



## Gravity BMP388 Barometric Pressure Sensors

SKU:SEN0251

### *INTRODUCTION*

This new released BMP388 barometric pressure sensor by DFRobot is equipped with the functionality of temperature and pressure measurement. It supports Arduino code control. Compared with the earlier version of BMP180, BMP280 and BMP388, this sensor exhibits lower power consumption, higher resolution and higher sampling rate.

The barometric pressure is usually used to measure barometric pressure and temperature. But besides that, we can also use the sensor to measure the altitude and the relative floor height due to the fact that there is a certain relationship between altitude and barometric pressure. What's more, BMP388 enables accurate GPS tracking. So with an IMU sensor and BMP388, we can experience 3D indoor positioning and navigation.

BMP388 is based on Bosch's mature Piezo resistive pressure sensor technology featuring high accuracy as well low power consumption and high EMC robustness.

The sensor features an accuracy of about  $\pm 8\text{Pa}$ , which is equivalent to about  $\pm 0.5\text{m}$  difference in altitude, and an absolute accuracy temperature of  $\pm 0.5^\circ\text{C}$  for a temperature range between  $0^\circ\text{C}$  and  $65^\circ\text{C}$ .

## *FEATURES*

- Low power consumption
- Low noise
- High resolution
- Small dimensions
- Best-in-class offset temperature coefficient (-20°C-65°C@700-1100hPa)

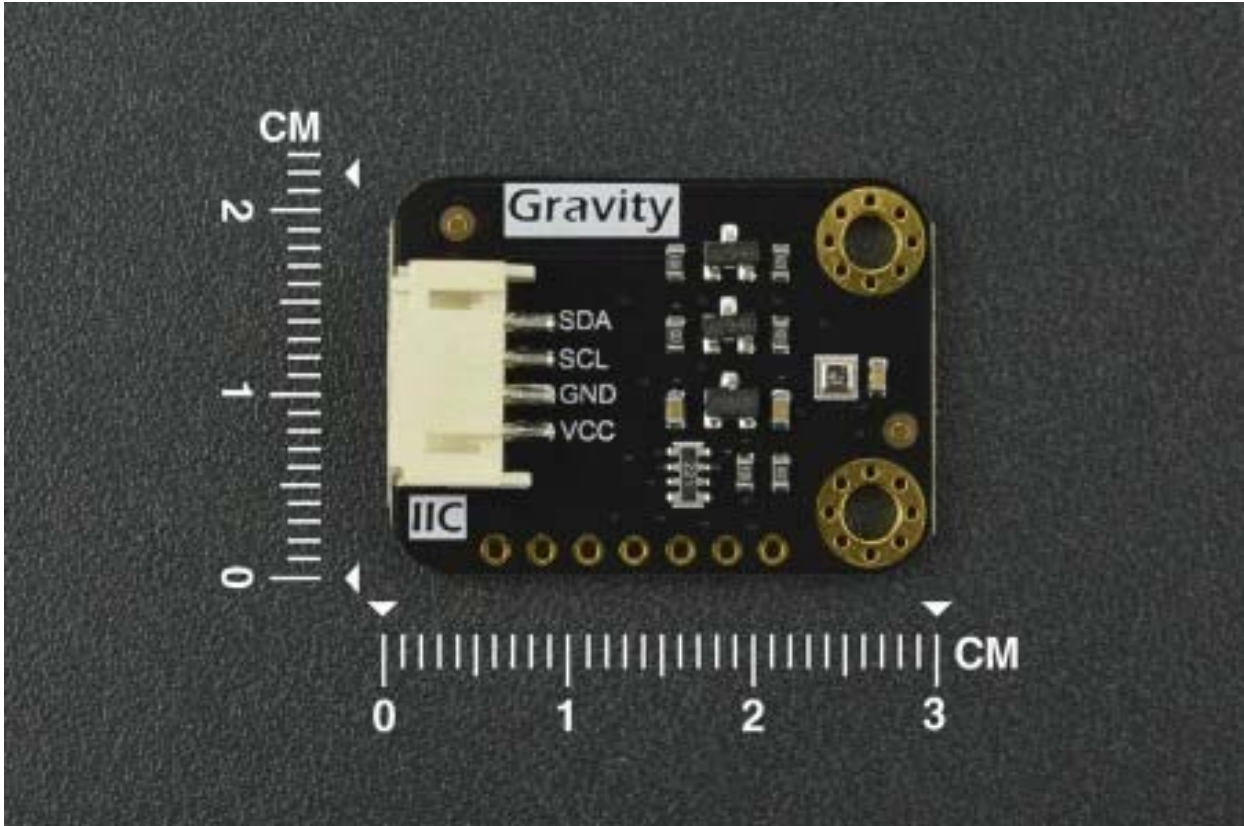
## *SPECIFICATION*

- Operating Voltage: 3.3V-5.5V
- Operating Current: 0.5mA
- Operating Range: 300-1250 hPa
- Relative Accuracy:  $\pm 8$  Pa (equivalent to  $\pm 0.50\text{m}$  @700-900hPa, 25°C-40°C)
- Absolute Accuracy:  $\pm 50$  Pa (0°C-65°C@300-1100hPa)
- Temperature Coefficient Offset:  $\pm 0.75$  Pa/K (-20°C-65°C@700-1100hPa)
- Absolute Accuracy Temperature:  $\pm 0.5^\circ\text{C}$  (@0°C-65°C)
- Operating Temperature: -40°C~80°C (more accurate in 0°C-65°C)
- External Dimension: 22mm x 30mm
- Mounting Hole Position: 15mm
- Mounting Hole Dimension: inside diameter 3mm/ outside diameter 6mm
- Interface: Gravity-IIC 4Pin or SPI (SPI is only used at 3.3V)

## *SHIPPING LIST*

- Gravity : BMP388 Barometric Pressure Sensor module      x1
- PH2.0-4P sensor cable      x1





<https://www.dfrobot.com/product-1792.html> 11-12-18