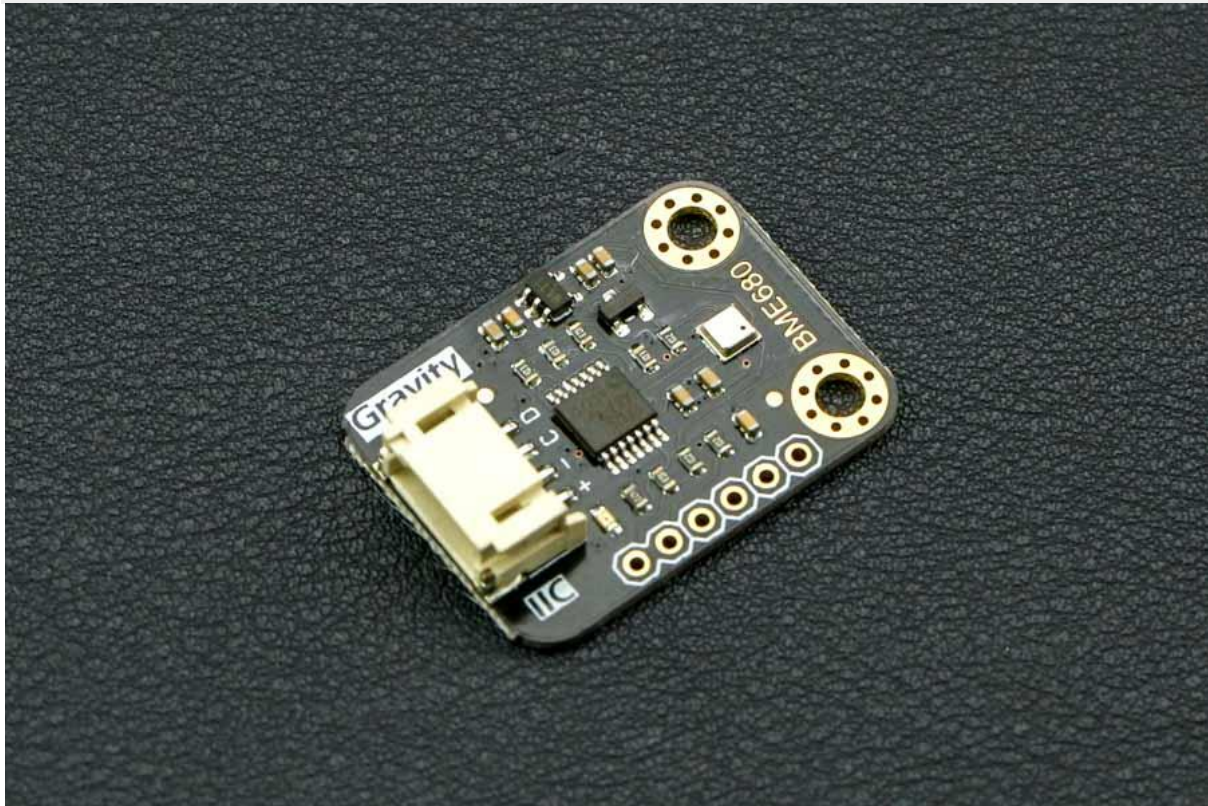




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DRIVE THE FUTURE

Gravity: I2C BME680 Environmental Sensor

SKU:SEN0248



INTRODUCTION

DFRobot BME680 Environmental Sensor is a low power gas, pressure, temperature & humidity sensor based on BOSCH BME680 sensor. It is a 4-in-1 multi-functional MEMS environmental sensor which integrates VOC (Volatile Organic Compounds) sensor, temperature sensor, humidity sensor and barometer.

With DFRobot Gravity BME680 Environmental Sensor, you can monitor 4 environmental parameters simultaneously at the most. It is designed for [air quality monitor](#), and due to the MEMS technology, BME680 has a small size and low power consumption. It can be widely used in environmental monitoring, home automation and control, [Internet of Things \(IoT\) wearable device](#), [GPS enhancement](#), etc.

DFRobot Gravity BME680 environmental sensor provides a Gravity I2C connector, plug & play, easy to connect. With onboard voltage regulator IC and level translator IC, DFRobot Gravity BME680 environmental sensor shows good compatibility. It can be directly connected to 3.3V and 5V systems. Moreover, there is also a SPI connector in reserve for further expansion projects.

With the development of industrialization, air pollution is getting worse and worse. Toxic chemical odors are even common with new furniture. These invisible killers are destroying your health day by day. You do need to concern about your health as soon as possible and DFRobot Gravity BME680 environmental sensor can help make an air quality monitor. DFRobot Gravity BME680, take good care of your health!



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FEATURES

- MEMS sensor, small size, low power consumption, high reliability
- Wide voltage input, compatible with 3.3V and 5V controller
- Highly integrated environmental sensor: temperature, humidity, barometer and VOC, four-in-one environmental parameter monitoring
 - Gravity I2C connector, plug and play, while reserving XH2.54 SPI connector for expansion
 - Small size and easy to install

APPLICATIONS

- Indoor air quality monitoring
- Weather station
- Smart home
- Internet of Things
- Wearable

SPECIFICATION

- Input Voltage: 3.3V~5.0V
- Operating Current: 5mA (25mA in VOC)
- Wiring Connector: Gravity I2C
- Connector in Reserve: SPI
- Temperature Measurement Range: -40°C~+85°C
- Temperature Measurement Precision: ±1.0°C(0~65°C)
- Humidity Measurement Range: 0-100%r.H.
- Humidity Measurement Precision: ±3%r.H.(20-80% r.H.,25°C)
- Atmospheric Pressure Measurement Range: 300-1100hPa
- Atmospheric Pressure Measurement Precision: ±0.6hPa(300-1100hPa,0~65°C)
- IAQ (Indoor Air Quality) Range: 0~500 (the larger the worse)
- Module Size: 30 × 22(mm) / 1.18 x0.87(inches)