

## Introduction

---

The MQ4 is used in gas leakage detecting equipment in consumer and industry markets, this sensor is suitable for detecting CH<sub>4</sub>, Natural gas, LNG, avoid exposure to alcohol, cooking fumes, and cigarette smoke. The sensitivity can be adjusted by the potentiometer.

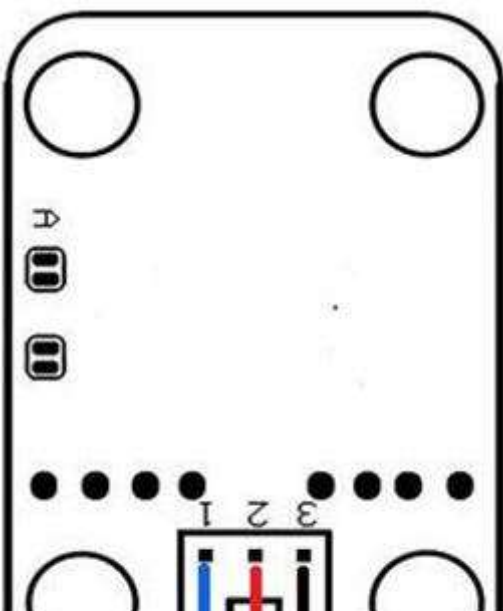
## Specification

---

- Power supply needs: 5V
- Interface type: Analog
- Pin Definition: 1-Output 2-VCC 3-GND
- High sensitivity to CH<sub>4</sub>→Natural gas
- Small sensitivity to alcohol, smoke
- Fast response
- Stable and long life
- Simple drive circuit
- Size: 40x20mm

## Pin Definition

1. Signal Output
2. Power
3. GND





Output 5V GND

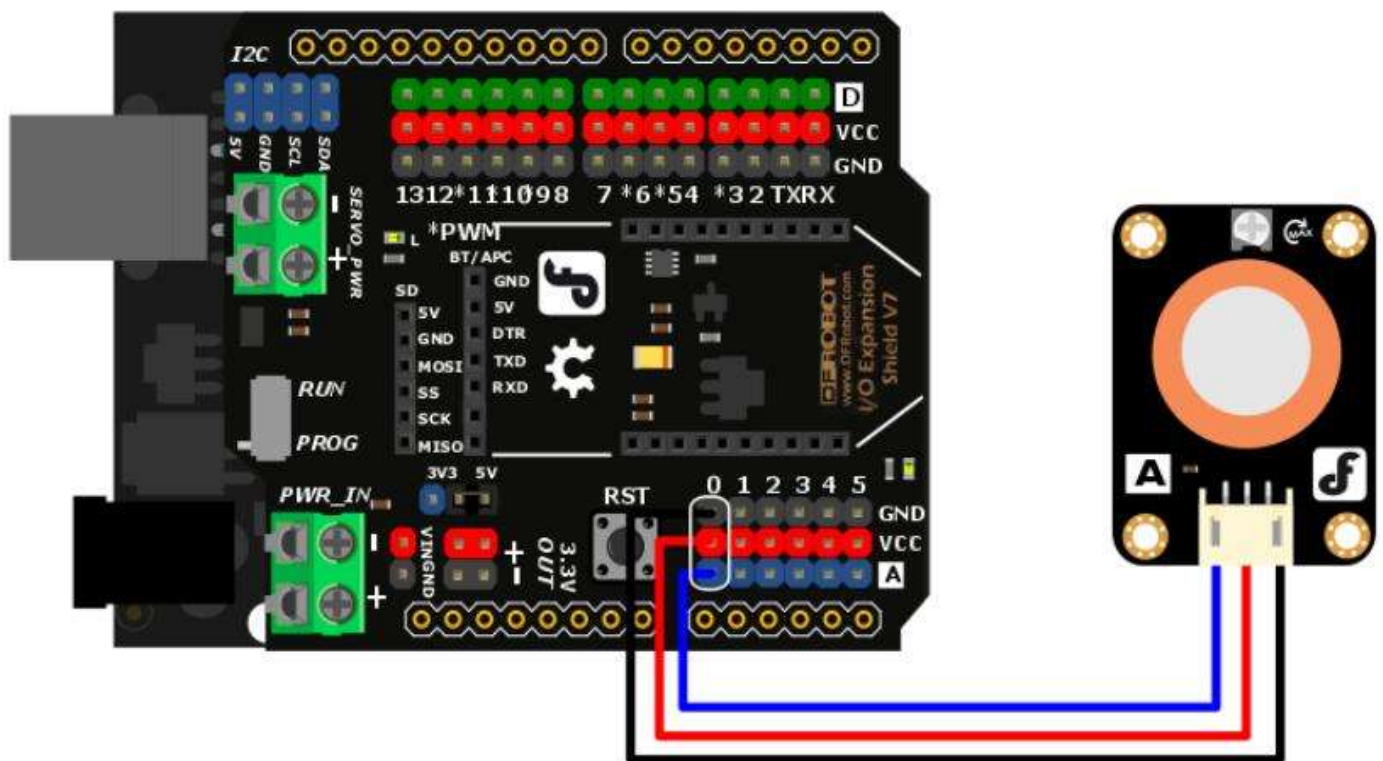
## Potentiometer

Potentiometer is used to calibrate the readings from this sensor as stated on the datasheet:

### *SENSITIVITY ADJUSTMENT*

*Resistance value of MQ-4 is difference to various kinds and various concentration gases. So, When using this components, sensitivity adjustment is very necessary. we recommend that you calibrate the detector for 5000ppm of CH<sub>4</sub> concentration in air and use value of Load resistance (RL) about 20K $\Omega$ (10K $\Omega$  to 47K $\Omega$ ). When accurately measuring, the proper alarm point for the gas detector should be determined after considering the temperature and humidity influence.*

## Connection Diagram



## Sample Code

```
///Arduino Sample Code
void setup()
{
  Serial.begin(9600); //Set serial baud rate to 9600 bps
}
void loop()
{
  int val;
  val=analogRead(0);Read Gas value from analog 0
  Serial.println(val,DEC);//Print the value to serial port
  delay(100);
}
```

## More Documents

---

 Get 3 Analog Gas Sensor(MQ4) (<https://www.dfrobot.com/product-683.html>) from DFRobot Store or **DFRobot Distributor**. (<https://www.dfrobot.com/index.php?route=information/distributorslogo>)

**Category:** [DFRobot](https://www.dfrobot.com/) > [Sensors & Modules](#) (<https://www.dfrobot.com/category-156.html>) > [Sensors](#) (<https://www.dfrobot.com/category-36.html>) > [Air Sensors](#) (<https://www.dfrobot.com/category-85.html>)

category: Product Manual (category\_\_Product\_Manual) category: DFR Series (category\_\_DFR\_Series) category: Sensors (category\_\_Sensors) category:source (category\_source) category:Diagram (category\_Diagram)

**Turn to the Top**