



Electrochemical gas sensor instructions

Model: MQ-E2-O2- ϕ 32

Version: 1.0

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Taiyuan Tengxing sensor technology Co., Ltd

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6. The instructions should be well kept.

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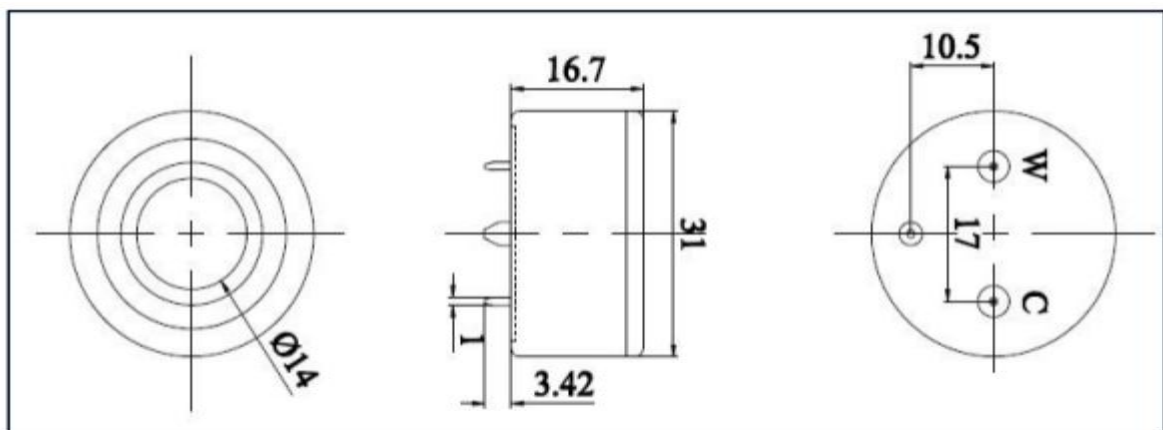
1. Description

MQ-E2-O2- ϕ 32 is the sensor of original battery type. By reduction of O₂ on working electrode and oxidation of cathode materials to form the current. The value of current is proportional to the concentration of O₂. By testing the value of current, the concentration of O₂ is known.

2. Characteristics

- (1) Low power consumption.
- (2) High accuracy.
- (3) High sensitivity.
- (4) Be stable.
- (5) Wide linear range.
- (6) Excellent repeatability.
- (7) Anti-jamming.

3. Appearance and dimension

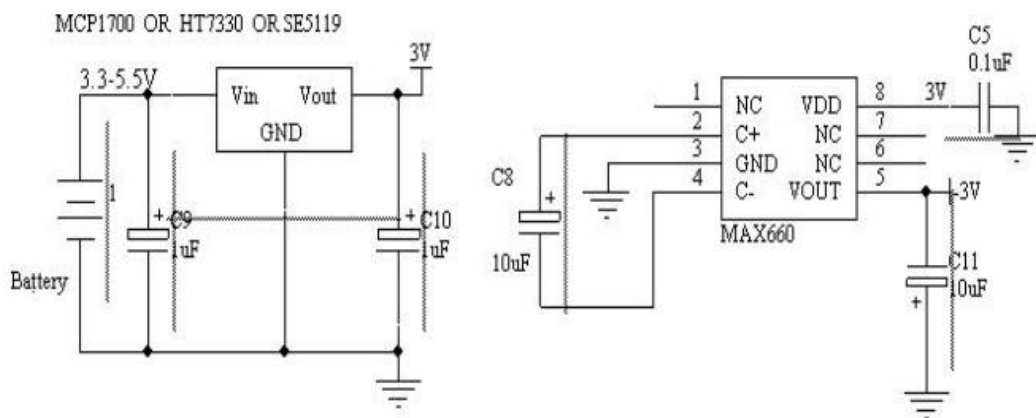
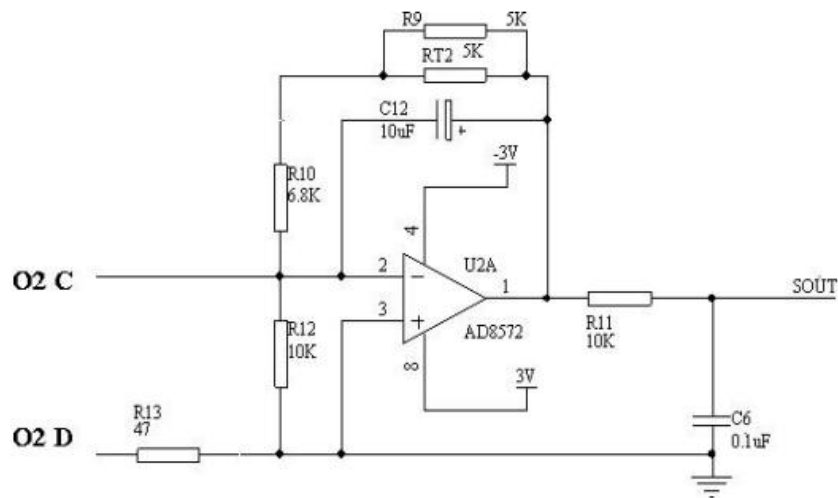


4. Technical specifications

- (1) Media: O₂.
- (2) Testing range: 0-25%Vol (30%Vol Max.).

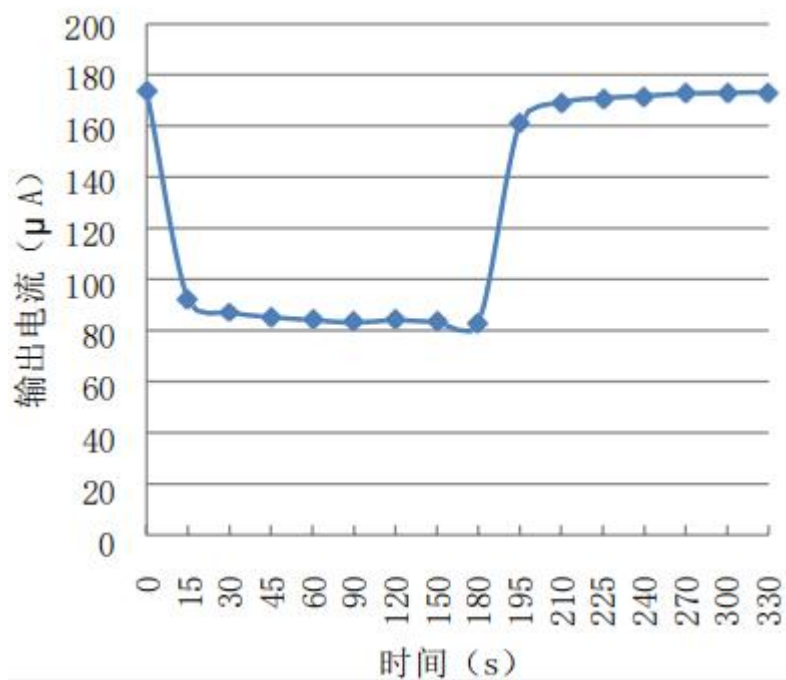
- (3) Sensitivity: 0.10-0.16mA(in the air)
- (4) Load resistor: 100 Ω
- (5) Repeatability: <2% output value
- (6) Stability(per month): <5%
- (7) Zero drift(-20°C~+40°C): $\leq 0.1\%V_{ol}$
- (8) Temperature range: -20°C~+50°C
- (9) Humidity: 0%-99%RH
- (10) Response time: $\leq 15s$
- (11) Pressure: standard air pressure $\pm 10\%$

5. Test circuit

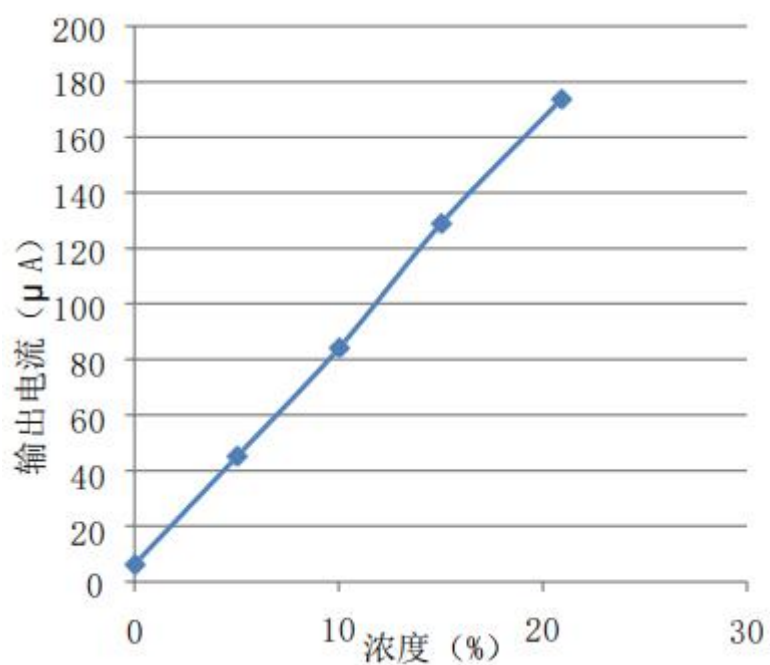


6.Characteristic curve of sensor

(1) Sensitive curve



(2) Linearity curve



7.Attention

(1) Soldering is prohibited.

- (2) Aging time before using should be more than 48 hours.
- (3) Don't disassemble the sensor without permission.
- (4) Don't let the sensor connected with organic solvent(including silicon rubber or other adhesive), coating material, medicament, fuel oil and high concentration gas.
- (5) All electrochemical sensor cannot be fully sealed with resin material. Being exposed in the environment without oxygen will damage the sensor.
- (6) Being exposed in the environment with corrosive gas will damage the sensor.
- (7) Zero point should be tested in clean air.
- (8) Front intake or vertical intake is prohibited when testing or working.
- (9) The inlets shouldn't be polluted or clogged.
- (10) Shaking or impacting is not allowed.
- (11) Don't use if the shell is broken or out of shape.
- (12) It's slow to recover to initial condition if used in the environment with high concentration gas for a long time.
- (13) The working electrode and counter electrode should be short-circuited when storing.
- (14) Don't seal with melt adhesive or sealant whose curing temperature is higher than 80°C.

(15) Don't use or store in the environment with high concentration alkaline gas.

8. Quality-guarantee

(1) The products are supplied strictly in accordance with customers' requirement, any defective goods are available to change or refund.

(2) The working time of components will be more than 2 years(in air).

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