

Hall Speed Sensors

The Components for Optimal
Values in Any Position



HIRSCHMANN
AUTOMOTIVE

HALL SPEED SENSORS

Our hall speed sensors are ideally suited for demanding environments.
They produce accurate measurement results in every situation.



GEAR SPEED SENSOR WITH CONNECTOR

GEAR SPEED SENSOR WITH CONNECTOR WITH & WITHOUT ROTATION DIRECTION DETECTION

- Application**
- speed-sensing without rotation direction detection for gear boxes
 - contactless hall technology

- Your Benefits**
- no wear parts
 - high chemical resistance
 - high temperature resistance, up to 160° C
 - robust design for truck applications

TECHNICAL PRODUCT INFORMATION SPEED SENSOR WITHOUT DIRECTION OF ROTATION RECOGNITION

	DESIGNATION	MIN. VALUE	TYPE VALUE	MAX. VALUE
SIGNAL FREQUENCY	f	1 Hz		10,000 Hz
DUTY CYCLE	duty	40 %	50 %	60 %
AIR GAP	airgap	0.2 mm		5.0 mm
SUPPLY VOLTAGE	VDD	4.5 V	12.0 V	20.0 V
OUTPUT CURRENT	IDD	5.7 mA	7/14 mA	16.8 mA
INITIALIZATION TIME	tstart		120 µs	300 µs
NUMBER OF MAGNETIC PULSES FOR INITIALIZATION	nstart			4 Magn. Edges
ESD COMPATIBILITY	ESD			±12 kV
OPERATING TEMPERATURE	tamb	-40° C	+25° C	+160° C
TIGHTNESS			IP67	IP6K9K

SPEED SENSOR WITH DIRECTION OF ROTATION RECOGNITION

	DESIGNATION	MIN. VALUE	TYPE VALUE	MAX. VALUE
SIGNAL FREQUENCY	f	0 Hz		12,000 Hz
LEFT DIRECTION OF ROTATION SIGNAL PULSE	tDR-L	50 µs	60 µs	70 µs
RIGHT DIRECTION OF ROTATION SIGNAL PULSE	rDR-R	102 µs	120 µs	138 µs
AIR GAP	airgap	0.2 mm		5.0 mm
SUPPLY VOLTAGE	VDD	4.5 V	12.0 V	20.0 V
OUTPUT CURRENT	IDD	5.7 mA	7/14 mA	16.8 mA
INITIALIZATION TIME	tstart		300 µs	345 µs
NUMBER OF MAGNETIC PULSES FOR INITIALIZATION	nstart			4 Magn. Edges
ESD COMPATIBILITY	ESD			±12 kV
OPERATING TEMPERATURE	tamb	-40° C	+25° C	+160° C
TIGHTNESS			IP67	IP6K9K

GEAR SPEED SENSOR WITH WIRING HARNESS



GEAR SPEED SENSOR WITH
WIRING HARNESS

Application

- speed-sensing with rotation direction detection for gear boxes including wiring harness
- contactless hall technology

Your Benefits

- no wear parts
- high chemical resistance
- high temperature resistance, up to 150° C
- robust design
- available in two different shaft lengths (34 and 55 mm)
- adaptable cable length and connectors



SPEED SENSOR WITH WIRING HARNESS

SPEED SENSOR WITH WIRING HARNESS

Application

- speed-sensing with rotation detection for a spindle drive including wiring harness
- contactless hall technology

Your Benefits

- no wear parts



GEAR SPEED SENSOR WITH
WIRING HARNESS

Application

- detection of the camshaft position to provide the ECU the acutal camshaft position for further engine control
- contactless hall technology

Your Benefits

- no wear parts
- high chemical resistance
- high temperature resistance, up to 150° C
- robust design

CAMSHAFT SPEED SENSOR

	DESIGNATION	MIN. VALUE	TYPE VALUE	MAX. VALUE
SIGNAL FREQUENCY	f	1 Hz		8,000 Hz
AIR GAP	airgap	0.5 mm		3.0 mm
SUPPLY VOLTAGE	VDD	3.3 V	14.0 V	24.0 V
OUTPUT SIGNAL	vout	<0.5 V		Vd
INITIALIZATION TIME	tstart			1 ms
NUMBER OF MAGNETIC PULSES FOR INITIALIZATION	nstart		3	4 Magn. Edges
ESD COMPATIBILITY	ESD			±8 kV
OPERATING TEMPERATURE	tamb	-40° C	+25° C	+150° C
TIGHTNESS			IP67	IP6K9K

SEEKING MORE DETAILED INFORMATION?
SCAN ME AND VISIT OUR WEBSITE.



**Markus Kreuter is your Contact
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