

Delphi Transmission Range Selection Sensor

The Delphi Transmission Range Selection Sensor is an absolute position sensor that provides gear selection information to the transmission control module. It can convert rotary or linear motion into a ratiometric analog or pulse-width modulated (PWM) output signal to indicate the various positions of the transmission (park, reverse, neutral, drive, etc.).

The Delphi Transmission Range Selection Sensor uses accurate Hall effect technology to detect the angular position of a shaft. Its unique design can feature either a through-shaft interface or end-shaft interface for application flexibility, and a magnetic flux concentrator for robust performance.

► Benefits

- Designed for internal or external transmission mounting to offer flexibility for the manufacturer
- Capable of meeting single or dual output signal requirements
- Flexible calibration of transmission selector positions for easy adaptation to multiple applications
- Robust against external electromagnetic field interference
- Three-terminal sealed connector minimizes connections for higher reliability and reduced system cost

► Typical Applications

The Delphi Transmission Range Selection Sensor is designed for automatic transmissions for most passenger vehicle programs. Its robust design also makes it suitable for other automotive and industrial applications.

► Performance Advantages

The Delphi Transmission Range Selection Sensor is a state-of-the-art high performance, cost competitive sensing device. Its non-contact design and advanced Hall effect technology offer improved durability and reliability compared with conventional products.

The Delphi Transmission Range Selection Sensor's magnetic circuit feature accommodates a wide range of measurement requirements. And, its single output signal design reduces pin count and wiring compared with conventional products that offer bit map output. Delphi's low cost manufacturing footprint also contributes to the Transmission Range Selection Sensor's excellent value.



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► Specifications

Measurement range	Rotary: -35° C to 35° C Linear: -30 mm to 30 mm
Detection range	Rotary: Up to 80° C Linear: 70 mm
Output sweep	WM: 8% to 92% Analog: 0.5 V to 4.5 V
Accuracy	+/-3% throughout the temperature range +/-2.5° (3° aged parts)
Operating temperature range	-40° C to 150° C
Response time	1 mS
Input power supply	5.0 V (+/-0.25 V)

► The Delphi Advantage

Delphi has one of the industry's most complete portfolios of sensors. Delphi has the experience and the expertise to provide extremely reliable, highly accurate and cost competitive sensors for a wide range of applications. And, Delphi can provide a single component or a multifunctional module to meet specific customer needs.

As a global leader in engine and powertrain management systems technology, Delphi can help manufacturers around the world meet emissions requirements, improve fuel economy and enhance performance. Delphi is a source for high value solutions and our systems expertise is built into every product. Delphi's flexible engineering approach encourages collaboration. And, Delphi has a thorough understanding of automotive markets around the world and a global network of resources.