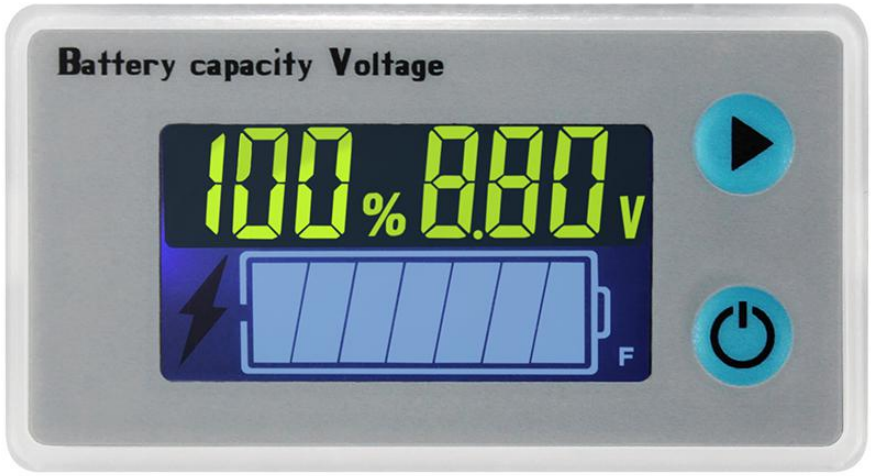
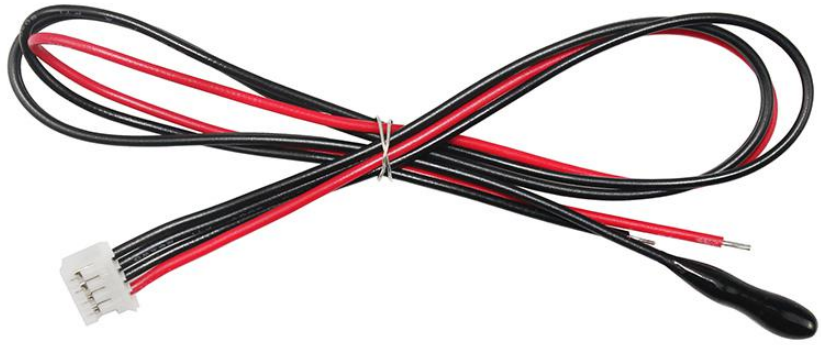




10-100V Digital Battery Monitor

Overview:

This product is a universal Battery Monitor with a color LCD screen and a switch, low power consumption. It can display battery power, voltage value, temperature value, sound and light alarm for a long time, and can be used under various lighting conditions. The wiring is simple, the standard wiring head is used, and the maintenance and disassembly are convenient. Suitable for lithium batteries, lead-acid batteries, lithium iron phosphate batteries, nickel-metal hydride batteries, etc.

Features:

✔ The surface is dust-proof and waterproof (3ATM), the back cover is closed, and the protection is all-round.

✔ Color LCD material. The display is clear under strong light and is soft at night.

✔ The screen shows the percentage of remaining battery power, voltage, and temperature.

✔ Battery temperature real-time detection.

✔ 10-100V wide voltage input with reverse connection protection.

✔ Delay switch, you can set the timer to shut down.

✔ Low power consumption in sleep state.

✔ When the battery is low, the red energy symbol flashes and the buzzer sounds an alarm.

✔ The buzzer can be selected to be on or off. And the alarm voltage can be set.

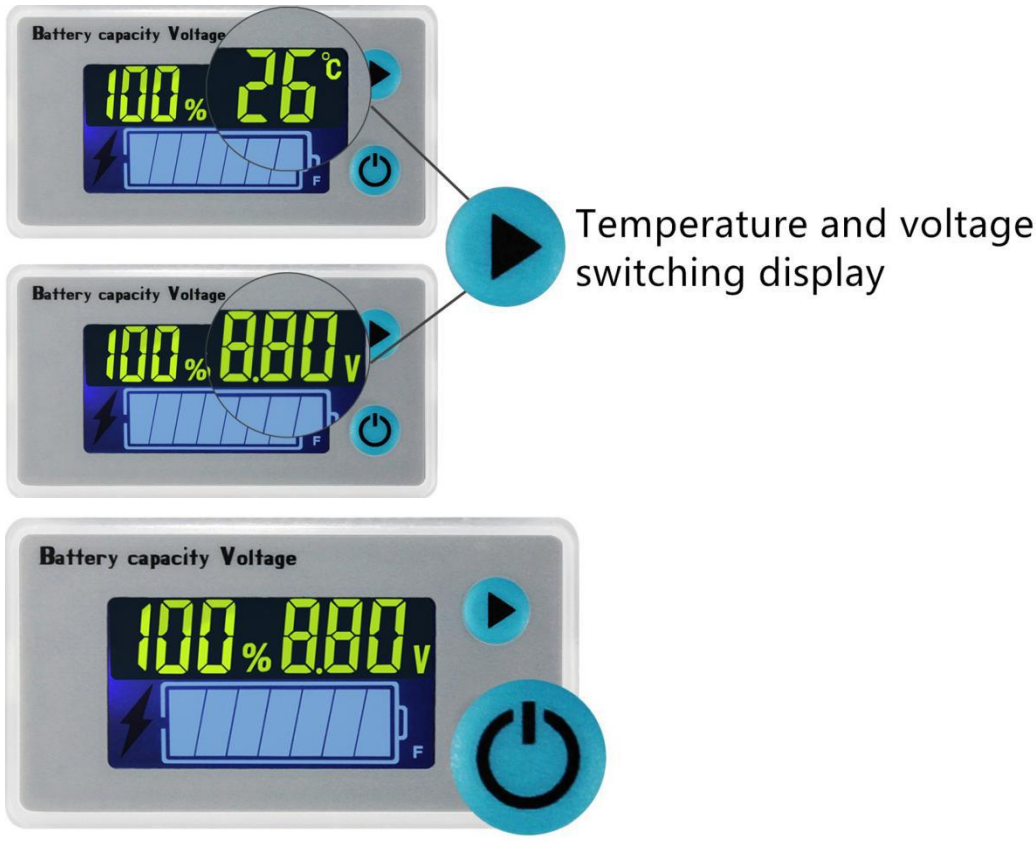
✔ Open programming mode.

✔ Easy to install, comes with a snap, no screws required.

✔ Wide range of applications, suitable for lead acid, lithium batteries, lithium iron phosphate, nickel hydrogen and other batteries.

Product parameters

Parameter	Minimum value	Typical value	Maximum	Unit	Value
Product Size	/	/	/	mm	61.5*33.5*13.53
Installation size	/	/	/	mm	58.26*28
Display size	/	/	/	mm	35.5*18.5
Operating Voltage	10	/	100	V	Conventional
Working power consumption	/	5	6	mA	Backlight on
Voltage accuracy	/	±0.1	±0.5	%	/
Temperature accuracy	/	±0.5	±1	℃	/
Sleep power	6	10	12	uA	20V
Buzzer voltage	11.5	/	40	V	Adjustable
Buzzer volume	70	75	80	db	/
Operating temperature	-10	25	55	℃	/



Instructions for use:

①. Use the PH2.0 terminal wire of the product and connect it to the corresponding wiring position on the reverse side of the circuit board of the battery detection module.

②. Connect the two wires (red and black) to the positive and negative ends of the battery to be tested, and ensure that the contact is firm and reliable.

③. Place the NTC temperature sensor where you need to measure the temperature. Also, do not squeeze the sensor.

④. The display starts working when it is powered on for the first time. Showing the percentage of battery power, the voltage value and analog battery symbol icon.

⑤. Tap the button to turn off the meter. In the off state, press any button to wake up the meter.

⑥. Press the button in the power on state to switch the voltage value and temperature value.

⑦. The battery symbol has 7 display cells, showing the remaining battery capacity from high to low (left to right).

⑧. The percentage value on the display interface is the percentage of the remaining battery power.

⑨. The voltage value on the display interface is the real-time measured voltage value, ranging from 0-100V.

⑩. When the battery is connected to the charger or the high current load is discharged, the display parameters will also fluctuate.

⑪. When the battery is low, the lightning bolt on the display interface will flash and the buzzer will start to alarm.

⑫. If you feel that the meter is not accurate enough, click on the third submenu (Program Mode 3) in the menu to set the upper and lower limits of the battery.

⑬. If the battery type does not correspond to the setting on the meter, the meter will then be in a low voltage state and will continue to alarm.

Enter programming mode:

①. In the power on state, press and hold the button for about 5 seconds to enter the main menu. (as shown below.)

②. The main menu has a total of 5 sub-menus: 1--, 2--, 3--, 4--, 5--

③. After entering, press the button and cycle through the 5 submenus.

5 Submenu Functions:

1-- : Select built-in preset battery specifications: lithium battery, lithium iron

phosphate, lead acid battery.

2-- : Delay switch and delay time selection.

3-- : Customize the upper and lower limits of the percentage voltage.

4-- : Buzzer switch and alarm voltage setting.

5-- : Recalibrate the meter voltage.

④. Press the button to select the menu to be entered. Press and hold the button to exit.

*Tip: All parameters are subject to the last save.

Detailed submenu functions:

1-- : Quickly change the battery type

This menu can quickly change the factory default measurement parameters.

L stands for lithium battery, the number behind is the number of batteries connected in series.

F stands for lithium iron phosphate battery, the number behind is the number of batteries connected in series.

P stands for lead-acid battery, the latter number stands for voltage.

For example:

L3 stands for 3 serial lithium battery; 4.2V*3S=12.6V.

L7 stands for 7 series connected lithium batteries; 4.2V*7S=29.4V.

F4 stands for 4 series connected lithium iron batteries; 3.2V*4S=12.8V.

F8 stands for 8 tandem lithium iron batteries; 3.2V*8S=25.6V.

P12V stands for lead acid battery, 12V battery.

P48V stands for lead acid battery, 48V battery.

Note:

1. If you do not follow the corresponding battery settings, the percentage is not accurate, only the voltage value is accurate.

2. All parameters are subject to the last save.

2-- : Delay switch, delay time setting.

This menu can be used to set whether the product is delayed and select the delay time. After entering the menu, it looks like this:

On the left side, the switch selects ON to turn on the delay, OFF to turn off the delay.

The time on the right is 10 seconds / 30 seconds / 60 seconds / 120 seconds.

Setting steps:

1. After entering the 2--menu, press the button to change the parameters, and tap to set the carry (carry is set the minute after setting the hour).

2. Press and hold the button to save.

3. If you do not need to change other parameters, press to exit.

*Note:

After the delay is turned on, the D symbol lights up and only the delay time is set.

If the switch is OFF, the delay function does not take effect.

3-- : Custom percentage upper and lower voltage

This menu customizes the upper and lower limits of the percentage. After changing this parameter, the product can be applied to any battery such as NiMH, fuel cell, etc.

After entering the menu, it will display as shown below:

A. The value on the left is the amount of electricity, 0% corresponding voltage, low battery voltage.

B. The value on the right is the amount of electricity, 100% corresponding voltage, full battery voltage.

Setting steps:

A. After entering the 3-- Menu, press the button to adjust the set voltage, and press the button to carry it.

B. Long press button to save

C. If you do not need to change other parameters, long press to exit.

Note:

***** The set upper and lower limit voltages **cannot** exceed **the operating voltage**.

* If the upper and lower limit settings are the same, the data will not be saved.

* Menu 1 and Menu 3 cannot be set at the same time.

If Menu 1 is set, the setting of Menu 3 is invalid.

Similarly, if Menu 3 is set, then the setting of Menu 1 is invalid.

4-- : Buzzer alarm voltage and switch.

This menu customizes the buzzer operating voltage and the red alarm symbol reminder value.

After entering the menu, the following picture is displayed:

A. The left side shows the buzzer on and off settings. ON is on and OFF is off.

B. Set the buzzer alarm voltage on the right side.

Note:

* The measured voltage must be 0.2V lower than the actual voltage before the alarm.

For example: When setting the alarm voltage to 12V, then the buzzer will be triggered only when the battery actual voltage is less than or equal to 11.8V.

Setting steps:

A. After entering the 4-- Menu, press the button to set the buzzer switch, and press the button to carry the position.

B. Press and hold the button to save.

C. If you do not need to change other parameters, long press to exit

*Note:

The set voltage value cannot exceed the operating voltage.

If the switch is OFF after setting, the buzzer will not work.

When the buzzer is working, the red alarm symbol flashes to remind you.

5-- : Recalibration

This menu is to recalibrate the meter.

Before entering the calibration interface, please provide accurate 20V working voltage.

In order to prevent misoperation, if you need to enter this menu, you need to press and hold the button in the 5--menu state to enter, and then automatically calibrate after entering.

If the voltage value range given is not in the range of 19-21V, no data is saved.

Note:

Before entering the calibration interface, be sure to provide the instrument with an accurate 20V operating voltage, otherwise the error may be greater.

The interface is automatically calibrated after entering, and automatically exits to the working interface after the calibration is completed.