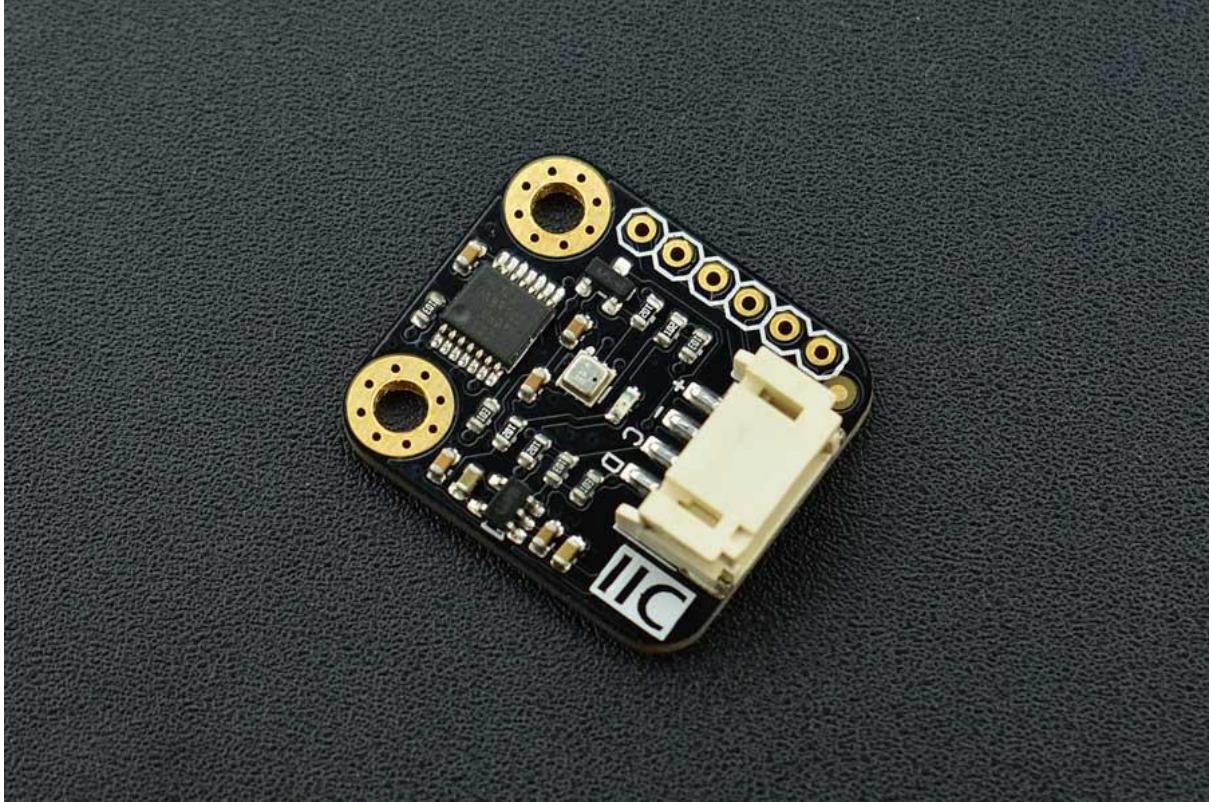




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Gravity: I2C BME280 Environmental Sensor

SKU:SEN0236



INTRODUCTION

BME280 is an environmental sensor that integrates onboard temperature sensor, humidity sensor and barometer. The sensor is of high precision, multiple functions, and small size etc. It provides both SPI and I2C interfaces, which make it easy to make a fast prototypes. It can be widely used in environmental monitoring, story height measurement and Internet of Things (IoT) control and so on.

Gravity I2C BME280 Environmental Sensor has based on BoSCH newest MEMS sensor (Micro-Electro-Mechanical System). It is very stable to compare with other kind of sensors, especially the air pressure measurement, the offset temperature coefficient is ± 1.5 Pa/K, equiv. to ± 12.6 cm at 1 °C temperature change. Therefore, the stable and multi-function make BME280 become a good choice in many scenes.

FEATURES

- Compatible with 3.3V/5V microcontrollers
- Environmental monitoring: temperature, humidity and barometer
- Gravity I2C interface and reserve XH2.54 SPI interface



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- Small size, convenient to install

APPLICATIONS

- Context awareness, e.g. skin detection, room change detection
- Home automation control (control heating, venting, air conditioning (HVAC))
- Internet of things
- GPS enhancement (e.g. time-to-first-fix improvement, dead reckoning, slope detection)
- Indoor navigation (change of floor detection, elevator detection)
- Outdoor navigation, leisure and sports applications
- Weather forecast
- Vertical velocity indication (rise/sink speed)

SPECIFICATION

- Working Voltage : 3.3V~5.0V
- Working Current : 2mA
- Working Temperature : -40°C~+85°C
- Temperature Measuring Range: -40°C~+85°C, resolution of 0.1°C, deviation of $\pm 0.5^\circ\text{C}$
- Humidity Measuring Range: 0~100%RH, resolution of 0.1%RH, deviation of $\pm 2\%$ RH
- Pressure Measuring Range: 300~1100hPa
- Humidity Sampling Time: 1s
- Dimension: 22 * 25 mm/ 0.87 * 0.98 inches
- Weight: 12g