

INDUSTRIAL PRODUCT DATASHEET

Grove - Temperature, Humidity, Pressure and Gas Sensor for Arduino - BME680

The Grove - Temperature, Humidity, Pressure and Gas Sensor for Arduino - BME680 simultaneously detects temperature, humidity, barometric pressure, and gas with high accuracy across a wide operating range for versatile...

SKU

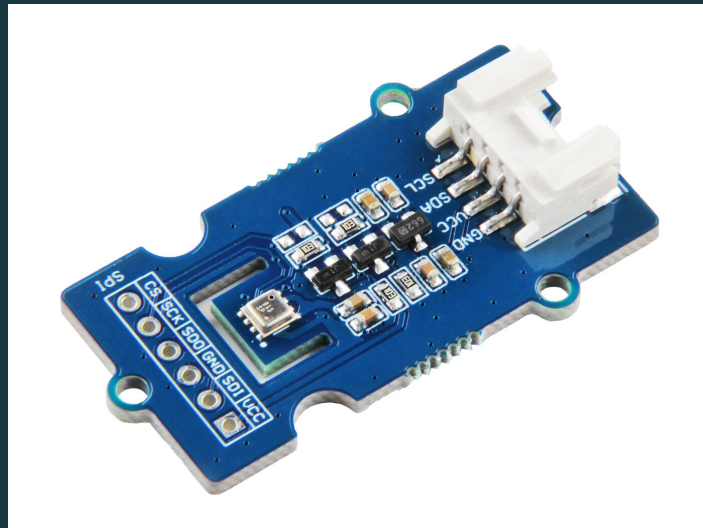
101020513

UPDATED

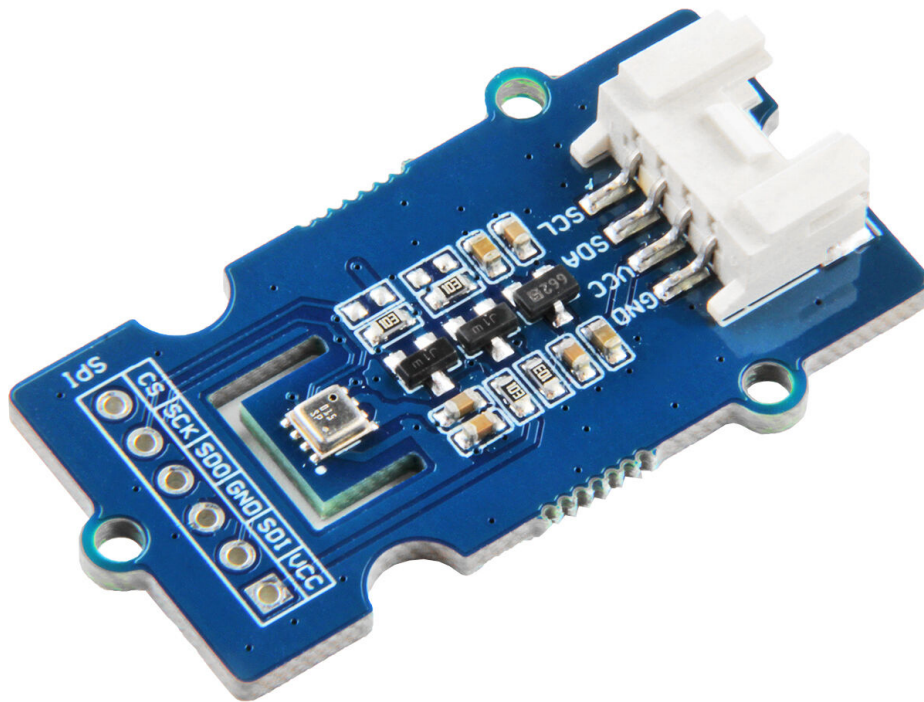
2026-04-24 02:14:27

PRICE

\$22.60(Excl. VAT)



Overview

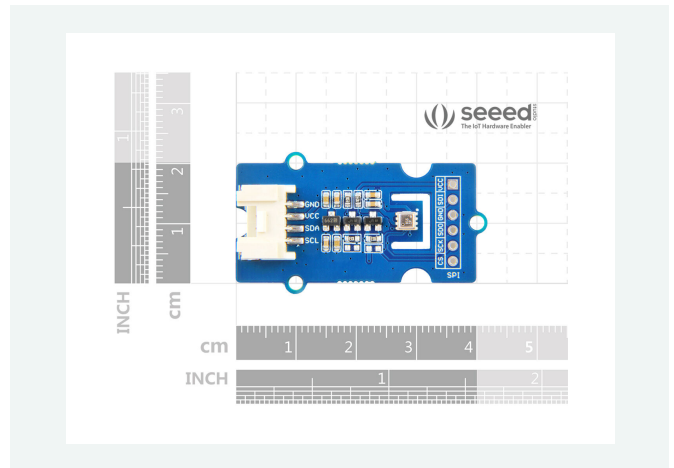
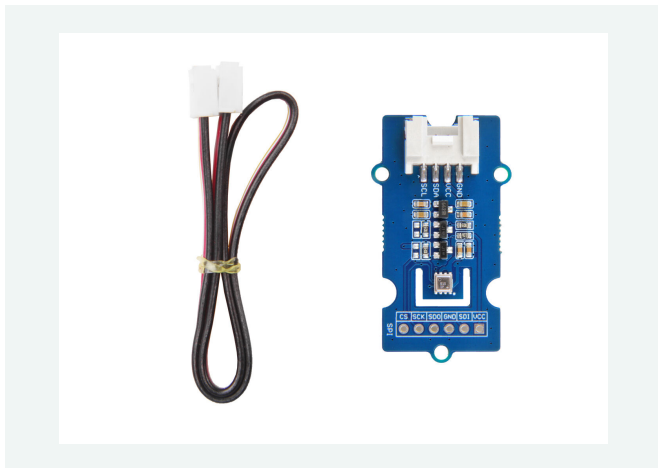
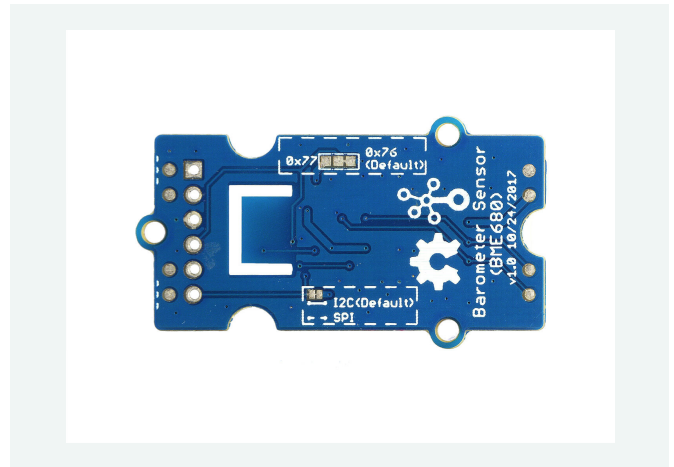
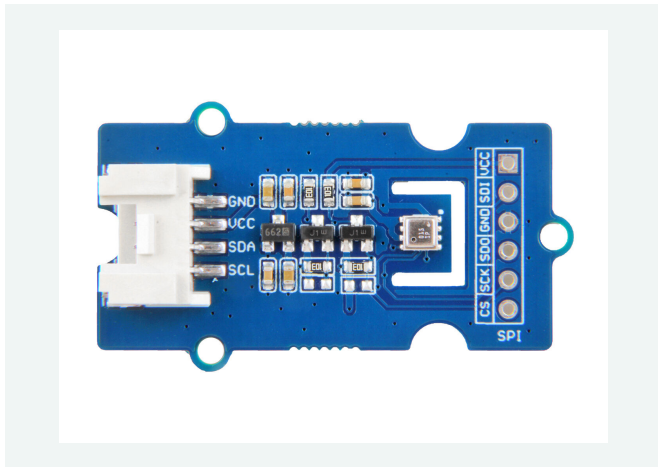


The Grove - BME680 sensor provides high-performance environmental detection with simultaneous monitoring of temperature, humidity, barometric pressure, and gas. It delivers high accuracy across a wide operating range, making it ideal for applications like indoor air quality monitoring, home automation, and IoT devices.

Key Features

- **High-performance environmental detection:** The powerful BME680 module can simultaneously detect **temperature and humidity, barometric pressure and gas**, to achieve a stronger detection effect
- **Higher measurement accuracy:** Measure humidity with **±3%** accuracy, absolute temperature (**0-65°C**) accuracy **±1°C** and absolute/relative pressure accuracy **±0.6hPa/±0.12hPa**
- **robust measurement range:** works at a wide operating range of **-40 – +85 °C, 0–100% r.H, 300–1100 hPa**
- **Safety certificate:** The product is **RoHS compliant**, halogen-free, MSL1
- **Grove unified socket:** The sensor ensures **"Plug and Play"** and could be versatile for various applications

Product Gallery



Specification

Dimensions	40mm x20mm x7mm
Weight	G.W 9.1g
Battery	Exclude
Operating Voltage	3.3V/5V
Operating Range	-40~+85°C; 0-100% r.H.; 300-1100hPa
Humidity Absolute Accuracy	± 3%r.H. (20-80 %r.H.,25°C)
Humidity Resolution	0.008 %r.H.
Pressure Absolute Accuracy	± 0.6 hPa (300-1100 hPa, 0-65°C)
Pressure Resolution	0.18 Pa
Temperature Absolute Accuracy	± 0.5°C (25°C, At,25); ± 1°C (0-65°C,At,full)
Temperature Resolution	0.01°C
Digital Interface	I ² C(up to 3.4MHZ)/SPI(3 and 4 wire,up to 10MHZ)
I ² C address	0x76(default)/ 0x77(optional)

Applications

- Indoor air quality monitor
- Home automation and control
- IoT device
- Barometer
- Weather forecast system using Arduino
- GPS enhancement(e.g. time-to-first-fix improvement, dead reckoning, slope detection)
- Indoor navigation(change of floor detection, elevator detection)
- Vertical velocity indication(rise/sink speed)

Part List

Grove - Temperature, Humidity, Pressure and Gas Sensor (BME680)	1
Grove cable	1

Compliance & Logistics



HSCODE	9025900090
USHSCODE	9025900600
UPC	841454120797
EUHSCODE	9013101000
COO	CHINA

Resource Links

- <https://www.seeedstudio.com/Grove-Temperature-Humidity-Pressure-and-Gas-Sensor-for-Arduino-BME680.html>
- [Grove-BME680 Eagle file](#)
- [Seeed BME680 Library](#)
- [Datasheet of BME680](#)

Seeed Technology Co.,Ltd.

9F, Building G3, International E City,
Zhongshanyuan Road, Nanshan, Shenzhen, China

Tel: +86 0755-80695676

Web: www.seeed.cc

Shop: www.seeedstudio.com