



Analog Gas Sensor(MQ4) (SKU:SEN0129)



Contents

- [1 Introduction](#)
 - [1.1 Specification](#)
- [2 Pin Definition](#)
- [3 Potentiometer](#)
 - [3.1 Connection Diagram](#)
 - [3.2 Sample Code](#)

Introduction

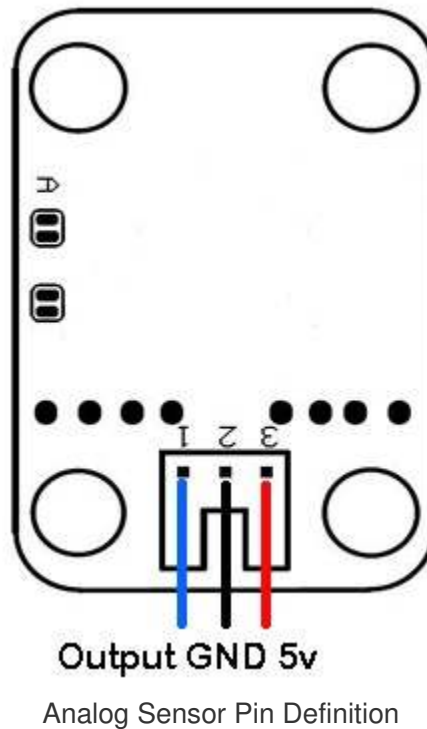
The MQ4 is used in gas leakage detecting equipment in consumer and industry markets, this sensor is suitable for detecting CH₄, Natural gas, LNG, avoid exposure to alcohol, cooking fumes, and cigarette smoke. The sensitivity can be adjusted by the potentiometer.

Specification

- Power supply needs: 5V
- Interface type: Analog
- Pin Definition: 1-Output 2-GND 3-VCC
- High sensitivity to CH₄–Natural gas
- Small sensitivity to alcohol, smoke
- Fast response
- Stable and long life
- Simple drive circuit
- Size: 40x20mm

Pin Definition

1. Signal Output
2. GND
3. Power



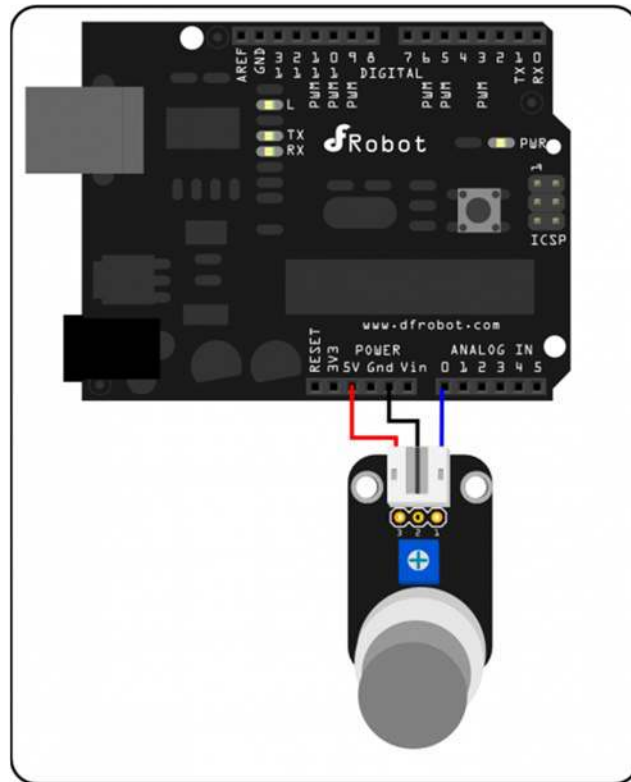
Potentiometer

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 CH₄ concentration in air and use value of Load resistance (R_L) about 20K Ω (10K Ω to 47K Ω). When accurately measuring, the proper alarm point for the gas detector should be determined after considering the temperature and humidity influence.

Connection Diagram



Analog sensor 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);  
}
```