Product Brief

Vertical Dual-Hall Sensor

Infineon offers sensor to detect rotation direction and rotation speed

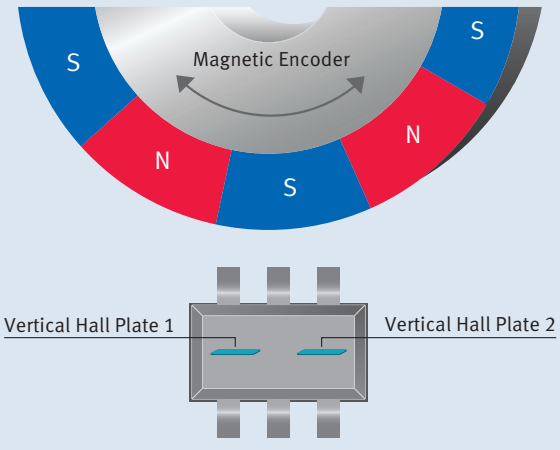
TLE4966V offers in-plane measurement of a magnetic field. The vertical orientation of the Hall plates enable measurement of magnetic fields, in parallel to package and PCB surface. Our brand-new sensor concept helps customers designing automotive systems, being previously not feasible.

With the two integrated vertical Hall plates, the sensor can detect the rotation direction and the rotation speed of a magnetic pole wheel. Customers can easily build cost competitive, compact systems counting indexes up and down. Automotive target applications include window lifters, sunroofs, electric doors, lift gate drives and driver controls.

Designed in a new technology, TLE4966V offers high electrical and magnetic performance. The sensor can be operated from an unregulated power supply and is protected against short circuit. Thanks to integrated chopping technology, the magnetic thresholds are very stable overtemperature and lifetime.

Infineon's new vertical dual-Hall sensor is AEC-Q100 qualified and offered in the slim TSOP6 SMD package, expanding our extremely successful TLE4966 dual-Hall family.

Target Application (top view): Sensing Direction Parallel to Target Wheel



www.infineon.com/hall-switches

Features

- Vertical Hall plates to measure magnetic field parallel to PCB and package surface
- 3.5V to 32V operating supply voltage
- Operation from unregulated power supply
- Reverse polarity protection (-18V)
- Overvoltage capability up to 42V without external resistor
- Low current consumption
- Output short-circuit & overtemperature protection
- High stability of magnetic thresholds
- Small SMD package (TSOP6)

Applications

- Window lifter (index counting)
- Power closing (index counting)
- Driver controls (index counting)

RoHS

AEC Qualified

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Product Summary

Parameter	Min. Value	Max. Value	Unit
Supply Voltage	3.5	32	V
Output Voltage	0.0	32	V
Output Current	0.0	10	mA
ESD voltage (HBM)	-2.0	2	kV
Magnetic signal input frequency	0.0	5	kHz

Parameter	Typ. Value	Max. Value	Unit
Supply current	5.8	7.3	mA
Power-on time	80.0	120.0	µs
Package height	–	1.1	mm

Parameter	Operating Point (mT)	Release Point (mT)	
Magnetic thresholds	2.5	-2.5	@ 25°C

Sales Name	Sales Code
TLE4966V-1K	SP000997990

Engineering Samples available

Production start mid 2014

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