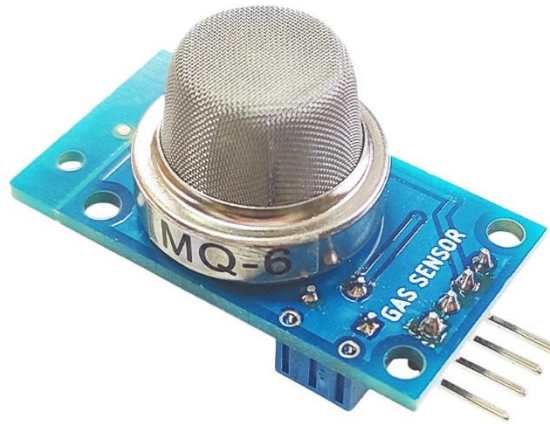


MQ-6 LPG Gas Sensor Module



Description:

The MQ-6 Gas sensor can detect or measure gases like LPG and butane. The MQ-6 sensor module comes with a Digital Pin which makes this sensor to operate even without a microcontroller and that comes in handy when you are only trying to detect one particular gas. When it comes to measuring the gas in ppm the analog pin has to be used, the analog pin also TTL driven and works on 5V and hence can be used with most common microcontrollers.

So if you are looking for a sensor to detect or measure gasses like LPG, or methane with or without a microcontroller, then this sensor might be the right choice for you.

Features:

1. High sensitivity to LPG, iso-butane, propane
2. Small sensitivity to alcohol, smoke
3. Fast response
4. Stable and long life
5. Simple drive circuit

Specification:

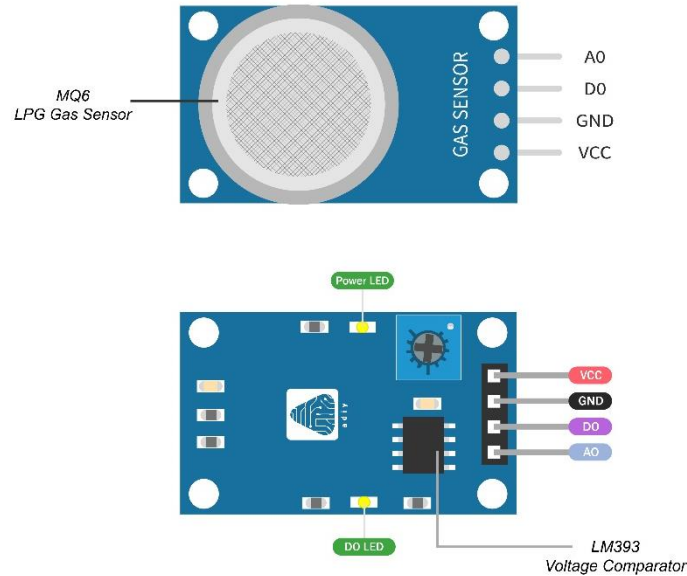
- Operating Voltage :- 5V \pm 0.1%
- Load Resistance :- 20K Ω
- Heater Resistance :- 33 Ω \pm 5%
- Heating Consumption :- <750mw
- Operating Temperature :- -10°C-50°C
- Storage Temperature :- -20°C-70°C
- Humidity :- <95% Rh
- Sensing Resistance :- 10K Ω - 60K Ω
- Detect Concentration Scope :- 200 – 10000 ppm

How to use MQ-6 Sensors to detect gas?

Using a MQ sensor it detect a gas is very easy. You can either use the digital pin or the analog pin to accomplish this. Simply power the module with 5V and you should notice the power LED on the module to glow and when no gas it detected the output LED will remain turned off meaning the digital output pin will be 0V. Remember that these sensors have to be kept on for pre-heating time (mentioned in features above) before you can actually work with it. Now, introduce the sensor to the gas you want to detect and you should see the output LED to go high along with the digital pin, if not use the potentiometer until the output gets high. Now every time your sensor gets introduced to this gas at this particular concentration the digital pin will go high (5V) else will remain low (0V).

You can also use the analog pin to achieve the same thing. Read the analog values (0-5V) using a microcontroller, this value will be directly proportional to the concentration of the gas to which the sensor detects. You can experiment with this values and check how the sensor reacts to different concentration of gas and develop your program accordingly.

Pin Configuration:



VCC: This pin powers the module, typically the operating voltage is +5V

GND: Used to connect the module to system ground

DO: You can also use this sensor to get digital output from this pin, by setting a threshold value using the potentiometer

AO: This pin outputs 0-5V analog voltage based on the intensity of the gas

Application:

- Detect or measure Gases like LPG, and butane
- Air quality monitor
- Gas leak alarm
- Safety standard maintenance
- Maintaining environment standards in hospitals