

Magnetic Sensors

New sensor programming tool for Hall-effect sensors

- The new Magnetic Sensor Programmer MSP V1.0 replaces APB 1.5 and completes TDKs programming toolchain for Micronas products
- Suitable for Hall sensor families HAL 18xy, HAL/R 24xy, HAL 28xy, and HAL/R/C 37xy
- MSP V1.0 is capable of driving higher currents and handling latest sensor generations with PSI5-output

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TDK Corporation (TSE 6762) expands its tool chain for the easy programming of various Micronas Hall-effect sensors with the Magnetic Sensor Programmer MSP V1.0. It replaces the APB 1.5 and complements the existing programmer line, which comprises the USB-Programming Kit V1.01 and the HAL APB V5.1. These programmers are especially designed for use in the development laboratory. TDK now offers three dedicated tools supporting all programmable Micronas sensors. The Magnetic Sensor Programmer is available from mid-September and can be ordered via TDK-Micronas' sales offices or one of its distribution partners listed on www.micronas.com/sales.

The new Magnetic Sensor Programmer is suitable for all members of the product families HAL 18xy, HAL/R 24xy, HAL 28xy, HAL/R/C 37xy as well as forthcoming angular sensors. The devices are mainly applied in automotive applications for position detection or angle measurement, and amongst others, in throttle valves, accelerator pedals, EGR, neutral-gear recognition, transmission gear sensor, bending lights and steering-angle applications. Additionally, in the field of industrial electronics, the programmable linear sensors HAL 18xy and HAL 24xy are used for current measurement, joysticks, rocker switches, and for manifold extended position measurement scenarios.

To optimize the system performance in these customer applications, an individual programming of the sensor is necessary. Therefore, TDK offers the corresponding hard- and software. Compared to its predecessor, the Magnetic Sensor Programmer is able to drive higher currents and to handle latest Micronas sensors with PSI5-output. The Magnetic Sensor Programmer can simply be connected to a PC via its RS-232 or USB interface. TDK provides dedicated software supporting a command interface for the communication with a PC. This allows the implementation of specific PC software for engineering purposes or development. For each of the programmable Hall sensor families, a specific software exists providing a graphical user interface based on LabView™. Customers currently using APB 1.5 can easily switch to the new Magnetic Sensor Programmer, which is compatible to previous software versions. This easy way of programming offers customers improved productivity and optimized sensor performance.

The programming software for the different sensor families is provided for free. After registration, it can be downloaded from TDK-Micronas' online service portal www.service.micronas.com.

Glossary

- MSP = Magnetic Sensor Programmer
- EGR = Exhaust Gas Recirculation
- APB = Application Board
- PSI5 = Peripheral Sensor Interface, a two-wire interface used to connect peripheral sensors to electronic control units in automotive electronics
- RS-232 = Recommended Standard 232 (V24), a standard for serial communication data transmission

Main applications

- Programming of HAL 18xy, HAL/R 24xy, HAL 28xy, HAL/R/C 37xy

Main features and benefits

- Programming of latest sensors with PSI5-output
- Compatible to previous software versions
- Replaces APB 1.5

About TDK-Micronas

TDK-Micronas, a TDK group company, is the most preferred partner for sensing and control. TDK-Micronas serves all major automotive electronics customers worldwide, many of them in long-term partnerships for lasting success. Operational headquarters are based in Freiburg im Breisgau (Germany). Currently, TDK-Micronas employs around 900 persons. For more information about TDK-Micronas and its products, please visit www.micronas.com.

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 2018, TDK posted total sales of USD 12 billion and employed about 103,000 people worldwide.

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Further information on the products can be found under www.micronas.com.

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