PARK PAWL Sensor



TRANSMISSION EFFICIENCY

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TECHNOLOGY HALL/INDUCTIVE

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Application description

The park pawl sensor integrates advanced sensing capabilities directly into the mechanical park system of an automatic transmission or electric drive unit. Due to the intelligent dualsensor configuration, the product is able to directly monitor both manual shaft rotation and resulting park pawl position with full redundancy. This new patented design is ideal for transmissions, using an electronically controlled park lock system. When paired with an EFI Automotive park lock actuator, the shift actuation system is fully monitored and safely controlled. A single-sensor configuration is also available if monitoring only the park pawl is desired.

The sensor is available in robust stray-field Hall effect as well as Eddy current based inductive sensing technology. For inductive versions, sensing is done directly on the metallic components, eliminating the need for additional attached targets.

Integration into the transmission environment is flexible. EFI Automotive is able to customize the connector and lead frame regions of the sensor to accommodate tight environments. The product can also be designed with a cable harness for ease of routing the transmission.

Technical characteristics

- Sensing of the manual shaft, replacing an IMS, TRS, or inhibitor switch
- High accuracy direct sensing of the engagement of the park pawl
- Available in Hall Effect or Inductive technology
- Redundant PWM and SENT output available
- ASIL-ready development



