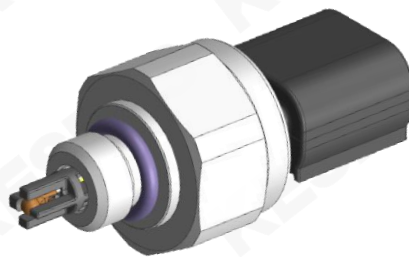


CNG温度压力传感器

CNG Pressure Temperature Sensor



产品介绍 Product Description

CNG压力温度传感器集成了温度和压力两个传感器，检测气罐以及管路系统内的压力和温度，并将电子信息发送给汽车的仪表盘和控制单元。

The CNG pressure & temperature sensor integrated pressure and temperature sensors, detects the pressure and temperature inside the CNG tank and pipeline system. CNG rail P+T sensor sends the information to the vehicle dashboard and ECU.

产品特征及优势 Feature and Benefits

- 温度压力传感器可以提供温度和压力两个信号
The P+T Sensor provides 2 outputs with temperature and pressure.
- 采用陶瓷电容技术，兼具高精度和优良的稳定性
With ceramic capacitor technology, high accuracy and long-term stability.
- 高精度, 优异的长期稳定性
High accuracy, excellent long-term stability
- 优良的EMC/ESD性能
Excellent EMC/ESD performance
- 过压和反向极性保护以及短路保护
Over voltage, reverse polarity and short circuit protection
- 压力范围、输出曲线以及外形尺寸定制化设计
Customized pressure range, output curve, and housing
- 高度模块化产品配置
Modular product configuration
- 出色的密封设计和防护设计, 防护等级可达到IP69
Excellent sealing and protective design, Protection grade IP69

产品应用 Product Application

CNG压力温度传感器安装在汽车CNG减压器与气瓶之间的管道上，检测气罐内和管路系统内的压力和温度，并将信息发送给汽车的仪表盘和控制单元，以便监测天然气罐内的压力和剩余气量情况。

The CNG pressure and temperature sensor is installed on the pipeline between the vehicle CNG pressure reducer and the gas tank, detecting the pressure and temperature inside the CNG tank and pipeline system. P+T sensor sends the information to the dashboard and ECU to monitor the pressure and remaining gas volume inside the tank.

操作 Operation

基本原理 Basic Principle

CNG气轨压力温度传感器的压力部分，是采用陶瓷电容技术，根据管道内介质的压力变化，将其转化为压力敏感元件的电容值变化，然后经过调理电路的处理放大，转为电压信号输出给控制器。温度部分采用一个负温度系数热敏电阻，电阻阻值随温度升高而降低，通过分压电路，可以将电阻阻值转化为电压信号。CNG pressure sensor uses ceramic capacitance technology, transferring the medium pressure in pipe to capacitance value change, and then be converted into a voltage signal output for controller. The temperature sensor is a negative temperature coefficient (NTC) thermistor, the resistance value decreases while the temperature increase, and the resistance value can be converted into a voltage signal.

连接选项 Connection Options

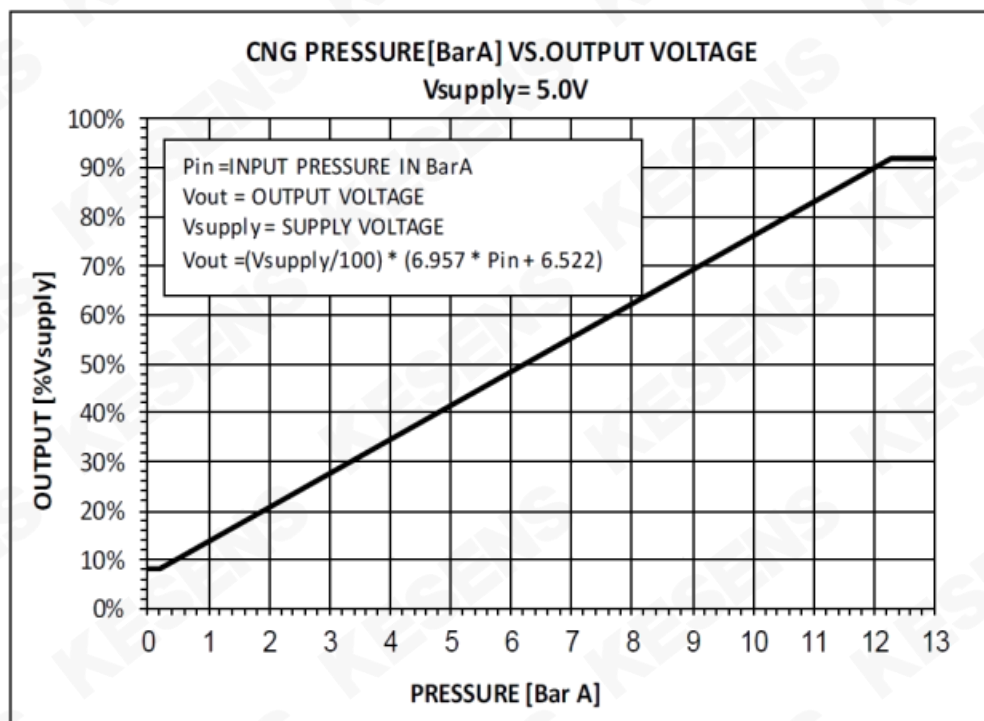
根据客户选择定制连接系统。
Customized to customer choice of connection system.

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	符号Symbol	最小值MIN.	额定值NOM.	最大值MAX.	单位UNITS
工作温度 TEMPERATURE RANGE	T	-40		140	℃
压力测量范围（可定制） PRESSURE RANGE(Customizable)	P	0.5		12	Bar
电源电压 SUPPLY VOLTAGE	Vcc	4.75	5	5.25	V
输出电流 OUTPUT CURRENT	Iout			15	mA
额定输出电压 NOMINAL OUTPUT	Vout	10		90	%Vcc
过载压力 Proof pressure				2*P	Bar
爆破压力 Burst pressure				3*P	Bar
压力整体精度误差 PRESSURE OVERALL ACCURACY ERROR	Err		±2%		、%FS
温度精度 TEMPERATURE ACCURACY			±1%		(delta R/R)
压力响应时间 PRESSURE RESPONSE TIME	从10%到90%的输出电压 T 10/90 (from 10% to 90% of final output value)			10	mS
NTC电阻值（20℃） NTC RESISTANCE（20℃）	R20	12310	12470	12630	Ω
低钳位电压（Vcc=5V） LOW OUTPUT SATURATION VOLTAGE		0.45	0.5	0.55	V
高钳位电压（Vcc=5V） HIGH OUTPUT SATURATION VOLTAGE		4.45	4.5	4.55	V



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