





## 产品介绍 Product Description

该产品是基于霍尔效应原理而设计的,安装于汽车底盘上,用于读取车轮转速的传感器。

The product is designed based on Hall effective principle, and is installed on the chassis of the car. It is a sensor used to read the wheel speed.

# 产品特征及优势 Feature and Benefits

- 密封、磁操作的非接触式传感,使用寿命长,可靠性高。 Sealed, magnetic non-contact sensing gives excellent life and reliability.
- 坚固的结构使该传感器非常适合恶劣环境。
  Robust construction makes this sensor well suited to harsh environments.
- 高精度。
  High Accuracy.
- 根据客户要求,多种量程可定制。 According to customer requirements, a variety of ranges can be customized.
- 工作温度范围广,为-40-150℃。 The working temperature range is - 40-150℃.
- 传感器附带导线耐温为-40-120℃。
  The temperature resistance of the wire harness of the sensor is 40-120 ℃.

# 产品应用 Product Application

汽车用轮速传感器是ABS/ESP的一个子系统,用于检测车轮转速随动信号,通过霍尔效应,将其转化为电信号传输给ECU,ECU根据电信号的变化特点来判断车速,从而调控ABS/ESP的及时工作。 The automobile wheel speed sensor is a subsystem of ABS/ESP, which is used to detect the follow-up signal of wheel speed, convert it into an electrical signal through the Hall effect, and transmit it to the ECU. The ECU judges the speed according to the change characteristics of the electrical signal, so as to regulate the timely work of ABS/ESP.

## 操作 Operation

#### 基本原理 Basic Principle

用霍尔元件作为汽车的车轮转速传感器时,多采用磁感应强度B作输入信号,通过磁感应强度B随轮速变化, 产生霍尔电势脉冲,经霍尔集成电路内部处理后输出脉冲序列,其频率随目标轮转速而变化。

# **KESENS**

When Hall element is used as the wheel speed sensor of an automobile, magnetic induction intensity B is usually used as the input signal. When magnetic induction intensity B changes with target wheel rotation, Hall current pulse is generated. After amplification, filtration and power amplifier by Hall integrated circuit, current pulse sequence is output outward, and its frequency changes with the rotation speed of the target wheel.

#### 连接选项 Connection Options

根据客户选择定制连接系统。 Customized to customer choice of connection system.

#### 包装选项 Packaging Options

可提供定制包装以满足任何需要,请联系KESENS技术部了解详情。 Custom packaging can be provided to meet any need, please contact KESENS Engineering for details.

## 技术参数 Technical Characteristics

参数PARAMETER	最小值MIN.	额定值NOM.	最大值MAX.	单位UNITS	备注COMMENT
工作温度(头部) TEMPERATURE RANGE (HEAD)	-40		150	S °C	
供电电压 SUPPLY VOLTAGE	4.5	12	20	V	
占空比 DUTY CYCLE	40	50	60	%	
低电平信号 LOW LEVEL SIGNAL	5.9	7	8.4	mA	
高电平信号 HIGH LEVEL SIGNAL	11.8	14	16.8	v	
输出上升时间 OUTPUT RISE TIME			1.5	us	
输出下降时间 OUTPUT FALLING TIME	5		1.5	us	
输出频率 OUTPUT FREQUENCY	1		5000	Hz	





可根据客户需求定制产品,如有需求请联系我们。 Customized products available upon request. Contact us for details.

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