**TDK-Micronas – Most Preferred Partner for Sensing**

**and Control**

TDK-Micronas is the center of competence for magnetic-field sensors and CMOS integration within the TDK group. TDK-Micronas has gained operational excellence for sensors and actuators production in over 25 years of in-house manufacturing. It has been the first company to integrate a Hall-effect based sensor into CMOS technology in 1993. Since then, TDK-Micronas has shipped over five billion Hall sensors to the automotive and industrial market. The operational headquarters are located in Freiburg im Breisgau (Germany). Currently, TDK-Micronas employs around 1,000 people.

TDK-Micronas handles all of the different stages in development and in production of its semiconductor solutions for Automotive and Industrial electronics under one roof, enabling the company to provide customers with a high level of flexibility and a fast time to market. Based on deep market and system know-how and together with its best-in-class technical support, TDK-Micronas offers its customers innovative key solutions for their ever more demanding applications. Products from TDK-Micronas are known for quality and reliability. These core attributes, together with the commitment to functional safety, excellent logistics and safe supply are making the company a reliable partner for its customers. Using products from TDK-Micronas means to incorporate robust sensor solutions, meeting the customers’ product reliability demands. As the market leader for linear sensors in automotive applications, TDK-Micronas offers the world’s largest Hall sensor portfolio for both the Automotive and the Industrial market and has already shipped more than four billion Hall sensors for highly demanding applications. In addition, TDK-Micronas develops embedded motor-controllers for the cost-effective realization of compact high performance motor control in automotive applications, but also for intelligent robotic and related industrial applications.

For more information about TDK-Micronas and its products, please visit [www.micronas.tdk.com.](http://www.micronas.tdk.com.)

**About TDK Corporation**

TDK Corporation is a world leader in electronic solutions for the smart society based in Tokyo, Japan. Built on a foundation of material sciences mastery, TDK welcomes societal transformation by resolutely remaining at the forefront of technological evolution and deliberately “Attracting Tomorrow.” It was established in 1935 to commercialize ferrite, a key material in electronic and magnetic products. TDK's comprehensive, innovation-driven 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 automotive, industrial and consumer electronics, and information and communication technology. The company has a network of design and manufacturing locations and sales offices in Asia, Europe, and in North and South America. In fiscal 2020, TDK posted total sales of USD 12.5 billion and employed about 107,000 people worldwide.

**Product Portfolio**

**Embedded motor controllers**

* Up to 100 electric motors per vehicle
* TDK-Micronas offers fully integrated controllers for BLDC, BDC and stepper motors
* Those all-inclusive single-chip control solutions feature higher system efficiency to reduce motor size and weight

**Hall-effect sensors**

* Major automotive trends such as CO2 reduction and car electrification are asking for tighter controls, thus increasing the demand for magnetic sensors
* More than 85% of magnetic sensors in cars are based on the Hall effect
* TDK-Micronas offers the broadest Hall-effect sensor portfolio for Automotive applications covering switches, linear, direct angle and current sensors

**Markets and Applications**

**Automotive**

* Powertrain

Active Pedal, Powertrain Valves, Battery Management, Gear Position, Shift Lever Position, Clutch Position, Engine Oil Level, Variable Valve Timing

* Body and Comfort

Window Lift / Sun Roof, Wiper Position, Door Lock, Buckle Switch, Adaptive Headlights, HVAC, Blower and Flap Control, Seat Positon

* Chassis and Safety

Steering Torque, Steering Angle, Steering Motor Position, Chassis Height, Braking

**Industrial**

* Chassis a Building, Home and Office Automation
* Factory and Process Automation
* Home Appliance and White Goods
* Mobility and Robotics
* Garden and Power Tools
* Agricultural and Heavy Machinery