Barometric Pressure Unit

SKU:U090

Description

Barometric Pressure Unit is a barometer unit, which integrates the Bosch BMP280 pressure sensor to measure atmospheric pressure and estimate the altitude. The relative accuracy can reach ± 0.12hpa, equivalent to ± 1m height difference. At the same time, the temperature drift coefficient is very low, which can reach 1.5 PA / K, that is, the temperature drift is 12.6 cm / K. in addition, there is an integrated temperature sensor in the chip.

Product Features

- Air pressure sensor, with temperature sensor on chip, can be measure simultaneously
- The accuracy is ± 0.12hpa
- Temperature drift coefficiency 1.5pa/k
- Supports periodic measurement
- Integrated 5-segment filter
- Support low power consumption
- Development platform: Arduino, UIFlow (Blockly, Python)
- 2x LEGO™ compatible holes

Include

- 1x Barometric Pressure Unit
- 1x Grove Cable (5cm)

Application

- height detector
- Weather station

Specification

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Resources	Parameter
Air pressure measurement range	300 - 1100 hPa(+9000m ~ -500m)
Relative accuracy	0.12hPa
Absolute accuracy	1hPa
Temperature measurement range	-40 ~ +85°C
Temperature resolution	0.01°C
Pressure resolution	0.16Pa
Temperature coefficient offset	1.5 Pa/K(12.6 cm/K)

Current consumption	2.7μA @ 1 Hz sampling rate
Voltage	1.71V - 3.6V
Communication protocol	I2C：0x76
Net Weight	8g
Gross Weight	21g
Produce Size	24*24*13mm
Package Size	35*36*18mm

EasyLoader

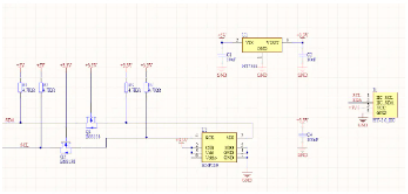
EasyLoader is a precise and fast program writer, which has a built-in case program related to the product. It can be burned to the main control by simple steps to perform a series of function verification. Please install the corresponding driver according to the device type. M5Core host Please click here to view the CP210X driver installation tutorial, M5StickC/V/T/ATOM series can be used without driver)

Related Links

Datasheet

BMP 280

Schematic



Pin Map

M5Core(GROVE A)	SCL	SDA	5V	GND
BMP Unit	GPIO22	GPIO21	5V	GND

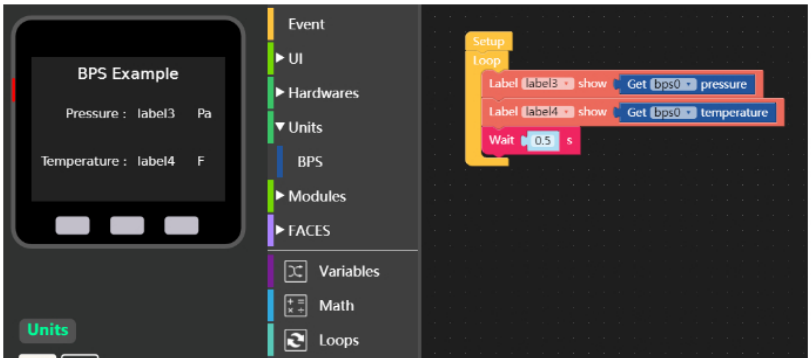
Example

1. Arduino

Click here to download the Arduino example

2. UIFlow

Click here to download the UIFlow example



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