

Combustible Gas Sensor

Used in gas leakage detecting equipments for detecting of LPG, iso-butane, propane, LNG combustible gases. The sensor does not get trigger with the noise of alcohol, cooking fumes and cigarette smoke.

Applications

- Gas leak detection system
- Fire/Safety detection system
- Gas leak alarm
- Gas detector

Features

- High sensitivity LPG, iso-butane, propane
- Small sensitivity to alcohol, smoke
- Fast response
- Wide detection range
- Stable performance and long life
- Simple drive circuit



Specification

Parameter	Value	Unit
Target Gas	iso-butane, Propane, LPG	
Detection Range	100 to 10000	ppm(part per millions)
Calibrated Gas	1000ppm iso-butane	
Sensitivity	R in air/Rin typical gas \geq 5	
Sensing Resistance	40 to 400K Ω in air	Ω Ohms
Response Time	\leq 10s	Seconds
Resume Time	\leq 30s	Seconds
Heating Resistance	31 Ω \pm 3 Ω	Ω Ohms
Heating Current	\leq 180mA	mA
Heater Voltage	5V \pm 0.2V	Volts
Heating Consumption	\leq 900mW	mW
Circuit Voltage	\leq 15V	Volts
Standard Working Condition	Temperature:-10 $^{\circ}$ C to 65 $^{\circ}$ C Humidity: \leq 95%RH	
Storage Condition	Temperature: -20 $^{\circ}$ C-70 $^{\circ}$ C Hum: \leq 70%RH	

Information

FIGURE 1 STRUCTURE & MEASURING CIRCUIT

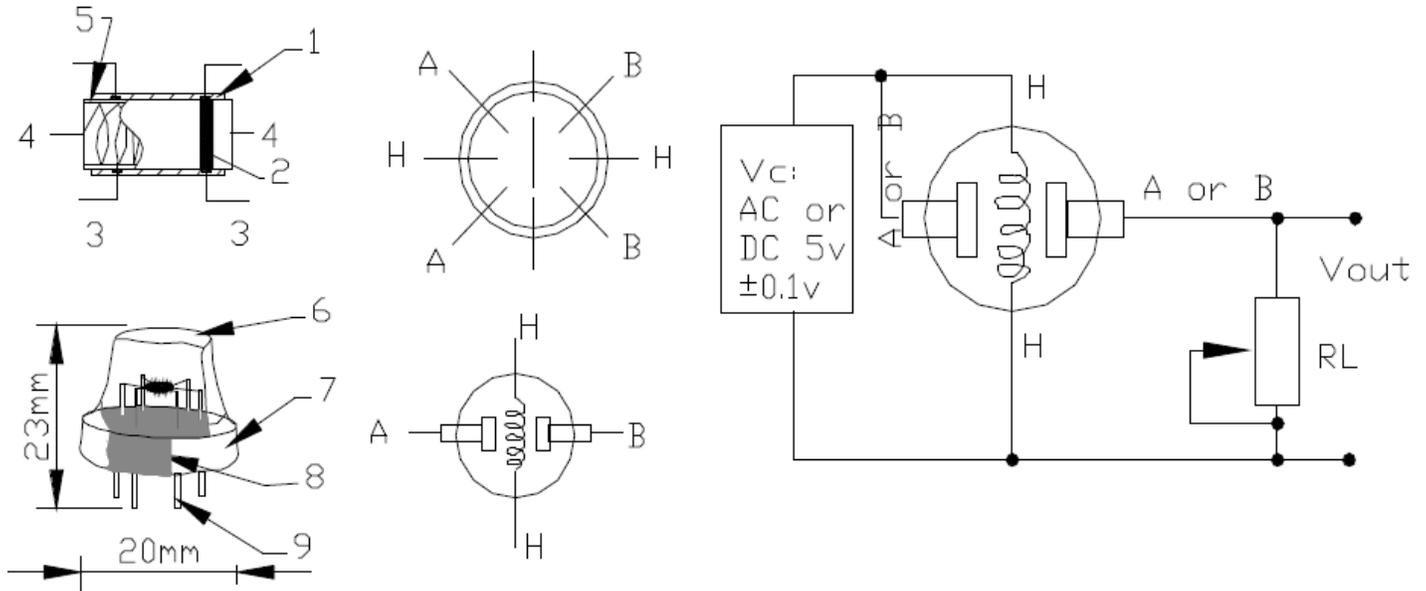
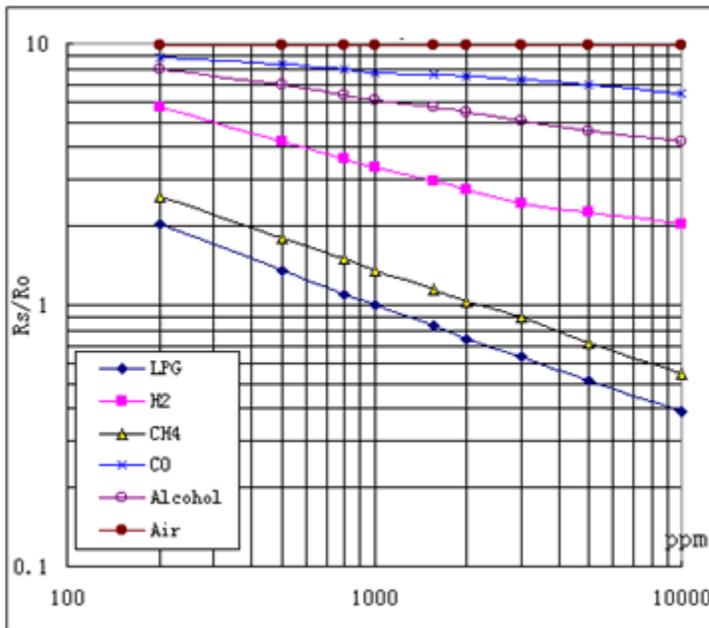


FIGURE 2 SENSITIVITY CHARACTERISTICS



Typical Sensitivity Characteristics of sensor for several gases in their

Temp: 20 deg C

Humidity: 65%

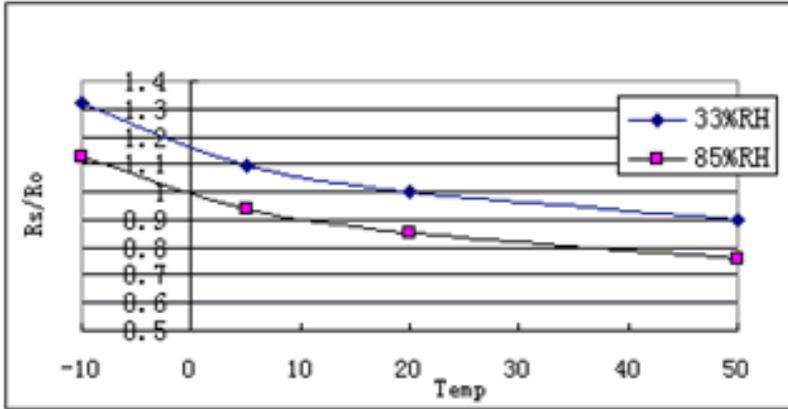
Oxygen concentration: 21%

RL = 20K Ohm

Ro = Sensor resistance at 1000 ppm of LPG in clean air

Rs = Sensor resistance at various concentrations of gases

FIGURE 3 DEPENDENCY ON TEMPERATURE AND HUMIDITY



R_o = Sensor Resistance at 1000 ppm of LPG in air at 33% RH and 20 Deg C.

R_s = Sensor Resistance at 1000 ppm of LPG in air at different temperature and humidity.

Dimensions in mm

