

Bosch Sensortec launches high performance barometric pressure sensor BMP388 for CE drones

- ▶ Ideally suited for altitude stabilization in CE drone applications
- ▶ High accuracy, low power consumption and attractive price-performance ratio
- ▶ Ideal complement to IMU and geomagnetic sensors for a comprehensive drone sensor solution
- ▶ Bosch booth at embedded world: Hall 4A, booth 4A-542a

Nuremberg, Germany – February 27, 2018: Bosch Sensortec today introduces a new high performance barometric pressure MEMS sensor: the BMP388 is ideally suited for altitude tracking in Consumer Electronics (CE) drones, wearables, smart homes and other applications.



"Together with Bosch Sensortec's IMU and geomagnetic sensor, the BMP388 provides a comprehensive, high-quality sensor solution for drones," says Stefan Finkbeiner, CEO at Bosch Sensortec. "By providing accurate measurement of altitude, orientation and heading, Bosch MEMS sensors make flying drones much easier, safer and more rewarding."

Comprehensive drone sensor solution

The BMP388 delivers outstanding altitude stabilization in drones, where accurate measurement of barometric pressure provides the essential altitude data for improving flight stability and landing accuracy. The new barometric pressure sensor is part of Bosch Sensortec's comprehensive sensor solution for drones, which includes the [BMI088](#) Inertial Measurement Unit (IMU) for accurate steering and the [BMM150](#) geomagnetic sensor for the provision of heading data.

The recently-announced [BMI088](#) is a 6-axis IMU, consisting of a triaxial 16-bit acceleration sensor with excellent performance and a triaxial automotive-proven 16-bit gyroscope. Drones can take full advantage of the IMU's superior vibration suppression and robustness and unmatched stability in dynamic conditions such as sudden temperature fluctuations. The [BMM150](#) is a low power and low noise triaxial digital geomagnetic sensor designed for compass applications. Due to its stable performance over a wide temperature range, this geomagnetic sensor is especially suited for determining accurate heading for drones.

Altitude stabilization for wearables and smart home applications

In addition to drones, the BMP388 provides a very flexible, one-size-fits-all solution for increasing the accuracy of navigation and fitness applications in wearables and smart homes, for example by utilizing altitude data to improve GPS precision or to determine floor levels inside buildings. It can also improve the precision of calorie counting in wearables and mobile devices, for example by identifying if a person is walking uphill or downhill when using a step counter.



Simple to use and highly accurate

With an excellent temperature coefficient offset (TCO) of 0.75 Pa/K between -20°C to 65°C, the BMP388 further improves the accuracy of altitude measurement over a wide temperature range. The new sensor provides an attractive price-performance ratio coupled with low power consumption and a high level of design flexibility – combined in a compact LGA package measuring only 2.0 x 2.0 x 0.75 mm³.

FIFO and interrupt functionality provide simple access to data and storage. This enables power consumption to be reduced to only 2.7 µA at 1 Hz during full operation, while simultaneously making the sensor easier to use. Tests in real-life environments have proven a relative accuracy of +/-0.08 hPa (+/- 0.66 m) over a temperature range from 25°C to 40°C. The absolute accuracy between 900 and 1100 hPa is +/- 0.40 hPa over a temperature range from 25°C to 40°C.

Availability:

The BMP388 will be available worldwide for [Bosch Sensortec's distributors](#) in March 2018.

Bosch at embedded world 2018

For further information, please check out the [Bosch Sensortec website](#) or visit us at embedded world: Hall 4A, [booth 4A-542a](#).

Bosch Sensortec GmbH, a fully owned subsidiary of Robert Bosch GmbH, develops and markets a wide portfolio of microelectromechanical systems (MEMS) sensors and solutions tailored for smartphones, tablets, wearable devices and IoT (Internet of Things) applications. The product portfolio includes 3-axis acceleration, gyroscope and geomagnetic sensors, integrated 6- and 9-axis sensors, environmental sensors, optical microsystems and a comprehensive software portfolio. Since its foundation in 2005, Bosch Sensortec has emerged as the MEMS technology leader in the markets it addresses. Bosch has been both a pioneer and a global market leader in the MEMS sensor segment since 1995 and has, to date, sold more than 9.5 billion MEMS sensors. More than every second smartphone worldwide uses a Bosch Sensortec sensor. For more information, please visit www.bosch-sensortec.com, twitter.com/boschMEMS