

SEN-MQ4

Analog methane and CNG sensor module



This analog gas sensor has a small heating part with an electrical chemical sensor. It is suitable for indoor usage. The sensor can output exact values only after warm-up phase.

Caution: sensor gets hot while usage!



MAIN FEATURES

| | |
|-----------------------|--|
| Measurement range | 300 - 10'000 ppm |
| Measurable substances | Compressed natural gas (CNG) methane (CH ₄) |
| Application areas | Detecting gas leaks, gas alarm, robotic, microcontroller projects |
| Compatible with | Raspberry Pi (with AD-converter), Arduino. etc. |
| Special features | High sensitivity which can be adjusted by potentiometer, quick reaction time |
| Dimensions | 52 x 20 x 18 mm |
| Items delivered | SEN-MQ4 |

FURTHER SPECIFICATIONS

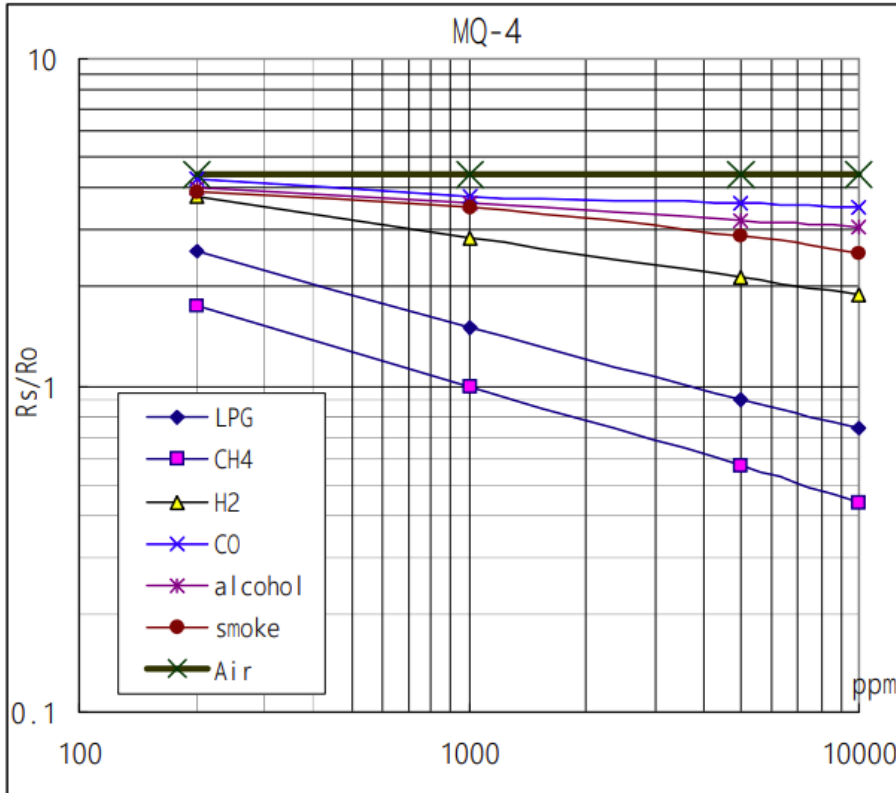
| | |
|---------------------------|--|
| Signal output | Analog measured value (evaluation by microcontroller) |
| | Digital signal (Threshold value adjustment by potentiometer) |
| Pins: | |
| VCC | Voltage supply 5 V |
| GND | Ground |
| AOUT | Analog output |
| DOUT | Digital output |
| Response time | ≤ 10 s |
| Recovery time | ≤ 30 s |
| Heating current | ≤ 180 mA |
| Heating resistance, power | 31 ± 3 Ω; ≤ 900 mW |
| Working temperature | -20 - 55 ° C |

FURTHER DETAILS

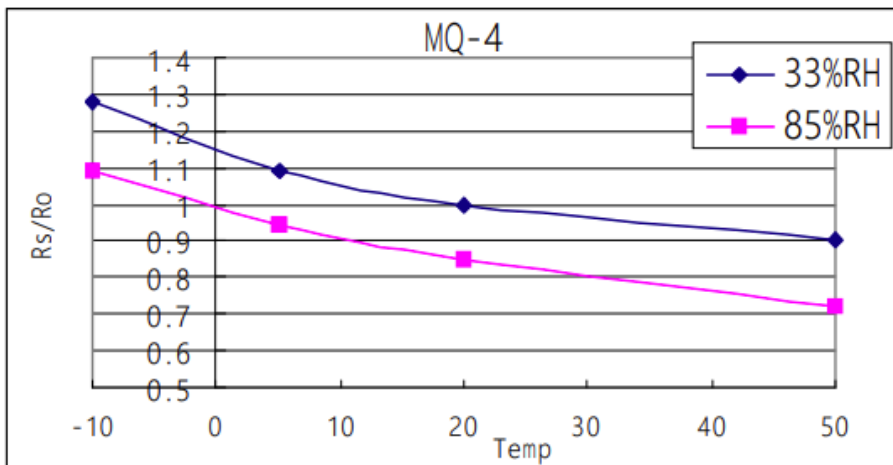
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| Article No. | SEN-MQ4 |
| EAN: | 4250236819952 |
| Customs Tariff No. | 90269000 |

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This shows the typical sensitivity characteristics of the MQ-4. Rs means resistance of the sensor in different gases, Ro means resistance of sensor in 1000ppm Methane



Correlation between sensor resistance(Rs) and ambient temperature and humidity

The resistance of the sensor can be calculated with the following formula:

$$Rs = (Vc / VRL - 1) \times RL$$

VC= Supply voltage; VRL= Analog pin voltage; RL= Load resistance (1,5k)