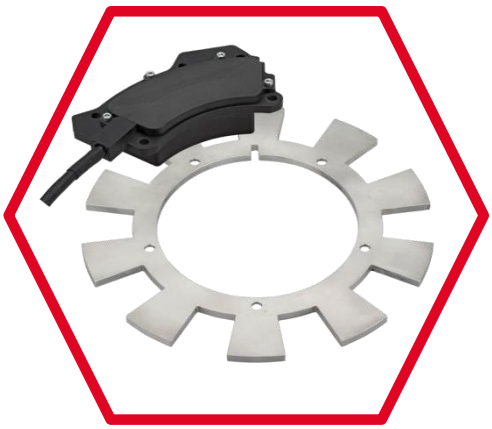
SPINpad sensor - Inductive High Speed Rotor Position Sensor



A combination of high accuracy and fast response time is required for rotor position sensors in the electric motors of hybrid or electric vehicles. This allows the control unit to drive the motor optimally, and leads to a reduction in energy consumption and an increased range of the vehicle. The invention of the SPINpad is the next step in resolver technology.

KYOCERA AVX Components (Werne) has developed a new high speed position sensor to meet these requirements. First prototypes of this new sensor have demonstrated market leading performance. This technology can be used in other applications where accuracy and response times are critical (for example, electric power steering), and is also capable of future demands on digital interfaces.

The basic structure of the SPINpad sensor is similar to KYOCERA AVX Components (Werne)‘s mature and proven Autopad® technology.

Special Features

- Flexible designs, can be matched to motor pole-pairs giving positional accuracy < 0.5deg electrical
- Different targets available
- Signal immediately after power on
- High speed up to 100,000 rpm
- Ready for ASIL C (D) or with redundant measurement ASIL D (D)
- Immune to low frequency magnetic fields
- Small package size, flat design
- Temperature range: -40 °C to 160 °C

Typical Applications

- High speed accurate sensing of the rotor position in electric and hybrid vehicles motors
- Electric Power Steering
- Electric Motor traction drive
- Active suspension systems

General Note This datasheet does not give any information on product availability. The information given is just meant to describe the product and is not to be considered as guaranteed characteristics in the legal sense. All products are subject to design changes in the interest of further technical development. Copyright: KYOCERA AVX Components (Werne) GmbH (GER)
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