2-in-1 Meter

Please read the following notice carefully before using,install and operate the meter correctly.

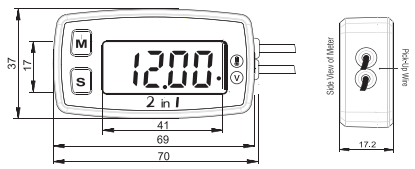
1 Precautions

1.Please use the product accordance with the user manual strictly.
2.Please do not dismantle the product by yourself.
3.Due to the waterproof design of the product, it can be used in the rain, but can not be put into in deep water.
4.When the product is in the intense vibration or strong impact. It will cause a failure.
5.Please pay attention to the panel with fog, condensation and water, if the back of the battery cover is installed incorrectly.
6.Error will be happened when measuring, please notice that the error is not the same when compared to the same model products.
7.Professionals are required to install this gauge or common person will get hurt by electric shock easily.

2 Accessory list

1*product
1*user manual
2*zip ties
1*screw
1*TS002P-S

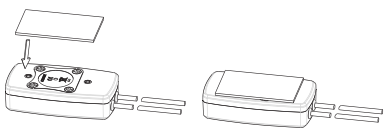
3 Product dimensions



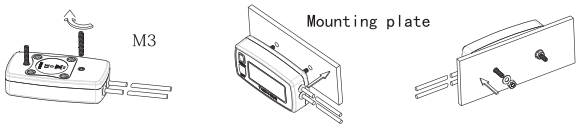
4 Product installation

Note:There are three installation ways, you can choose the one you needed.

1 Installation by double-sided adhesive tape

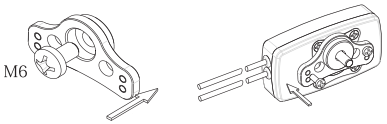


2 Installation by screws



Notice: The mounting plate should have mounting holes. If don't have it, please drill corresponding holes in the mounting plate.

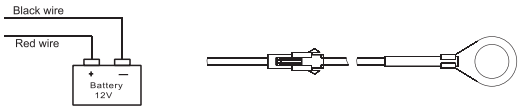
3 Aluminum frame mounting bracket



Remarks: Aluminum frame mounting bracket is optional and excluded in the package. Purchase it seperately if needed.

5 Accessory installation

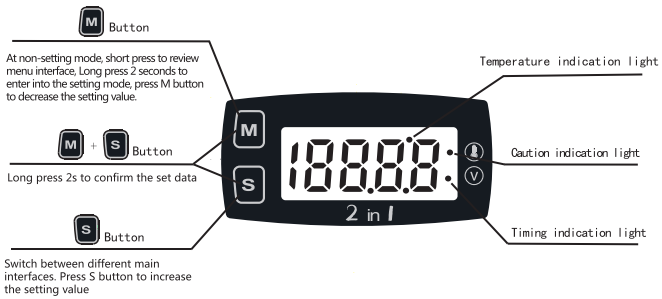
1. After the temperature sensor is connected to the meter, please connect the sensor probe to the equipment to be tested.
2. Please connect the power source to the meter as below.



2. Check if the product installation is correct

Temperature reading displays on temperature interface, voltage reading displays on voltage interface. It means the product installation is correct.

6 Area definition



7 Instructions on buttons

Button name	Short press	Long press
Menu button M	Review sub-menu interface and press it to decrease the setting value.	Enter into setting and press it to decrease the setting value fast.
Set button S	Switch or return to main interfaces. Press S button to increase the setting value	Press it to increase the setting value fast when setting.
At setting state, long presss M and S 2s to save and exit the setting.		

8 Product use

1 Temperature operation interface

Standby interface

Err displays on LED when temperature value disconnected.
Temperature reading displays on LED when temperature sensor connected.

Short press M

View the overtemperature value

Long press M 2S

Set the overtemperature value

a)The default overtemperature value is 100℃(212℉).Setting range: -40 ℃-+300℃ (-40℉-+572℉).
b)When the tested data exceeds the preset overtemperature value, caution indication light flashes. At the same time, the tested data will display 3s and flash 2s to alert users.
The preset overtemperature value saves after power source disconnected.

Short press M

View the max temperature

Long press M 2S

Reset the max temperature

a)After resetting, the max temperature return to initial value -40 ℃(-40℉).
b)When the tested data exceeds the historical recorded value 2 times, the max temperature value will be updated.

Short press M

View the temperature unit

Long press M 2S

Set the temperature unit

a)℃ or ℉ is optional. Initial value is ℃.Press any button to switch the temperature unit between ℃ and ℉.
After the temperature unit selected, all the data related to temperature will switch to the related temperature unit.

2 Voltage operation interface

Voltage operation interface-display the current voltage in real time

When switching to voltage interface, LED shows the current voltage value

Short press M

View the overvoltage alert value

Flash alternately

Long press M 2S

Set the overvoltage alert value

a)the default setting is off. Setting range: 10.00-16.00V.
b)When the tested data exceeds the preset overvoltage alert value, caution indication light flashes. At the same time, the tested data will display 3s and flash 2s to alert users.

Short press M

View the undervoltage alert value

Flash alternately

When the overvoltage alert and the undervoltage alert are all on, the overvoltage alert value is 1V more than the undervoltage alert value.

Long press M 2S

Set the undervoltage alert value

a)the default setting is off. Setting range: 9.00-15.00V.
b)When the tested data is below the preset undervoltage alert value, caution indication light flashes. At the same time, the tested data will display 3s and flash 2s to alert users.

9 Specifications List

Item name	2-in-1 Meter
Housing material	ABS
Waterproof rate	IP67
Display mode	LED
Display window size(viewable)	41×17mm
Weight	111g
External dimensions	69×37×18mm
Temperature range	-40℃-+300℃ (-40℉-+572℉)
Temperature accuracy	±1℃
Temperature refresh rate	1S
Voltage accuracy	±0.01V
Volatge error	±0.5%
Working voltage	DC12V

10 Troubleshooting

Problems	Possible causes	Solutions
No display on LCD screen after connected to power source	1. Power source voltage is not enough. 2. power source wires are broken. 3. Polarity connection of power source is wrong	1. Replace new power source 2. Repair or replace power wire 3. Reconnect power source
No change on LCD display	System halted due to interference	Reconnect power source
ERR displays on LCD screen	1. sensor is not installed correctly. 2. sensor is broken	1. Reinstall the sensor 2. Replace the sensor