



KW4A(S)型微動開關系列 Micro switch series

◆ 安全可靠的小型開關 Safe, reliable miniature switch

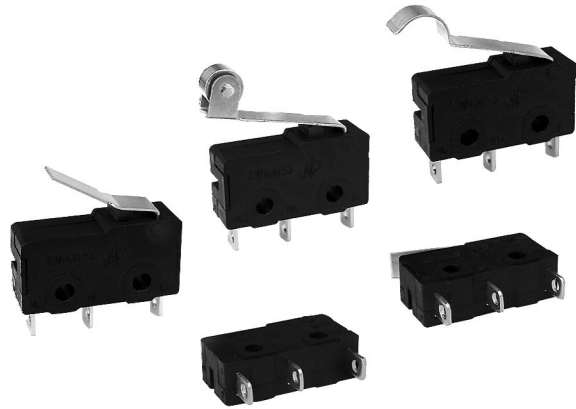
- 結構緊湊。具有微小觸點間隙，快速動作、高靈敏和微小動作行程的特點。
Nice appearance, tight configuration.
Characteristic: small contact gap, quickaction, high sensitivity and small operating travel.

- 長壽命，高可靠。
Long life, high reliability.

- 接綫端子種類齊全
Variety of contact terminals

- 配備各種形式動臂
Varity of levers

- 廣泛應用於各種家用電器、電子設備、自動化設備、通訊設備、汽車電子、儀器儀表等領域。
Widely used in appliance, electronic equipment, automatic machine, communication equipment, car electric, apparatus and instrument etc.



KW4A(S)

◆ 技術特性 Specifications

項目 Item		特性值 Value
工作速度 Operating speed		0.1mm ~ 1m/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 25 cycles/min
絕緣電阻 Insulation resistance		≥100MΩ (500VDC)
接觸電阻 Contact resistance		動作力>0.5N: ≤30mΩ (見注) OF>0.5N: ≤30mΩ (see note) 動作力≤0.5N: ≤50mΩ (見注) OF≤0.5N: ≤50mΩ (see note)
耐電壓 Test voltage	同極不相接端子間 Between terminals of the same polarity	AC1000V, 50/60Hz, 1min
	帶電金屬零件與地(外殼)之間、接綫端與不帶電金屬件之間 Between current-carrying metal parts and ground(case), and between each terminal and non-current-carrying metal parts.	AC1500V, 50/60Hz, 1min
抗振動 Vibration resistance		10 ~ 55Hz, 1.5mm兩倍振幅 Double amplitude
抗衝擊 Shock resistance		破壞: 動作力>0.5N: 1000m/s ² (約100G)max 動作力≤0.5N: 500m/s ² (約50G)max 故障: 動作力>0.5N: 300m/s ² (約30G)max 動作力≤0.5N: 200m/s ² (約20G)max Destruction: OF>0.5N: 1000m/s ² (approx.100G)max OF≤0.5N: 500m/s ² (approx.50G)max Malfunction: OF>0.5N: 300m/s ² (approx.30G)max OF≤0.5N: 200m/s ² (approx.20G)max
壽命 Life expectancy		機械 ≥1000000次; Mechanical ≥1000000 cycles 電氣 ≥10000次; Electrical ≥10000cycles
質量 Weight		約1.6g(無動臂型) Approx. 1.6g(No lever)

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

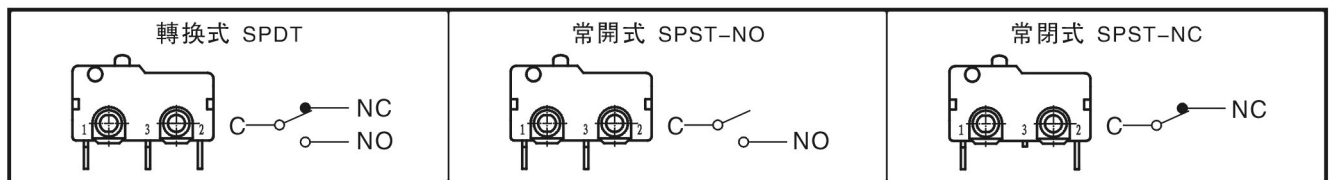


◆ 型號規格命名及含義 Model specs naming and meanings

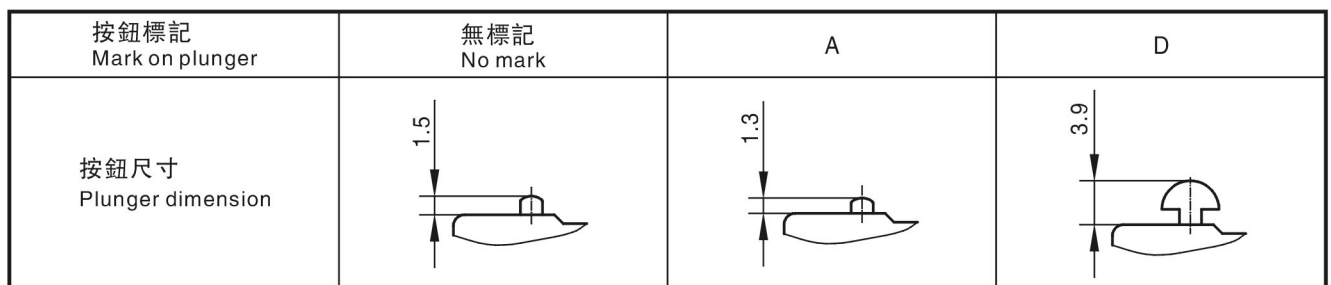
KW4A(S) □-□□□□□□- (□)
 1 2 3 4 5 6 7 8

1 溫度等級 Degrees of temperature	無標記: 10T85 No mark: T:T125	6 動作力(max) operating force	050: 0.5N 100: 1N 150: 1.5N 200: 2N 300: 3N 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.
2 額定值 Ratings	無標記: 5A250VAC No mark A: 10A250VAC B: 3A250VAC C: 1A250VAC F: 0.1A250VAC		
3 接觸形式 Connect forms	Z: 轉換式 SPDT T: 常開(按通)式 SPST-NO D: 常閉(按斷)式 SPST-NC (見說明圖 See illuminations)	7 按鈕規格 Plunger specs	無標記: 標準按鈕 No mark: standard plunger A: 短按鈕 Short plunger D: 异形按鈕 Abnormity plunger (見說明圖 see illuminations) 注: 若採用本表中未列入的非標準按鈕, 則用此新增按鈕的規格代號(本公司確認)表示。 Note: if adopt other not standard plunger, then indicate with the new spec (confirmed by our company.)
4 驅動形式 Actuator forms	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: 弧形動臂 Arc lever □-非標準動臂 Not standard lever 注: □表示非標準動臂的代號, 詳見動臂外形尺寸圖。 Note: □Indicate not standard lever, details see outline measurement drawings.		
5 端子類型 Terminal type	F: 焊接端子 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 T: 110快接端子 Quick-connect terminal Y: 非標準端子 Not standard terminal	8 附加規格編號 適用於: Additional spec numbers, apply to:	1)當開關使用了非標準零件如非標準端子時; When used not standard parts such as not stand ard 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.

◆ 接觸形式說明圖 Connect forms illumination

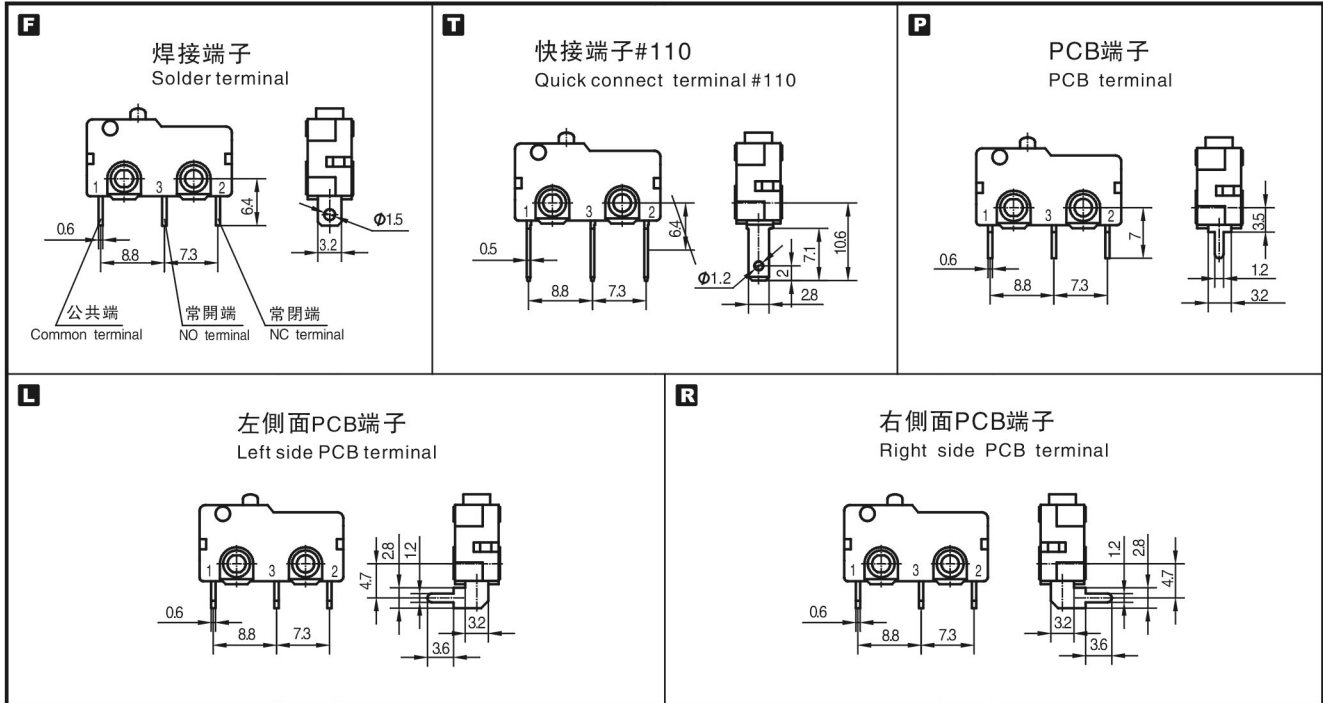


◆ 按鈕規格說明圖 Plunger spec illumination

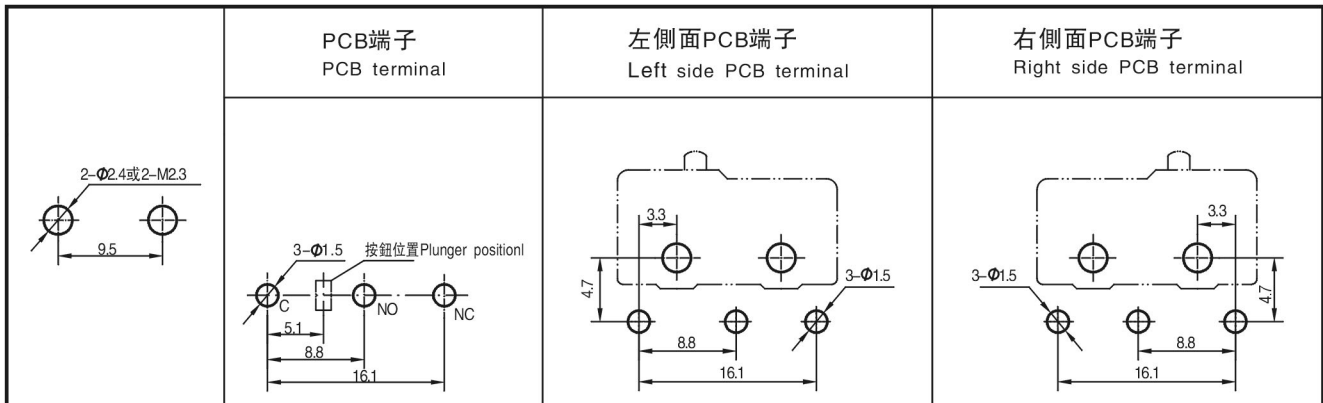




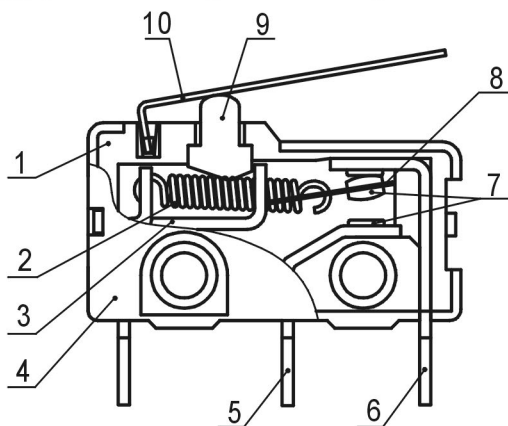
◆ 接線端尺寸 Terminal dimensions



◆ 安裝孔尺寸 Mounting hole dimension



◆ 內部構造圖 Internal configuration drawing



- | | |
|-----------|--------------|
| 1:基座 | Case |
| 2:拉簧 | Pull spring |
| 3:支架 | Support |
| 4:蓋 | Cover |
| 5:常開端子 | NO terminal |
| 6:常閉端子 | NC terminal |
| 7:電觸點 | Contact |
| 8:可動片 | Moving piece |
| 9:開關子(按鈕) | Plunger |
| 10:動臂 | Lever |

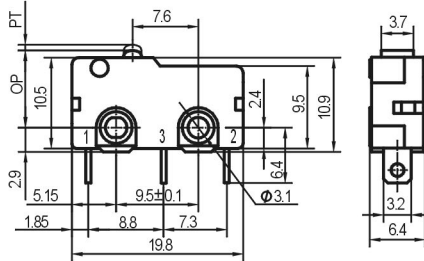
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◆ 外形尺寸和動作特性 Dimensions and operating characteristics

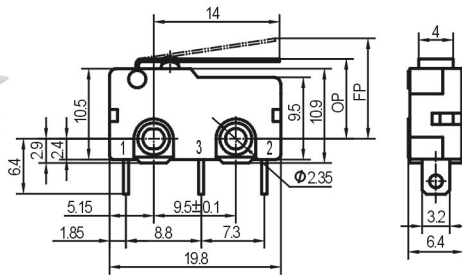
KW4A(S)

KW4A(S)-Z0F100
KW4A(S)-Z0F150
KW4A(S)-Z0F200
KW4A(S)-Z0F300



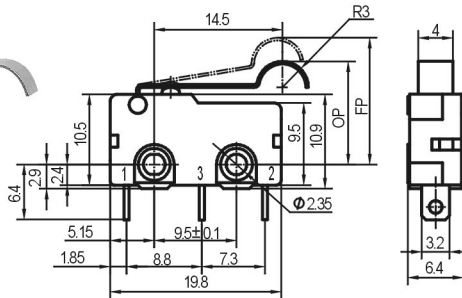
型號 Model	KW4A(S)-Z0F100	KW4A(S)-Z0F150	KW4A(S)-Z0F200	KW4A(S)-Z0F300
OF Max(N)	1.00	1.50	2.00	3.00
RF Min(N)	0.15	0.30	0.50	0.70
PT Max(mm)	0.8			
OT Min(mm)	0.5			
MD Max(mm)	0.2			
OP(mm)	9 ± 0.4			

KW4A(S)-Z3F100
KW4A(S)-Z3F150
KW4A(S)-Z3F200
KW4A(S)-Z3F300



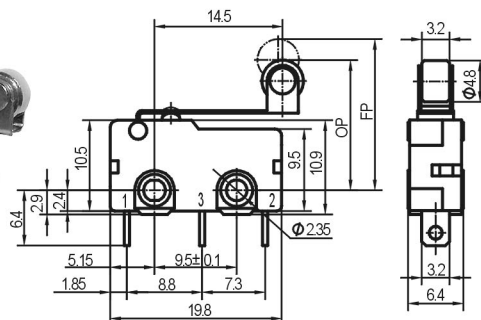
型號 Model	KW4A(S)-Z3F100	KW4A(S)-Z3F150	KW4A(S)-Z3F200	KW4A(S)-Z3F300
OF Max(N)	0.25	0.40	0.50	0.80
RF Min(N)	0.04	0.08	0.15	0.20
OT Min(mm)	0.8			
MD Max(mm)	0.8			
FP Max(mm)	12.5			
OP(mm)	8.9 ± 1			

KW4A(S)-Z6F100
KW4A(S)-Z6F150
KW4A(S)-Z6F200
KW4A(S)-Z6F300



型號 Model	KW4A(S)-Z6F100	KW4A(S)-Z6F150	KW4A(S)-Z6F200	KW4A(S)-Z6F300
OF Max(N)	0.25	0.40	0.50	0.80
RF Min(N)	0.04	0.08	0.15	0.20
OT Min(mm)	1.5			
MD Max(mm)	0.8			
FP Max(mm)	16.5			
OP(mm)	13.4 ± 1			

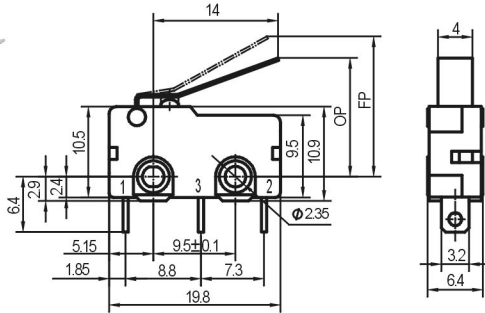
KW4A(S)-Z5F100
KW4A(S)-Z5F150
KW4A(S)-Z5F200
KW4A(S)-Z5F300



型號 Model	KW4A(S)-Z5F100	KW4A(S)-Z5F150	KW4A(S)-Z5F200	KW4A(S)-Z5F300
OF Max(N)	0.25	0.40	0.50	0.80
RF Min(N)	0.04	0.08	0.15	0.20
OT Min(mm)	1.2			
MD Max(mm)	0.9			
FP Max(mm)	19.0			
OP(mm)	15.2 ± 1			

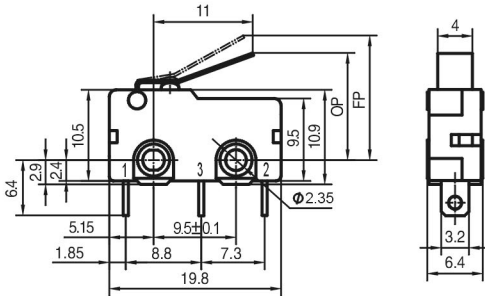


KW4A(S)-ZEF100
 KW4A(S)-ZEF150
 KW4A(S)-ZEF200
 KW4A(S)-ZEF300



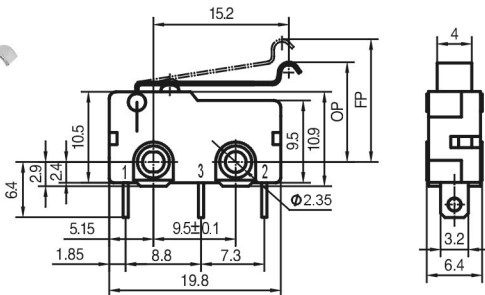
型號 Model	KW4A(S)-ZEF100	KW4A(S)-ZEF150	KW4A(S)-ZEF200	KW4A(S)-ZEF300
OF Max(N)	0.25	0.40	0.50	0.80
RF Min(N)	0.04	0.08	0.15	0.20
OT Min(mm)	1.2			
MD Max(mm)	0.8			
FP Max(mm)	16.5			
OP(mm)	13 ± 1			

KW4A(S)-ZQF100
 KW4A(S)-ZQF150
 KW4A(S)-ZQF200
 KW4A(S)-ZQF300



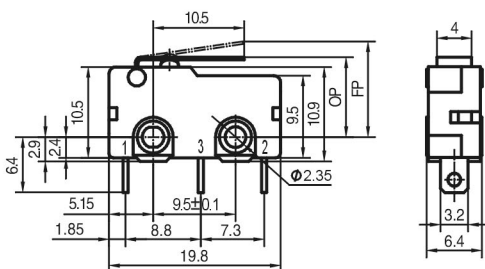
型號 Model	KW4A(S)-ZQF100	KW4A(S)-ZQF150	KW4A(S)-ZQF200	KW4A(S)-ZQF300
OF Max(N)	0.32	0.50	0.65	1.00
RF Min(N)	0.04	0.08	0.15	0.20
OT Min(mm)	1.0			
MD Max(mm)	0.8			
FP Max(mm)	15.0			
OP(mm)	12.2 ± 0.8			

KW4A(S)-Z6BF100
 KW4A(S)-Z6BF150
 KW4A(S)-Z6BF200
 KW4A(S)-Z6BF300



型號 Model	KW4A(S)-Z6BF100	KW4A(S)-Z6BF150	KW4A(S)-Z6BF200	KW4A(S)-Z6BF300
OF Max(N)	0.25	0.40	0.50	0.80
RF Min(N)	0.04	0.08	0.15	0.20
OT Min(mm)	1.2			
MD Max(mm)	0.8			
FP Max(mm)	15.5			
OP(mm)	12 ± 1.2			

KW4A(S)-Z1F100
 KW4A(S)-Z1F150
 KW4A(S)-Z1F200
 KW4A(S)-Z1F300

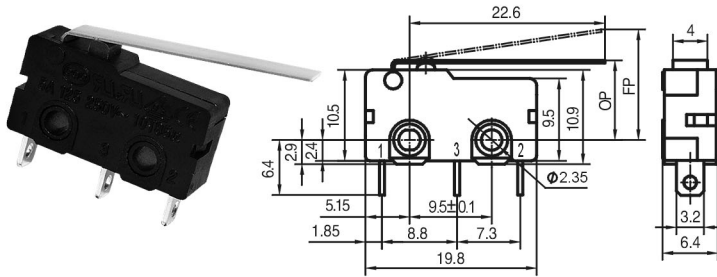


型號 Model	KW4A(S)-Z1F100	KW4A(S)-Z1F150	KW4A(S)-Z1F200	KW4A(S)-Z1F300
OF Max(N)	0.40	0.50	0.60	0.80
RF Min(N)	0.10	0.15	0.20	0.30
OT Min(mm)	1.0			
MD Max(mm)	0.6			
FP Max(mm)	11.5			
OP(mm)	9 ± 0.8			



KW4A(S)-Z2F100
 KW4A(S)-Z2F150
 KW4A(S)-Z2F200
 KW4A(S)-Z2F300

KW4A(S)



型號 Model	KW4A(S)-Z2F100	KW4A(S)-Z2F150	KW4A(S)-Z2F200	KW4A(S)-Z2F300
OF Max(N)	0.20	0.30	0.35	0.45
RF Min(N)	0.03	0.08	0.10	0.15
OT Min(mm)	1.6			
MD Max(mm)	1.5			
FP Max(mm)	15.0			
OP(mm)	9 ± 1.5			

◆ 可供選擇的非標準動臂代號和外形特徵尺寸 Not standard lever for choose and outline characteristic dimension

動臂代號 Lever code	外形特徵尺寸 Outline characteristic dimensions	動臂代號 Lever code	外形特徵尺寸 Outline characteristic dimensions	動臂代號 Lever code	外形特徵尺寸 Outline characteristic dimensions
3A		C		K	
N		G		Q1	
J		F1		S1	
J1		6A		5A	
J2		6C			