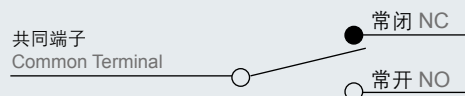




### 特点 Features

- 内藏 CM 卧式限位开关
  - 具有高机械强度的一体铸造铝合金外壳
  - 具耐油、防水和防压结构
  - 额定值及特性同 CM 卧式限位开关
  - 引动器种类多，方便使用
- Built-in CM horizontal limit switch
  - High mechanical strength, mainly consists of aluminum cast
  - Water-proof and oil-proof construction
  - Same rated value and characteristic with CM horizontal limit switch
  - 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.

### 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 :20 次 / 分 Electrical: 20 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
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 <sup>2</sup> (约 100G <sup>2</sup> S) 误动作耐久 :300m/Sec <sup>2</sup> (约 30G <sup>2</sup> S) Mechanical durable: 1,000m/Sec <sup>2</sup> (about 100G <sup>2</sup> S) Malfunction: 300m/Sec <sup>2</sup> (about 30G <sup>2</sup> S)
周围温度 Ambient temperature	使用时 :-20~+80°C (没有结冰) Using: -20~+80°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，配电缆接头；导管连接器尺寸 PG13.5，型号加 (-P)，例：TZ-6104-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: TZ-6104-P.

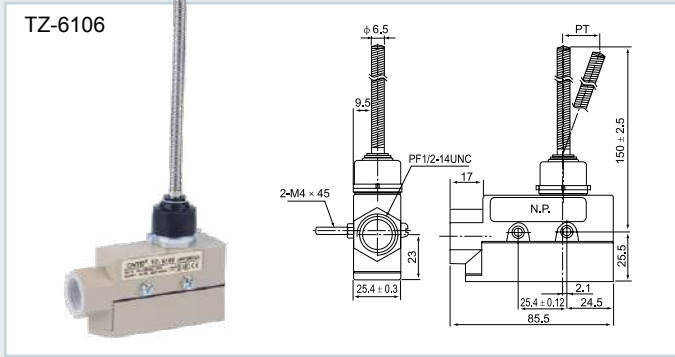
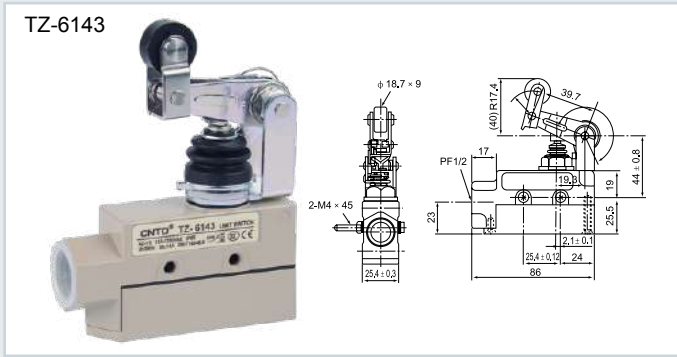
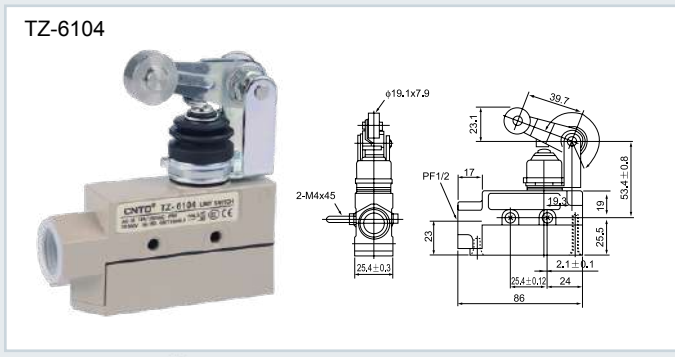
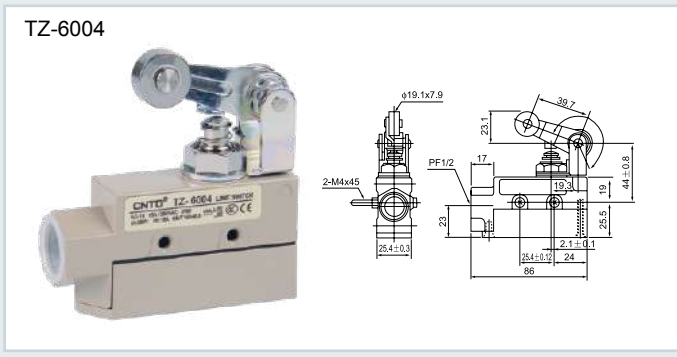
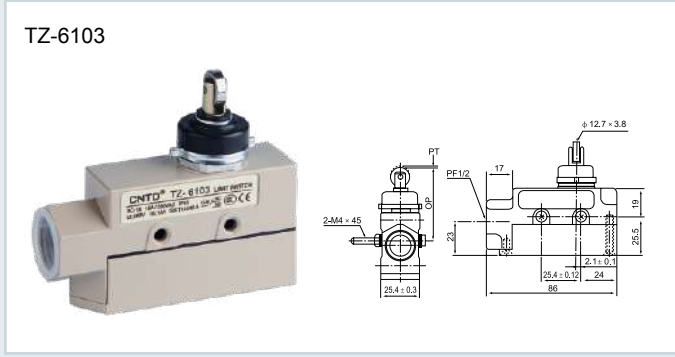
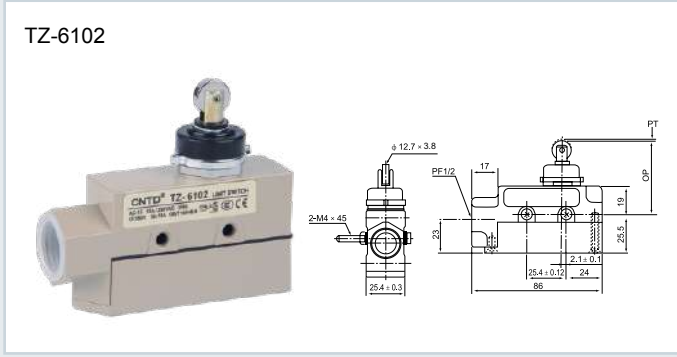
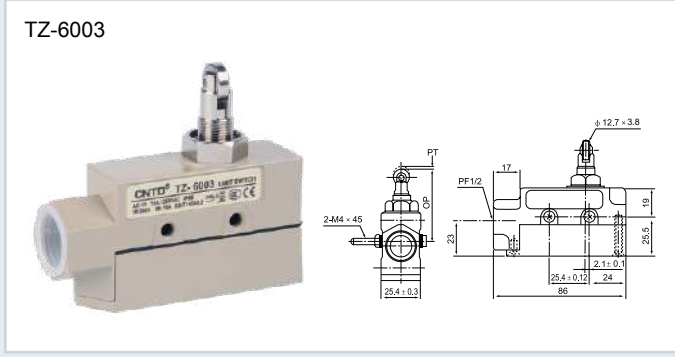
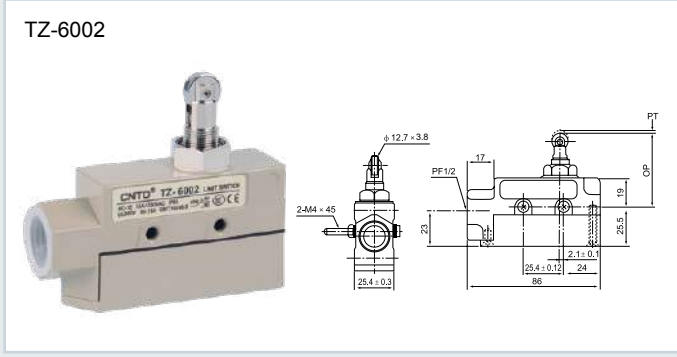
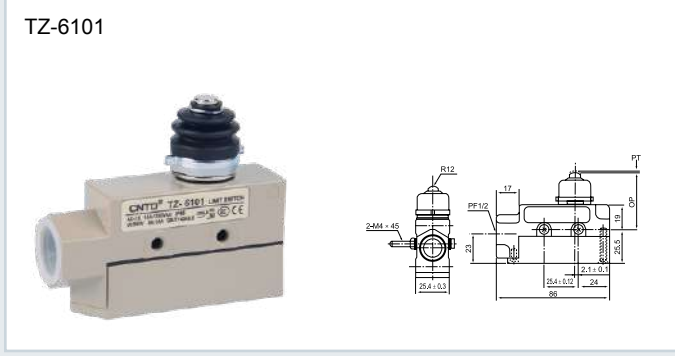
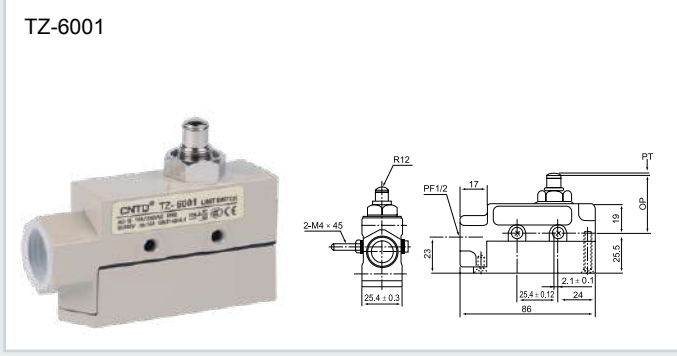
### 动作特性 Operating Characteristics

型号	Model	TZ-6	TZ-6001	TZ-6002	TZ-6003	TZ-6004	TZ-6043	TZ-6101	TZ-6102	TZ-6103	TZ-6104	TZ-6143
操作力	Operating force	OF(最大)(Max.)	250~350g	250~350g	570g	570g	800g	500g	640g	640g	640g	640g
回弹力	Release force	RF(最小)(Min.)	114g	114g	170g	170g	240g	100g	230g	230g	230g	230g
预行程	Pre-travel	PT(最大)(Max.)	0.4mm	0.5mm	4mm	4mm	2mm	1mm	5mm	5mm	5mm	5mm
行程移动分辨率	Movement differential	MD(最大)(Max.)	0.05mm	0.05mm	0.4mm	0.4mm	0.1mm	0.12mm	0.4mm	0.4mm	0.4mm	0.4mm
过行程	Over travel	OT(最小)(Min.)	5.5mm	3.6mm	6mm	6mm	5mm	3.5mm	6mm	6mm	6mm	6mm
动作位置	Operating Position	OP(mm.)	38.2±0.8mm	49.7±1mm			45.8±0.8mm	49.7±0.8mm				

# TZ-6 卧式限位开关

## Horizontal Limit Switch

### 外观和尺寸 Appearance and Dimension

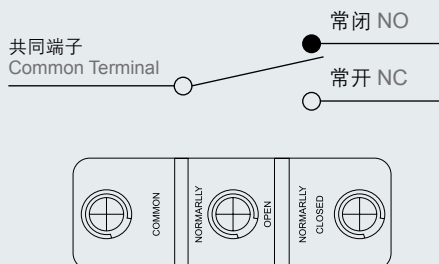




### 特点 Features

- 引动器种类广泛，其中包含动作位置可调整的款式 (如 CM1701)
- 高精度广泛操作速度范围
- Various actuators and some with adjustable operating position (such as CM1701)
- High accuracy wide range of operation speed

### 接点型式 Contact Form



\* 黄铜端子螺丝，型号后加 (-T)。  
\* Brass terminal screw, model plus (-T).

### 额定值 Ratings

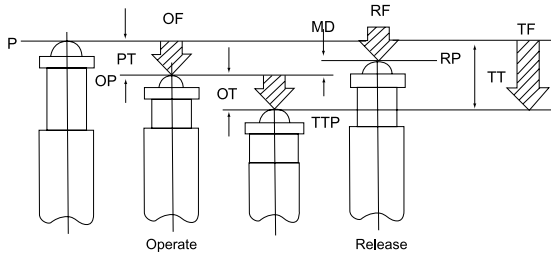
额定电压 Rated Voltage	非电感性负载 Noninductive Load (A)				电感性负载 Inductive Load (A)				突入 电流 (A) Inrush Current	
	电阻性负载 Resistance Load		灯泡负载 Lamp Load		电感性负载 Inductive Load		马达负载 Motor Load			
	NC	NO	NC	NO	NC	NO	NC	NO	NC	NO
125VAC	15	3	1.5	15	5	2.5			30 以下 max.	15 以下 max.
250VAC	15	2.5	1.25	15	3	1.5				
500VAC	3	1.5	0.75	2.5	1.5	0.75				
8VDC	15	3	1.5	15	5	2.5				
14VDC	15	3	1.5	10	5	2.5				
30VDC	6(2)	3	1.5	5	5	2.5				
125VDC	0.4	0.4	0.4	0.05	0.05	0.05				
250VDC	0.2	0.2	0.2	0.03	0.03	0.03				

### 规格 Specifications

操作速度 Operation speed	0.05mm 至 1m/s (柱塞型 Plunger type) 0.05mm-1m/s
动作频率 Operating frequency	电气 :20 次 / 分 Electrical: 20 operations/min.
接点电阻 Contact resistance	15mΩ 以下 (初期) 15mΩ max. (initial value)
绝缘电阻 Insulation resistance	100mΩ 以上 (在 500VDC 以下) 100mΩ min. (at 500VDC)
电介强度 Dielectric Strength	非连续端子间 1,000VAC, 50/60Hz 持续 1 分钟 1000VAC, 50/60 Hz for 1 minute between terminals of the same polarity
	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 20Hz): 1.5mm 变振幅误动作耐久 : 10 至 55Hz (*10 to 20Hz): 1.5 Vibration amplitude action duration: 10 to 55Hz
冲击 Shock	机械耐久 :1,000m/Sec <sup>2</sup> (约 100G' S) 误动作耐久 :300m/Sec <sup>2</sup> (约 30G' S) Mechanical durable: 1,000m/Sec <sup>2</sup> (about 100G'S) Malfunction: 300m/Sec <sup>2</sup> (about 30G'S)
周围温度 Ambient temperature	使用时: -20~+80°C (没有结冰) Using: -20~+80°C (With no icing)
湿度 Humidity	泛用型 : 85%RH 以上 密封型 : 95%RH General purpose type: 85% RH max., Sealed type: 95% RH max.
电气寿命 Electrical life	500,000 次以上 500,000 operations above
重量 Weight	约 22 至 58g About 22 to 58g

### 动作特性 Operating Characteristics

型式 Models	CM1300	CM1301	CM1303 CM1303M	CM1305	CM1306	CM1307	CM1308 CM1308X	CM1309	CM1701 CM1706	CM1702	CM-1703 CM-1703M	CM-1704 CM-1704M	CM1705	CM-1743 CM-1743M
OF 最大 (Max.)	350g	300g	300g	350g	350g	350g	350g	350g	70g	160g	100g	160g	10g	160g
RF 最小 (Min.)	114g	50g	50g	114g	114g	114g	114g	114g	14g	28g	22g	42g	3g	42g
PT 最大 (Max.)	0.4mm	4mm	4mm	0.4mm	0.4mm	0.4mm	0.4mm	0.4mm	10mm	5mm	7.1mm	2.7mm	20mm	2.7mm
OT 最小 (Min.)	0.13mm	1.6mm	1.6mm	1.6mm	1.6mm	5.5mm	3.58mm	3.58mm	5.6mm	2mm	4mm	2.4mm	5.6mm	2.4mm
MD 最大 (Max.)	0.05mm	1.3mm	1.3mm	0.05mm	0.05mm	0.05mm	0.05mm	0.05mm	1.27mm	1mm	1.02mm	0.5mm	3mm	0.5mm
FP 最大 (Max.)		20.6mm	31.8mm						28.2mm	24.8mm	36.5mm	32.5mm		43.6mm
OP(mm)	15.9 ± 0.4	17.4 ± 0.8	28.6 ± 0.8	28.2 ± 0.5	21.5 ± 0.5	21.8 ± 0.8	33.4 ± 1.2	33.4 ± 1.2	19 ± 0.8	19 ± 0.4	30.2 ± 0.8	30.2 ± 0.4	19 ± 0.8	43.1 ± 0.8

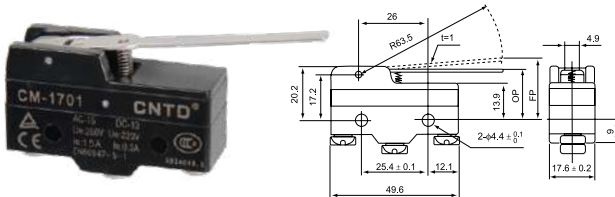


OF: 动作力  
RF: 回复力  
TF: 总行程动作力  
FP: 自由位置  
OP: 动作位置  
RP: 返回位置  
TTP: 总行程位置  
PT: 预行程位置  
OT: 过行程  
MD: 响应差的行程  
TT: 总行程

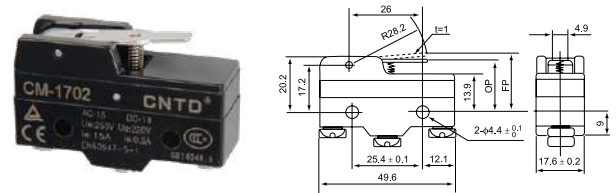
OF: Operating Force  
RF: Releasing Force  
TF: Total Force  
FP: Free Position  
OP: Operating Position  
RP: Releasing Position  
TTP: Total Travel Position  
PT: Pre Travel  
OT: Over Travel  
MD: Movement Differential  
TT: Total Travel

### 外观和尺寸 Appearance and Dimension

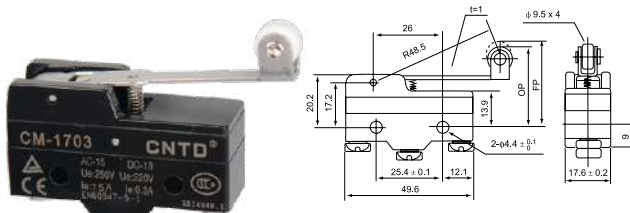
CM-1701



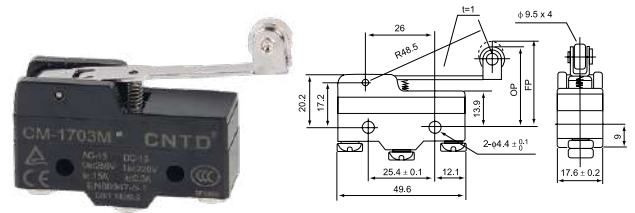
CM-1702



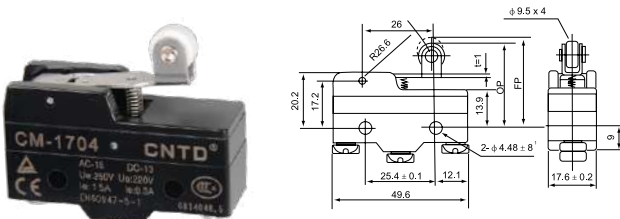
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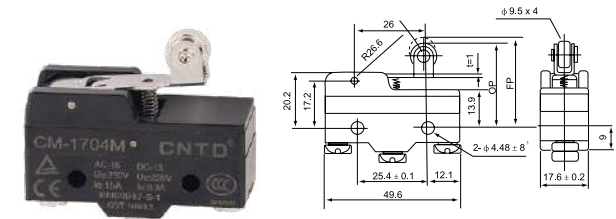
CM-1703M



CM-1704

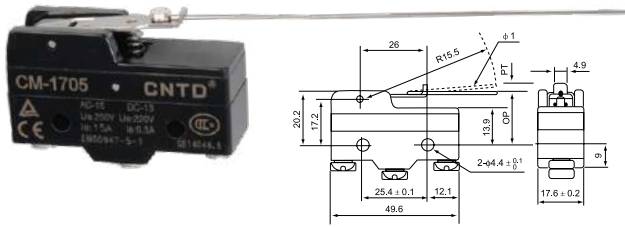


CM-1704M

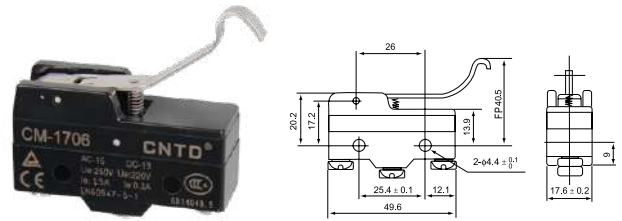


外观和尺寸 Appearance and Dimension

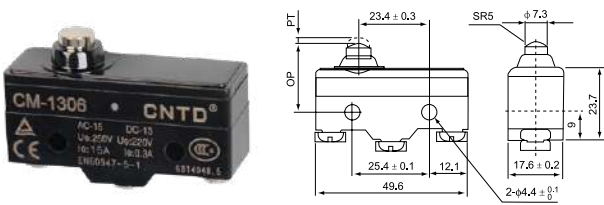
CM-1705



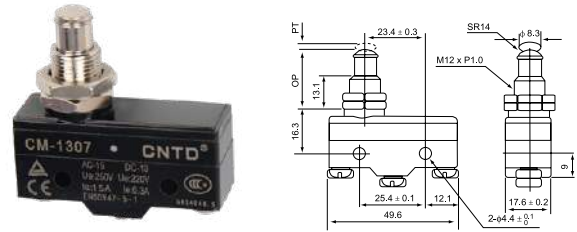
CM-1706



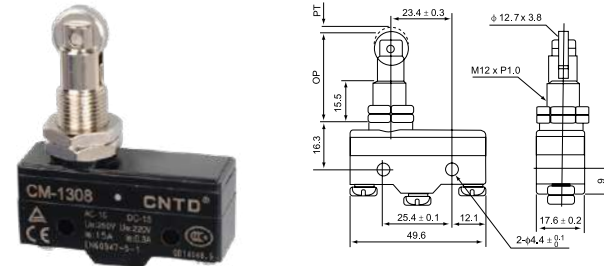
CM-1306



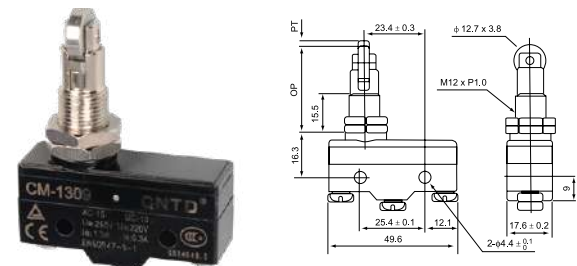
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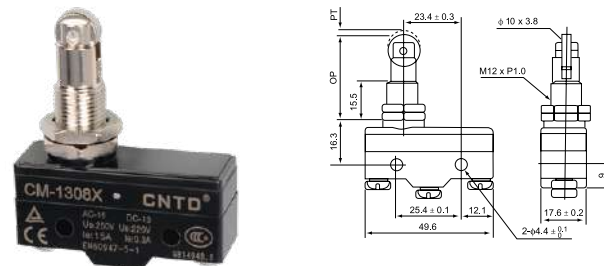
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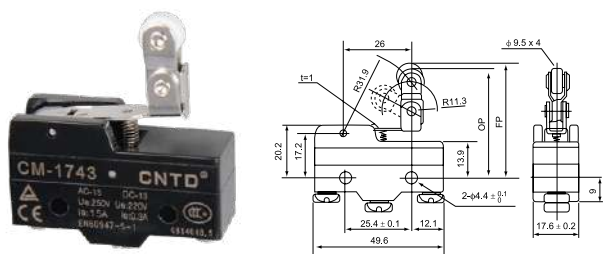
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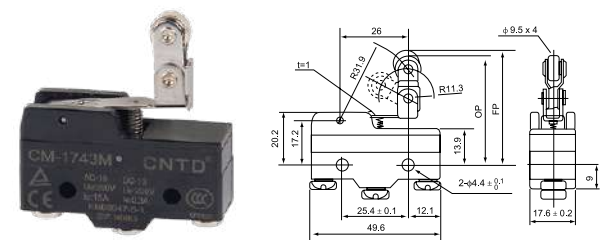
CM-1308X



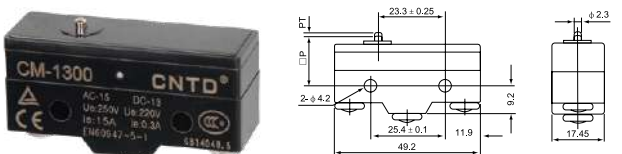
CM-1743



CM-1743M



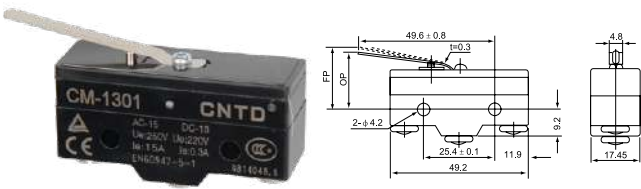
CM-1300



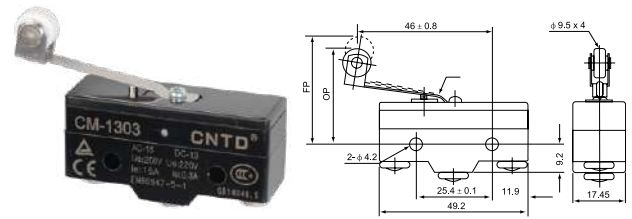
# CM 卧式限位开关 Horizontal Limit Switch

## 外观和尺寸 Appearance and Dimension

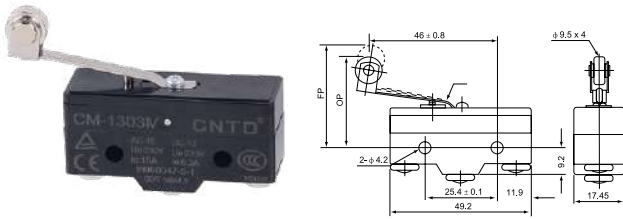
CM-1301



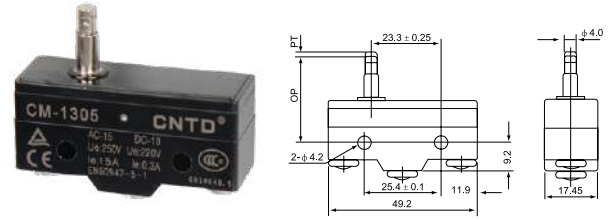
CM-1303



CM-1303M



CM-1305



## 端子保护罩 Terminal Cover

CAP-Y



CAP-C



CAP-B

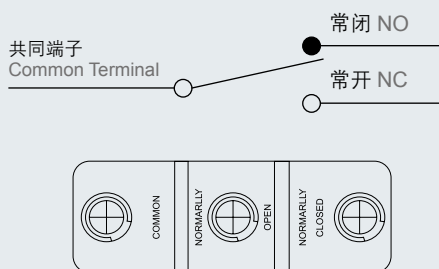




### 特点 Features

- 工程塑胶壳体，强度更高
  - 引动器种类广泛，其中包含动作位置可调整的款式 (如 CM1701N)
  - 高精度广泛操作速度范围
- Engineering plastics shell for resistant construction
  - Various actuators and some with adjustable operating position (such as CM1701N)
  - High accuracy wide range of operation speed

### 接点型式 Contact Form



\* 黄铜端子螺丝，型号后加 (-T)。  
\* Brass terminal screw, model plus (-T).

### 额定值 Ratings

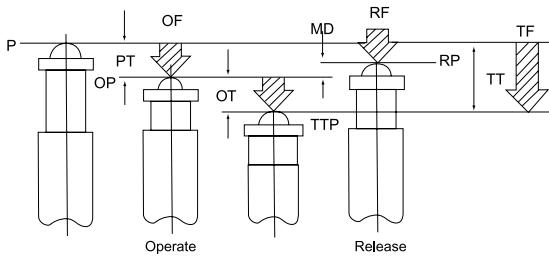
额定电压 Rated Voltage	非电感性负载 Noninductive Load (A)				电感性负载 Inductive Load (A)				突入 电流 (A) Inrush Current	
	电阻性负载 Resistance Load		灯泡负载 Lamp Load		电感性负载 Inductive Load		马达负载 Motor Load			
	NC	NO	NC	NO	NC	NO	NC	NO		
125VAC	15	3	1.5	15	5	2.5			30 以下 max.	15 以下 max.
250VAC	15	2.5	1.25	15	3	1.5				
500VAC	3	1.5	0.75	2.5	1.5	0.75				
8VDC	15	3	1.5	15	5	2.5				
14VDC	15	3	1.5	10	5	2.5				
30VDC	6(2)	3	1.5	5	5	2.5				
125VDC	0.4	0.4	0.4	0.05	0.05	0.05				
250VDC	0.2	0.2	0.2	0.03	0.03	0.03				

### 规格 Specifications

操作速度 Operation speed	0.05mm 至 1m/s (柱塞型 Plunger type) 0.05mm-1m/s
动作频率 Operating frequency	电气 :20 次 / 分 Electrical: 20 operations/min.
接点电阻 Contact resistance	15mΩ 以下 (初期) 15mΩ max. (initial value)
绝缘电阻 Insulation resistance	100MΩ 以上 (在 500VDC 以下) 100mΩ min. (at 500VDC)
电介强度 Dielectric Strength	非连续端子间 1,000VAC, 50/60Hz 持续 1 分钟 1000VAC, 50/60 Hz for 1 minute between terminals of the same polarity
	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
	端子与接地之间 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 20Hz): 1.5mm 变振幅误动作耐久 : 10 至 55Hz (*10 to 20Hz): 1.5 Vibration amplitude action duration: 10 to 55Hz
冲击 Shock	机械耐久 :1,000m/Sec <sup>2</sup> (约 100G' S) 误动作耐久 :300m/Sec <sup>2</sup> (约 30G' S) Mechanical durable: 1,000m/Sec <sup>2</sup> (about 100G'S) Malfunction: 300m/Sec <sup>2</sup> (about 30G'S)
周围温度 Ambient temperature	使用时: -20~+70℃ (没有结冰) Using: -20~+70℃ (With no icing)
湿度 Humidity	泛用型 : 85%RH 以上 密封型 : 95%RH General purpose type: 85% RH max., Sealed type: 95% RH max.
电气寿命 Electrical life	500,000 次以上 500,000 operations above
重量 Weight	约 22 至 58g About 22 to 58g

### 动作特性 Operating Characteristics

型式 Models	CM1300N	CM1301N	CM1303N CM1303NM	CM1305N	CM1306N	CM1307N	CM1308N CM1308XN	CM1309N	CM1701N CM1706N	CM1702N	CM1703N CM1703NM	CM1704N CM1704NM	CM1705N	CM1743N CM1743NM
OF 最大 (Max.)	350g	300g	300g	350g	350g	350g	350g	350g	70g	160g	100g	160g	10g	160g
RF 最小 (Min.)	114g	50g	50g	114g	114g	114g	114g	114g	14g	28g	22g	42g	3g	42g
PT 最大 (Max.)	0.4mm	4mm	4mm	0.4mm	0.4mm	0.4mm	0.4mm	0.4mm	10mm	5mm	7.1mm	2.7mm	20mm	2.7mm
OT 最小 (Min.)	0.13mm	1.6mm	1.6mm	1.6mm	1.6mm	5.5mm	3.58mm	3.58mm	5.6mm	2mm	4mm	2.4mm	5.6mm	2.4mm
MD 最大 (Max.)	0.05mm	1.3mm	1.3mm	0.05mm	0.05mm	0.05mm	0.05mm	0.05mm	1.27mm	1mm	1.02mm	0.5mm	3mm	0.5mm
FP 最大 (Max.)		20.6mm	31.8mm						28.2mm	24.8mm	36.5mm	32.5mm		43.6mm
OP(mm)	15.9 ± 0.4	17.4 ± 0.8	28.6 ± 0.8	28.2 ± 0.5	21.5 ± 0.5	21.8 ± 0.8	33.4 ± 1.2	33.4 ± 1.2	19 ± 0.8	19 ± 0.4	30.2 ± 0.8	30.2 ± 0.4	19 ± 0.8	43.1 ± 0.8

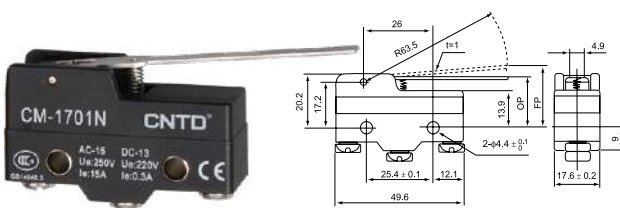


OF: 动作力  
RF: 回复力  
TF: 总行程动作力  
FP: 自由位置  
OP: 动作位置  
RP: 返回位置  
TTP: 总行程位置  
PT: 预行程位置  
OT: 过行程  
MD: 响应差的行程  
TT: 总行程

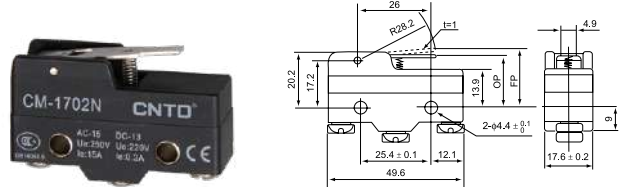
OF: Operating Force  
RF: Releasing Force  
TF: Total Force  
FP: Free Position  
OP: Operating Position  
RP: Releasing Position  
TTP: Total Travel Position  
PT: Pre Travel  
OT: Over Travel  
MD: Movement Differential  
TT: Total Travel

### 外观和尺寸 Appearance and Dimension

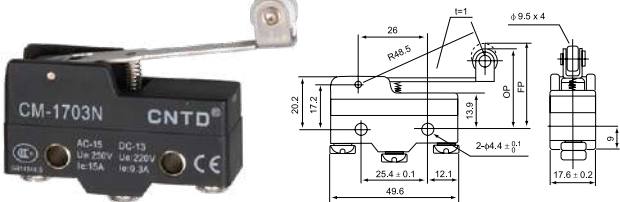
CM-1701N



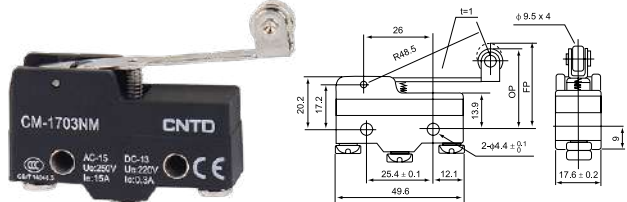
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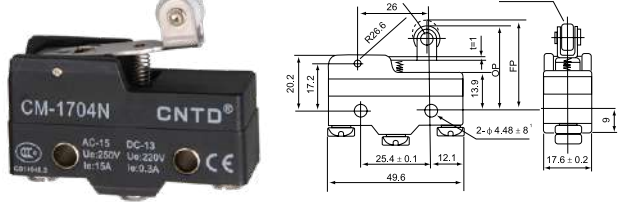
CM-1703N



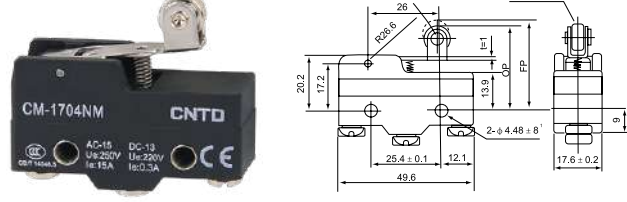
CM-1703NM



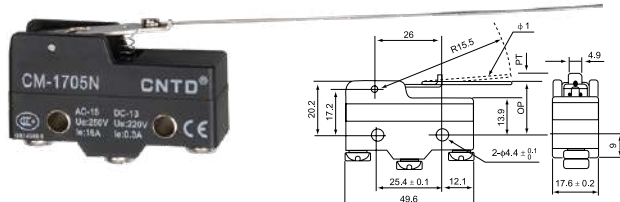
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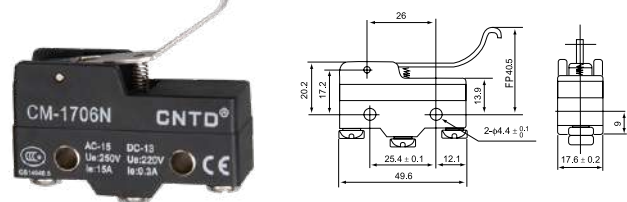
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CM-1705N



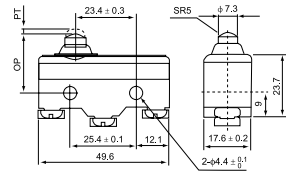
CM-1706N



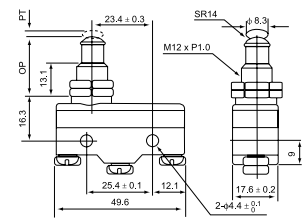


外观和尺寸 Appearance and Dimension

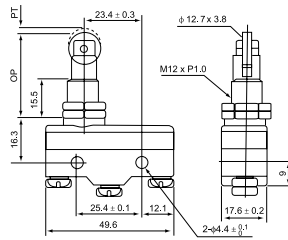
CM-1306N



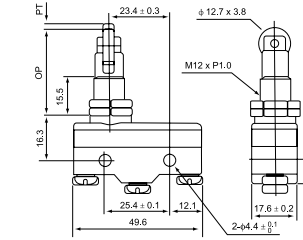
CM-1307N



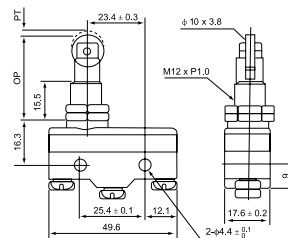
CM-1308N



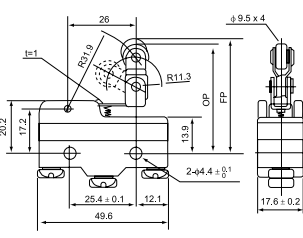
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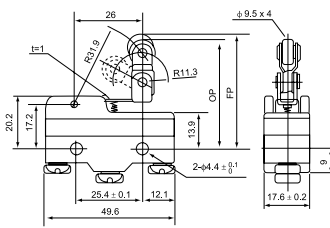
CM-1308XN



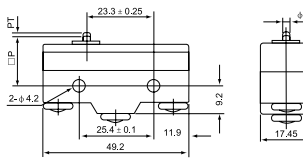
CM-1743N



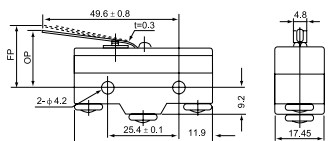
CM-1743NM



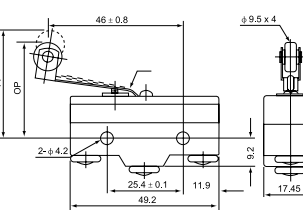
CM-1300N



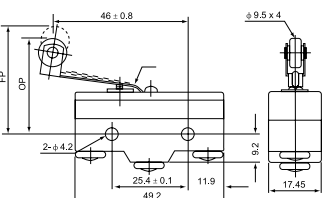
CM-1301N



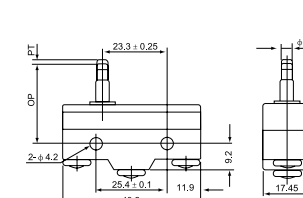
CM-1303N



CM-1303NM



CM-1305N



# CZ-7 卧式限位开关

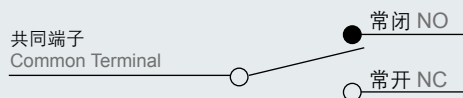
## Horizontal Limit Switch



### 特点 Features

- 引动器种类广泛，其中包含动作位置可调整的款式（如 CZ-7121）
- 外壳包覆强化塑胶，防水、防油，较 CM 型卧式限位开关有更高的机械强度，耐冲击
- Various actuators and some with adjustable operating position (such as CZ-7121)
- Shell covered with intensive plastic for water-proof and oil-proof. The mechanical strength is better than CM series of horizontal limit switch

### 接点型式 Contact Form



- \* 黄铜端子螺丝，型号后加 (-T)。
- \* Brass terminal screw, model plus (-T).

### 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	10	3	1.5	10	5	2.5		
250VAC	10	2.5	1.25	10	3	1.5		
480VAC	3	1.5	0.75	2.5	1.5	0.75		
8VDC	10	3	1.5	6	6	5		
14VDC	10	3	1.5	6	6	5		
30VDC	8	3	1.5	6	5	2.5		
125VDC	0.5	0.4	0.4	0.05	0.05	0.05		
250VDC	0.25	0.2	0.2	0.03	0.03	0.03		

- 注 1. 电感性负载：功率因素=0.4; 时间常数=7msec。  
 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	CZ-7	CZ-7100	CZ-7110	CZ-7310	CZ-7311	CZ-7312	CZ-7120	CZ-7140	CZ-7121	CZ-7141	CZ-7124	CZ-7144	CZ-7166
操作力	Operating force	OF 最大 (Max.)	600g	600g	600g	600g	600g	150g	220g	180g	240g	200g	280g	120g
回弹力	Release force	RF 最小 (Min.)	100g	100g	100g	100g	100g	40g	60g	50g	80g	60g	100g	
预行程	Pre-travel	PT 最大 (Max.)	2.0mm	2.0mm	2.0mm	2.0mm	2.0mm	13.5mm	8.5mm	11.0mm	6.5mm	11mm	6.5mm	250mm
过行程	Over travel	OT 最小 (Min.)	0.8mm	5.0mm	6.0mm	6.0mm	6.0mm	4.0mm	2.5mm	3.0mm	2.0mm	3.0mm	2.0mm	11mm
行程移动分辨率	Movement differential	MD 最大 (Max.)	0.8mm	0.8mm	0.8mm	0.8mm	0.8mm	3.2mm	2.0mm	2.4mm	1.5mm	2.4mm	1.5mm	
动作位置	Operating position	OP (mm.)	30.5±0.8mm	44±1.2mm	21.8±1.2mm	33.3±1.2mm	33.3±1.2mm	25±1mm	25±1mm	40±1mm	40±1mm	50±1.2mm	50±1.2mm	
自由位置	Free Position	FP						35mm	32mm		46mm		56mm	

### 规格 Specifications

操作速度 Operation speed	0.05mm 至 0.5m/s 0.05mm-0.5m/s
动作频率 Operating frequency	电气: 20 次 / 分 Electrical: 20 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 以下) 100mΩ above(at 500VDC)
电介强度 Dielectric strength	非连续端子间 1,000VAC, 50/60Hz 持续 1 分钟 1000VAC, 50/60 Hz for 1 minute between terminals of the same polarity 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
振动 Vibration	端子与接地之间 1,500VAC, 50/60Hz 持续 1 分钟 1500VAC, 50/60 Hz for 1 minute between each terminal and ground
冲击 Shock	误动作耐久: 10 至 55Hz, 1.5mm 双振幅 Malfunction Duration: 10-55Hz, 1.5mm double amplitude 机械耐久: 1,000m/Sec <sup>2</sup> (约 100G <sup>2</sup> S) 误动作耐久: 300m/Sec <sup>2</sup> (约 30G <sup>2</sup> S) Mechanical durable: 1,000m/Sec <sup>2</sup> (about 100g <sup>2</sup> S) Malfunction: 300m/Sec <sup>2</sup> (about 30g <sup>2</sup> 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
电气寿命 Electrical life	500,000 次以上 500,000 operations above
重量 Weight	约 60g About 60g

## 外观和尺寸 Appearance and Dimension

**CZ-7121**

注: 动作特性针对从方向A操作开关时

**CZ-7141**

注: 动作特性针对从方向A操作开关时

**CZ-7120**

注: 动作特性针对从方向A操作开关时

**CZ-7140**

注: 动作特性针对从方向A操作开关时

**CZ-7124**

注: 动作特性针对从方向A操作开关时

**CZ-7144**

注: 动作特性针对从方向A操作开关时

**CZ-7100**

注: 动作特性针对从方向A操作开关时

**CZ-7110**

注: 动作特性针对从方向A操作开关时

**CZ-7310**

注: 动作特性针对从方向A操作开关时

**CZ-7311**

注: 动作特性针对从方向A操作开关时

**CZ-7312**

注: 动作特性针对从方向A操作开关时

**CZ-7166**

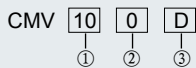
注: 动作特性针对从方向A操作开关时

# CMV10 小型微动开关

## Miniature Snap Action Switch

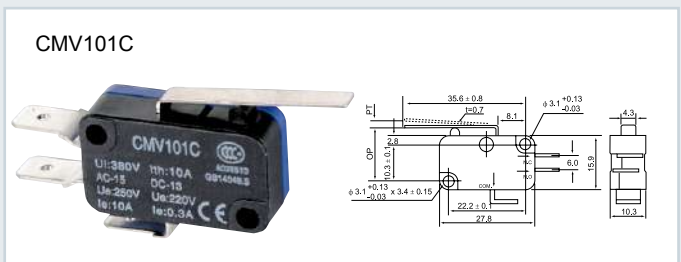
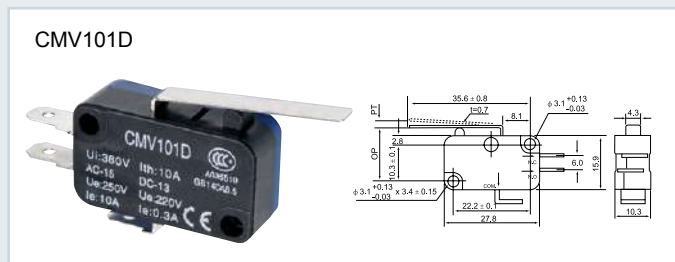
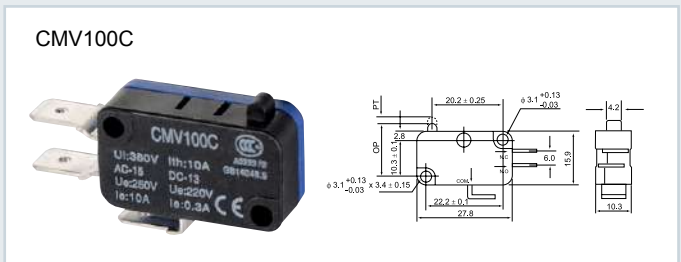
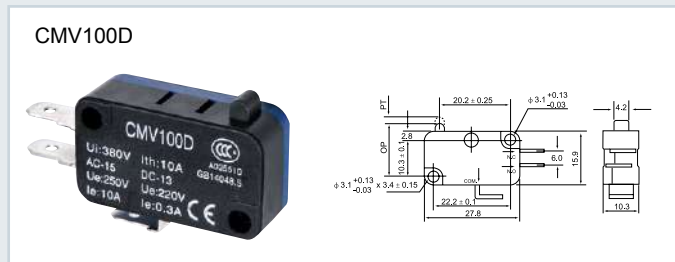


### 型号说明 Model Number Structure



项目 Item	代号 Code	说明 Description
① 额定电流 Rated Current	10	10A
② 头部及传动杆 Head and driving rod	0	按钮型 Button type
	1	长柄型 Long handle type
	2	短柄型 Short shank type
	3	长滑轮型 Long pulley type
	4	短滑轮型 Short pulley type
	5	加长柄型 Longer handle type
③ 端子规格 Terminal specifications	C	#250 型端子 #250 terminal
	D	#187 型端子 #187 terminal

### 外观和尺寸 Appearance and Dimension



### 额定值 Ratings

项目 Item 规格 Spec.	额定 电压 Rated Voltage	非电感性负载 Noninductive Load (A)				电感性负载 Inductive Load (A)				突入 电流 (A) Inrush Current	
		电阻性负载 Resis- tance 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	NC	NO		
10A	250VAC 8VDC 30VDC 125VDC 250VDC	10 10 6 0.3 0.3	1.5 3 3 0.1 0.05	6 6 6 0.6 0.3	2 3 3 0.1 0.05	24 以下 max.					

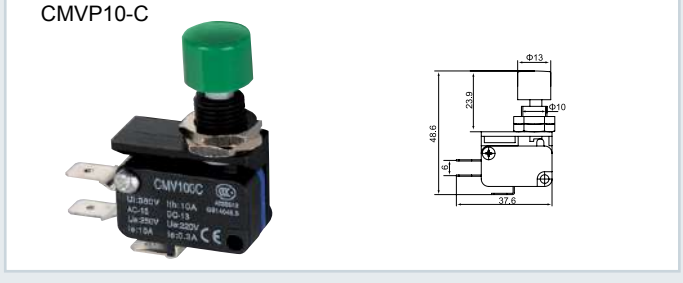
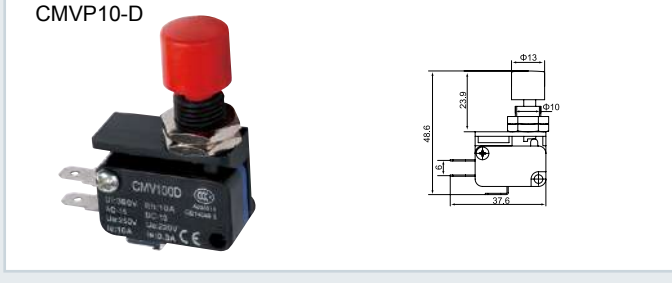
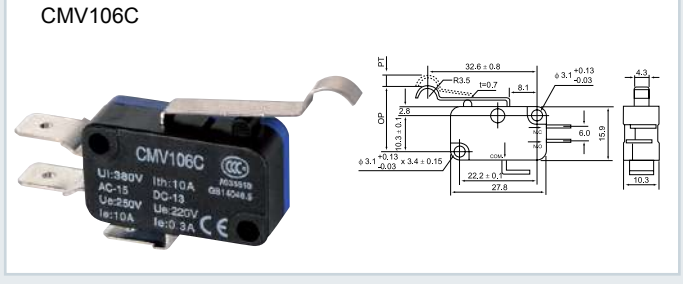
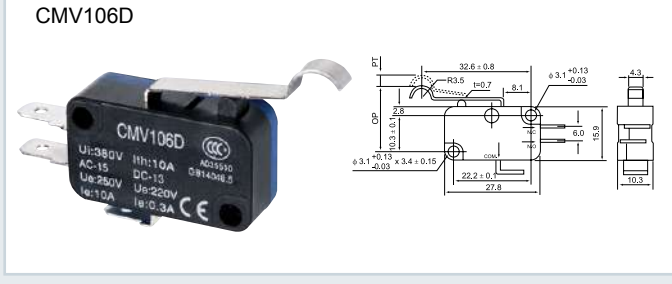
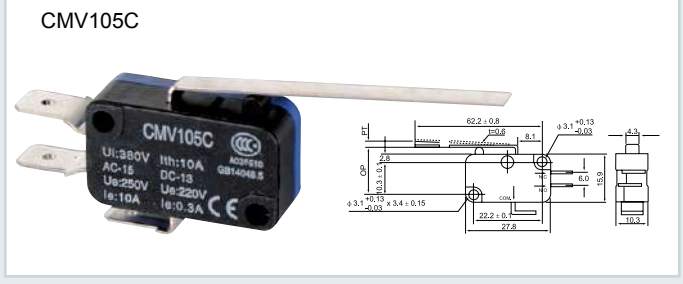
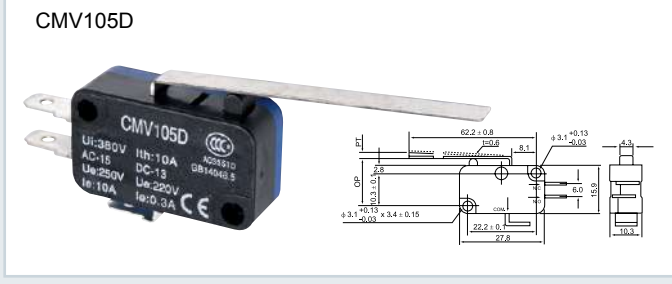
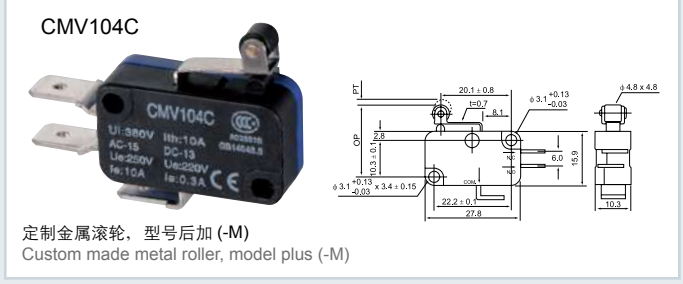
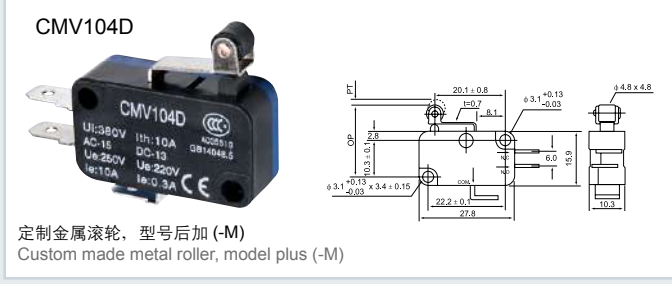
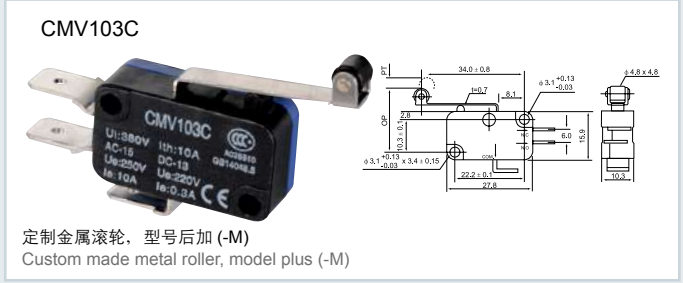
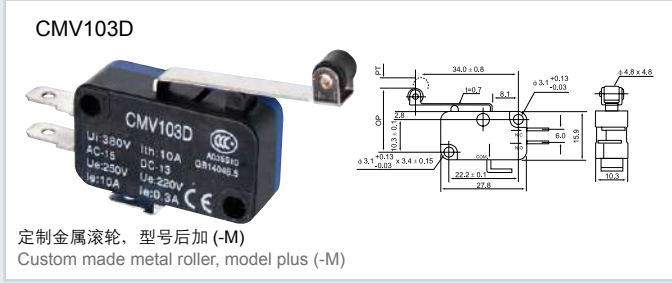
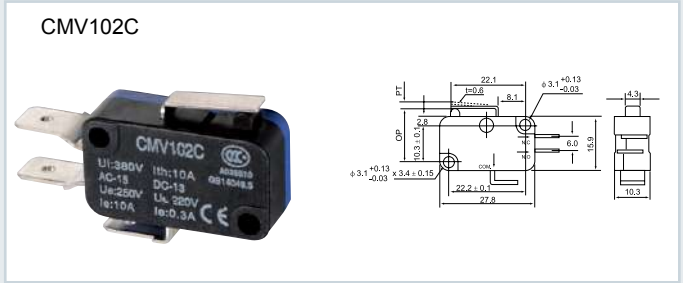
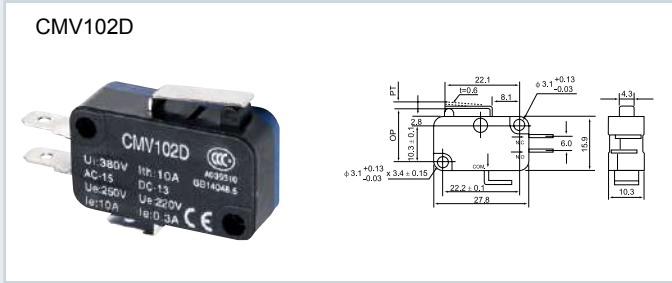
### 规格 Specifications

项目 Item	型式 Type	CMV 10 型 CMV 10 type
操作速度 Operation speed		0.05mm~1m/s( 按钮型 Button type)
动作频率 Operating frequency		电气 Electrical: 20 operations/min
绝缘电阻 Insulation resistance		100MΩ 以上 (在 500VDC 以下) 100mΩ above(at 500VDC)
接点电阻 Contact resistance		15mΩ 以下 (初期) 15mΩ max. (initial value)
耐电压 Withstand voltage	非连续端子间 Non-continuous terminals	1,000VAC, 50/60Hz 持续 1 分钟 1000VAC, 50/60 Hz for 1 minute
	载电流和无载电流 零件间、端子和接 地之间 current-carrying and non-current-carrying metal parts, Between terminal and earthing	1,500VAC, 50/60Hz 持续 1 分钟 1500VAC, 50/60 Hz for 1 minute
振动 Vibration	误动作 Misoperation	10 至 55Hz, 1.5mm 双振幅 10 to 55Hz, 1.5mm pairs swing
冲击 Shock	耐久 Durable	最大 1,000m/S <sup>2</sup> (约 100G) Maximum 1000 m/S <sup>2</sup> (100G)
	误动作 Misoperation	最大 200m/S <sup>2</sup> (约 100G) Maximum 200 m/S <sup>2</sup> (100G)
寿命 Life	电气的 Electrical	30 万次以上 More than 300000 times
使用周围温度 Temperature		使用时 -20~+70℃ (没有结冰) Using: -20~+70℃ (With no icing)
使用周围湿度 Humidity		85%RH 以下 (+5~+35℃) Below 85% RH

### 动作特性 Operating Characteristics

型式 Models	CMV100D	CMV101D	CMV102D	CMV103D	CMV104D	CMV105D	CMV106D
OF 最大 (Max)	2.4N	1.23N	2.4N	1.23N	2.7N	0.69N	1.2N
RF 最小 (Min)	0.49N	0.14N	0.49N	0.14N	0.49N	0.06N	0.14N
PT 最大 (Max)	1.2mm	4.0mm	1.6mm	4.0mm	1.5mm	9.0mm	4.0mm
OT 最小 (Min)	1.0mm	1.6mm	0.8mm	1.6mm	0.8mm	2.0mm	1.5mm
MD 最大 (Max)	0.4mm	1.5mm	0.6mm	1.5mm	0.6mm	2.8mm	1.5mm
OP (mm)	14.7 ± 0.4mm	15.2 ± 1.2mm	15.2 ± 0.5mm	20.7 ± 1.2mm	20.7 ± 0.6mm	15.2 ± 3mm	18.7 ± 1.2mm

外观和尺寸 Appearance and Dimension

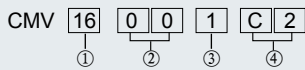


# CMV16 小型微动开关

## Miniature Snap Action Switch



### 型号说明 Model Number Structure



项目 Item	代号 Code	说明 Description
① 额定电流 Rated Current	10	10A
	16	16A
② 头部及传动杆 Head and driving rod	00	按钮型 Button type
	01	长柄型 Long handle type
	02	短柄型 Short shank type
	03	长滑轮型 Long pulley type
	04	短滑轮型 Short pulley type
	05	加长柄型 Longer handle type
	06	曲柄型 Crank type
	07	自锁型 Self locking type
③ 触点形式 Contact form	1	一常开 一常闭触点 1NO/1NC
	2	一常闭触点 1NC
	3	一常开触点 1NO
④ 端子规格 Terminal specifications	C	#250 型端子 #250 terminal
	C2	#187 型端子 #187 terminal

### 额定值 Ratings

项目 Item 规格 Spec.	额定 电压 Rated Voltage	非电感性负载 Noninductive Load (A)				电感性负载 Inductive Load (A)				突入 电流 (A) Inrush Current	
		电阻性负载 Resis- tance Load		灯泡负载 Lamp Load		电感性负载 Induc- tive Load		马达负载 Motor Load		NC	NO
		NC	NO	NC	NO	NC	NO	NC	NO		
16A	250VAC	16	2	10	3	40 以下 max.					
	8VDC	16	4	10	6						
	30VDC	10	4	10	4						
	125VDC	0.6	0.1	0.6	0.1						
	250VDC	0.3	0.05	0.3	0.05						

### 规格 Specifications

项目 Item	型式 Type	CMV 型 CMV type
操作速度 Operation speed		0.05mm~1m/s(按钮型 Button type)
动作频率 Operating frequency		电气 Electrical: 20 operations/min
绝缘电阻 Insulation resistance		100MΩ 以上 (在 500VDC 以下) 100mΩ above(at500VDC)
接点电阻 Contact resistance		15mΩ 以下 (初期) 15mΩ max. (initial value)
耐电压 Withstand voltage	非连续端子间 Non-continuous terminals	1,000VAC, 50/60Hz 持续 1 分钟 1000VAC, 50/60 Hz for 1 minute
	载电流和无载电流 零件间, 端子和接 地之间 current-carrying and non-current-carrying metal parts, Between terminal and earthing	2,000VAC, 50/60Hz 持续 1 分钟 2000VAC, 50/60 Hz for 1 minute
振动 Vibration	误动作 Misoperation	10 至 55Hz, 1.5mm 双振幅 10 to 55Hz, 1.5mm pairs swing
冲击 Shock	耐久 Durable	最大 1,000m/S <sup>2</sup> (约 100G) Maximum 1000 m/S <sup>2</sup> (100G)
	误动作 Misoperation	最大 200m/S <sup>2</sup> (约 100G) Maximum 200 m/S <sup>2</sup> (100G)
寿命 Life	电气 Electrical	10A, 30 万次以上 More than 300000 times 16A, 10 万次以上 More than 100000 times
使用周围温度 Temperature		使用时 :-20~+70℃ (没有结冰) Using: -20~+70℃ (With no icing)
使用周围湿度 Humidity		85%RH 以下 (+5~+35℃) Below 85% RH

### 动作特性 Operating Characteristics

型号 Model	CMV16 CMV10	CMV16001C2 CMV10001C2	CMV16011C2 CMV10011C2	CMV16021C CMV10021C	CMV16031C2 CMV10031C2	CMV16041C2 CMV10041C2	CMV16051C2 CMV10051C2	CMV16061C CMV10061C
操作力 Operating force	PT 最大 (Max.)	2.4N	1.23N	2.4N	1.23N	2.7N	0.69N	1.2N
回弹力 Release force	RF 最小 (Min.)	0.49N	0.14N	0.49N	0.14N	0.49N	0.06N	0.14N
预行程 Pre-travel	PT 最大 (Max.)	1.2mm	4.0mm	1.6mm	4.0mm	1.5mm	9.0mm	4.0mm
过行程 Over travel	OT 最小 (Min.)	1.0mm	1.6mm	0.8mm	1.6mm	0.8mm	2.0mm	1.5mm
行程移动分辨率 Movement differential	MD 最大 (Max.)	0.4mm	1.5mm	0.6mm	1.5mm	0.6mm	2.8mm	1.5mm
动作位置 Operating position	OP(mm.)	14.7 ± 0.4mm	15.2 ± 1.2mm	15.2 ± 0.5mm	20.7 ± 1.2mm	20.7 ± 0.6mm	15.2 ± 3mm	18.7 ± 1.2mm



外观和尺寸 Appearance and Dimension

CMV16001C2  
CMV10001C2

Technical drawing showing dimensions for CMV16001C2. Dimensions include: 20.2 ± 0.25, 4.2, 10.3 ± 0.15, 2.8, 10.3 ± 0.15, 3.4 ± 0.15, 22.2 ± 0.1, 27.8, 6.0, 15.9, 4.2, 10.3, 0.31 +0.13/-0.03.

CMV16001C  
CMV10001C

Technical drawing showing dimensions for CMV16001C. Dimensions include: 20.2 ± 0.25, 4.2, 10.3 ± 0.15, 2.8, 10.3 ± 0.15, 3.4 ± 0.15, 22.2 ± 0.1, 27.8, 6.0, 15.9, 4.2, 10.3, 0.31 +0.13/-0.03.

CMV16011C2  
CMV10011C2

Technical drawing showing dimensions for CMV16011C2. Dimensions include: 35.6 ± 0.8, 10.7, 8.1, 10.3 ± 0.15, 2.8, 10.3 ± 0.15, 3.4 ± 0.15, 22.2 ± 0.1, 27.8, 6.0, 15.9, 4.3, 10.3, 0.31 +0.13/-0.03.

CMV16011C  
CMV10011C

Technical drawing showing dimensions for CMV16011C. Dimensions include: 35.6 ± 0.8, 10.7, 8.1, 10.3 ± 0.15, 2.8, 10.3 ± 0.15, 3.4 ± 0.15, 22.2 ± 0.1, 27.8, 6.0, 15.9, 4.3, 10.3, 0.31 +0.13/-0.03.

CMV16021C  
CMV10021C

Technical drawing showing dimensions for CMV16021C. Dimensions include: 22.1, 10.6, 8.1, 10.3 ± 0.15, 2.8, 10.3 ± 0.15, 3.4 ± 0.15, 22.2 ± 0.1, 27.8, 6.0, 15.9, 4.3, 10.3, 0.31 +0.13/-0.03.

CMV16021C2  
CMV10021C2

Technical drawing showing dimensions for CMV16021C2. Dimensions include: 22.1, 10.6, 8.1, 10.3 ± 0.15, 2.8, 10.3 ± 0.15, 3.4 ± 0.15, 22.2 ± 0.1, 27.8, 6.0, 15.9, 4.3, 10.3, 0.31 +0.13/-0.03.

CMV16031C2  
CMV10031C2

Technical drawing showing dimensions for CMV16031C2 with a custom metal roller. Dimensions include: 34.0 ± 0.8, 10.7, 8.1, 10.3 ± 0.15, 2.8, 10.3 ± 0.15, 3.4 ± 0.15, 22.2 ± 0.1, 27.8, 6.0, 15.9, 4.8 × 4.8, 10.3, 0.31 +0.13/-0.03.

定制金属滚轮, 型号后加 (-M)  
Custom made metal roller, model plus (-M)

CMV16031C  
CMV10031C

Technical drawing showing dimensions for CMV16031C with a custom metal roller. Dimensions include: 34.0 ± 0.8, 10.7, 8.1, 10.3 ± 0.15, 2.8, 10.3 ± 0.15, 3.4 ± 0.15, 22.2 ± 0.1, 27.8, 6.0, 15.9, 4.8 × 4.8, 10.3, 0.31 +0.13/-0.03.

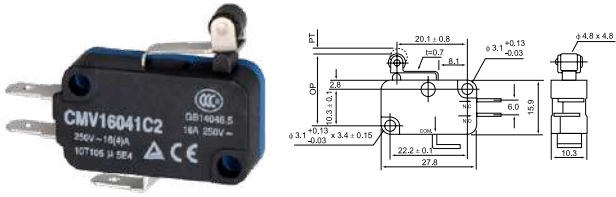
定制金属滚轮, 型号后加 (-M)  
Custom made metal roller, model plus (-M)

# CMV16 小型微动开关

## Miniature Snap Action Switch

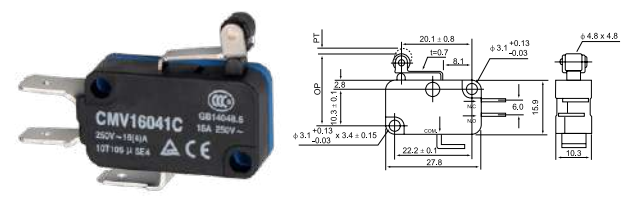
### 外观和尺寸 Appearance and Dimension

CMV16041C2  
CMV10041C2



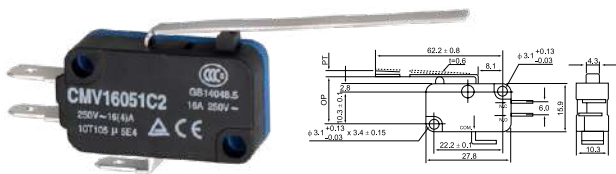
定制金属滚轮, 型号后加 (-M)  
Custom made metal roller, model plus (-M)

CMV16041C  
CMV10041C

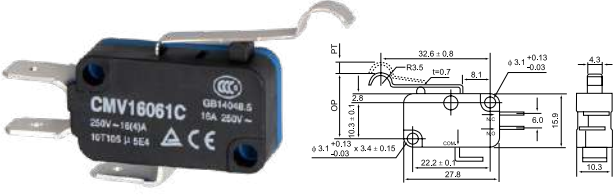


定制金属滚轮, 型号后加 (-M)  
Custom made metal roller, model plus (-M)

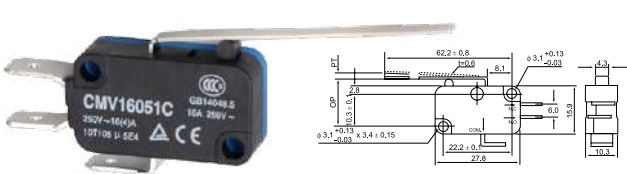
CMV16051C2  
CMV10051C2



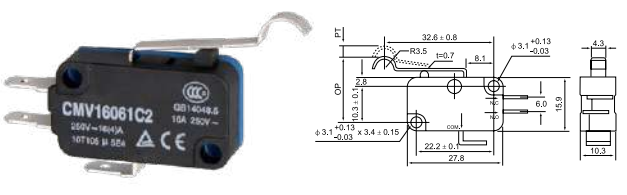
CMV16061C  
CMV10061C



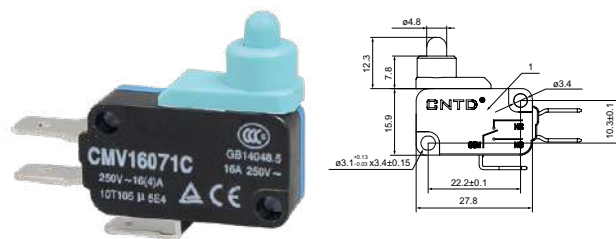
CMV16051C  
CMV10051C



CMV16061C2  
CMV10061C2



CMV16071C  
CMV10071C



CMV16071C2  
CMV10071C2

