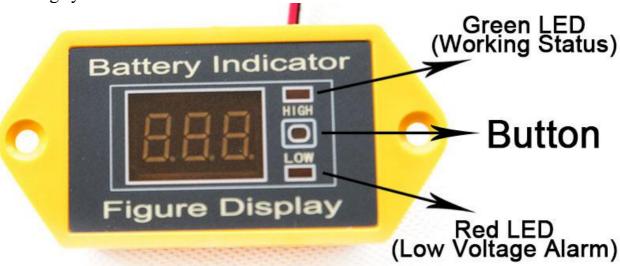




# TQZN-12V Adjustable Battery Meter TQZN-24V Discharge Level Indicator

### **Description:**

With optional output function, the meter models TQZN-12V and TQZN-24V are used as battery charging / discharging level indicators for electric vehicle / vessel, battery charger, solar power generating system and other battery power (DC source) driving / conserving systems.



#### **Features:**

- 1. Accurate digital voltage display
- 2. Acoustic & light alarm
- 3. Adjustable alarm voltage setting
- 4. Low power consumption:
  - (1) Working current: less than 15mA
  - (2) Alarm current:  $25mA \pm 3mA$
- 5. Output type (optional; applied for switching automatically on / off a DC relay):
  - (1) Over-charge protection: when the voltage is higher than the high voltage setting
  - (2) Low voltage protection: when the voltage is lower than the low voltage setting
  - (3) Low-voltage and over-voltage protection (typical application: photovoltaics charging / discharging controller)
- 6. Working temperature:  $-20^{\circ}\text{C} \sim 60^{\circ}\text{C}$
- 7. Working environment humidity:  $\leq 85\%$
- 8. Two shell color options:
  - (1) Yellow
  - (2) Green

## **Adjusting:**

1. When the power is switched off, press down the button and hold it.

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- 2. Switch on the power, and release the button. When the voltage display flashes, the meter is in the setting mode.
- 3. Press down the button and release it, each press increases 0.1V of the voltage setting. Keep pressing and releasing the button, till get the expected value.
- 4. Press down and hold the button till an alarm sound, then the meter is in operation mode.

#### **Charateristics:**

#### 12V meter:

- 1. Working voltage: 8.0 16.0V DC
- 2. Low voltage alarm: 9.0 11.5V (default setting 10V)
- 3. Protection voltage: 0.5V lower than alarm setting
- 4. Reset voltage: higher than 11.5V

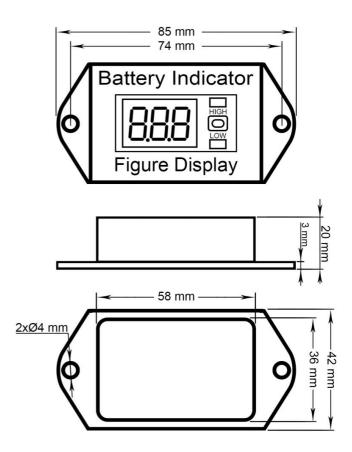
#### 24V meter:

- 1. Working voltage: 16.0 32.0V DC
- 2. Low voltage alarm: 18.0 23.0V (default setting 20V)
- 3. Protection voltage: 1.0V lower than alarm setting
- 4. Reset voltage: higher than 23.0V

## **Output options:**

- 1. No output (only alarm)
- 2. Transistor output (max. current: 1A)
- 3. MOSFET output (max. current: 4A; solar power conservation system)

#### **Dimensions:**



### Wiring:

The wiring of TQZN series meters is simple:

- 1. Red wire to the power source positive terminal (B+)
- 2. Black wire to the power source negative terminal (B-)
- 3. Optional brown wire as the output of meter

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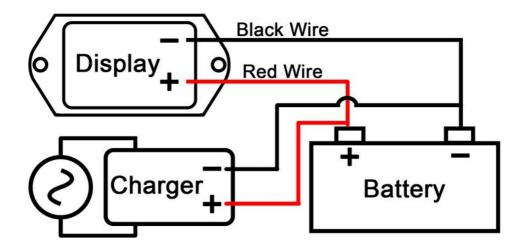
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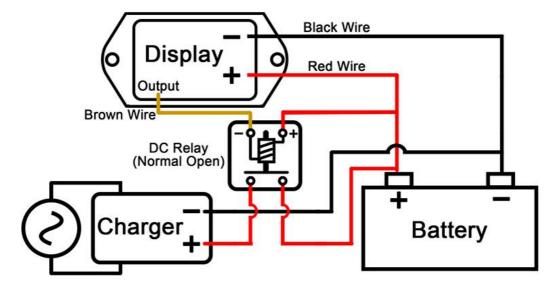


# TQZN-12V Adjustable Battery Meter TQZN-24V Discharge Level Indicator

### **Two-Wire Version (No Output)**



## **Three-Wire Version (With Output, Over-Discharge Protection)**



## **Applications:**

- 1. Battery charging system
- 2. Electric forklift / pallet truck / AGV
- 3. Electric marine vessel
- 4. Golf cart
- 5. DC power source
- 6. DC power conserving system
- 7. etc.

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