

产品介绍 Product Description (应用于传统燃油汽车场景)

SOV常闭阀一般用在空调管路上起到开关通断作用；不通电时阀口关闭，阻断管路介质流通，通电状态，阀口打开，管路介质流通。

SOV normally closed valves are generally used in air conditioning lines to play the role of switching on and off; When the valve port is not energized, the valve port is closed, blocking the flow of pipeline medium, and in the energized state, the valve port is opened and the pipeline is connected.

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产品特征及优势 Feature and Benefits

- ◆ 该产品自带阀体，通常使用在管路连接上，属于快插式链接；
The product comes with a valve body, which is usually used in the pipe connection and belongs to the push-in link.
- ◆ 良好的开阀性能MOPD > 2.5MPa；
Good valve opening performance MOPD > 2.5MPa.
- ◆ 线圈内置双向二极管，更好保护ECU；
The coil has built-in bidirectional diodes for better ECU protection.
- ◆ 阀口密封采用橡胶密封，极低的内泄露；
The port seal adopts a rubber seal for extremely low internal leakage.

产品作用 Application

主要作用/ Main Role:

SOV阀一般使用在空调系统中，控制空调管路冷媒的通断。冷媒可以为液态、气态、气液共存状态。

SOV valves are generally used in air conditioning systems to control the on/off of refrigerant in air conditioning pipelines. The refrigerant can be liquid, gaseous, gas-liquid coexistence.

操作 Operation

◆ 基本原理 Basic Principle:

ECU控制器给一个电信号，通过电磁线圈给电磁阀提供电磁力从而控制电磁阀开关。再通过电磁阀的通断，控制管路介质的通断。

The ECU controller gives an electrical signal to the solenoid coil, through which the solenoid valve is supplied with electromagnetic force to control the solenoid valve switch. Then through the on-off of the solenoid valve, the on-off of the pipeline medium is controlled.



SOV常闭型
normally closed type

SOV常开型
Normally open type

◆ 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

项目 ITEMS	参数 PARAMETER	
工作模式 Working Mode	常闭型 Normally closed type	常开型 Normally open type
阀口直径 Valve Port Diameter	10mm / 12mm	10mm/12mm
工作介质 Working Medium	R134a, R234yf, R410A; PAG&POE Oil	R134a, R234yf, R410A; PAG&POE Oil
环境温度 Ambient Temperature	-40°C~+125°C, ≤100%RH	-40°C~+125°C, ≤100%RH
工作温度 Temperature Range	-40°C~+120°C	-40°C~+120°C
工作电压 Operating Voltage	DC9V~DC16V	DC9V~DC16V
额定电压 Rated Voltage	DC12V	DC12V
额定电流 Rated Current	≤1A @ DC12V,20°C	≤1A @ DC12V,20°C
最低动作电压 Minimum Operating Voltage	≤DC9V @ 1.5MPa ,20°C	≤DC9V @ 1.5MPa ,20°C
最大开阀压差 (MOPD) Maximum Open Valve Differential Pressure (MOPD)	≥2.5MPa @ DC9V,20°C	≥2.5MPa @ DC9V,20°C
外漏 External Leakage	≤1.5g/y @ 2.0MPa	≤1.5g/y @ 2.0MPa
内漏 Internal Leakage	≤50ml/min @ 1.03MPa	≤50ml/min @ 1.03MPa
耐压强度 Compressive Strength	5.4MPa	5.4MPa
爆破压力 Burst Pressure	≥10.6MPa	≥10.6MPa
绝缘电阻 Insulation Resistance	≥10MΩ @ DC500V	≥10MΩ @ DC500V
防护等级 Degree Of Protection	IP69	IP69
寿命耐久 Lifetimes	≥20,0k	>200k cycles

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.