

ARD 2 **Arduino Compatibles**

Controllers, Shields, Modules & Sensors

Carbon Monoxide Gas Sensor ARD2-2257

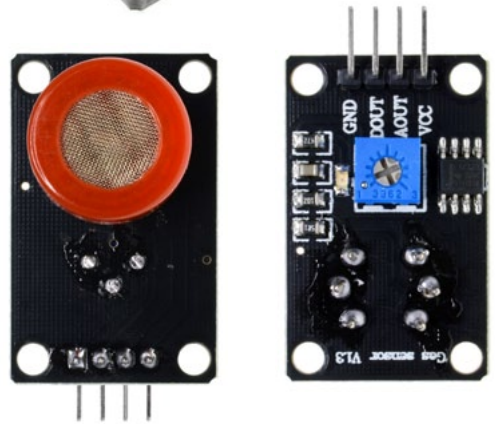
- **Based on MQ-7 gas sensor**
- **High sensitivity**
- **Stable & long life**
- **Applications in detecting CO gas for homes, cars or industrial situations**



Description

This gas sensor is highly sensitive to carbon monoxide gas, making it suitable for detecting CO leaks in homes, cars or industrial situations.

The resistance of the MQ-7 gas sensor is different for various kinds and concentrations of gases. When using this sensor it is crucial to calibrate the detector. The recommended calibration setting is 200ppm CO in the air with a load resistance (R_L) of about 10K Ω (5K Ω to 47K Ω). The alarm point for the gas detector should be determined after considering the temperature and humidity conditions.



Specifications

Operating Voltage	5V
Burn-in/Preheat time	No less than 48 hours
Stabilisation time	Approx. 3 minutes
Operating Temperature	-20 – +50°C
Storage Temperature	-20 – +50°C
Heating Voltage	High: 5V \pm 0.1; Low: 1.4V \pm 0.1
Heating Time	High: 60 \pm 1 sec.; Low: 90 \pm 1 sec.
Heating Power Consumption	Approx. 350mW
Relative Humidity	<95% RH
Detectable Concentration	20–2000ppm
Outputs	Digital & Analog
Dimensions	32mm x 22mm x 27mm
Sensing resistance (in 100ppm CO)	2–20k

Pinout

Module	Arduino	Function
VCC	5V	Power
GND	GND	Ground Connection
DOUT	D2	Digital Output
AOUT	A0	Analog Output



Test Code (Analog Output)

```
///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);
}
```

Test Code (Digital Output)

```
int gas_din=2;
int gas_ain=A0;
int ad_value;
void setup()
{
  pinMode(gas_din, INPUT);
  pinMode(gas_ain, INPUT);
  Serial.begin(9600);
}
void loop()
{
  ad_value=analogRead(gas_ain);
  if(digitalRead(gas_din)==LOW)
  {
    Serial.println("Gas leakage");
    Serial.println(ad_value);
  }
  else
  {
    Serial.println("Gas not leak");
  }
  delay(500);
}
```