PZEM-033 Coulombmeter
Instructions

Dimension Figure (mm)
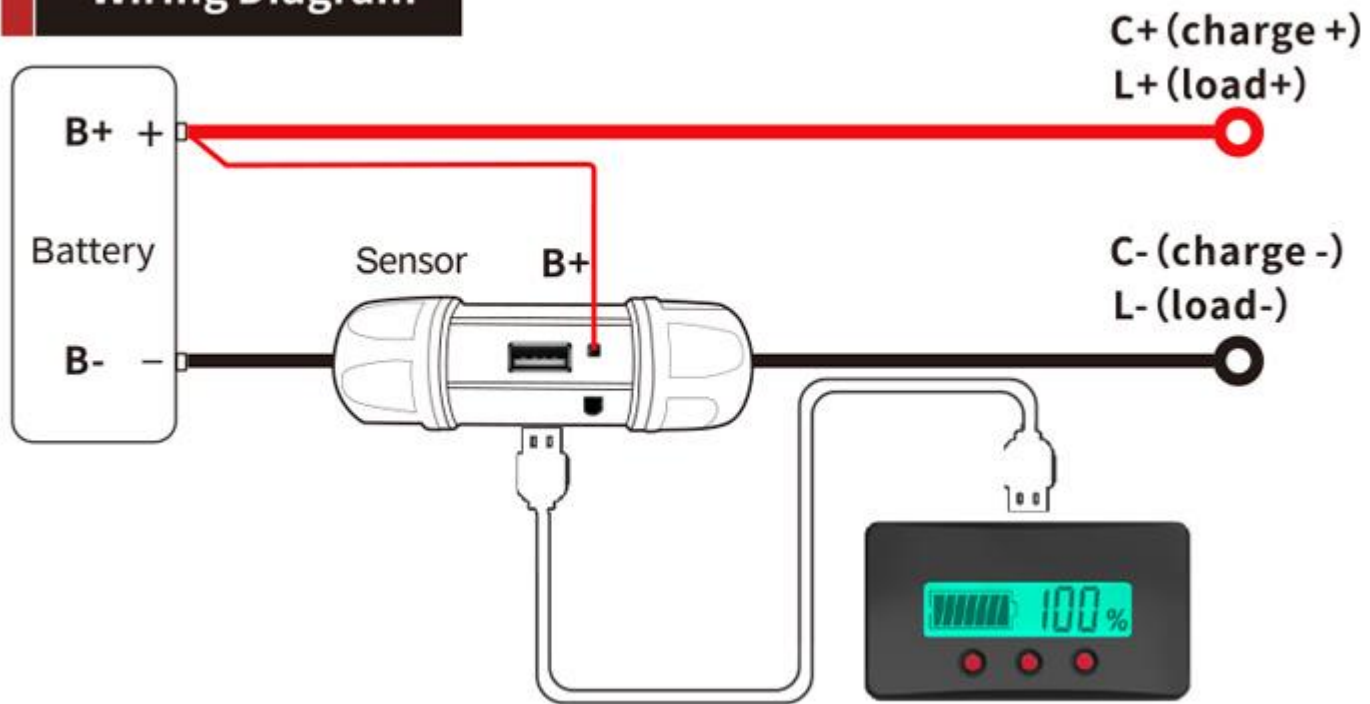

64.6mm

19.5mm

35.6mm

Function Description

This product is a high precision coulombmeter that can accurately measure voltage, current, and capacity of battery in real time, it can help user accurately understand the working status of battery; it is applicable for 8-120V various batteries.

Technical Parameter

Parameter	Min.	Regular	Max.	Unit
Working voltage	8		120	V
Working power consumption		5	6	mA
Sleep power consumption		0.5	1	mA
Measureing voltage	8		120	V
Measuring current (50/100A)	0.03		50/100	A
Measuring capacity	0		999	Ah
Voltage accuracy		±1		%
Current accuracy		±1		%
Capacity accuracy		±1		%
Environment temperature	-10	23	60	°C
Weight		29		g
Appearance size		64.6*35.6*19.5		mm
Hole Size		61*32		mm

Wiring Diagram

Just connect it following the above diagram. The connection between this product and the current sensor is very convenient through a USB-USB cable.

Note: 1. The B- on the current sensor represents the negative electrode of the battery; B+ represents the positive electrode of the battery; L - represents the negative electrode of discharge load/charger.
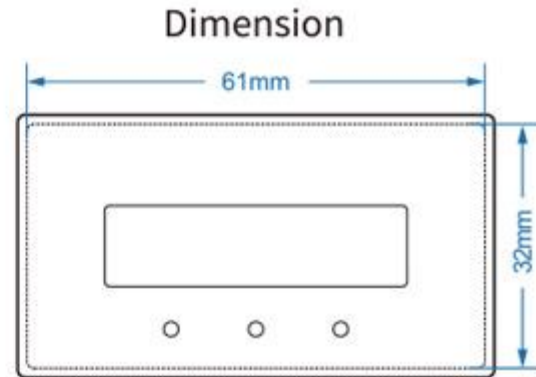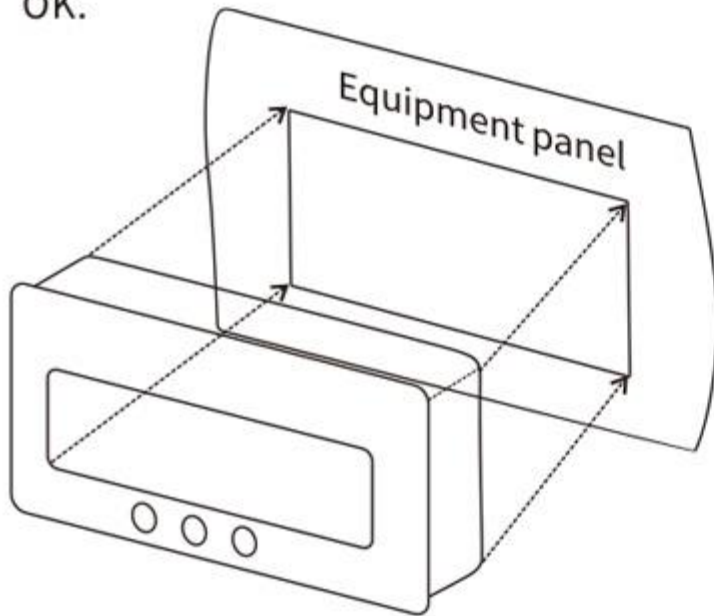
2.The wiring of the charging and discharging circuit current sensor must be connected through the negative electrode, cannot be connected in positive electrode circuit, otherwise will cause short circuit.

3.The wiring of the negative circuit of the current sensor is locked through the nuts at both ends of the current sensor; First loosen the nut, insert the wire between the copper plates in the hole, and then tighten the nut.

4. The user selects the appropriate wire diameter for connection based on the testing current. The current sensor is a heating device, should maintain a cool and unobstructed usage environment as much as possible.

Installation Method

This product comes with a buckle design and is embedded for installation. Opening a hole according to the hole size, then embed it into the panel is OK.

Equipment panel

Dimension

61mm

32mm

Usage Steps

Ⅰ.Wiring

Connect it correctly following the wiring diagram and power on, the battery symbol is displayed on the left side of screen, the right side can be switched to display by OK key: the capacity percentage, capacity, voltage and current.

100%

The capacity percentage

100 Ah

Capacity

Voltage

Current

Note: 1. Short press the key to wake up the backlight in the empty state, it will turn off if there is no key action within 5 seconds;

2. When charge the coulombmeter, the backlight flickers, and remains on when discharge. Otherwise, please check whether the wiring is correct;

3. When charging and discharging, the battery terminal wiring remains unchanged, only switch the load terminal; That means disconnect the load and connect the charger when charging; Disconnect the charger and connect the load when discharge;

II . Setting:

1. Set the battery capacity ① and zero capacity voltage ② before using; If the battery capacity is unknown, it must be checked and reset ③

①Battery Capacity Setting

Press the + and OK keys simultaneously more than 2 seconds until the number on the screen flickers, then release the key; Press the + and - keys to adjust the capacity value (long press for quick adjustment). After the adjustment is completed, long press the OK key for 2 seconds to save and exit the setting state. If there is no key action within 7 seconds, it will not save and will exit the setting state; The factory default is 100Ah.

② Zero Capacity Voltage Setting

The setting of zero capacity voltage is mainly to avoid excessive discharge of the battery. It can be set or not according to user needs; Press the - and OK keys simultaneously more than 2 seconds until the number on the screen flickers, then release the key; Other setting methods are as same as ①; The factory default is 0V.

③Battery Capacity Checking

Set the coulombmeter to zero capacity after fully discharge the battery , then fully charge it, the capacity value displayed at this time is the actual capacity of the battery; enter the capacity setting interface and reset it.

Note: Whether it is fully charged depends on the charging current or backlight state; If the charging current is 0 or the backlight is not flickers, it means it is fully charged.

2. Capacity Reset

For the first time using, the displayed capacity and percentage are not the actual values of the battery, you need to reset capacity of the coulombmeter;

 Method 1: Fully charge the battery and long press the + key to set it to full capacity.

Method 2: Fully discharge the battery and long press the - key to zero the capacity.