Epson Toyocom develops new absolute pressure sensor

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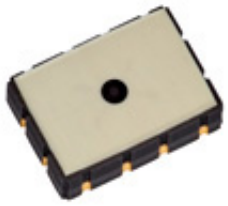

Japanese Epson Toyocom Corp. today announced it has developed an extremely small absolute pressure sensor that provides excellent accuracy and resolution.

Samples of the new sensor (model name: XP-6000CA) will become available in October 2010.

Epson Toyocom develops and sells high-performance quartz pressure sensors for a variety of applications. The company's sensors are used in, for example, manufacturing equipment where highly accurate pressure measurements are needed, and in measuring instruments that calculate the water level of rivers or the water level behind dams based on water pressure. Epson Toyocom has steadily miniaturized its quartz pressure sensors to the point where they are compact enough for use in mobile

devices - and has done so without sacrificing accuracy or resolution.

The XP-6000CA employs an innovative new QMEMS pressure-sensing structure that allows the sensor to squeeze into a tiny 7.0 x 5.0 x 2.0t mm package yet still provides excellent total pressure accuracy (±30 Pa) and high resolution (0.3 Pa).

In addition to offering high accuracy and high resolution, the XP-6000CA sensor provides stable output even under varying external temperatures and environmental conditions because the sensor element is made of highly stable quartz crystal.

The new sensor's pressure measurements are resistant to the effects of noise because it uses frequency counting, a principle based on crystal measurement technology, to measure pressure.

The XP-6000CA has a resolution of 0.3 Pa. Since atmospheric pressure changes by about 0.1 Pa with each 1-cm change in altitude, a 0.3-Pa change in atmospheric pressure is equivalent to about a 3-cm change in altitude. The XP-6000CA is thus capable of sensing the equivalent of an approximately 3-cm change in altitude. The ability to sense such slight changes in pressure/altitude in a package size so small enables the XP-6000CA to be integrated into applications that require very fine altitude readings in mobile gear such as activity meters and personal navigation devices.

The new sensor can also help make industrial pressure measurement equipment smaller and more space efficient.

Provided by Epson Toyocom