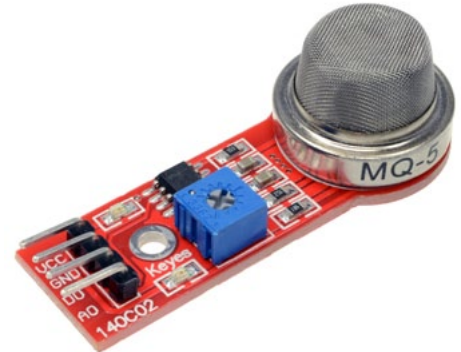# WILTRONICS

ARD 2 Arduino Compatibles
Controllers, Shields, Modules & Sensors

LPG Gas Sensor   ARD2-3040

- **High sensitivity to LPG, natural gas, town gas**
- **Small sensitivity to alcohol, smoke**
- **Fast response**
- **Stable & long life**
- **Simple drive circuit**
- **Applications include gas leakage detection without being impaired by cooking fumes, cigarette smoke or alcohol**

Description

This gas sensor is highly sensitive to LPG, natural gas & town gas without being significantly affected by cooking fumes, cigarette smoke or alcohol. This makes it well suited to gas leakage detection.

The resistance of the MQ-5 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 1000ppm H_2 or LPG concentration in the air with a load resistance (R_L) of about 20KΩ (10KΩ to 47KΩ). The alarm point for the gas detector should be determined after considering the temperature and humidity conditions.

Specifications

Operating Voltage	5V
Operating Temperature	-10−+50°C
Storage Temperature	-20−+70°C
Relative Humidity	<95% RH
Detectable Concentration	300−5000ppm
Outputs	Digital & Analog
Dimensions	51.6mm x 20mm x 17.5mm
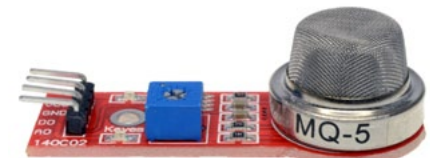
Pinout

Module	Arduino	Function
VCC	5V	Power
GND	GND	Ground Connection
DO	D2	Digital Output
AO	A0	Analog Output

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Test Code (Analog Output)

```
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);
}
```