Micronas presenting new generation of Hall sensors for extended position measurement

The HAL 38xy family of Hall Effect sensors based on 3D Hall technology for precise position detection in tough ambient conditions

**Freiburg, June 6, 2011** – Micronas (SIX Swiss Exchange: MASN), a leading supplier of cutting-edge sensor and IC system solutions for automotive and industrial electronics, presents a new generation of Hall sensors for linear position measurement with their HAL 38xy family.

The HAL 38xy family is firmly based on the 3D Hall technology which features two vertical and one horizontal Hall plate. Accompanying Micronas’ market launch of this new generation is a first spin-off, the HAL 3855. The HAL 3855 is strictly speaking a 2D position sensor, as it needs only two components of a magnetic field in order to enable a linear position measurement. If an axially magnetized magnet is moved parallel to the surface of the sensor housing, the sensor detects every change in the magnetic field components By and Bz. The internal digital signal processing of the HAL 3855 puts the measured values in relation to each other and so delivers the displacement information at the output side by way of an analog signal.

As the displacement or position information gained is on principle subject to variations, the HAL 3855 has the ability to linearize the output signal using 32 support points with 16 bit resolution. The sensor has a high-temperature capable EEPROM which operates within a temperature range of -40 to +170°C with absolute reliability, delivering a substantially higher linearity at lower system costs compared with classic linear Hall sensors.

The HAL 3855 features numerous diagnosis functions such as over- and under-voltage detection, and it is capable of detecting a break in the supply lines or the loss of the magnet. Thermal monitoring at the output protects the sensor from overload.

The HAL 3855 is particularly suitable for applications in the automobile and the industrial market where longer distances are to be measured in confined construction spaces, for instance as clutch travel sensor to detect the traveling range of the clutch. Other potential applications for the HAL 3855 include exhaust gas recirculation systems (where the sensor determines the valve position) or determining the position of the gear selector.

Accompanying the new generation of Hall sensors, Micronas also supplies the complete tool box including programming board, the necessary programming software as well as application notes.

The user-friendly programming software allows the customer to store various parameters (e.g. identification number) permanently in the sensor.

The package is the well-known SMD SOIC8, already in use for the HAL 3625.

Micronas will present the HAL 38xy family together with its first spin-off, the HAL 3855, from June 7 to 9 at the Sensor+Test trade fair in Nuremberg, Hall 12, booth 302, and at the sensors expo & conference in Chicago, booth 614.

# # #

**About Micronas**

Micronas (SIX Swiss Exchange: MASN), a semiconductor designer and manufacturer with worldwide operations, is a leading supplier of cutting-edge sensor and IC system solutions for automotive and industrial electronics. Micronas offers a variety of Hall sensors and microcontrollers for automotive and industrial applications, such as car dashboard, body control, as well as motor management and comfort functions.

Micronas serves all major automotive electronics customers worldwide, many of them in continuous partnerships seeking joint success. While the holding company is headquartered in Zurich (Switzerland), operational headquarters are based in Freiburg (Germany). Currently, the Micronas Group employs around 900 people. For more information about Micronas and its products, please visit www.micronas.com.