expand the measuring range. A maximum of 2000 a / 75mV shunt can be equipped to measure the large current within 2000 a, and special measuring range can be customized

For example: if the user needs to measure the 50A DC current, the 50A / 75mV shunt with the DC 0-75mv display of 0-50.0 is needed to realize the measurement

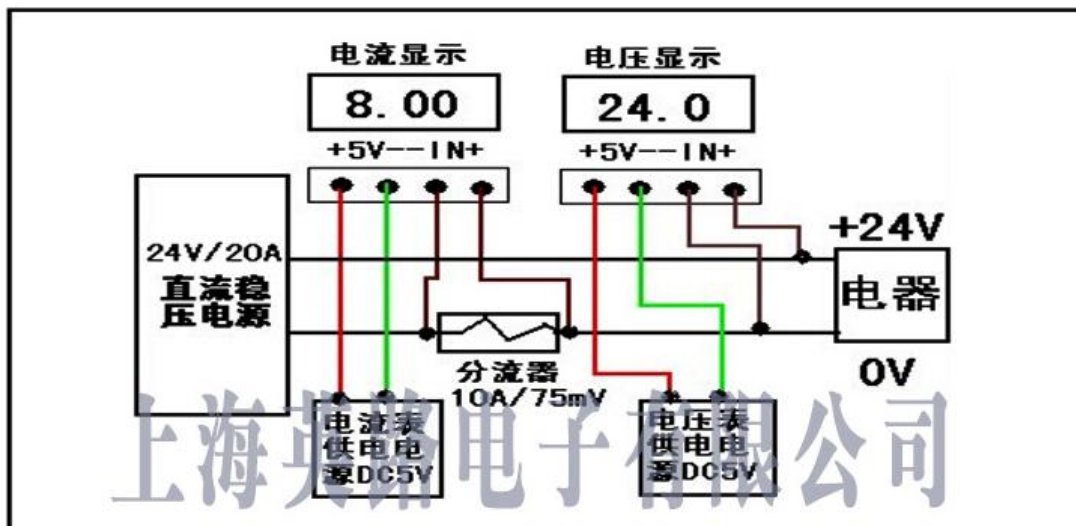
2. When the measured voltage is higher than 500V, the external voltage sharing must be used

For example, if the measured voltage is higher than 2000V high voltage, the 2000V / 100V voltage divider and DC 0-100V input display 0-1999 digital meter are used to expand the measurement

Example: the nominal rated working voltage of an electrical appliance is DC 24V, and the current is 8A

We use a digital meter to monitor the current and voltage values

1. Select one IN2000 DC-200V and one IN2000-DC 10A / 75mV respectively
2. Auxiliary power supply: two DC5V / 100mA regulated power supplies



#### Matters needing attention:

1. When the instrument is DC powered, it is recommended that the negative power supply of the system is not connected to the negative signal
2. When measuring the current, the instrument must be powered independently. If the measured signal negative cannot be separated from the power negative, a DC / DC isolation module must be installed outside the instrument. Otherwise, it may cause burning, inaccurate measurement, word skipping and other phenomena
3. The measuring end of the meter shall be connected in parallel in the circuit to be tested for measuring voltage, and the measuring end of the meter shall be connected in series with the lowest potential end of the series power supply in the circuit to be tested (recommended)
4. The voltage signal or current signal must be reliably connected with the corresponding signal according to the wiring diagram of the product, and the circuit must be checked to be correct before power on

5. Before use, the instrument shall be electrified and preheated for 15 minutes
6. The input wire should not be too long. If the output end of the measured signal is too long, please use twisted shielded wire
7. If the signal is accompanied by high-frequency interference, the high-frequency filter shall be used in the line
8. When it is not used for a long time, please power on at least once every 3 months for no less than 4 hours

**The features of in2000-np passive two wire voltmeter are as follows:**

- (1) Measure DC voltage: DC: 4-30v or DC: 10v-100v blue light displays black words.
- (2) Low power consumption. Generally in 5-10ma without backlight about 0.6ma is very energy-saving.
- (3) Two wires are directly connected to the measured signal. The red wire is connected to the positive pole of the signal, and the black wire is connected to the negative pole of the signal. There is reverse connection protection.
- (4) The LCD can read clearly in the sun, and the nixie tube can't see clearly or can't see the value at all. Therefore, this product is very suitable for outdoor use, such as: battery car modification, battery voltage measurement and other occasions. In addition, as long as the signal has current components, it can be used without power supply, which is very convenient for measurement. It is also very suitable for mobile devices or environments without power supply.
- (5) The resolution of 0.1V, measurement accuracy and consistency are very good, and the measurement linearity of the product is also very good. There is almost no error.
- (6) Product volume is small, shell color has four choices: black, light gray, white, blue. Easy to match your product equipment. External dimension: 48 \* 28 \* 18mm; recommended opening dimension: 46 \* 26mm