

CLS 立式限位开关 Vertical Limit Switch



特点 Features

- 双回路型限位开关
 - 塑料经济型限位开关
 - 体积小, 可防水、防油
 - 内藏触点座有双簧片机构, 机械寿命更长
 - 具有较大的过行程
 - 引动器种类多, 方便使用
- Double circuit type of limit switch
 - Economic plastic type of limit switch
 - Small size, water-proof and oil-proof construction
 - Built-in contact box has double-spring and long mechanical life
 - Smooth operation with larger over travel distance
 - Various actuators for different applications

接点型式 Contact Form



额定值 Ratings

额定电压 Rated Voltage	非电感性负载 Noninductive Load (A)				电感性负载 Inductive Load (A)			
	电阻性负载 Resistance Load		灯泡负载 Lamp Load		电感性负载 Inductive Load		马达负载 Motor Load	
	NC	NO	NC	NO	NC	NO	NC	NO
125VAC	5	5	1.5	0.7	3	3	2	1
250VAC	5	5	1	0.5	3	3	1.5	0.8
8VDC	5	5	3	3	5	4	3	3
14VDC	5	5	3	3	4	4	3	3
30VDC	5	5	3	3	4	4	3	3
125VDC	0.4	0.4						
250VDC	0.2	0.2						
突入电流 Inrush Current	N.C.:24A 以下, N.O.:12A 以下 N.C: below 24A, N.O: below 12A							

- 注: 1. 电感性负载之功率因素在 0.4 以上 (AC), 时间常数在 7msec 以下 (DC).
2. 灯泡负载之突入电流为稳定状态电流之 10 倍。马达负载之突入电流为稳定状态电流之 6 倍。
3. 带弹簧系列产品, 操作体的使用范围为从弹簧的前端到弹簧全长的 1/3 以内。

- NOTES: 1. Inductive load has a power factor of 0.4 min.(AC) and a time constant of 7 msec. max.(DC).
2. Lamp load has an inrush current of 10 times the steady-state current, while motor load has an inrush current of 6 times the steady-state current.
3. Product with spring, its usable range of operating part is within one third of the whole spring length from the front end of spring.

动作特性 Operating Characteristics

型号	Model	CLS	101 301	102/103 302/303	111 311	121/121M 321/321M	127 327	131/131M 331/331M	161 361	171 371	181 381	191 391
操作力	Operating force	OF (最大) (Max.)	700g	700g	700g	500g	700g	500g	100g	100g	100g	500g
回弹力	Release force	RF (最小) (Min.)	200g	200g	200g	100g	200g	100g	40g	40g	40g	100g
预行程	Pre-travel	PT (最大) (Max.)	1.8mm	1.8mm	1.8mm	20°	1.8mm	20°	30mm	30mm	30mm	20°
触发位置	Tripping position	TP ± 10%	2.0mm	2.0mm	2.0mm	22.5°	2.0mm	22.5°	22.5°	22.5°	22.5°	22.5°
行程移动分辨率	Movement differential	MD (最大) (Max.)	1.2mm	1.2mm	1.2mm	10°	1.2mm	10°	14°	14°	14°	10°
过行程	Over travel	OT (最小) (Min.)	4.0mm	4.0mm	4.0mm	75°	4.0mm	75°	20mm	20mm	20mm	75°
总行程	Total travel	TT (最小) (Min.)	5.8mm	5.8mm	5.8mm	95°	5.8mm	95°	50mm	50mm	50mm	95°
摇臂转动分角度	Rotary indexing					22.5°		22.5°				22.5°

规格 Specifications

操作速度 Operation speed	5mm 至 0.5m/s 5mm-0.5m/s
动作频率 Operating frequency	电气: 30 次 / 分 Electrical: 30 operations/min
接点电阻 Contact resistance	25mΩ 以下 (初期) 25mΩ max. (initial value)
绝缘电阻 Insulation resistance	100mΩ 以上 (在 500VDC 下) 100mΩ min. (below 500VDC)
电介强度 Dielectric strength	非连续端子间 1,000VAC, 50/60Hz 持续 1 分钟 1500VAC, 50/60 Hz for 1 minute between current-carrying and non-current-carrying metal parts
	载电流与无载电流零件间 1,500VAC, 50/60Hz 持续 1 分钟 1500VAC, 50/60 Hz for 1 minute between current-carrying and non-current-carrying metal parts
	端子和接地之间 1,500VAC, 50/60Hz 持续 1 分钟 1500VAC, 50/60 Hz for 1 minute between each terminal and ground
振动 Vibration	10 至 55Hz, 1.5mm 双振幅 10-55Hz, 1.5mm double amplitude
冲击 Shock	机械耐久: 1,000m/Sec ² (约 100G' S) 误动作耐久: 300m/Sec ² (约 30G' S) Mechanical durable: 1,000m/Sec ² (about 100G'S) Malfunction: 300m/Sec ² (about 30G'S)
周围温度 Ambient temperature	使用时: -20~+70°C (没有结冰) Using: -20~+70°C (With no icing)
湿度 Humidity	95%RH 以下 <95% RH
电气寿命 Electrical life	500,000 次以上 500,000 operations above
保护构造 Protection level	IP66

注: 导管连接器尺寸常规默认为 M20x1.5; 导管连接器尺寸 PG13.5, 型号加 (-P), 例: CLS-103-P.

NOTES: The default size of conduit connector is M20x1.5, outfitting cable connector. Conduit connector size is PG13.5, with product model number plus (-P), example: CLS-103-P.

外观和尺寸 Appearance and Dimension



CLS-1 立式限位开关 Vertical Limit Switch

外观和尺寸 Appearance and Dimension



CLS-3 立式限位开关 Vertical Limit Switch

外观和尺寸 Appearance and Dimension



外观和尺寸 Appearance and Dimension

<p>CLS-312</p>	<p>CLS-327</p>
<p>CLS-321</p>	<p>CLS-321M</p>
<p>CLS-331</p>	<p>CLS-331M</p>
<p>CLS-361</p>	<p>CLS-371</p>
<p>CLS-381</p>	<p>CLS-391</p>