

24V Variant



5V Variant



Inductive Speed Sensor (iSPD)

Key Highlight

- Contactless speed sensing using Coil on PCB inductive technology
- Reliable performance in harsh environments up to 125°C
- Compatible with any metallic target wheel
- Ip67 protection with customizable PWM or CAN output

Production Information

The Inductive Speed Sensor (iSPD) is an advanced contactless speed sensing solution developed for automotive and heavy-duty applications. Applied for patent, this sensor uses electromagnetic induction technology to accurately measure rotational speed by detecting changes in the magnetic field caused by a moving metallic target.

Built using Coil on PCB inductive technology, the iSPD offers improved reliability, consistent performance at elevated temperatures, and enhanced durability compared to conventional wound-coil designs. It operates effectively with any metallic target wheel, making it highly adaptable across various engine and vehicle speed sensing applications.

Engineered for harsh automotive environments, the sensor supports 12V and 24V vehicle systems with a 5V operating supply and offers a sensing air gap range of 0.5 to 2 mm. With an operating frequency up to 15 kHz and a temperature range from -40°C to 125°C, the iSPD ensures stable performance in extreme conditions. temperatures ranging from -40°C to 125°C.

The device is IP67 rated for protection against dust and water ingress and supports customizable output types including PWM or CAN. It is PPAP ready, making it suitable for OEM integration. Additional customization options include voltage configuration, mechanical form factor, mating connector selection, and target wheel dimensions.

The Inductive Speed Sensor family is available in multiple variants, including diagnostic-enabled versions and Hall-effect alternatives to meet diverse vehicle platform requirements.

Technical Specifications

Sensing Technology	Inductive (Electromagnetic Induction)
Function	Contactless rotational speed measurement
Vehicle System Voltage	12V / 24V
Operating Supply Voltage	5V
Supply Current	30 mA max
Sensing Air Gap	0.5 to 2 mm
Operating Frequency Range	0 to 15 kHz
Operating Temperature	-40°C to 125°C
Ingress Protection	Ip67
Output Type	PWM / CAN (Customizable)
Duty Cycle Variation	Governed by input speed variation
Target Wheel Requirement	Any metallic material (Inductive compatible)
Target Wheel Dimensions	Customizable
Development Status	Lab trials complete, PPAP ready