

## 真空制动助力压力传感器 Vacuum Brake Boost Pressure Sensor

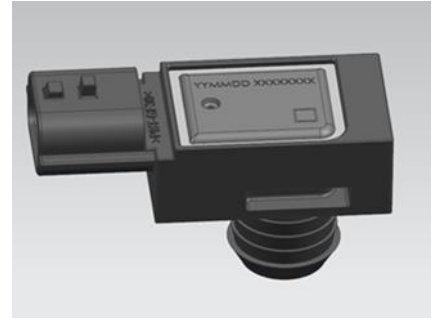
### 产品介绍 Product Description

真空制动助力压力传感器一种用于测量负压的传感器。

The vacuum brake boost pressure sensor is a kind of sensor for measuring negative pressure.

### 产品特征及优势 Feature and benefits

- ◆ VBS 可以提供一信号  
The VBS provides pressure output
- ◆ 压力感应元件并经过芯片处理后的真空制动助力器内部绝对压力信号  
Internal absolute pressure signal of vacuum brake booster processed by pressure sensor and chip
- ◆ 单芯片解决方案，电路单元利用 SMT 技术贴装  
Single chip solution, SMT for EMA fabrication process
- ◆ 利用钢球技术进行通气孔密封，激光打标以得到更好的追溯性  
Steel ball for vent hole sealing, laser marking for better traceability
- ◆ 根据客户要求，多种量程可选（10-115,13.3-106.7 kpa abs）  
Different pressure ranges are available on customer request



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Vacuum Brake Boost Pressure Sensor

### 产品作用 Application

- ◆ 该传感器可以监测真空助力器内的压力，将压力大小转化为电信号，并输出给启停系统，进而达到节约能耗的目的。  
The sensor can monitor the pressure in the vacuum booster, convert the pressure into electrical signal and output it to the Stop-Start System, so as to save energy.

### 操作Operation

#### ◆ 基本原理 Basic principle:

汽车启停系统需要持续获取真空助力器内部的压力数据，从而可以在车辆静止时（非驻车）的情况下关闭汽油发动机，并在驾驶员踩下油门前进时自动重新启动发动机，从而节省能源。

The vehicle Stop-Start System needs to continuously obtain the pressure data inside the vacuum booster, so that the gasoline engine can be shut down when the vehicle is stationary (not parking), and restart the engine automatically when the driver presses the accelerator, so as to save energy.

#### ◆ 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:

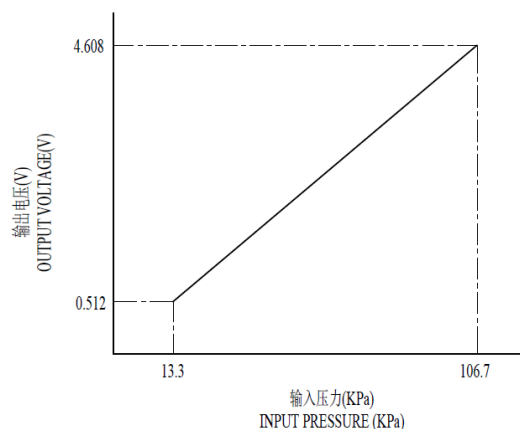
可提供定制包装以满足任何需要，请联系KESENS技术部了解详情。

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		120	°C
压力测量范围 PRESSURE RANGE	P	13.3		106.7	kPa
电源电压 SUPPLY VOLTAGE	Vcc	4.87	5.12	5.37	V
电源电流 SUPPLY CURRENT	Icc		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-down</sub>		100		kΩ
额定输出电压 NOMINAL OUTPUT	Vout	10		90	%Vcc
输出电压上限值 UPPER CLAMPING LEVEL	V <sub>CL-HI</sub>	4.62	4.65	4.68	V
输出电压下限值 LOWER CLAMPING LEVEL	V <sub>CL-LO</sub>	0.42	0.45	0.48	V
整体精度误差 OVERALL ACCURACY ERROR	Err			2.2	kPa
压力响应时间 PRESSURE RESPONSE TIME	从 0%到 90%的最终输出电压 T <sub>0/90</sub> 0% TO 90% OF THE FINAL OUTPUT VALUE			5	ms



压力传感器的标称输出传递函数  
NOMINAL OUTPUT TRANSFER FUNCTION FOR PRESSURE SENSOR

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.