



ME3-C2H4 Electrochemical Sensor

Manual (Model: ME3-C2H4)

Zhengzhou Winsen Electronics Technology Co., Ltd

ME3-C2H4 Electrochemical Gas Sensor



ME3-C2H4 electrochemical gas sensor make use of electrochemical oxidation process on the working electrode in electrolytic cell. And the current produced in electrochemical reaction is in direct proportion to concentration while following Faraday law. So that concentration of target gas can be tested by current.

Features

- Low consumption
- High precision & high sensitivity
- Wide range of linearity
- Good anti-interference ability
- Excellent Stability and reliability

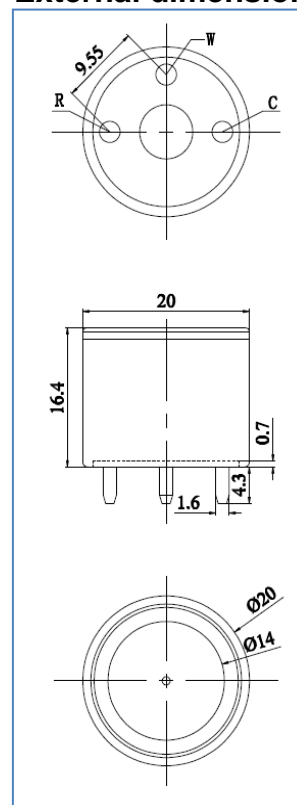
Application

Detecting ethylene in industry and environmental protection field

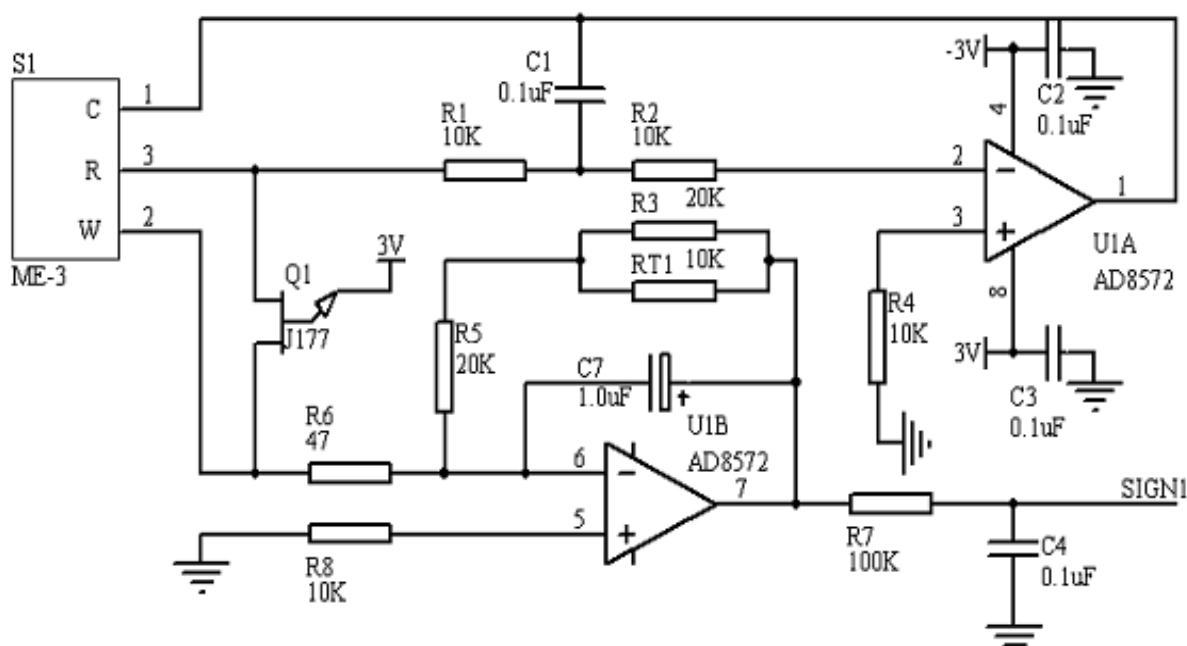
Technical Parameter

Model	ME3-C2H4
Detection gas	C2H4
Detection range	0-100ppm
Max. range	200ppm
Sensitivity	0.04±0.012 uA/ppm
Filter	Filtering SO _x /NO _x and H ₂ S
Resolution	0.5ppm
Tem. range	-20°C-50°C
Pressure range	standard atmosphere ±10%
Response time(T90)	<30S
Humidity range	15%—90%RH
Bias voltage	no
Reproducibility	1% of signal output
output	Linearity output
Anticipated using life	3 years in air

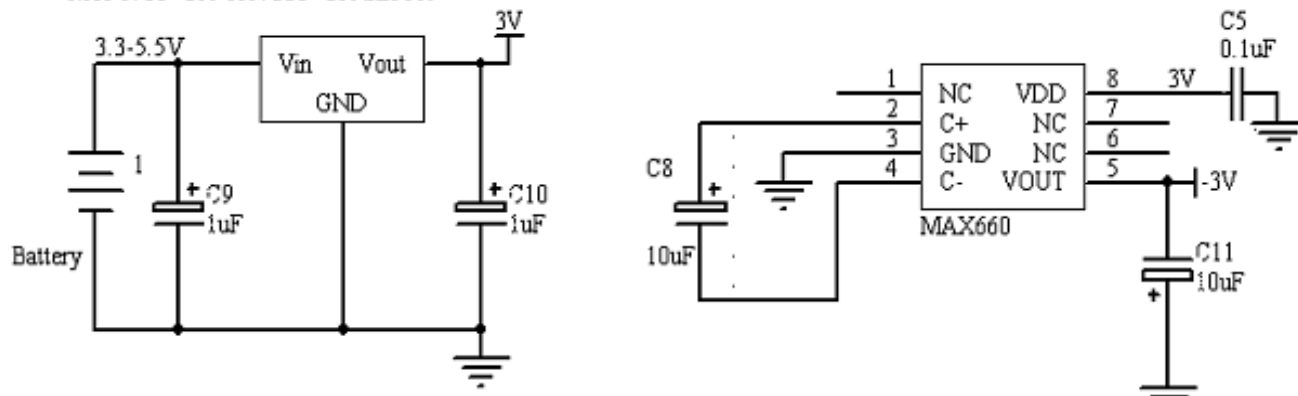
External dimension



Basic circuit



MCP1700 OR HT7330 OR SE5119



Anti-Interference

Besides target gas, ME3-C2H4 sensor also responds to other gases. Below are the response characteristics of interferential gases.

Gas	Concentration	ME3-C2H4
H2S	100ppm	0ppm
SO2	20ppm	0ppm
H2	200ppm	100ppm
NO	35ppm	9ppm
NO2	5ppm	2ppm

Application Notes

- Sensor shall avoid organic solvent, coatings, medicine, oil and high concentration gases.
- All ME Sensors shall not be encapsulated completely by resin materials, and shall not immerse in pure oxygen environment, otherwise, it will damage the function of sensor.
- All ME sensors shall not be applied in corrosive gas environment, or the sensor will be damaged.
- Please test the sensitivity of gas sensors in clean atmosphere.
- Sensors Shall be avoided to face the gas, which flow directly from front side.
- To avoid to bend and break of pins.
- Blowhole of the sensor should not be blocked and polluted, which will cause the sensitivity decrease.
- Excessive impact or vibration should be avoided.
- Do not use the sensor when the shell is damaged.
- It takes some time for the sensor to return to normal state After applied in high concentration gas.
- Do not take apart the sensor, otherwise electrolyte leakage can cause sensor damage.
- Working electrode and reference electrode of the sensor shall be in short circuit when stored.
- To preheat over 48hs before using and soldering forbidden.

Note: To keep continual product development, we reserve right to change design features without prior notice.

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