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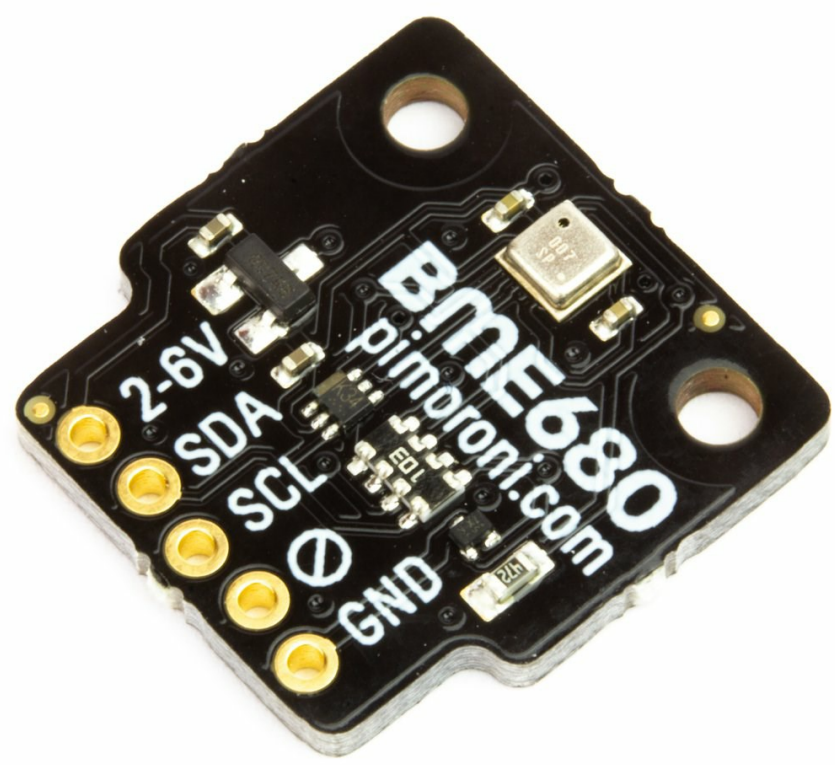
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# BME680 Breakout - Air Quality, Temperature, Pressure, Humidity Sensor

The state-of-the-art BME680 breakout lets you measure temperature, pressure, humidity, and indoor air quality, and is Raspberry Pi and Arduino-compatible! [Read more...](#)

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- BME680 Breakout - Air Quality, Temperature, Pressure, Humidity Sensor

### Essential extras

Breakout Garden HAT

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# BME680 Breakout - Air Quality, Temperature, Pressure, Humidity Sensor

The state-of-the-art BME680 breakout lets you measure temperature, pressure, humidity, and indoor air quality, and is Raspberry Pi and Arduino-compatible!

Use this breakout to monitor every aspect of your indoor environment. Its gas resistance readings will react to changes in volatile organic compounds and can be combined with humidity readings to give a measure of indoor air quality.

Want to get an idea of whether there's adequate ventilation in your bedroom, your workshop, or workplace? Set up a BME680 on a Pi Zero W and have it log sensor readings to a file, or stream live data to a web service like [adafruit.io](https://adafruit.io) or [freeboard.io](https://freeboard.io).

It's also compatible with our fancy new [Breakout Garden](#), where using breakouts is as easy just popping it into one of the six slots and starting to grow your project, create, and code.

## Features

- Bosch [BME680](#) temperature, pressure, humidity, air quality sensor
- I2C interface, with address select via ADDR solder bridge (0x76 or 0x77)
- 3.3V or 5V compatible
- Reverse polarity protection
- Raspberry Pi-compatible pinout (pins 1, 3, 5, 7, 9)
- Compatible with Raspberry Pi 3B+, 3, 2, B+, A+, Zero, and Zero W
- [Python library](#)
- [Datasheet](#)

## Kit includes

- BME680 breakout
- 1x5 male header
- 1x5 female right angle header

We've designed this breakout board so that you can solder on the piece of right angle female header and pop it straight onto the bottom left 5 pins on your Raspberry Pi's GPIO header (pins 1, 3, 5, 6, 9). The right angle header also has the advantage of positioning the breakout away from the Pi's CPU so as to minimise radiated heat.

## Software

As well as the [C library provided by Bosch](#), we've put together a [Python library](#) (with a quick and painless one-line-installer) to use with your BME680, making it straightforward to combine it with our other boards (why not use a Blink! or Unicorn pHAT to visualise air quality in real time?)

**Our software does not support Raspbian Wheezy.**

## Notes

- In our testing, we've found that the sensor requires some burn-in time (at least 20 minutes) and that readings may take a couple of minutes to stabilise after beginning measurements
- The solder pads (marked ADDR) can be bridged to change the I2C address from the default of 0x76 to 0x77, meaning that you can use up to two sensors on the same Raspberry Pi or Arduino
- Dimensions: 19x19x2.75mm (LxWxH)

## Reviews



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15 Reviews

Downloaded from [Arrow.com](https://arrow.com)

**John Cain** ★★★★★☆

Easy to set-up, but reading about 10C high after an hour stabilising , need to set an offset. Nice module though.

45 hours ago

**Neil Gascoyne** ★★★★★

Quick delivery, downloaded the Pimoroni libraries and example code and the device was working in no time. Just ensure if you're using a breadboard the connections are sound or it will throw error messages. All in all very good though.

12 days ago

**Anonymous** ★★★★★

19 days ago

**Jerry TÃÁÄŕ...** ★★★★★

Everything OK.

26 days ago

**Ben Cootes** ★★★★★☆

great chip with really fast setup, everything is very clear and soldering it

★ REVIEWS

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