ADIY MQ8

Hydrogen Gas Sensor Module

Description:

This sensor module has an MQ-8 as the sensor component and has a protection resistor and an adjustable resistor on-board. A sensitive material MQ-8 Hydrogen H2 Gas Sensor Module use in clean air low conductivity tin oxide (SnO2). When there is the environment in which the combustible gas sensor, conductivity sensor with increasing concentration of combustible gases in air increases.

Using a simple circuit to convert the change in conductivity of the gas concentration corresponding to the output signal. MQ-8 hydrogen gas sensor of high sensitivity, the monitoring of the other hydrogen-containing gas is also very satisfactory.

This sensor can detect a wide range of hydrogen gas, city gas, in particular, is a low-cost sensor for a variety of applications.

Suitable for home or industrial hydrogen leakage monitoring devices. Can not interfere with ethanol vapour, soot, carbon monoxide, and other gases.

Features:

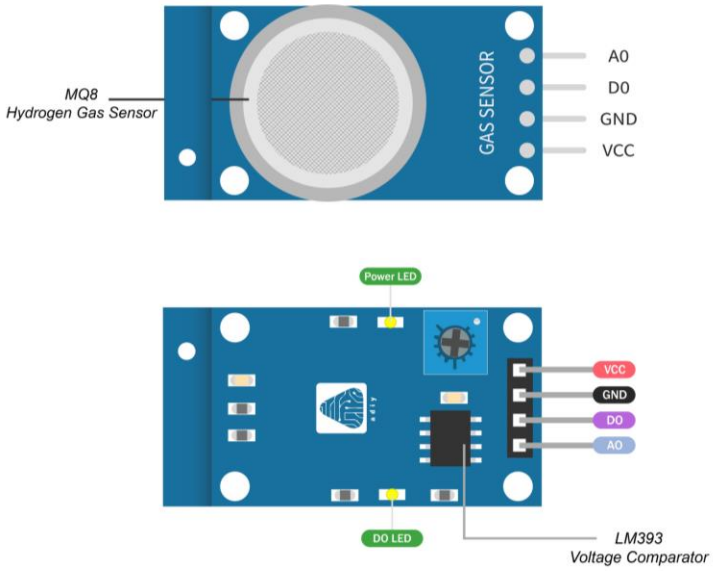
1. Using high-quality dual-panel design, with power indicator and TTL signal output instructions.
2. The switching signal having a DO (TTL) output and analog output AO.
3. TTL output valid signal is low. (Low-level signal when the output light can directly connect to the microcontroller or relay module)

4. Analog 0 ~ 5 v voltage, the higher the voltage, the concentration of the analog output voltage is higher.
5. Continuous analog output.
6. A hydrogen gas detection with good sensitivity.
7. There are four screw holes for easy positioning.
8. Has a long life and reliable stability
9. Rapid response and recovery characteristics

Specifications:

- Sensor type: Semiconductor
- Standard Encapsulation: Plastic
- Detection Gas: Carbon Monoxide
- Concentration: 10-10000ppm CO
- Operating Voltage: 5V ±0.2%
- Load Resistance: Adjustable
- Heater Resistance: 31Ω ±5%
- Heating Consumption: <350mw
- Sensing Resistance: 2K Ω - 20K Ω

Pin Configuration:



VCC: Voltage input for module

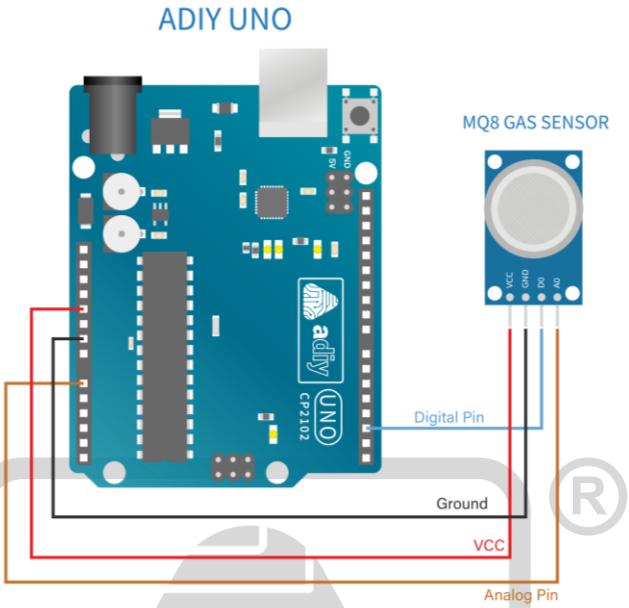
GND: Ground

DO: Digital signal output

AO: Analog signal output

How it works:

The power pins which are the VCC and ground of the sensor module are to be connected to the 5V and the Ground pin of the MCU/MPU, respectively. For the output signal, the sensor module has analog and digital output pins. The analog output pin of the sensor module is to be connected to the analog pin of the MCU whereas the digital pin of the sensor module is to be connected to a digital pin terminal on the MCU. The gas sensor module also has a potentiometer at the bottom side, to vary the sensitivity of the detection module.



Note: You should always allow some time for the sensor to pre-heat before reading the output data.

A gas sensor can detect the concentration of a specific gas in the air. Depending upon the concentration of the gas, the sensor generates a potential difference by changing the resistance of the sensing element, which can then be measured as the output voltage. MQ-8 hydrogen gas sensor consists of a sensing element which is aluminium-oxide-based ceramic, coated with tin dioxide (SnO2), enclosed in a stainless-steel mesh. In the case of any H2 in the air, the resistivity of the sensing element changes, and the change is measured to get the concentration of the gas present. MQ-8 sensor can detect H2 in the concentration range of 100-1000ppm.

Application:

- Detect leakages in the industry
- Used in mines
- Can be used in refrigerators and AC