



# 限位开关



产品使用说明书use specification



上海菲恩自控阀门有限公司  
Shanghai Fine Automatic Control Valve Co., Ltd.



## 限位开关 Limit Switch Boxes

### 限位行程开关盒

APL-210、APL-310 和 APL-410 型限位开关盒是传送执行器和阀门的位置讯号到现场和遥控操作上。它能直接安装在执行器上部，符合标准 VDI/VDE 3845。特点有现场可视位置指示器，快速调整位置凸轮；可调式凸轮通过花键和弹簧安装，只要开关凸轮脱离花键便可旋转调整所需的位置，防掉外壳螺钉和两个电缆进口 G1/2" 管接口。内部行程开关预先连接接线终端，8 个接线端子，并可用于电磁阀的连接。

### Limit Switch Boxes

The cases of APL-210, APL-310 and APL-410 type over travel limit switches is the remote-control operating station transferring the positions of the performers and valves to the site. It can be directly installed on the performer, conforming to the standard VDI/VDE 3845. The characteristics are the indicator of field visual positions and cams adjusting position rapidly. The adjustable cams are installed with splines and springs. By turning on or off the separating splines, the cams can be adjusted to the required position. The bolts of the outer shell are anti-dropping and there are two G1/2 inlet holes for cables. The inside over travel limit switches are connected to the terminals in advance. There are 8 terminals which can be used for connection to Solenoid valves.

### 安装说明

如果执行器 4 在关的位置上, 开关盒 1 应该确认显示为 CLOSED 位置, 通过合适高度的连接支架 2 对准多功能指示器 3 上面的沟槽后使用四个螺栓进行安装。

### Installation instructions

If the performer 4 is turned on, the switch case 1 should be confirmed to be on the position of CLOSED. It is installed with 4 bolts after the connection supporter 2 with the proper height is aligned to the trough on the multi-function indicator 3.



APL-210  
外壳防护型(IP67)

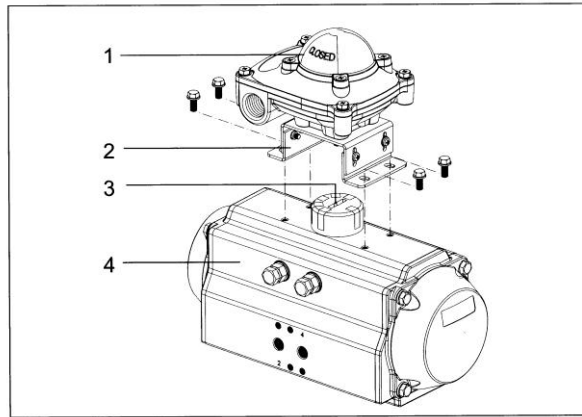


APL-310  
外壳防护型(IP67)



APL-410  
防水防爆型(EXd II BT4)





### 主要技术参数 Main technical data

型号 Model	APL-210	APL-310	APL-410
壳体防护 Shell protective	IP67	IP67	Exd II BT4
温度 Temperature	-25~85℃		
接口 Connection	2-1/2NPT		
接线端子 Terminals	PA8H		
位置指示 Indication of position	开-黄 (OPEN) ;关-红 (CLOSED) OPEN-Yellow , CLOSED-redness		
微型开关 Micro switch	机械式, 感应式 Mechanical switch and Induction switch		

选项: 传送电流输出信号, 电阻性电位计输出信号。

Options: Transmit the current output signal and output signal of resistive potentiometer.

### 操作说明

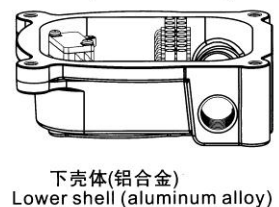
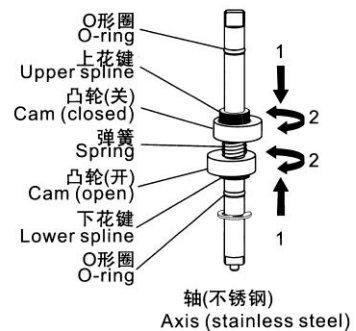
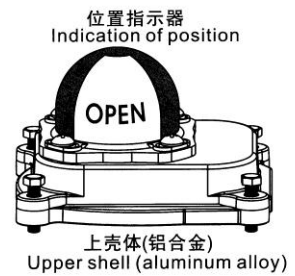
在需要调整开关位置时, 根据图示箭头步骤示意进行操作:

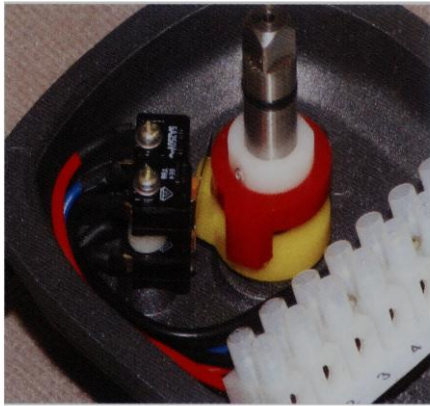
- 1、推动凸轮弹簧压缩, 凸轮脱离花键啮合。
- 2、随意转动凸轮调整所需的位置, 调整后松开凸轮, 确认凸轮已经被弹簧弹合复位啮合。

### Operation instructions

When it requires adjusting the position of switch, it should be operated according to the steps shown by the arrows in the figure.

1. Push the spring of the cam to be compressed, and the separation spline of the cam is engaged.
2. Rotate the cam to the required position, loose the cam and confirm that the cam has rebounded to the original position can be engaged by the spring.





机械式开关  
Mechanical switch  
OMRON SS-5GL 2 SPDT  
电压 Voltage:  
0.4A, 125V DC  
4A, 30V DC  
3A, 250V AC  
5A, 120V AC



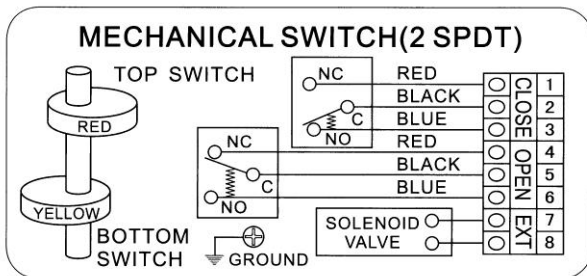
机械式开关  
Mechanical switch  
OMRON V-155-1A5 2 SPDT  
电压 Voltage:  
0.6A, 125V DC  
16A, 250V AC



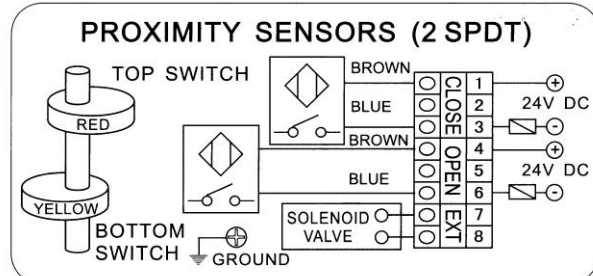
感应式开关  
Induction switch  
JEELON LJE-0224LA  
2 SPDT  
直流 voltage: 10-30V DC  
感应距离  
Induction distance: 2mm  
可选其它品牌  
Alternative brands:  
P&F NJ2-V3-N

接线图 Wiring diagram

机械式开关 Mechanical switch



感应式开关 Induction switch



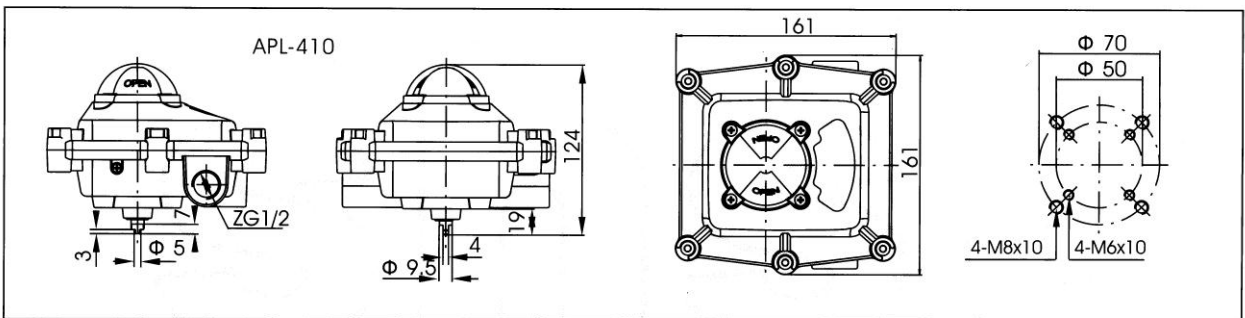
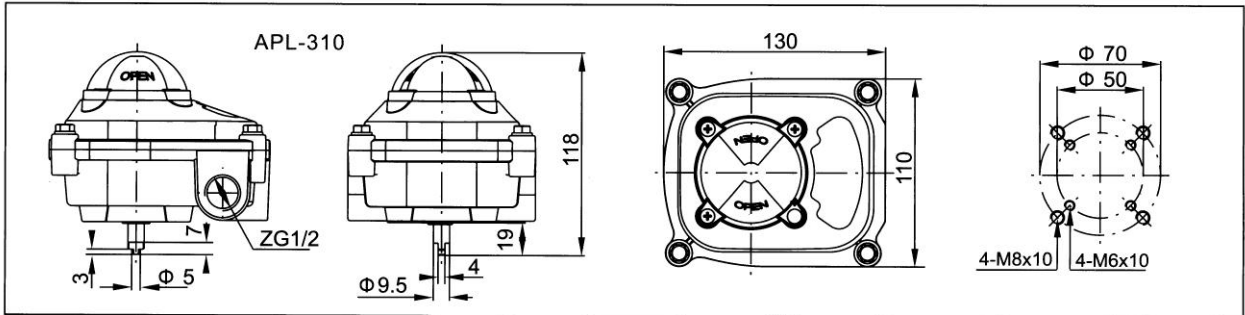
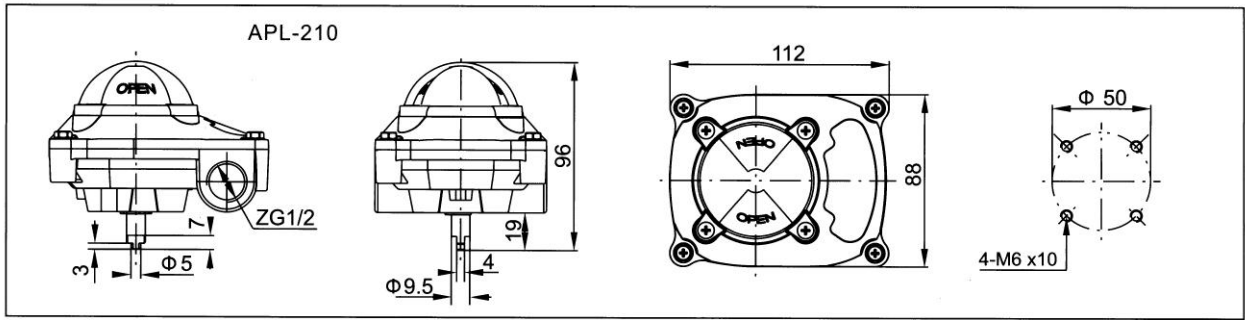
选型指南 Instructions for type selection

APL	-	2	1	0	-	A
2=气候防护型 IP67 (精小型)			1=机械开关	0=2xSPDT		A=30x80x20 B=30x80x30 C=30x130x50
3=气候防护型 IP67 (普通型)			1=Mechanical switch	1=3xSPDT		
4=隔爆型 (Exd II BT4、IP67)				2=4xspdt		
2=Weather-proofing IP67 (fine type)				3=2xSPST		
3=Weather-proofing IP67 (ordinary type)				4=2xDPDT		
4=Explosion protective type (Exd II BT4、IP67)				5=2xSODT+电位计 (0~1KΩ)		
				2xSODT+potentiometer (0~1KΩ)		
				6=2xSPDT+电流反馈 (4-20mA)		
				2xSPDT+Current feedback (4-20mA)		
			2=接近开关	0=LJE-0224LA		
			2=Induction switch	1=其它 Else		



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外形连接尺寸 Configuration and connect size



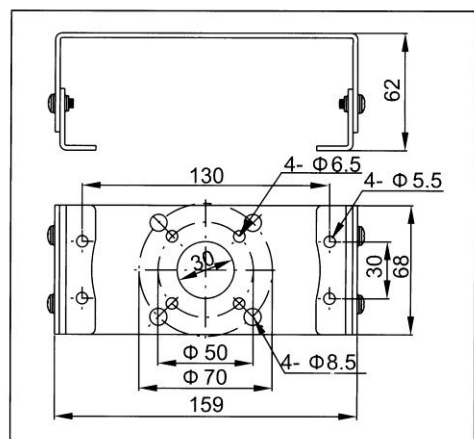
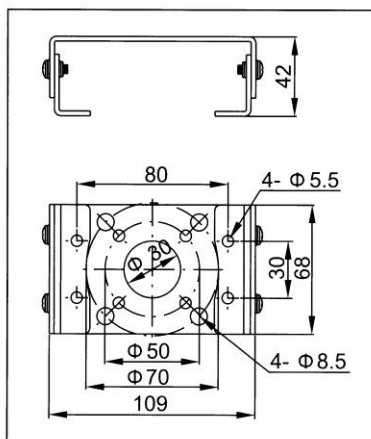
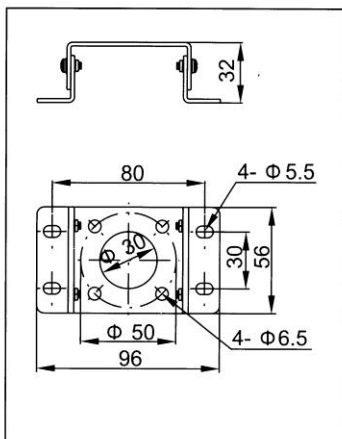
支架连接尺寸 Bracket connect size



A=30x80x20

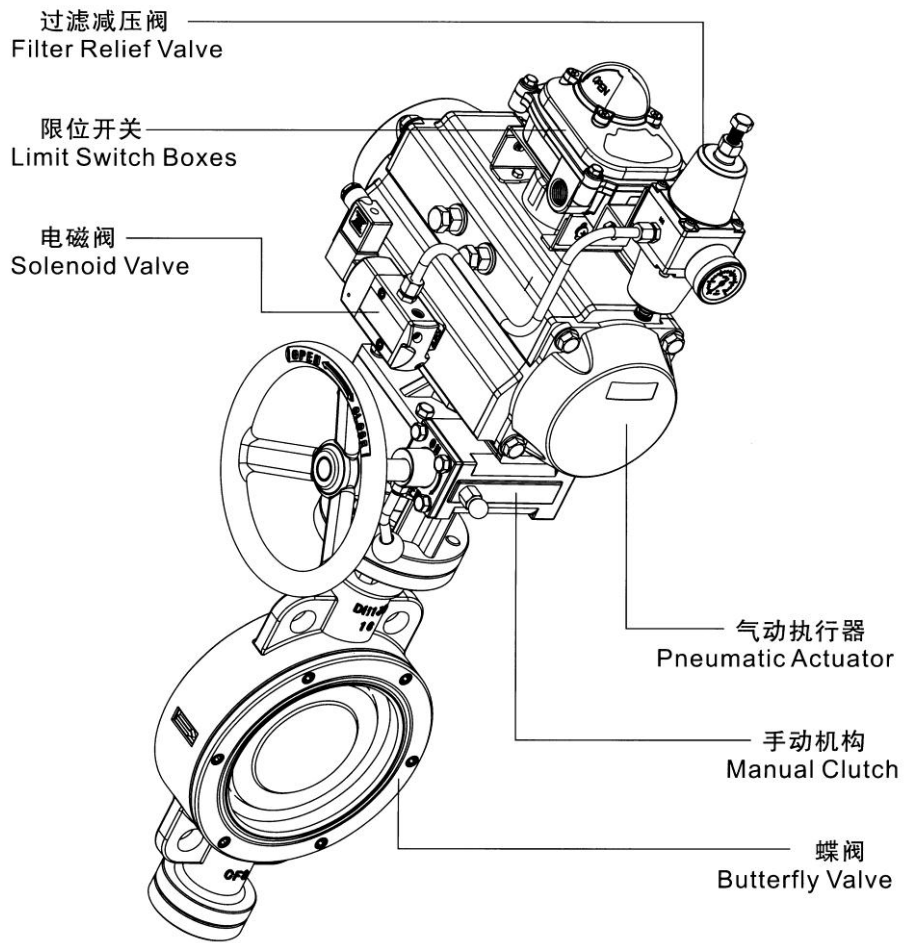
B=30x80x30

C=30x130x50





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