

曲轴箱通风压力传感器 Crankcase Ventilation Pressure Sensor

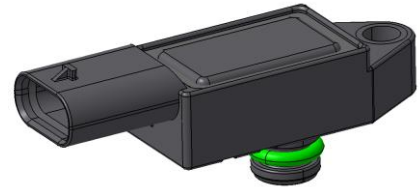
产品介绍 Product Description

曲轴箱通风压力传感器由曲轴箱内压力与大气压力差组成的传感器。

The crankcase ventilation pressure sensor is a sensor composed of the pressure difference between the crankcase and the atmospheric pressure.

产品特征及优势 Feature and benefits

- ◆ 来源于压力感应元件并经芯片处理后的进气相对压力信号。
Relative pressure output /Derived from a MEMs based sensing element.
- ◆ 外观和客户接口可以与 Bosch 产品兼容。
Performance and customer interface compatible with Bosch TMAP.
- ◆ 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.
- ◆ 激光打标以得到更好的追溯性。
laser marking for better traceability.
- ◆ 根据客户要求，多种量程可选（-5~5,-25~25kpa abs）。
Different pressure ranges are available on customer request.



曲轴箱通风压力传感器
BPS

产品作用 Application

曲轴箱内检测活塞环与缸体的压力状况。防止机油变质，防止曲轴油封和曲轴箱衬垫渗漏，防止各种油蒸汽污染大气。

Check the pressure between the piston ring and the cylinder block in the crankcase. Prevent oil deterioration, prevent crankshaft oil seal and crankcase gasket from leaking, and prevent various oil vapors from polluting the atmosphere.

操作 Operation

◆ 基本原理 Basic principle:

燃油燃烧过程中产生的活塞环漏泄气体(燃烧气体成分，其经由活塞进入曲轴箱)不得在非受控的情况下排放至空气中。因此，曲轴箱通风装置一方面用于将此类气体重新通入燃烧装置，另一方面负责控制曲轴箱内的负压。

测量曲轴箱内的压力与大气压力的压差并以信号形式发送至发动机控制装置。发动机控制装置利用该信号识别曲轴箱通风装置是否泄漏。

Piston ring leakage gas (combustion gas composition, which enters the crankcase through the piston) generated during fuel combustion shall not be discharged into the air under uncontrolled conditions. Therefore, on the one hand, the crankcase ventilation device is used to re-introduce such gas into the combustion device, on the other hand, it is responsible for controlling the negative pressure in the crankcase.

Measure the pressure difference between the pressure in the crankcase and the atmospheric pressure and send it to the engine control unit in the form of a signal. The engine control unit uses this signal to identify whether the crankcase ventilation device is leaking.

◆ 连接选项 Connection options:

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根据客户选择定制连接系统。

Customized to customer choice of connection system.

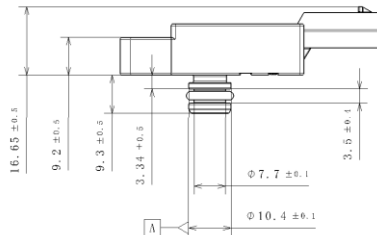
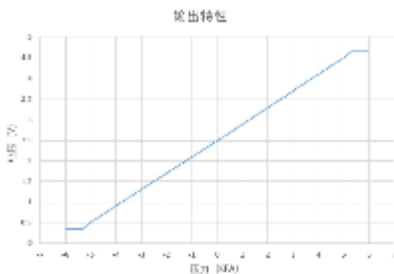
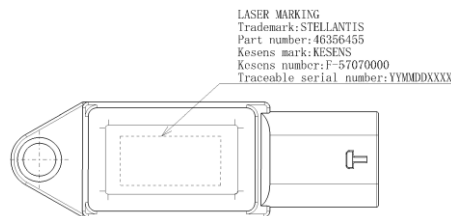
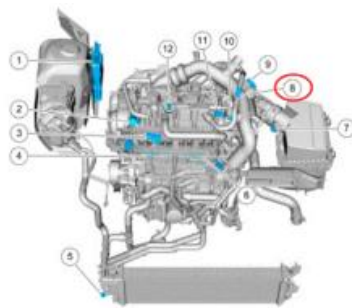
◆ 包装选项 Packaging Options:

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 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		115	°C
压力测量范围 PRESSURE RANGE	P	-5		5	kPa
电源电压 SUPPLY VOLTAGE	V _{cc}	4.75	5	5.25	V
负载电阻 LOAD RESISTANCE	R _{pull-up}	4.7			kΩ
额定输出电压 NOMINAL OUTPUT	V _{out}	10		90	%V _{cc}
输出电压上限值 UPPER CLAMPING LEVEL	V _{CL-HI}	4.67	4.7	4.73	V
输出电压下限值 LOWER CLAMPING LEVEL	V _{CL-LO}	0.27	0.3	0.33	V
整体精度误差 OVERALL ACCURACY ERROR	Err			3.4	%V _{cc}
安全压力 Safety pressure	P _{safety}		68		kPa



可根据需要定制电气和环境规范，详情请联系KESENS技术部。

Custom electrical and environmental specifications can be designed to meet any need, please contact KESENS Engineering for details.