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MQ-4 gas sensor



Introduction

MQ-4 application: it can be used in household and industrial-level gas leakage detection device to detect natural gas and methane. It is featured with wide detection range, high sensitivity, fast response and recovery time, with excellent stability, long service life and simple drive circuit.

Applicable gas: natural gas, methane

Specification

Detection range: 300 ~ 10000ppm

Characteristic gas: 5000ppm methane

Sensitivity: $R_{\text{in air}}/R_{\text{in typical gas}} \geq 5$

Resistance of sensitive material: $1K\Omega \sim 20K\Omega$ in 5000ppm methane

Response time: $\leq 10s$

Recovery time: $\leq 30s$

Heating resistance: $31\Omega \pm 3\Omega$

Heating current: $\leq 180mA$

Heating power: $\leq 900mW$

Heating voltage: $5.0V \pm 0.2V$

Measuring voltage: $\leq 24V$

Working condition of MQ-4:

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Environment temperature: $-20^{\circ}\text{C} \sim +55^{\circ}\text{C}$

Humidity: $\leq 95\% \text{RH}$

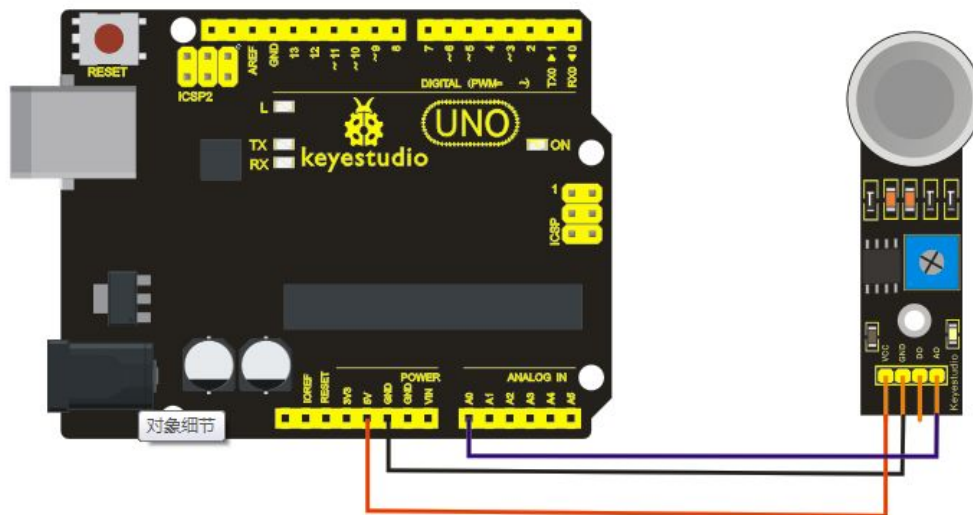
Environment oxygen content: 21%

Storage condition of MQ-4:

Temperature: $-20^{\circ}\text{C} \sim +70^{\circ}\text{C}$

Humidity: $\leq 70\% \text{RH}$

Connection diagram



Sample Code

```
///Arduino Sample Code
void setup()
{
  Serial.begin(9600); //Set serial baud rate at 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);
}
```