MQ-131 Module Ozone Gas Detection Ozone Sensor Module Air Quality Detection

Product Features

1, With signal output indicator light indication;

2, dual signal output (analog output and TTL level output);

3, TTL output effective signal is low level; (output low level when the signal lamp is on, can be connected to the microcontroller IO port);

4, analog output increases with the concentration, the higher the concentration the higher the voltage;

5, the ozone gas has a high sensitivity, (detection concentration range of 10PPB-2PPM)

6, with a long service life and reliable stability;

7, fast response recovery characteristics.

Electrical Performance

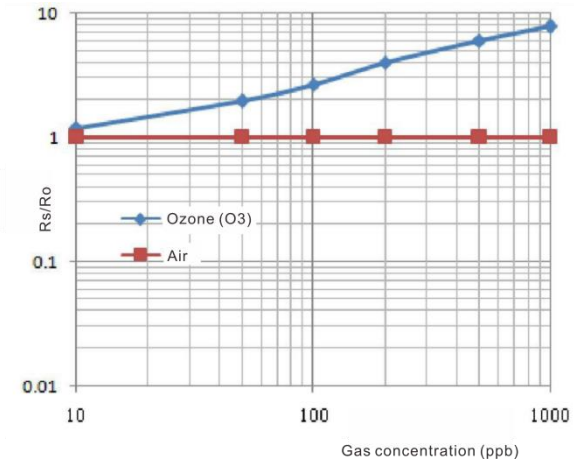
Input voltage: DC 5V

Power consumption (current): 150mA

DO output: TTL digital 0 and 1 (0.1 and 5V)

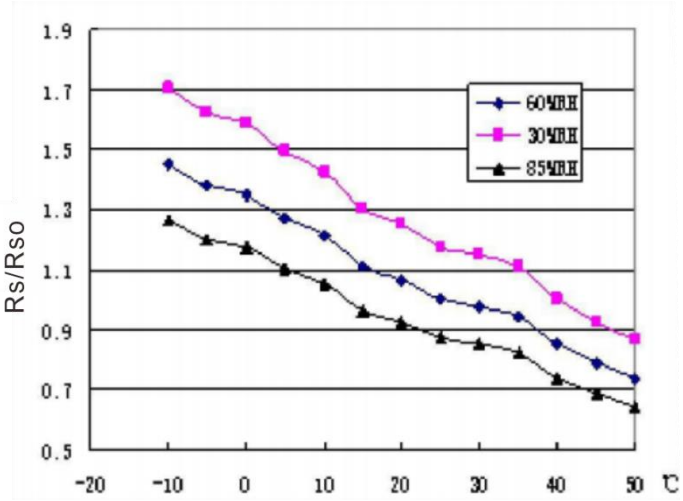
AO output: analog level signal

Sensor Characterization



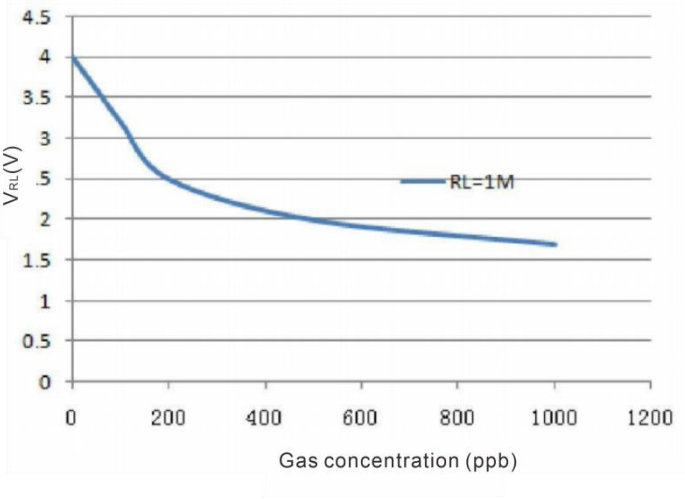
Typical Sensitivity Characterization Curves for Sensors

The vertical coordinate of the graph is the resistance ratio of the sensor (Rs/Ro) and the horizontal coordinate is the gas concentration. Rs represents the resistance of the sensor in different gas concentrations and Ro represents the resistance of the sensor in clean air. All tests in the graph were done under standard test conditions.



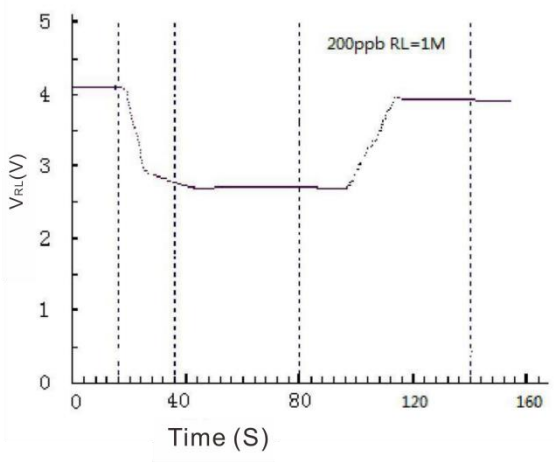
Typical temperature and humidity characteristics of the sensor

The vertical coordinate of the graph is the resistance ratio of the sensor (Rs/Rso). Rs represents the resistance value of the sensor with 200 ppb ozone and different temperatures/humidity. Rso represents the resistance of the sensor with 200 ppb ozone and 20°C/55% RH ambient conditions.



Sensitive characteristic curve

The graphs indicate the Val values corresponding to the sensor in different concentrations of ozone. The load (RL) used was 1 MQ and all tests in the figure were done under standard test conditions.



Response recovery characteristic curve

The figure represents the change in the V_{RL} value of the sensor during the process in which the sensor is first placed in the detection atmosphere and then removed from that atmosphere.