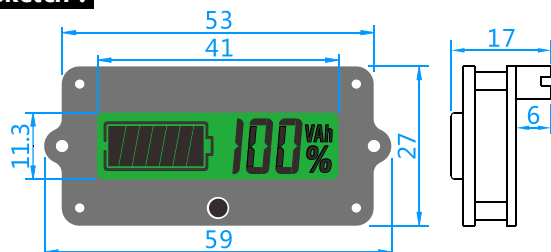


TY02 LCD Capacity Tester

—Instruction—

• Sketch :



• Product overviews :

★ TY02 is a kind of high precision current type battery capacity tester (also known as coulometer). It is designed to test the voltage, current and capacity of battery, and help users know the state of battery in time. TY02 is suitable for instruments, measuring equipments, cleaning machines, balance cars, battery cars, e-bike and so on.

• Application :

★ TY02 is suitable for lithium batteries, lithium iron phosphate batteries, lead-acid batteries and nickel-metal hydride batteries which voltage is from 8V to 80V.

• Basic parameters :

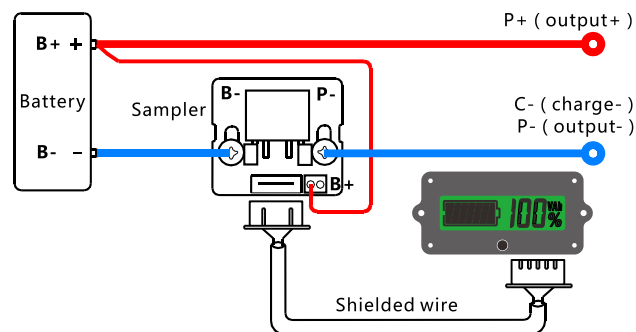
Parameter	Min	Type	Max	Unit
Working voltage	8.0	50.0	80.0	VDC
Working dissipation		8.0	10.0	mA
Standby dissipation			0.15	mA
Sleep dissipation			15	uA
Voltage accuracy		±1.0		%
Current accuracy		±1.0		%
Capacity accuracy		±1.0		%
Backlight on current			10	mA
Capacity setting value	0.1		590.0	Ah
Current of 50A sampler	0.0	50.0	75.0	A
Current of 350A sampler	0.0	350.0	500.0	A
Current of 500A sampler	0.0	500.0	750.0	A
Temperature range	0	20	40	°C
Weight		21		g
Size	59×27×17			mm

Note: The size and function of TY02 are the same, but the internal parameters are different, so it must match correct sampler, and cannot exchange.

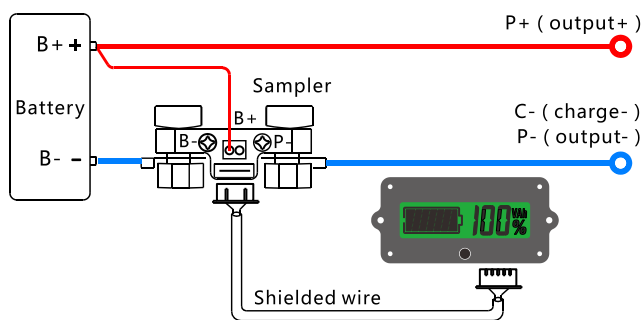
• Connect :

★ We need a shielded wire and a ordinary wire (0.3-0.75 mm²). One end of the ordinary wire connects to positive, the other end connects to B+ of sampler (any one is ok). The B- of sampler connects to B- of battery. P- of sampler connect to P- of output. Finally connect sampler to TY02 by the shielded wire.

★ Connection method of 50A sampler :



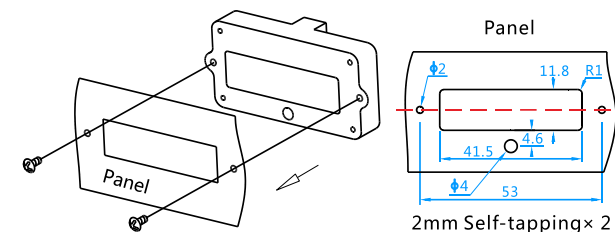
★ Connection method of 100A sampler :



Attention: Please connect as shown strictly. The sampler must be connected to the negative circuit, it is forbidden to connect to the positive circuit. If you want to extend the shielded wire, you must use 4 lines of same specification.

• Install :

★ First, open holes on the panel of equipment as shown. Then install TY02 from the back of the panel, and put the prominent LCD in the rectangular orifice. Finally, fix TY02 with tapping screws from the front. As shown below:



• Use steps :

★ **Connect and check the current :** Power on after complete the connection as shown, the screen should display capacity percentage. If the screen has no response, please check the connection. Then charge or discharge the battery, and **check whether the display current is equal to the actual current**. If the deviation is large please check the connection.

★ **Capacity reset :** On first use, the percentage and capacity is not the actual value, you should reset the capacity: discharge the battery totally and **hold the "▽" key for 3s to set the capacity zero** or charge the battery fully and **hold the "△" key for 3s to set the capacity full**. TY02 will be work, and it doesn't need to do this again later, except replace the battery.

★ **Check and reset the actual capacity :** If you find the display capacity don't match the actual capacity, please check and reset the actual capacity: discharge the battery totally and hold the "▽" key for 3s to set the capacity zero, then set the preset capacity as large as possible. Then charge the battery fully, and the display capacity is the actual capacity. Finally set the display capacity as preset capacity (Please refer to use setting).

• Other description :

★ When charging or discharging, TY02 must be at work. Otherwise the capacity will not be accurate.

★ Connect the load, when the discharge current higher than 10mA, the backlight on and indicate that the load is discharging (if backlight blinking, then the B- and P- are inversely). Besides, display the discharge current and real-time voltage.

★ Break the load, and connect the charger. When the charge current higher than 10mA, the backlight blinking and indicate that the battery is charging (if backlight on, then the B- and P- are inversely). Besides, display the charge current.

★ When the charge or discharge current value is lower than 10mA, TY02 enter a low power state and backlight off. Click any one of the keys, backlight on 10s.

★ Because of high sensitivity, when TY02 is in standby mode (battery has no input or output current), if it is interfered by

electromagnetic radiation (open or close inductive loads, such as high-power motor) nearly, the backlight will shortly turn on.

★ When the current changes frequently the data acquisition may produce error, and it will affect the accuracy.

● Use setting :

★ Long press “▽” key on the back when power off, then power on. TY02 displays the setting capacity. Use “△” or “▽” key to plus or minus the capacity value, select correct capacity you need, and click the OK key on the front. TY02 will be OK.



★ Long press “△” key on the back when power off, TY02 enter zero capacity voltage set menu. Use “△” or “▽” key to plus or minus the voltage value, when battery voltage is lower than it the percentage will be 0% , and backlight off.



★ When TY02 working, the left of LCD display battery symbol ; the right can display the percentage of capacity, present current, present voltage, capacity value, click the OK key on the front can change the display massage. The backlight blink when charging, backlight on when discharging.



★ When display percentage of capacity and capacity, long press “△” key you can set it fully, long press “▽” key you can set it zero.



★ When on first use or change the battery , the memory capacity should be set zero or full: In the main interface ,hold the “▽” key for 3s to set the capacity zero , the percentage is 0% ; hold the “△” key for 3s to set the capacity full , the percentage is 100%. Attention that the operations cannot be restored.

● Accessory :

★ TY02 has a sampler.You should buy the 0.5m shield wire separately (1m,1.5m,2m,3m.... can select).

● Attention and warranty :

★ TY02 cannot be exposed in the sun for a long time. When using or storing, please keep the temperature higher than -20°C and lower than 60°C, otherwise it will shorten the life of LCD.

★ Within one year, any fault caused by non-artificial reason we should maintain it freely.

Our products will keep upgrading, if the product you bought is different with this instruction, please take the material object or website as the standard.