

Press Releases

10 MILLIONTH SENSOR FOR HITACHI DELIVERED BY PREH

Bad Neustadt an der Saale, Germany – In January, Preh delivered the 10 millionth throttle position sensor to its customer Hitachi. The sensors are used in General Motors' V-6 and V-8 engines. Dr. Hans-Michael Schmitt, head of sensor system development, explained, "Just three years ago, Hitachi Automotive Products honored us as one of its 'Top 10' suppliers.' We can be genuinely proud of this milestone in production volume because it is the result of top supplier quality."

The sensor system was developed at Preh GmbH's headquarters in Bad Neustadt, Germany. A total of four versions of the system have been manufactured there since 2004. The heart of the sensor is the circuit board, which is manufactured using thick-film technology. Preh developed its thick-film system for demanding automotive applications. It is characterized by extremely high wear resistance, achieved in part through glassy carbon pigmentation. "Important as it might be as the heart of the sensor, the sensor board alone does not make a system robust with maximum signal reliability. To achieve this, you need to completely master the development of the entire system – in other words, integration of the sensor board with a suitable brush system in a single housing," explained Schmitt. In particular, sensor applications in the engine compartment demand maximum thermal stability and absolute leak-tightness, even after extreme temperature loads.

During product development and manufacture of the sensor, Preh focused its attention on achieving maximum economy. For example, the metal contacts are integrally molded in the finished housing in a single manufacturing cell. Product manufacturing is fully automated on an assembly line in the "Preh Innovative Automation" product area. Armin-Peter Six, who as plant manager is responsible for production, sees at least two advantages in high-manufacturing automation: "First, this allows us to produce our sensor systems economically in Germany. Development know-how and production know-how do not have far to travel to mutually reinforce each other. It's also good for product quality. Our sensor's field failure rate is 0 ppm," he said.

The thick-film technology is a highly robust approach to manufacturing sensors, one that has proven itself millions of times over. "The current trend toward contactless sensors does nothing to change this," Schmitt says. "We naturally respond to customer requests and are currently producing increasing numbers of sensors based on Hall technology. However, Preh's rugged thick-layer systems continue to be a real alternative when it comes to reliability and price," Schmitt adds.

The company has been engaged in high-volume sensor manufacturing for many years. Aside from throttle valves, applications include EGRs and accelerator pedals.