

碳罐脱附压力传感器 Purging Line Pressure Sensor

产品介绍 Product Description

碳罐脱附压力传感器用于检测脱附路径的压力，并将其转换为电信号，以适时开启阀。

The purging line pressure sensor is used to detect the pressure of the desorption path, And convert it into an electrical signal to open the valve in time.



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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绝对压力信号。
Intake manifold absolute 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.
- ◆ 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 kpa abs）。
Different pressure ranges are available on customer request.

产品作用 Application

根据碳罐脱附压力传感器输出信号和脱附路径的压力，ECU可以得到信息，以适时开启阀，使得处于吸附饱和状态的活性炭罐能重新恢复吸附能力。

With information of fuel pressure sensor, ECU can obtain information to timely open the valve, so that the activated carbon canister in the saturated adsorption state can regain the adsorption capacity.

操作 Operation

◆ 基本原理 Basic principle:

碳罐脱附压力传感器根据感应脱附路径的压力变化，再从感知器内部电阻的改变，转换成电压信号，供ECU可以得到信息，以适时开启阀。

The purging line pressure sensor converts the pressure change of the sensing desorption path into a voltage signal from the change of the internal resistance of the sensor, so that the ECU can get information to open the valve in time.

◆ 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.

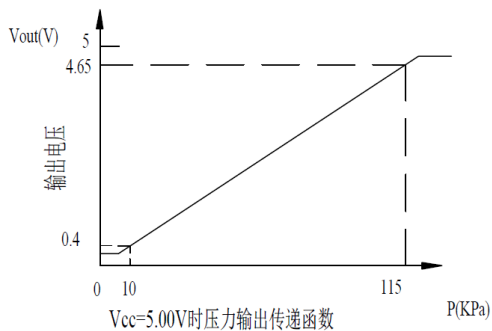
◆ 包装选项 Packaging Options:

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 _{cc}	4.5	5	5.5	V
电源电流 SUPPLY CURRENT	I _{cc}		8	10	Ma
输出负载电流 OUTPUT LOAD CURRENT	I _L	-1		1	mA
负载电阻 LOAD RESISTANCE	R _{pull-up}	5	47	100	kΩ
	R _{pull-down}	5	47	100	kΩ
额定输出电压 NOMINAL OUTPUT	V _{out}	8		93	%V _{cc}
输出电压上限值 UPPER CLAMPING LEVEL	V _{CL-HI}	4.77	4.8	4.83	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			1.6	kPa
压力响应时间 PRESSURE RESPONSE TIME	从 10%到 90%的最输出电 压 T _{10/90} 10% TO 90% OF THE FINAL OUTPUT VALUE			1.8	ms



3.压力传感器输出传递函数:
 $V_{out} / V_{cc} = (0.85 / 105) * P - 0.1 / 105$
 其中V_{out}=信号输出电压 (V); V_{cc}=电源电压 (V)
 P=绝对压力 (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.