

# ROTOR POSITION SENSOR



## E-MOBILITY

Optimization of electric mobility



## TECHNOLOGY INDUCTIVE

### Application description

The inductive rotor position sensor meets the control needs of synchronous electric motors used to drive all-electric and hybrid vehicles.

The sensor accurately measures the angular position of the rotating shaft to optimize control of the motor inverter.

It offers significant advantages in terms of integration and EMC robustness. Even more, it integrates signal processing to deliver the angle in either analog or digital form.

The primary and secondary windings are printed on the sensor PCB and connected to an ASIC. The sensor components are encapsulated in a sealed package to make them robust with respect to the motor environment.

The sensor accurately detects the angular position of a toothed trigger wheel fixed to the rotor. Position information is delivered to the motor controller in the form of an analog or 12-bit digital signal.

### Technical characteristics

- Proven technology in production for HEV applications
- Robust against magnetic flux and stray fields
- Magnet free
- Weight and size reduction compared to resolver
- Flexible integration adaptable to end of shaft and through shaft