

Omron release two new Barometric Sensors for battery operated mobile devices

Hoofddorp, Netherlands, Wednesday, 23 August 2017 – Two new MEMS-based barometric pressure sensors from Omron Electronic Components Europe are specifically designed to support height and pressure measurement in drones, smartphones, pedometers and other battery powered mobile systems. The new Omron 2SMPB-02B and 2SMPB-02E sensors provide stable and reliable height and pressure measurements, allowing changes in elevation of as little as 2m to be reliably recorded.

Developed as an evolution of the successful blood pressure gauge, the new sensors have been specifically remodelled for mobile applications and are smaller at just 2.0 x 2.5 x 0.85mm in size. Due to innovations in the production process and Omron MEMS technology, the devices are very competitively priced.

The new barometric sensors measure pressure with high accuracy based on the built-in low noise 24bit ADC and feature digital control and output via I2C / SPI interfaces. Both automatically power down non-working circuits to minimise the power consumption. Individual calibration parameters are stored in One Time Programmable-ROM (OTP), and are retained when the system is powered down. An integrated temperature compensation circuit helps ensure accurate absolute pressure measurements.

Commenting, Gabriele Fulco, Omron Sensors Product Manager for Europe, said “These easy to use sensors are perfect for the growing variety of wearable, handheld and mobile battery powered applications and have low power consumption making them optimal for smart phones, tablets, pedometers and drones.” He continued, “Usually MEMS sensors are affected by assembly stress, but because these sensors have a ceramic substrate and a metal lid, there is much lower parameter shift during assembly.”

Both sensors are configured to measure the pressure of air between 30kPa and 110kPa. Maximum pressure is 800kPa and the sensors can be used at temperatures of -40 up to 85 Celsius without condensation or icing. The sensors have a pin layout that is compatible with alternative solutions on the market, simplifying integration.

2SMPB-02E matches the features and performance of the 2SMPB-02B but offers a better level of accuracy down to +/-50Pa. The -02B version is +/-100Pa.

Applications are extensive and include wearables, tablets, smart phones, drones, altitude meters, car navigation and floor detection

Photo caption: Omron’s 2SMPB-02B & 2SMPB-02E Barometric Sensors for battery operated mobile devices

About Omron

Omron Electronic Components Europe is a leader in electromechanical PCB relays, as well as a leading supplier of components such as micro switches, MOSFET relays, DIP switches, photomicrosensors and connectors. Omron has a strong portfolio of innovative technologies including MEMS based pressure, flow and thermal measurement sensors, human face and gesture recognition modules, vibration and tilt sensors.

Omron Electronic Components Europe strongly supports its customers in Western and Eastern Europe, Russia and the CIS through 8 regional offices, a network of local offices and partnerships with specialist, local, regional and global distributors.

Omron Electronic Components Europe is a subsidiary of the Omron Corporation, recognised worldwide as a leader of high quality, high technology electrical and electronic control equipment and component products.

Please send reader enquiries to:

Marketing Support Group

Omron Electronics Components B.V.

Wegalaan 57, 2132 JD, Hoofddorp, The Netherlands

Tel: +31 235 681 296, Fax: +31 235 681 222

Email: info-components@eu.omron.com

Web: <http://components.omron.eu>