

## 凸轮轴位置传感器 Camshaft Position Sensor

### 产品介绍 Product Description

凸轮轴位置传感器也叫同步信号传感器，它是一个气缸判别定位装置，向ECU输入凸轮轴位置信号，是点火控制的主控信号。

Camshaft position sensor, also known as the synchronous signal sensor, is a cylinder discriminator positioning device, input camshaft position signal to the ECU, is the main ignition control signal.

### 产品特征及优势 Feature and benefits

- ◆ 提供多种齿轮齿形传感范围  
Provides a variety of gear tooth shape sensing range
- ◆ 非接触测量 Non-contact measuring
- ◆ 可编程相位精度 programmable phase precision
- ◆ 寿命长 Long life
- ◆ 高速 High speed
- ◆ 不受恶劣环境影响 Unaffected by harsh environments
- ◆ 小巧坚固的包装 Small robust package

### 产品作用 Application

- ◆ 车用凸轮轴位置检测  
Camshaft position detection for vehicles



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Camshaft Position Sensor

### 操作 Operation

#### ◆ 基本功能 Basic function:

凸轮轴位置传感器的功用是采集配气凸轮轴的位置信号，并输入ECU，以便ECU识别气缸1压缩上止点，从而进行顺序喷油控制、点火时刻控制和爆燃控制。此外，凸轮轴位置信号还用于发动机启动时识别出第一次点火时刻。因为凸轮轴位置传感器能够识别哪一个气缸活塞即将到达上止点，所以称为气缸识别传感器。

The function of camshaft position sensor is to collect the position signal of the distribution camshaft and input to the ECU, so that the ECU can identify the upper dead point of cylinder 1 compression, so as to carry out the sequential injection control, ignition time control and detonation control, In addition, camshaft position signals are also used to identify the first ignition moment during engine starting. The camshaft position sensor is called the cylinder identification sensor because it can identify which cylinder piston is approaching the TDC.

#### ◆ 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.

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### 技术参数 Functional Characteristics

参数 PARAMETER	符号 NOTE	最小值 MIN.	额定值 NOM.	最大值 MAX.	单位 UNITS
工作温度 TEMPERATURE RANGE	T	-40		130	°C
压力测量范围 PRESSURE RANGE	P	10		115	kPa
电源电压 SUPPLY VOLTAGE	V <sub>cc</sub>	4.5	5	5.5	V
电源电流 SUPPLY CURRENT	I <sub>cc</sub>		8	10	Ma
输出负载电流 OUTPUT LOAD CURRENT	I <sub>L</sub>	-1		1	mA
负载电阻 LOAD RESISTANCE	R <sub>pull-up</sub>	5		100	kΩ
	R <sub>pull-down</sub>	5		470	kΩ
额定输出电压 NOMINAL OUTPUT	V <sub>out</sub>	8		93	%V <sub>cc</sub>
输出电压上限值 UPPER CLAMPING LEVEL	V <sub>CL-HI</sub>	4.77	4.8	4.83	V
输出电压下限值 LOWER CLAMPING LEVEL	V <sub>CL-LO</sub>	0.27	0.3	0.33	V
整体精度误差 OVERALL ACCURACY ERROR	Err			1.6	kPa
压力响应时间 PRESSURE RESPONSE TIME	从 10%到 90%的最输出电压 T <sub>10/90</sub> 10% TO 90% OF THE FINAL OUTPUT VALUE			1.8	ms

可根据需要定制电气和环境规范，详情请联系KESENS研发部。

Custom electrical and environmental specifications can be designed to meet any need, please contact Kesens design department for details.