

# keyestudio

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## MQ-8 hydrogen gas sensor



### Introduction:

The gas sensitive material used in MQ-8 gas sensor is SnO<sub>2</sub>, which is of lower electrical conductivity in clean air. When there is hydrogen in the environment where sensor resides, the electrical conductivity of the sensor increases with the increase of the hydrogen concentration in the air. The change of electrical conductivity can be converted to the output signal corresponding to that of the gas concentration by using a simple circuit. The sensitivity of MQ-8 gas sensor to hydrogen is quite high, it can also detects a variety of other gases containing hydrogen. This sensor, which is suitable for a variety of applications, is definitely a good catch.

### Feature:

- \* good sensitivity to hydrogen in a wide range of concentrations.
- \* long service life, low cost
- \* simple drive circuit

### Application:

- \* household gas leak alarm
- \* Industrial-level hydrogen alarm
- \* Portable gas detector

### Parameter:

Detectable concentration: 100-1000ppm (hydrogen)

Loop voltage  $V_c \leq 24V$  DC

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Heating voltage  $V_{H1}$ :  $5.0V \pm 0.1V$  AC or DC

Load resistance  $R_L$ : adjustable

Heating resistance  $R_{H1}$ :  $29 \pm 3 \Omega$  (Room temperature)

Heating power:  $P_H \leq 900mW$

Sensitivity  $S$ :  $R_s(\text{in air})/R_s(1000\text{ppm H}_2) \geq 5$

Output voltage  $V_s$ : 2.5-4.0V (1000ppm H<sub>2</sub>)

Concentration slope:  $\alpha \leq 0.6(R_{1000\text{ppm}}/R_{400\text{ppm H}_2})$

Temperature, humidity:  $20^\circ\text{C} \pm 2^\circ\text{C}$ ;  $55\% \pm 5\%RH$

Standard test circuit:  $V_c: 5.0V \pm 0.1V$ ;  $V_{H1}: 5.0V \pm 0.1V$