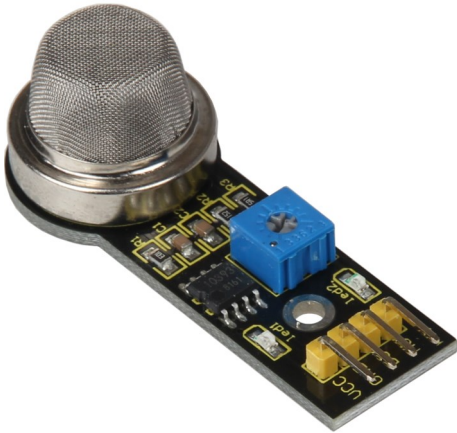# JOY-IT

SEN-MQ8

Analog hydrogen gas sensor on module

This analog gas sensor has a small heating part with an electronical chemical sensor. It is suitable for indoor usage. The sensor can output exact values only after warm-up phase.

Caution: sensor gets hot while usage!

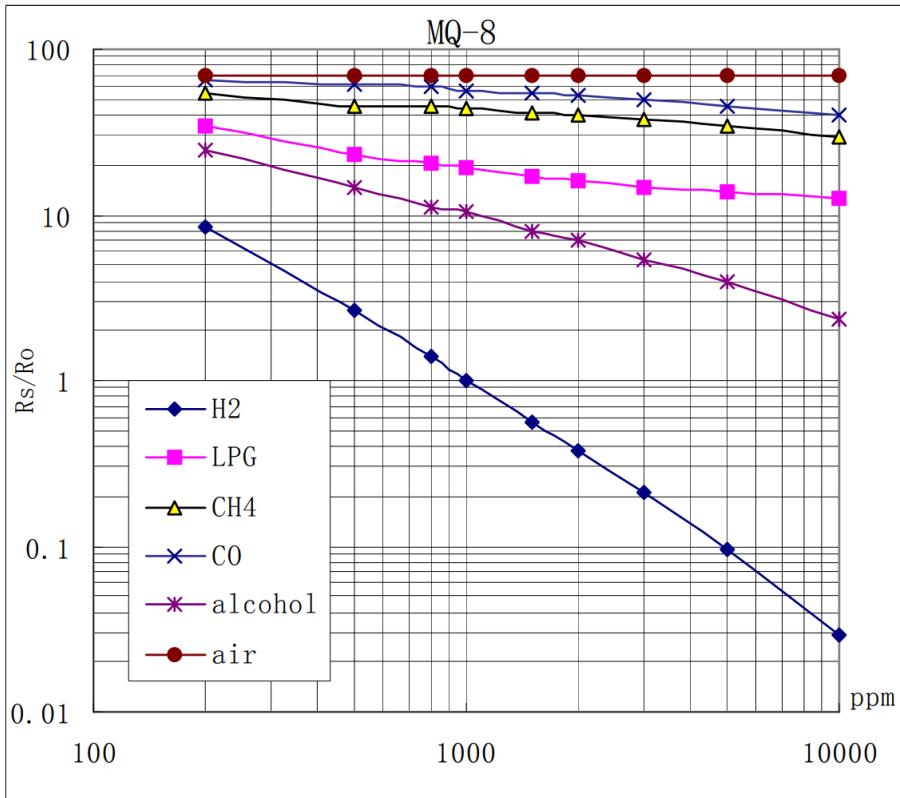| MAIN FEATURES	
Measurement range	100 - 1000 ppm
Measurable substances	Hydrogen (H2), diverse hydrogenous gases
Application areas	Detecting household gas leaks, gas alarm, robotic, microcontroller projects
Compatible with	Raspberry Pi (with AD-converter), Arduino, etc.
Special features	High sensitivity, which can be adjusted by potentiometer, for a wide range of concentrations
Dimensions	52 x 20 x 18 mm
Items delivered	SEN-MQ8

| FURTHER SPECIFICATIONS	
Analog Output	Values will be processed by microcontroller
Digital Output	Thresholds can be set
Pins:	
VCC	Voltage supply 5 V
GND	Ground
AOUT	Analog output
DOUT	Digital output
Heating voltage	5.0 V ± 0.1 V
Heating resistance	29 Ω ± 3 Ω (room temperat.)
Heating power	≤ 900 mW
Sensitivity	$Rs(\text{in air})/Rs(1000ppmH2) \geq 5$
Operation temperature	-10 - 50 °C

FURTHER DETAILS	
Article No.	SEN-MQ8
EAN:	4250236819990
Customs Tariff No.	90269000

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This shows the typical sensitivity characteristics of the MQ-8. Rs means resistance of the sensor in different gases, Ro means resistance of sensor in 1000ppm H2.
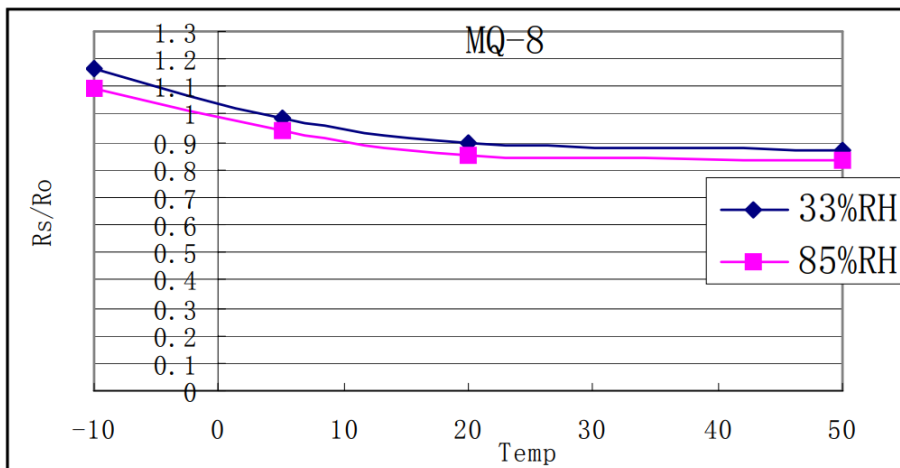
Correlation between sensor resistance(Rs) and ambient temperature and humidity

The resistance of the sensor can be calculated with the following formula:

$Rs=(Vc/VRL-1)×RL$

VC= Supply voltage; VRL= Analog pin voltage; RL= Load resistance (1k)