Sensors **September 19, 2019**

Versatile ultrasonic disks

TDK Corporation presents a new series of ceramic-based EPCOS ultrasonic sensor disks, comprising two standard types. The B59050Z0206A030 sensor disk has a diameter of 5.0 mm and thickness of 1.02 mm. With a serial resonance frequency of 2000 kHz it features thickness oscillation mode (axial), making is suitable for use in liquid media. The B59070Z0285D12* has a diameter of 7.0 mm and a thickness of 0.195 mm. It offers a radial mode of oscillation at 285 kHz, and is suitable for operation in air.

The RoHS-compatible sensor disks are suitable for a variety of applications. In automotive electronics, for example, they can be used in park assist or blind spot monitoring systems, level sensing for fuel or SCR tanks, as well as interior monitoring for anti-theft systems. In industrial electronics applications the sensor disks permit the flow metering of fluids or gases, and the level sensing of fluids or bulk materials. The sensor disks are also suitable for collision avoidance systems in automated guided vehicles. Apart from the standard types, application-specific versions can also be manufactured.

Main applications

- Automotive: Park assist and blind spot monitoring systems, level measurement, interior monitoring
- Industrial: Flow metering, level sensing, collision avoidance systems

Main features and benefits

- Disk diameters of 5 mm and 7 mm
- Serial resonance frequencies of 285 kHz and 2000 kHz
- Application-specific versions possible

Key data

Type	Serial resonance frequency [kHz]	Capacitance [pF]	Diameter [mm]	Thickness [mm]
B59050Z0206A030	2000	300	5,0	1,02
B59070Z0285D12*	285	2000	7,0	0,195