

Fast Facts

Autopad®

Inductive Position Sensing

The KYOCERA AVX proprietary technology **Automotive Sensopad** (Phase Average Demodulation) is suitable for linear and rotary position sensing, and is designed specifically for automotive applications.

Autopad® is able to measure angles and distances with high resolution and accuracy. The measuring path can be easily applied via the layout of the printed circuit board, and so can be extended beyond the limits of conventional Hall sensors.

The sensors are suitable for use in applications with limited installation space, and with high demands on magnetic immunity, e.g. when operating systems are close to motors or high current cables.

The non-contact inductive system is based on a moving resonant circuit (target / PUCK), and two static receiver coils for transmission / reception, which are located on the printed circuit board (PAD). The position of the PUCK above the PAD is measured.



Market Segments

- Level sensor system
- Linear actuators ('steer by wire')
- EGR
- Thermal management
- Throttle flap

Typical Features And Benefits

- Non-contact absolute position sensor
- Ability to measure through non-conductive materials (e.g. water, oil and plastics)
- Multiple variations of the PAD-PUCK distance
- Simple and robust sensor design
- Automotive ASIC available
- Insensitivity to external electromagnetic fields
- Two-channel operation possible, with complete galvanic isolation of the channels
- Different geometries available (linear, rotary, X / Y, hollow shaft...)
- Validated design methodology enables the efficient development of sensors to meet performance requirements within the smallest spaces