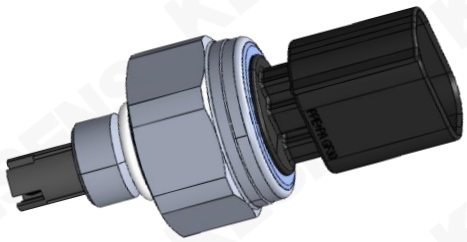
KESENS

空调温度压力传感器（NTC开放式）
AC Pressure & Temperature Sensor(NTC Open)



产品介绍 Product Description

空调温度压力传感器集成压力传感器与温度传感器为一体，提供信号给空调控制器。

The air condition P+T Sensor integrated pressure sensor and temperature sensor, provide signal to AC controller.

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 capacity technology, with both high accuracy and long-term stability.
- 0~4MPa范围内，压力量程可定制。
  Pressure can be customized in the range of 0~4MPa.
- -40~140℃范围内，温度特性曲线可系列化选择。
  Temperature curve can be series selected in the range of -40~140℃.
- 0.5V~4.5V范围内电压输出，提供适当诊断。
  Output with 0.5V~4.5V voltage single, with diagnosis function.
- 防护等级可达到IP69。
  Protection degree with IP69.
- 接插件及压力接头可定制。
  Connector and pressure port can be customized.

产品应用 Product Application

温度压力传感器检测空调管道内的冷媒压力和温度，通过调理电路转化为电信号并输出给空调控制器，空调控制器结合其他信号输入，调整执行机构，从而保证温度在乘员舒适的区间。

The P+T sensor Detect the pressure and temperature of refrigerant media, and transfer to electrical signal to AC controller. The controller will combinate other signals inputs and then control the actuator to make sure the air temperature within the comfortable zone for all passengers.

操作 Operation

基本原理 Basic Principle

空调温度压力传感器的压力部分，是采用陶瓷电容技术，根据管道介质的压力变化，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。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。

With Ceramic capacitance technology, the pressure of the medium in pipe will be transferred to capacitance value, and then be converted into a voltage signal by the conditioning module. The temperature part uses a negative temperature coefficient thermistor, the resistance value decreases vs the temperature increase, and the resistance value can be converted into a voltage signal through the conditioning module.

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.

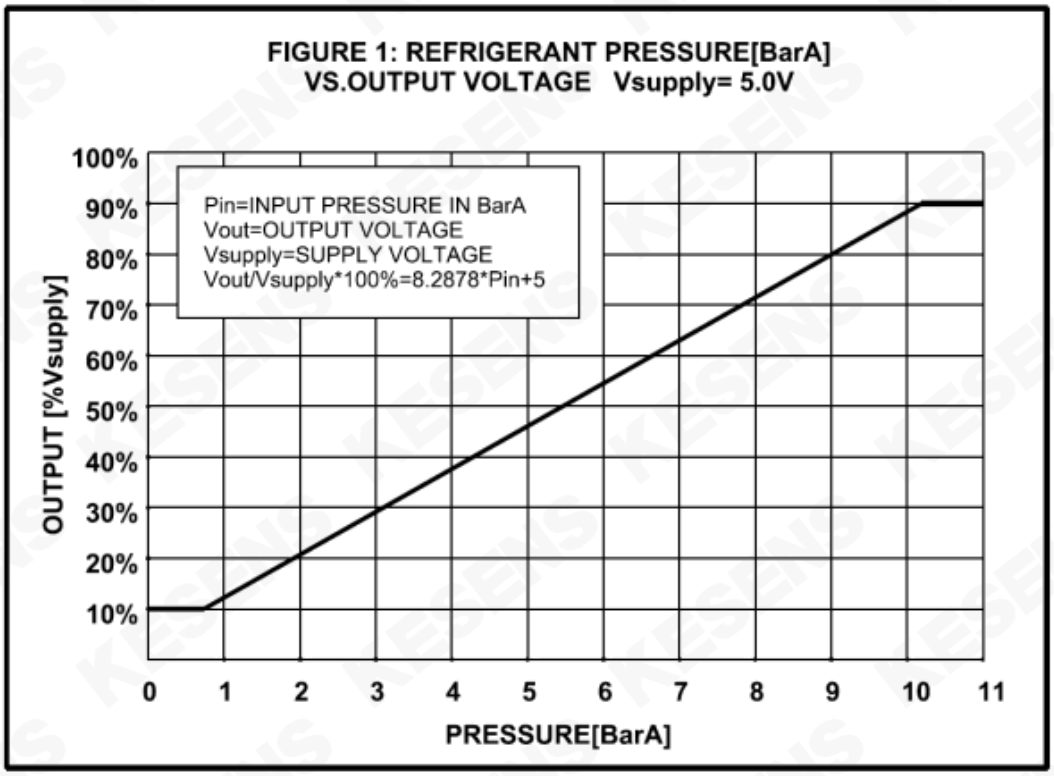
包装选项 Packaging Options

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		130	℃
压力测量范围 PRESSURE RANGE	P	0		10	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		±3%		%FS
温度精度 TEMPERATURE ACCURACY			±1%		%
NTC电阻值 (20℃) NTC RESISTANCE (20℃)	R20	12.3	12.5	12.7	kΩ



可根据客户需求定制产品，如有需求请联系我们。
Customized products available upon request. Contact us for details.

地址：浙江省嘉兴市经济技术开发区天枢路199号
Add：No. 199, Tianshu Road, Economic and Technological Development Zone, Jiaxing City, Zhejiang Province，China.
电话（Tel）：0573-82858999
邮箱（E-mail）：info@kesens.com
网址（Web）：www.kesens.com