

KW10型微動開關系列 Micro switch series

◆ 動作靈敏的超小型開關 Action sensitive subminiature switch

- 超小型，大電流。具有微小觸點間隙，快速動作、高靈敏和微小動作行程的特點。

Minitype, big current. Characteristic: small contact gap, quick action, high sensitivity and small operating travel

- 長壽命

Long life

- 多種接線端子

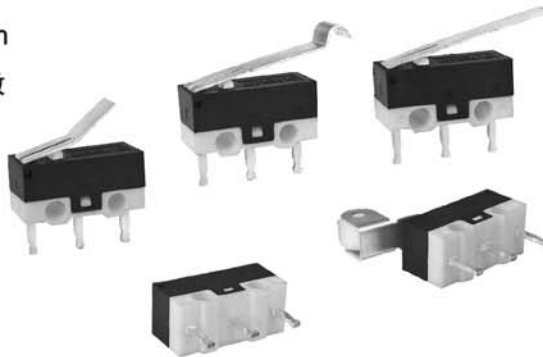
Variety of contact terminals

- 多種形式動臂

Variety of levers

- 適用於家用電器、音視頻設備、計算機、辦公自動化設備及通訊設備等。

Widely used in appliance, audio video device, computer, office automation equipment, communication equipment, etc.



KW10

◆ 技術特性 Specifications

項目 Item		特性值 Value
工作速度 Operating speed		1mm ~ 500m/s (與驅動方式有關)(Related with actuator forms)
工作頻率 Operating frequency		機械 60次/min; 電氣 25次/min Mechanical 60 cycles/min; Electrical 25cycles/min
絕緣電阻 Insulation resistance		≥100MΩ (500VDC)
接觸電阻 Contact resistance		動作力>0.75N: ≤30mΩ(見注) 動作力≤0.75N: ≤50mΩ(見注) OF>0.75N: ≤30mΩ(see note) OF≤0.75N: ≤50mΩ(see note) KW10-D、E、F型: ≤100mΩ(見注)
耐電壓 Test voltage	同極不相接端子間 Between each terminals of the same polarity	AC600V,50/60Hz, 1min
	帶電金屬零件與外殼之間、接線端與易觸及的不帶電金屬件之間 Between current-carrying metal parts and ground, and between each terminal and non-current-carrying metal parts	AC1000V,50/60Hz, 1min
抗振動 Vibration resistance		10 ~ 55Hz, 1.5mm 兩倍振幅 Double amplitude
抗衝擊 Shock resistance		故障: 300m/s ² (約30G)max Malfunction: 300m/s ² (approx.30G)max
壽命 Life expectancy		機械 ≥1000000次; Mechanical ≥1000000 cycles 電氣 3A: ≥10000次 Electrical ≥10000cycles ≤1A: ≥100000次
質量 Weight		約0.6g(無動臂型) Approx. 0.6g(No lever)

注: 指無動臂時按紐上的動作力。 Note: Shows the operating force of no lever.

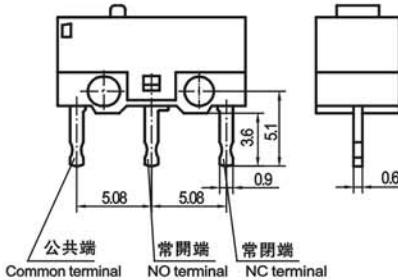
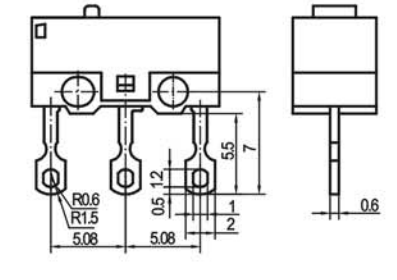
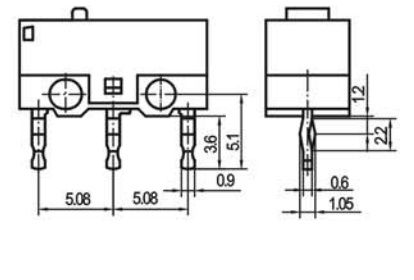
◆ 型號規格命名及含義 Model numbered legend and meanings

KW10 - □ □ □ □ □ - (□)
 1 2 3 4 5 6

KW10

<p>1 額定值 Ratings</p>	<p>無標記: 3A No mark C: 1A 125VAC D: 0.5A 125VAC E: 0.3A 125VAC F: 0.1A 125VAC</p>	<p>4 端子類型 Terminal types</p>	<p>F: 焊接端子 Solder terminal G: 長焊接端子 Long solder terminal P: PCB端子 PCB terminal L: 左側面PCB端子 Left side PCB terminal R: 右側面PCB端子 Right side PCB terminal S: 自固定PCB端子 Self-clinching PCB terminal Y: 非標準端子 Not standard terminal</p>
<p>2 接觸形式 Connect forms</p>	<p>Z: 轉換式 SPDT T: 常開(按通)式 SPST-NO D: 常閉(按斷)式 SPST-NC</p>	<p>5 動作力(max) Operating force</p>	<p>045: 0.45N 075: 0.75N 150: 1.5N 250: 2.5N 注: 若是非標準動作力, 用此動作力上限值表示。 Note: If it is not standard operating force, indicate with the upper limit.</p>
<p>3 驅動形式 Actuator forms</p>	<p>0: 無動臂 No lever 1: 短動臂 Short lever 2: 長動臂 Long lever 3: 中動臂 Middle lever 5: 滾輪臂 Roller 6: 長弧形動臂 Long arc lever 8: 短弧形動臂 Short arc lever □: 非標準動臂 Not standard lever 注: □表示非標準動臂的代號 Indicate not standard lever,</p>	<p>6 附加規格編號, 適用於: Additional spec numbers, apply to:</p>	<p>1) 當開關使用了非標準零件如非標準端子等時; When used not standard parts such as not standard terminal; 2) 當顧客有特殊動作特性值或其它要求時。 When customer has particular operating value or other requirements. 附加規格編號用兩位阿拉伯數字表示, 如01、02、03……在沒有附加規格編號時, 該位置空缺。 Additional spec number shows as 01, 02, 03……If there is no additional numbers, the place is vacant.</p>

◆ 接線端尺寸 Terminal dimensions

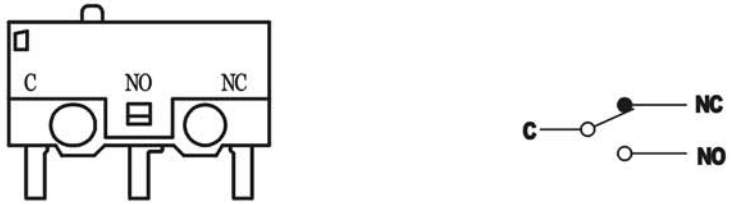
PCB端子 PCB terminal	長焊接端子 Long solder terminal	自固定PCB端子 Self-clinch terminal
<p>P</p>  <p>公共端 Common terminal 常開端 NO terminal 常閉端 NC terminal</p>	<p>G</p> 	<p>S</p> 

左側面PCB端子 Left side PCB terminal	右側面PCB端子 Right side PCB terminal	焊接端子 Solder terminal
<p>L</p>	<p>R</p>	<p>F</p>

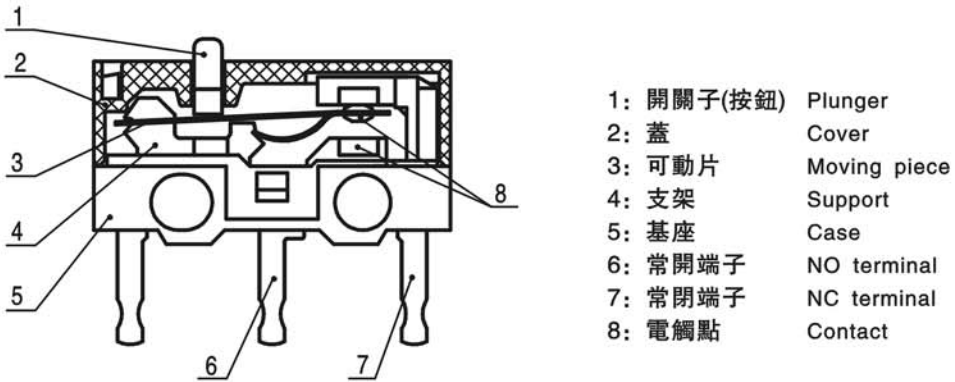
◆ 安裝孔尺寸 Mounting hole dimensions

	PCB端子 PCB terminal	左側面PCB端子 Left side PCB terminal	右側面PCB端子 Right side PCB terminal
	<p>按鈕位置 Plunger position</p>		

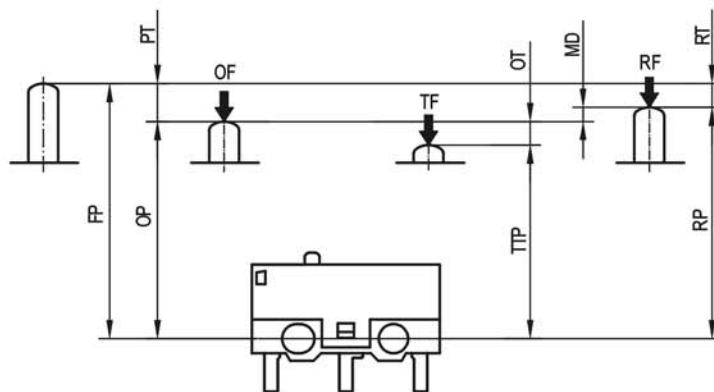
◆ 接觸形式(轉換式) Connect forms(SPDT)



◆ 內部構造圖 Internal configuration drawing



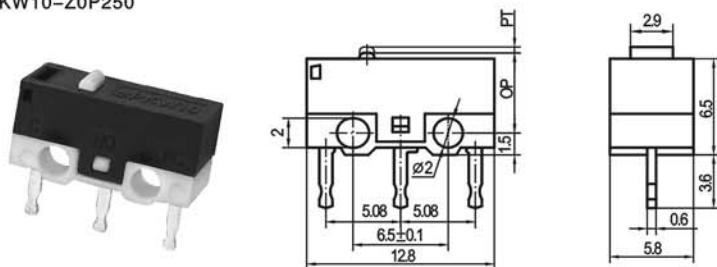
◆ 開關動作特性圖解 Operating characteristic diagrammatize



代號 Code	參數名稱 Name	含義 Meanings
PT	動作行程(預行程) Pretravel	驅動件從自由位置到動作位置間的位移 The displacements of actuator from free position to operating position.
OT	超行程 Overtravel	驅動件從動作位置到全行程位置間的位移 The displacements of actuator from operating position to total travel position.
MD	差動行程 Movement differential travel	驅動件從動作位置到釋放位置或釋放位置到動作位置間的位移 The displacements of actuator from operating position to release position.
RT	釋放行程 Release travel	驅動件從釋放位置到自由位置間的位移 The displacements of actuator from release position to free position.
OF	動作力 Operating force	驅動件從自由位置移動到動作位置所必須的操作力 The force of displacements of actuator from free position to operating position.
TF	全行程力 Total travel force	驅動件在全行程位置所承受的最小操作力 The smallest force of displacements of actuator on total travel position.
RF	釋放力 Release force	驅動件自正向動作位置返回到釋放位置，操作力必須減小到數值 The force must be smallest when the actuator moved back to release position from obverse operating position.
TTP	全行程位置 Total travel position	驅動件被止動時所處的位置 The position where the actuator be stopped.
OP	動作位置 Operating position	驅動件在速動機構發生正向動作瞬間所處的位置 The position where the actuator moved obverse on quick-moving parts.
RP	釋放位置 Release position	驅動件在速動機構發生反向動作瞬間所處的位置 The position where the actuator moved reversely on quick-moving parts.
FP	自由位置 Free position	驅動件在不承受操作力以及力不足以引起位移時所處的位置 The position where the actuator lead the displacements when its out of force is not enough.

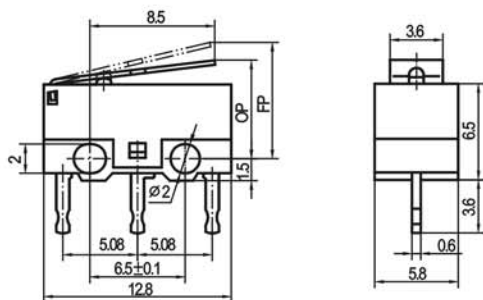
◆ 外形尺寸和動作特性 Dimensions and operating characteristics

KW10-Z0P075
KW10-Z0P150
KW10-Z0P250



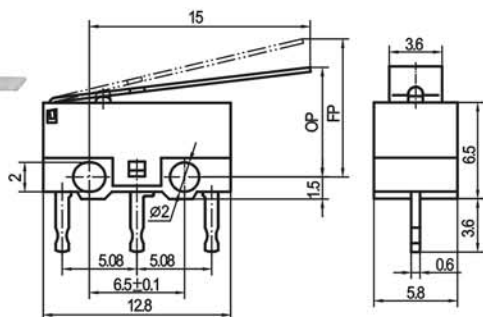
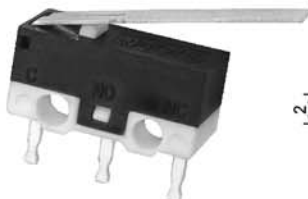
型號 Model	KW10-Z0P075	KW10-Z0P150	KW10-Z0P250
OF Max(N)	0.75	1.5	2.5
RF Min(N)	0.05	0.08	0.4
PT Max(mm)	0.5		
OT Min(mm)	0.2		
MD Max(mm)	0.2		
OP(mm)	5.5 ± 0.3		

KW10-Z1P075
 KW10-Z1P150
 KW10-Z1P250



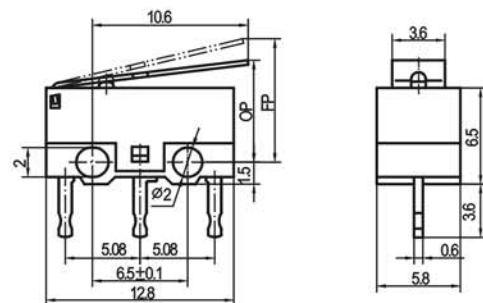
型號 Model	KW10-Z1P075	KW10-Z1P150	KW10-Z1P250
OF Max(N)	0.26	0.53	0.9
RF Min(N)	0.04	0.08	0.15
OT Min(mm)	0.6		
MD Max(mm)	0.6		
FP Max(mm)	9		
OP(mm)	6.7 ± 1		

KW10-Z2P075
 KW10-Z2P150
 KW10-Z2P250



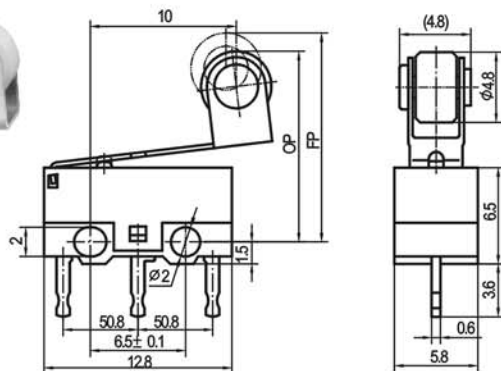
型號 Model	KW10-Z2P075	KW10-Z2P150	KW10-Z2P250
OF Max(N)	0.17	0.33	0.55
RF Min(N)	0.02	0.04	0.08
OT Min(mm)	1		
MD Max(mm)	1		
FP Max(mm)	10		
OP(mm)	7.6 ± 1.5		

KW10-Z3P075
 KW10-Z3P150
 KW10-Z3P250



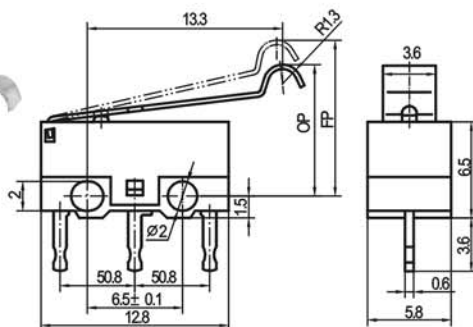
型號 Model	KW10-Z3P075	KW10-Z3P150	KW10-Z3P250
OF Max(N)	0.23	0.45	0.75
RF Min(N)	0.03	0.06	0.12
OT Min(mm)	0.7		
MD Max(mm)	0.7		
FP Max(mm)	9.5		
OP(mm)	7 ± 1.2		

KW10-Z5P075
 KW10-Z5P150
 KW10-Z5P250



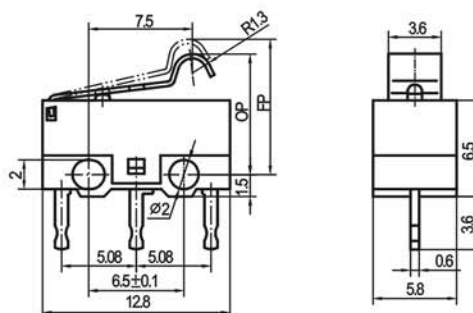
型號 Model	KW10-Z5P075	KW10-Z5P150	KW10-Z5P250
OF Max(N)	0.23	0.46	0.77
RF Min(N)	0.02	0.05	0.1
OT Min(mm)	0.7		
MD Max(mm)	0.7		
FP Max(mm)	16.5		
OP(mm)	13 ± 1.5		

KW10-Z6P075
KW10-Z6P150
KW10-Z6P250



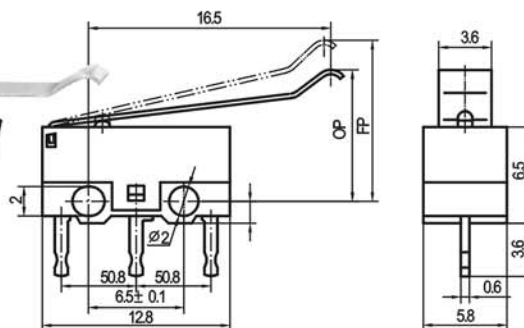
型號 Model	KW10-Z6P075	KW10-Z6P150	KW10-Z6P250
OF Max(N)	0.18	0.36	0.6
RF Min(N)	0.02	0.05	0.1
OT Min(mm)	0.9		
MD Max(mm)	0.9		
FP Max(mm)	11.5		
OP(mm)	8.8 ± 1.5		

KW10-Z8P075
KW10-Z8P150
KW10-Z8P250



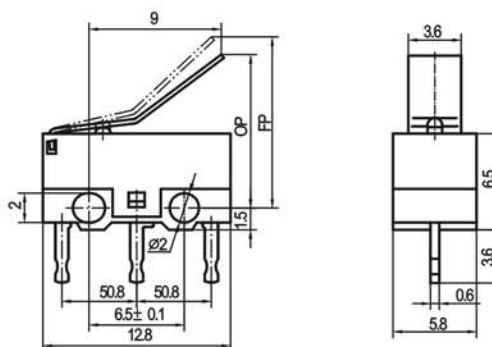
型號 Model	KW10-Z8P075	KW10-Z8P150	KW10-Z8P250
OF Max(N)	0.3	0.6	1
RF Min(N)	0.03	0.06	0.12
OT Min(mm)	0.6		
MD Max(mm)	0.6		
FP Max(mm)	10.5		
OP(mm)	7 ± 1.5		

KW10-ZEP075
KW10-ZEP150
KW10-ZEP250



型號 Model	KW10-ZEP075	KW10-ZEP150	KW10-ZEP250
OF Max(N)	0.15	0.3	0.5
RF Min(N)	0.02	0.05	0.1
OT Min(mm)	1.1		
MD Max(mm)	1		
FP Max(mm)	11.5		
OP(mm)	8.5 ± 1.5		

KW10-ZBP075
KW10-ZBP150
KW10-ZBP250



型號 Model	KW10-ZBP075	KW10-ZBP150	KW10-ZBP250
OF Max(N)	0.25	0.5	0.8
RF Min(N)	0.02	0.05	0.1
OT Min(mm)	0.6		
MD Max(mm)	0.6		
FP Max(mm)	12.5		
OP(mm)	10.5 ± 1.5		