

MQ-8 Hydrogen Gas Sensor Module



This sensor module has an MQ-8 as the sensor component and has a protection resistor and an adjustable resistor on-board. The MQ-8 gas sensor is highly sensitive hydrogen and less sensitive to alcohol, and cooking fume. It could be used in gas leakage detection appliance in family and industry. The resistance of the sensor component changes as the concentration of the target gas changes.

Features

- Continuous Analog output
- 3-pin interlock connector
- Low cost and compact size

Standard Working Condition

Symbol	Parameter Name	Technical Condition	Remarks
V_C	Circuit voltage	$5V \pm 0.1$	AC or DC
V_H	Heating voltage	$5V \pm 0.1$	AC or DC
R_L	Load resistance	10Kohm	
R_H	Heater resistance	$31Kohm \pm 5\%$	Room temperature
P_H	Heating consumption	Less than 800mW	

Environment Condition

Symbol	Parameter Name	Technical Condition	Remarks
T_O	Operating Temp.	$-10^\circ\text{C} - 50^\circ\text{C}$	
T_S	Storage Temp.	$-20^\circ\text{C} - 70^\circ\text{C}$	
RH	Relative Humidity	<95%	
O_2	Oxygen Concentration	21%(standard condition) Oxygen concentration can affect sensitivity	Minimum value is 2%

Sensitivity Characteristics

Symbol	Parameter Name	Technical Condition	Remarks
R_s	Sensor Resistance	10Kohm-60Kohm (1000ppm LPG)	Detecting concentration Scope: 100- 10000ppm H ₂
α (1000ppm/4000ppm H ₂)	Concentration slope rate	≤ 0.6	
Standard detecting Condition	Temp.: 20°C±2°C VC: 5V±0.1 Humidity:65%±5% VH:5V±0.1		
Preheating Time	Over 24 hours		

Typical Application Schematics

