

## Sensors

### Versatile ultrasonic disks

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TDK Corporation (TSE:6762) 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 it 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.

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#### 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          |

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## About TDK Corporation

TDK Corporation is a leading electronics company based in Tokyo, Japan. It was established in 1935 to commercialize ferrite, a key material in electronic and magnetic products. TDK's comprehensive portfolio features passive components such as ceramic, aluminum electrolytic and film capacitors, as well as magnetics, high-frequency, and piezo and protection devices. The product spectrum also includes sensors and sensor systems such as temperature and pressure, magnetic, and MEMS sensors. In addition, TDK provides power supplies and energy devices, magnetic heads and more. These products are marketed under the product brands TDK, EPCOS, InvenSense, Micronas, Tronics and TDK-Lambda. TDK focuses on demanding markets in the areas of information and communication technology and automotive, industrial and consumer electronics. The company has a network of design and manufacturing locations and sales offices in Asia, Europe, and in North and South America. In fiscal 2019, TDK posted total sales of USD 12.5 billion and employed about 105,000 people worldwide.

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