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What is XX series
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Development Boards
DFR0049 Analog Gas Sensor (QM-NG1)
DFR0100 DFRduino Beginner Kit For Arduino V3
DFR0133 X-Board
DFR0162 X-Board V2
DFR0188 Flymaple V1.1
DFR0182 Wireless GamePad V2.0
DFR0267 Bluno
DFR0282 Beetle
DFR0283 Dreamer Maple V1.0
DFR0296 Bluno Nano
DFR0302 MiniQ 2WD Plus
DFR0304 BLE Wireless Gamepad V2
DFR0305 RoMeo BLE
DFR0306 Bluno Mega 1280
DFR0321 Wido-WIFI IoT Node
DFR0323 Bluno Mega 2560
DFR0329 Bluno M3
DFR0339 Bluno Beetle
DFR0343 UHex Low power

SKU:SEN0568

Introduction

Fermion: MEMS H2S sensor employs state-of-the-art microelectromechanical system (MEMS) technology, endowing the sensor with compact dimensions (13x13x2.5mm), low power consumption (<20mA), minimal heat generation, short preheating time, and swift response recovery. The sensor can qualitatively measure the concentration of hydrogen sulfide gas, and is suitable for hydrogen sulfide detection in toilets, sewers, garbage stations and other places. The MEMS series currently encompasses 11 different types of gas sensors (HCHO, CO, CH4, VOC, NH3, H2S, EtOH, Smoke, Odor, H2, NO2), which can be combined as per specific requirements. Please note: This sensor is capable of qualitative measurements only. For quantitative measurements, kindly consider purchasing the Factory-calibrated Gas Sensor.

Precautions for use

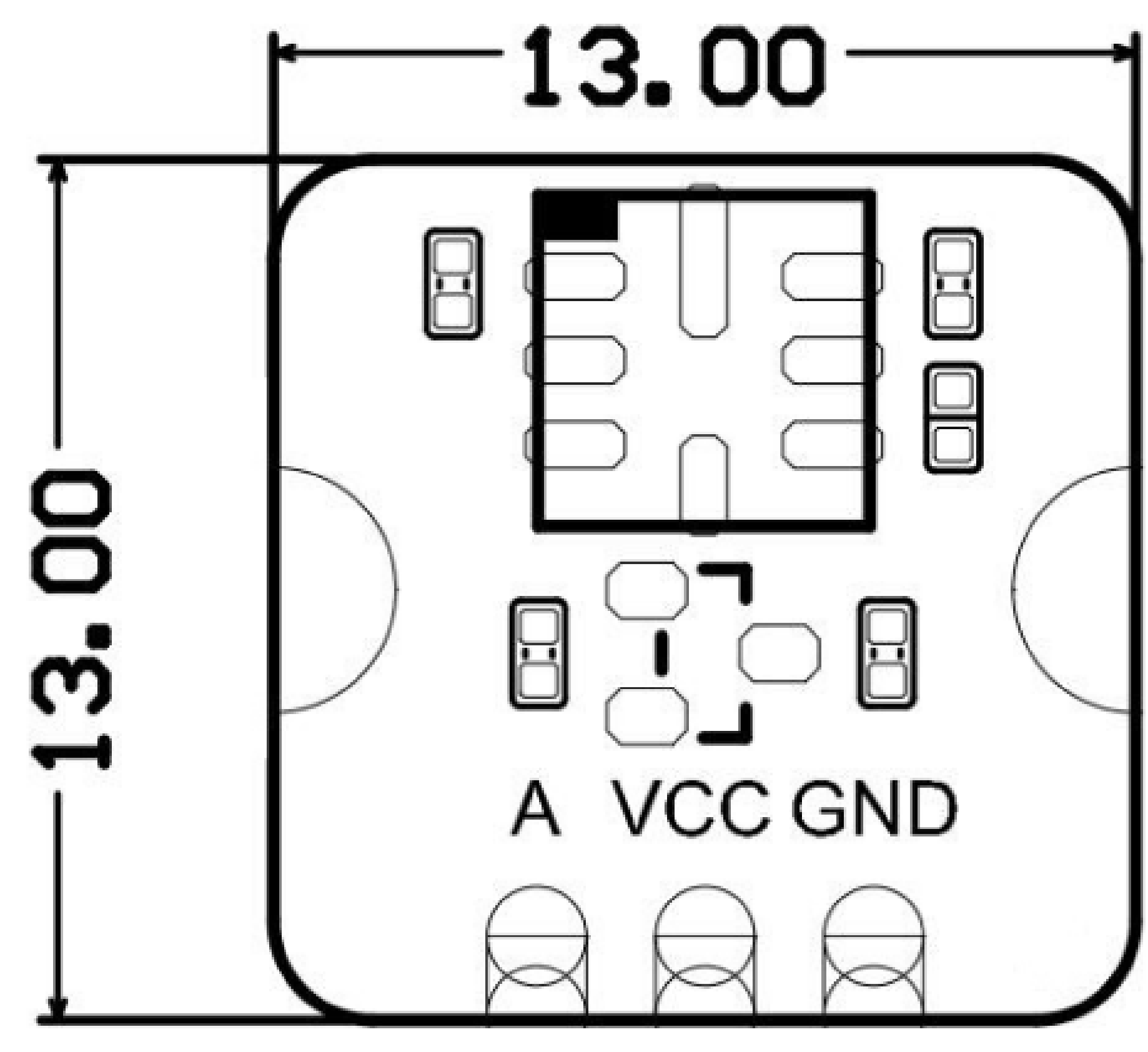
- Kindly remove the protective film before usage.
- To prevent exposure to volatile silicon compounds vapors (such as silicone adhesive, hair gel, silicone rubber, or other locations where volatile silicon compounds are present).
- Avoid exposure to high concentrations of corrosive gases (such as H2S, SOX, Cl2, HCl, etc.).
- Prevent contamination from alkalis, alkali metal salts, and halogens.
- Refrain from prolonged exposure to extreme environments (such as high temperatures, high humidity, high pollution).
- Avoid contact with water, condensation, and freezing.
- Minimize excessive vibration, impact, and dropping.
- Please refrain from employing this module in systems that involve personal safety concerns.
- For extended periods of non-usage, it is advisable to preheat the module for at least 24 hours.

Other Mems Gas Sensors

SKU	SEN0563	SEN0564	SEN0565	SEN0566	SEN0
Gas Type	HCHO	CO	CH4	VOC	NH3

SKU	SEN0569	SEN0570	SEN0571	SEN0572
Gas Type	EtOH	Smoke	Odor	H2
## Features				
- Compact size, measuring only 13*13*2.5mm				
- Low power consumption, minimal heat generation, operating current <20mA				
- High sensitivity and rapid response recovery				
- Advanced MEMS technology				

Specification



- Gas detected: H2S, Benzene, etc
- Detection range: 0.5-50ppm
- Operating voltage: 3.3-5V
- Operating current: <20mA
- Output signal: Analog voltage
- Load resistance （RL）： 4.7KΩ
- Sensitivity: R0(in air)/Rs(in 50ppm H2S) ≥ 3
- Operating temperature: -10-50℃
- Operating humidity: 15-90%RH (non-condensing)
- Lifespan: ≥5 years (in air)
- Dimension：13×13 x 2.5mm/0.0.51×0.51x0.1"

Board Overview

Num	Label	Description
1	A	Analog Voltage Output
2	VCC	+
3	GND	-

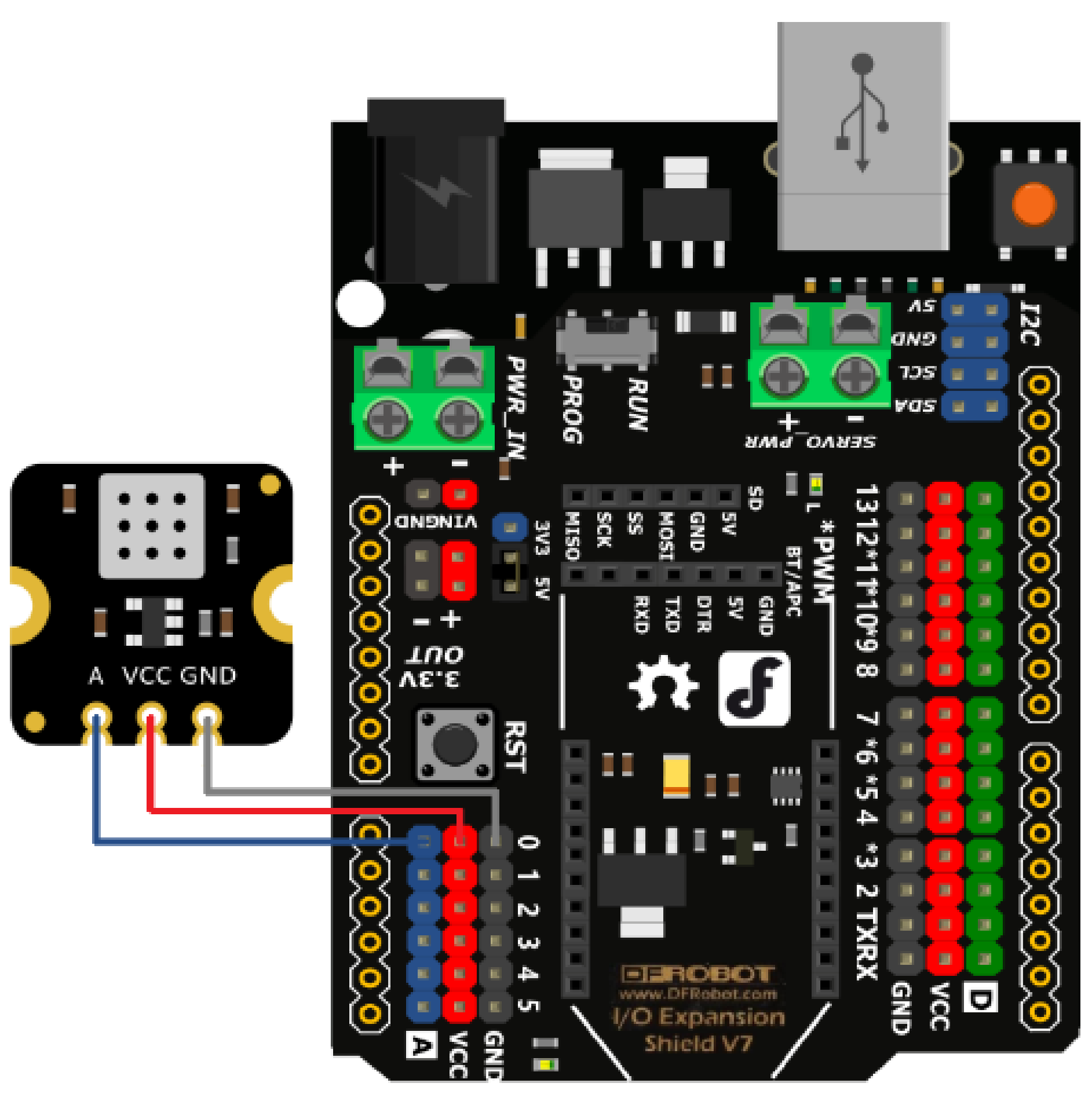
Tutorial

NOTE: The module needs to be warmed up for more than 5 minutes when powered on for the first time. It is recommended to warm up for more than 24 hours if it has not been used for a long time.

Requirements

- **Hardware**
    - DFRduino UNO R3 (or similar) x 1
    - MEMS Gas Sensor x 1
    - Jumper wires
- **Software**
    - Arduino IDE

Connection Diagram



Sample Code

1.Read the sensor raw value

```
int sensorPin = A0;
int sensorValue = 0;

void setup()
{
  Serial.begin(9600); //Set serial baud rate to 9600 bps
}

void loop()
{
  sensorValue = analogRead(sensorPin);
  Serial.println(sensorValue);
  delay(100);
}
```

Expected Results

Open the serial port monitor and get the original value of the sensor.

More Documents

- Schematics & Dimension
- Characteristic Parameter

Get **CCS811 Air Quality Sensor** from DFRobot Store or **DFRobot Distributor.**

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