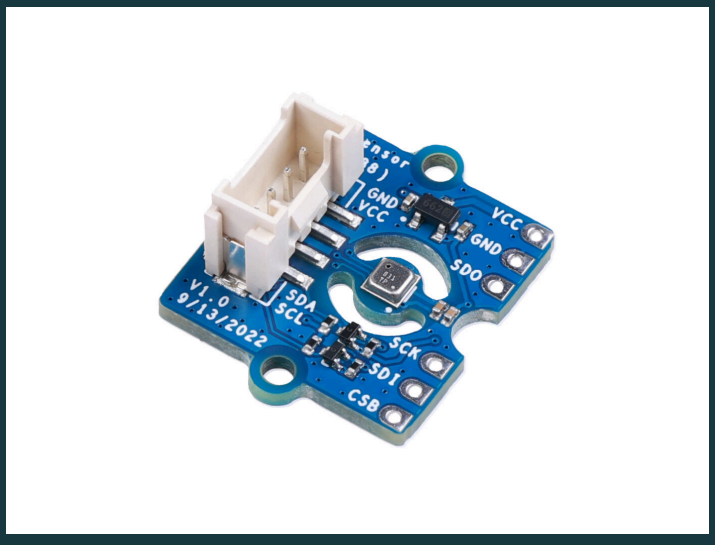
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INDUSTRIAL PRODUCT DATASHEET

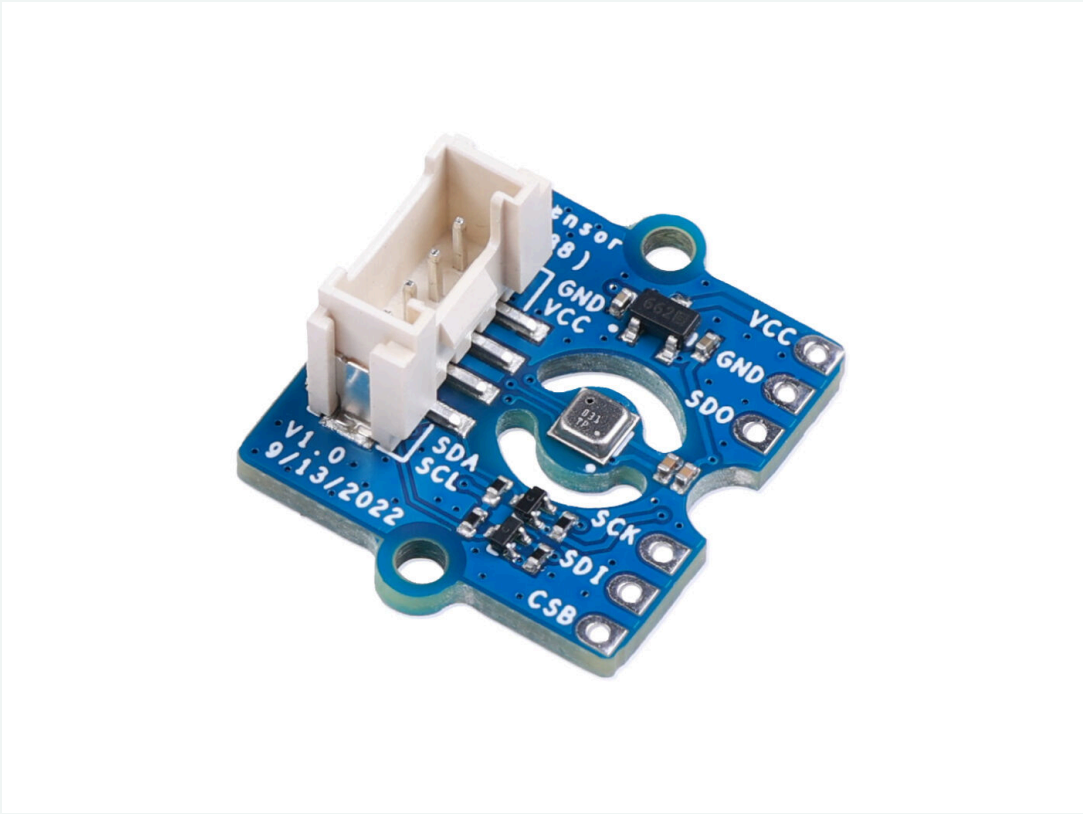
Grove - Air Quality Sensor(BME688) with built-in AI, High-Performance 4-in-1, Gas, Humidity, Pressure and Temperature sensor

BME688 is the first gas sensor with Artificial Intelligence(AI) and integrated high-linearity and high-accuracy pressure, humidity and temperature sensors which can be easily customized for specific use cases such as the detection of...

SKU	UPDATED	PRICE
114992989	2026-11-11 08:53:18	$35.00(Excl. VAT)



Overview



BME688 is the first gas sensor with Artificial Intelligence(AI) and integrated high-linearity and high-accuracy pressure, humidity and temperature sensors which can be easily customized for specific use cases such as the detection of odors & bad smells & wildfire, etc.

Key Features

01 **The first gas sensor with AI**

Trainable to detect different gas mixtures and their presence (e.g. coffee) with Bosch's AI Studio

02 **High-performance 4-in-1 environmental sensor**

Detect gas, humidity, temperature, and barometric pressure sensing in a compact size

03 **Detect a wide variety of gases**

Volatile organic compounds (VOCs), volatile sulfur compounds (VSCs), and other gases such as carbon monoxide and hydrogen in the part per billion (ppb) range

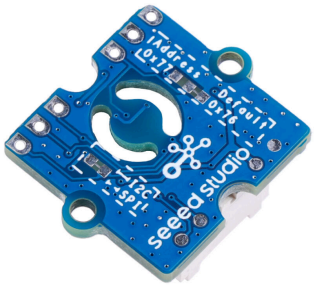
04 **High accuracy**

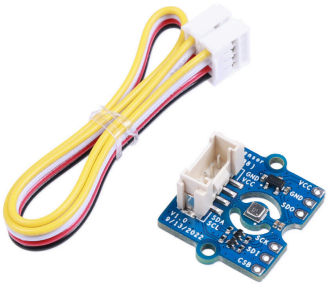
Measure humidity with ±3% accuracy, temperature with ±1.0°C accuracy, +-1C and barometric pressure with ±1 hPa absolute accuracy

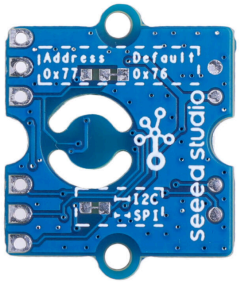
05 **Easy to use**

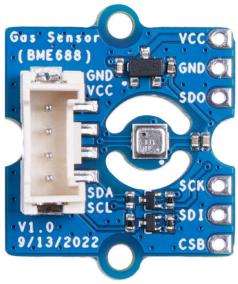
Compatible with Grove port, just plug-and-play

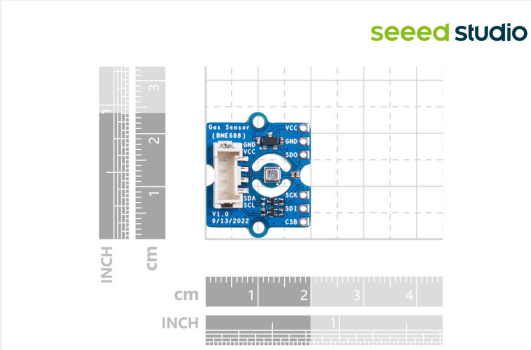
Product Gallery











Applications

- **Indoor and outdoor air quality measurement:** Bad breath or spoiled food detection based on the measurement of volatile sulfur compounds, which are an indicator of bacteria growth
- **Detection of unusual gases and smells, which might indicate for instance a leakage or fire**
- **Diaper state detection, e.g. for baby care**
- **Early detection of odors & bad smells**
- **Wildfire detection**

Resource Links

- https://www.seeedstudio.com/Grove-Gas-Sensor-BME688-p-5478.html
- Flyer
- BME688 Datasheet
- BME AI-Studio Manual
- BME688 Software tools
- C Library

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