

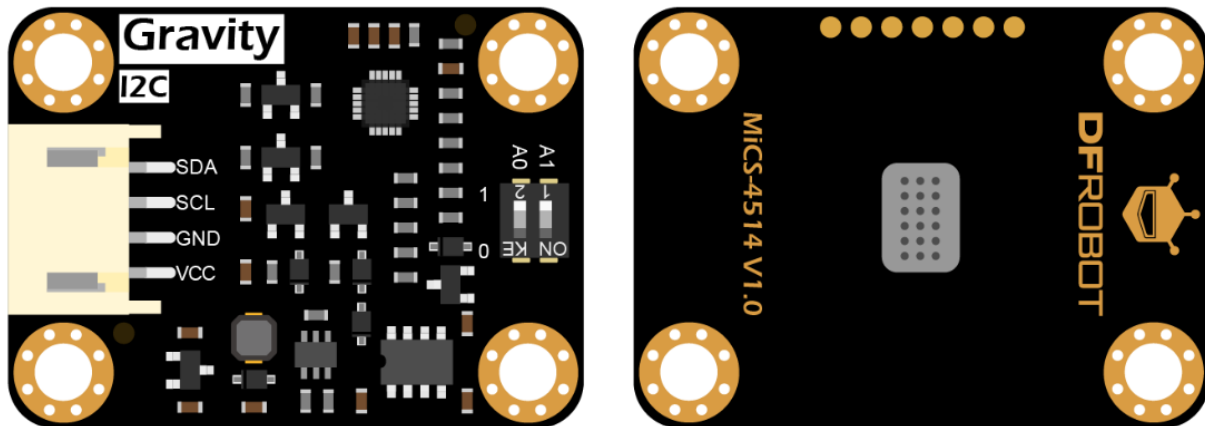
# Gravity: MEMS Gas Sensor (CO, Alcohol, NO2 & NH3) - I2C - MiCS-4514

## INTRODUCTION

This is a 3.3/5V compatible MEMS gas concentration sensor from DFRobot.

This sensor supports the detection of various gas concentrations like CO, C<sub>2</sub>H<sub>5</sub>OH (Alcohol), H<sub>2</sub>, NO<sub>2</sub>, NH<sub>3</sub>, and integrates various gas concentration conversion formulas in the code to facilitate the testing and use of sensors.

With I2C output and 3.3~5.5V wide voltage input, it is compatible with Arduino, ESP32, Raspberry Pi and other mainstream controllers.



Board Overview

## FEATURES

- Support detection of a variety of harmful gas
- Integrate the calculation formulas of various gas concentration
- Low power consumption
- I2C digital output
- Compatible with the 3.3~5.5V master controller

## APPLICATIONS

- Gas leak detection
- Gas safety equipment
- Air environment detection

## SPECIFICATION

Detection of Physical Quantities: gas concentration of CO, C<sub>2</sub>H<sub>5</sub>OH(Alcohol), H<sub>2</sub>, NO<sub>2</sub>, NH<sub>3</sub>, CH<sub>4</sub>

Operating Voltage: 3.3~5.5V DC

Power Dissipation: 0.45W(5V)

Output Signal: I2C (0~3V)

Measuring Range:

- 1 – 1000ppm (Carbon monoxide CO)
- 0.05 – 10ppm (Nitrogen dioxide NO<sub>2</sub>)
- 10 – 500ppm (Ethanol C<sub>2</sub>H<sub>5</sub>OH)
- 1 – 1000ppm (Hydrogen H<sub>2</sub>)
- 1 – 500ppm (Ammonia NH<sub>3</sub>)
- >1000ppm (Methane CH<sub>4</sub>)

Working Temperature: -30~85°C

Working Humidity: 5~95% RH(No condensation)

Storage Temperature: -40~85°C

Lifespan: >2 years (in the air)

Circuit Board Size: 27mm\* 37mm

Mounting Hole Size: inner diameter 3.1mm/ outer diameter 6mm

### SHIPPING LIST

Gravity: MEMS CO, Alcohol, NO2 & NH3 Gas Sensor x1

Gravity-4pin I2C Cable x1

