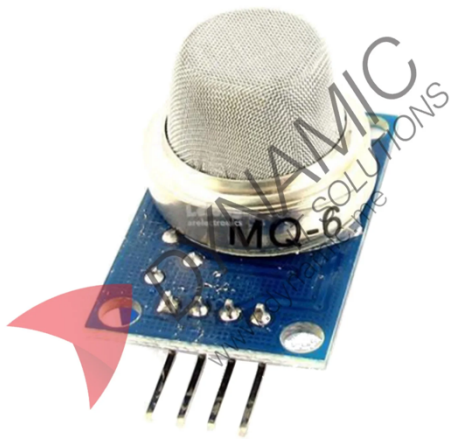


MQ-6 LPG Iso-Butane Propane Gas Sensor



Features:

The MQ-6 is a semiconductor gas sensor optimized for detecting combustible gases such as LPG, butane, and propane, with some response to natural gas as well. Its sensitive SnO₂ material changes conductivity when exposed to these gases, and this variation can be processed through a simple circuit to produce a corresponding output signal. The sensor offers high selectivity to propane and butane, stable performance, long lifespan, and ease of integration, making it ideal for household and industrial gas detection applications.

Specifications	
Model	MQ-6
Sensor Type	Semiconductor
Encapsulation	Black Bakelite
Detection Gases	LPG, butane, isobutane, propane
Concentration Range	300–10000 ppm (LPG, propane, butane)
Loop Voltage (Vc)	<= 24 V DC
Heater Voltage (Vh)	5.0 V +/- 0.2 V (AC or DC)
Load Resistance (RL)	Adjustable
Heater Resistance (Rh)	31 Ohm +/- 3 Ohm at room temperature
Heater Power Consumption	<= 900 mW
Sensing Resistance (Rs)	2 kOhm–20 kOhm (in 2000 ppm C ₃ H ₈)
Sensitivity	Rs (in air) / Rs (in 1000 ppm C ₄ H ₁₀) >= 5
Concentration Slope (alpha)	<= 0.6 (R _{2000ppm} / R _{1000ppm} LPG)
Standard Operating Temp	20 +/- 2 °C
Standard Humidity	65% +/- 5% RH
Standard Test Voltages	Vc: 5.0 V +/- 0.1 V, Vh: 5.0 V +/- 0.1 V
Preheat Time	Over 48 hours
Use Cases	Home LPG detectors, industrial propane leak alarms, portable butane gas monitors

Pinouts:

Pin Name	Type	Description
VCC	Power Input	Power supply input (5 V recommended)
GND	Power Ground	Common ground
AO	Analog Output	Analog voltage output proportional to gas concentration
DO	Digital Output	Digital signal output when gas level exceeds threshold (if comparator is present)

