

Exhibitions

TDK unifies its sensor power at one single booth at the Sensor+Test 2019

- TDK is presenting its innovative TDK, EPCOS, InvenSense, Micronas, Chirp, and Tronics branded sensors and sensor solutions
- New sensor solution on display: Micronas CUR 423x TMR-based closed-loop sensor for high-current coreless applications

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TDK Corporation (TSE 6762) will present its complete sensor product range from a single booth at Sensor+Test 2019. The product range includes magnetic sensors, motion and sound sensor solutions, temperature and pressure sensors and covers automotive, industrial, aeronautics, security, and medical markets. Represented at the booth will be TDK, EPCOS, InvenSense, Micronas, Chirp, and Tronics branded products. The Sensor+Test exhibition will take place in Nuremberg, Germany, with TDK at booth 204 in hall 1.

Product highlights include:

Micronas Magnetic Sensors and Embedded Motor Controllers: The first Micronas TMR-based sensor family CUR 423x was developed for current measurements in Automotive and Industrial applications and is marketed under the trademark curSENS. The CUR 423x sensors allow for non-intrusive, galvanically isolated contactless current measurements based on closed-loop TMR technology. The sensors are ISO26262 ASIL-B ready and AEC-Q100 qualified. A very good signal-to-noise ratio and a total error below 1% (full scale) over temperature enable precise current measurements and the smallest module integration since no magnetic-field core concentrator is required. Furthermore, the extensive portfolio of Micronas magnetic-field sensor solutions based on the so-called Hall effect and Micronas embedded motor controllers for automotive and industrial applications will be on display.

EPCOS Temperature & Pressure Sensors: TDK develops and manufactures high-accuracy temperature and pressure sensors with excellent media resistance and long-term stability, serving the automotive, industrial, and consumer electronics markets. With world-class expertise and technology combined with decades of experience in design, simulation, validation, and mass production, TDK is a global partner to market-leading customers. The EPCOS H650 temperature sensor element is designed to measure temperatures up to 650 °C. The NTC sensor element offers high-precision measurements with a temperature tolerance of approximately ± 1 K at 200 °C. These new high performance EPCOS pressure sensing elements have excellent long term stability and are designed for pressure ranges from 100 mbar up to 40 bar with package sizes down to 0.65 mm x 0.65 mm.

Chirp Ultrasonic ToF Sensors: MEMS (micro-electrical mechanical systems)-based Chirp sensor solutions utilize an array of small ultrasound transducers to send out a pulse of sound waves and then detect echoes returning from targets in the sensor's field-of-view. By calculating the ToF, the technology can determine the location of an object relative to the device and can trigger a programmed behavior.

InvenSense Motion and Sound Sensor Solutions: InvenSense solutions combine MEMS sensors, such as accelerometers, gyroscopes, compasses, and microphones, with proprietary algorithms and firmware that intelligently process, synthesize, and calibrate the output of sensors, maximizing performance and accuracy. InvenSense motion tracking, audio and location platforms, and services can be found in mobile, wearables, smart home, industrial, automotive, and IoT products. Sensors+Test will showcase new InvenSense capacitive pressure sensor solutions, analog and digital MEMS microphone solutions, and 6-axis (gyroscope and accelerometer) technologies.

Tronics High Performance MEMS Gyros and Accelerometers: With its portfolio of Tronics sensors, TDK is the only provider of both closed-loop MEMS accelerometers and gyros, taking MEMS inertial sensors to an unrivalled level of performance. Standard Tronics products are manufactured in the company's own wafer fab, assembly, and calibration lines, all located in France, and are well-suited for system manufacturers with stringent requirements for high bias stability, high-performance inertial sensors. They are used in applications such as precision navigation, motion tracking and control, as well as optical stabilization.

TDK TMR Angle Sensors: The new TDK TMR angle sensor, TAD2141 with digital output, offers a guaranteed angle accuracy of $\pm 0.2^\circ$. At room temperature, the sensor achieves an accuracy for angle error of only $\pm 0.05^\circ$. The sensor is capable of contactless angle measurement sensing up to 360° within a temperature range of -40°C to $+150^\circ\text{C}$. The main applications of the sensor include industrial and robotics, as well as automotive with a focus on future systems for automated driving.

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 portfolio features passive components such as ceramic, aluminum electrolytic and film capacitors, and 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, Chirp, 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.

You can download this text and associated images from www.micronas.com/pressreleases.

Further information on the products can be found under <https://product.tdk.com/info/en/pr/sensor/index.html>.

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