

KW3A 型微動開關系列 Micro switch series

◆ 安全可靠的基本開關 Safe, reliable basic switch

- 外形美觀，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 clearance, quick action, high sensitivity and small operating travel.

- 長壽命，高可靠。

Long life, high reliability.

- 接線端子種類齊全

A variety of contact terminals

- 動作力範圍寬

Wide range of operating force

- 多種溫度等級

A variety of temperature degree

- 配備各種形式動臂

A variety of levers

- 採用熱固性或熱塑性塑料

Adopt thermosetting plastic or thermoplastic

- 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、電動工具等領域。

Widely used in home appliance,electronic equipment,automatic machine,communication equipment,car electron,apparatus and instrument, electric motion tool etc.

- 可提供直流大間隙規格開關。

Direct current large gap switch can be provided.



◆ 技術特性 Technical Characteristics

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 25cycles/min
絕緣電阻 Insulation resistance		$\geq 100M\Omega$ (500VDC)
接觸電阻 Contact resistance		動作力OF > 0.75N: $\leq 50 m\Omega$ 動作力OF $\leq 0.75N$: $\leq 100m\Omega$ (初始值initial value)
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、接線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.	AC3750V, 50/60Hz, 1min
抗振動 Vibration resistance		10 ~ 55Hz, 1.5mm 雙振幅 Double amplitude
抗衝擊 Shock resistance		破壞:動作力>0.5N: 1000m/s ² (約100G)max 動作力 $\leq 0.5N$: 400m/s ² (約40G)max 故障:動作力>0.5N: 200m/s ² (約20G)max 動作力 $\leq 0.5N$: 100m/s ² (約10G)max Destruction: OF>0.5N: 1000m/s ² (approx.100G)max OF $\leq 0.5N$: 400m/s ² (approx.40G)max Malfunction: OF>0.5N: 200m/s ² (approx.20G)max OF $\leq 0.5N$: 100m/s ² (approx.10G)max
壽命 Life		機械 $\geq 2,000,000$ 次; Mechanical $\geq 2,000,000$ cycles 電氣 $\geq 50,000$ 次 Electrical $\geq 50,000$ cycles
質量 Weight		約6.2g(無動臂型) Approx. 6.2g(No lever)
安全認證 Safety approvals		UL,CUL,VDE,ENEC,SEMKO,DEMKO,NEMKO,FIMKO,CE,EK,CQC

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

KW3A □-□□□□□-□□□□- (□)
 1 2 3 4 5 6 7 8 9 10 11

1 溫度等級 Degree of temperature	無標記 No mark: T85, 10T105 T:T125 H:T150 G:T200		KW3AT-10: 10A125VAC 10GPA125/250VAC 6A30VDC 10(3)A125/250VAC KW3AT-05: 5A125VAC 5GPA125/250VAC 4A30VDC 5(2)A125/250VAC KW3AT-01: 1A125VAC 1GPA125/250VAC 1(0.3)A125/250VAC KW3AH-22: 22GPA125/250VAC 22A125/250VAC KW3AH: 16GPA125/250VAC 16A125/250VAC KW3AH-10: 10.1A125VAC 10.1GPA125/250VAC 10(3)A125/250VAC KW3AH-05: 5A125VAC 5GPA125/250VAC 5(2)A125/250VAC 0.1/1A30VDC KW3AH-01: 1A125VAC 1GPA125/250VAC 1(0.3)A125/250VAC 0.1/1A30VDC KW3AG-22: 22GPA125/250VAC 22A125/250VAC KW3AG: 16GPA125/250VAC 16A125/250VAC KW3AG-10: 10.1A125VAC 10.1GPA125/250VAC 10(3)A125/250VAC KW3AG-05: 5A125VAC 5GPA125/250VAC 5(2)A125/250VAC 0.1/1A30VDC KW3AG-01: 1A125VAC 1GPA125/250VAC 1(0.3)A125/250VAC 0.1/1A30VDC KW3A-20E: 20A 36VDC KW3A-16E: 16A 36VDC KW3A-12E: 12A 36VDC KW3A-10E: 10A 36VDC KW3A-5E: 5A 36VDC
2 額定值 Ratings	KW3A: 16A125VAC 16GPA125/250VAC 16(4)A125/250VAC 10A30VDC 1/3hp125VAC 16(10)A125/250VAC 16(8)A250VAC KW3A-25: 25RA125/250VAC 25(10)A125/250VAC 1hp125VAC 2hp250VAC KW3A-25(10): 1hp125VAC 2hp250VAC 25(10)A250VAC KW3A-21: 21GPA125/250VAC 21(4)A125/250VAC 12A30VDC 1hp125VAC 2hp250VAC KW3A-10: 10A125VAC 10GPA125/250VAC 10(3)A125/250VAC 6A30VDC 10(8)A125/250VAC 10(6)A250VAC KW3A-5: 5A125VAC 5GPA125/250VAC 5(2)A125/250VAC 4A30VDC KW3A-1: 1A125VAC 1GPA125/250VAC 1(0.3)A125/250VAC KW3AT-21: 21A125VAC 21GPA125/250VAC 21(4)A125/250VAC 12A30VDC 1hp125VAC 2hp250VAC KW3AT-16: 16A125VAC 16GPA125/250VAC 10A30VDC 1/3hp125VAC 16(4)A125/250VAC	2 額定值 Ratings	

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

KW3A □-□□□□□-□□□□- (□)

1 2 3 4 5 6 7 8 9 10 11

2 額定值 Ratings	KW3A-15F: 15A 48VDC KW3A-10F: 10A 48VDC KW3A-5F: 5A 48VDC KW3A-20G: 20A 60VDC KW3A-15G: 15A 60VDC KW3A-25H: 25A 84VDC KW3A-20H: 20A 84VDC KW3A-5J: 5A 250VDC	7 端子類型 Terminal types	D: 焊接/187共用端子 Solder/187 common terminal E: 螺孔端子 Screw terminal F: 焊接端子 Solder terminal L: 左側面PCB端子 Left side PCB terminal R: 右側面PCB端子 Right side PCB terminal H: 250快接端子之二 250Quick terminal No.2 Y: 非標準端子 Not standard terminal
3 接觸形式 Circuit	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 illustration)		
4 驅動形式 Actuator forms	0:無動臂 No lever A1/1: 短動臂 Short lever A2/2: 長動臂 Long lever A3/3: 中動臂 Middle lever A4/4: 短滾輪臂 Short roller A5/5: 長滾輪臂 Long roller A6/6: 弧形動臂 Arc lever A□/□: 非標準動臂 Not standard lever 注: 1)A表示動臂安裝在靠近按鈕位置, 無字母A表示動臂安裝在離按鈕較 遠位置。 2)□表示非標準動臂的代號,詳見動 臂外形尺寸圖。 Note: 1) A indicate the lever near to the plunger, no A indicate the lever far away from the plunger. 2) □ Indicate not standard lever, details see outline dimension drawings.	8 動作力(max) Operating force	015: 0.15N 025: 0.25N 050: 0.5N 100: 1N 150: 1.5N 200: 2N 300: 3N 400: 4N 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.
5 外殼材質 Case material	無標記 No mark 熱塑性 thermoplastic G: 熱固性 thermosetting	9 按鈕規格 Plunger spec	無標記 No mark: 標準按鈕 standard plunger A: 短按鈕 Short plunger B: 中長按鈕 Middle plunger C: 長按鈕 Long plunger D: 平端按鈕 Flat plunger (見說明圖 See illustration) 注: 若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.)
6 外形特徵 Outline characteristic	無標記 No mark 基本形 basic form B: 平端形 flat terminal C: 公共端側面形 side common terminal D: 平端卡扣形 flat end buckle E: 平端卡扣密封形 flat end snap seal F: 平端無卡扣鉚接形 flat end riveting without snap (D、E、F專用于直流開關) (D、E、F are specially used for DC switch)	10 觸點間隙 Contact gap	無標記 No mark: 0.5mm X: 1mm Y: 3mm
7 端子類型 Terminal types	A: 250 快接端子 250 quick-connect terminal B: 187 快接端子 (厚0.8mm) 187 quick-connect terminal (thick 0.8mm) C: 187 快接端子 (厚0.5mm) 187 quick-connect terminal (thick 0.5mm)	11 附加規格編號和外殼 顏色代號, 適用於: Additional specs numb- ers and case color code 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 standard terminals; 2)當顧客有特殊動作特性值或其它要求時; When the customer has particular operating value or other requirements; 3)當開關外殼顏色不是默認的灰色時, 如黑色用字母B表示。 When the case is not grey, for example, black shows as B. 附加規格編號用阿拉伯數字或拉丁字母表 示, 字母代號位于數字之後。在沒有附加 規格編號時, 該位置空缺。 Additional specs number shows by Arabic numerals or Latin, color code after the numbers. If there is no additional numbers, the place is vacant.

◆ 接觸形式說明圖 Circuit illustration

公共端類型 Common terminal types	轉換式 SPDT	常閉式 SPST-NC	常開式 SPST-NO
公共端在底部 Bottom common terminal			
公共端在側面 Side common terminal			

◆ 按鈕規格說明圖 Plunger spec illustration

按鈕標記 Mark on plunger	無標記 No mark	A	B	C	D
按鈕尺寸 Plunger dimension					

◆ 外形特徵說明圖 Outline characteristic illustration

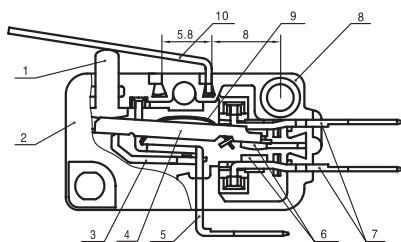
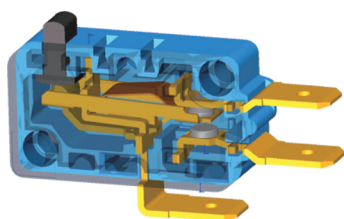
基本形 Basic form	平端形 Flat form	公共端側面形 Side common terminal

◆ 接線端尺寸 Connect terminal dimensions

端子種類 Terminal types	快接端子#250 Quick-connect terminal #250	快接端子#187(t=0.8) Quick-connect terminal #187	快接端子#187(t=0.5) Quick-connect terminal #187	焊接/快接#187共用端子 Solder/Quick-connect terminal #187
下公共端 Bottom common terminal				
側公共端 Side common terminal				
端子尺寸 Terminal dimensions				

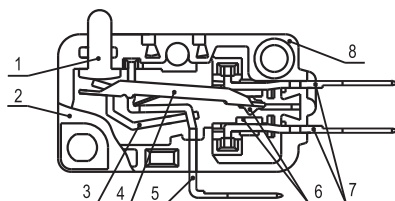
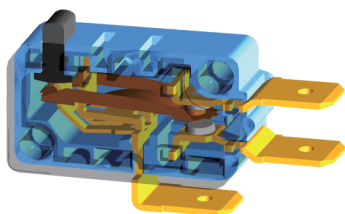
左側面PCB端子 Left side PCB terminal	右側面PCB端子 Right side PCB terminal	焊接端子 Solder terminal	螺孔端子 Screw terminal	快接端子#250之二 Quick connect terminal #250 No.2

◆ 內部構造圖 Internal configuration drawing



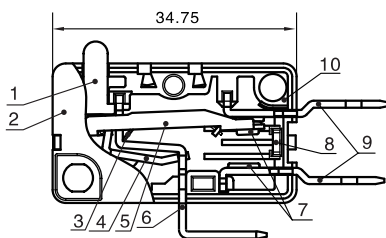
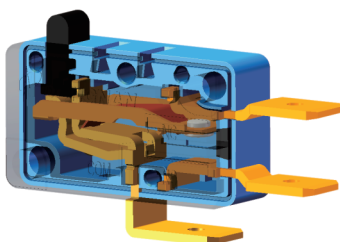
- | | |
|-----------|--------------|
| 1 按鈕 | Plunger |
| 2 蓋 | Cover |
| 3 杠杆 | Lever |
| 4 可動片 | Moving piece |
| 5 支架 | Support |
| 6 電觸點 | Contact |
| 7 端子 | Terminal |
| 8 基座 | Case |
| 9 簧片 | Spring sheet |
| 10 動臂(杠杆) | lever |

◆ KW3A輕動作力內部構造圖 Internal structure diagram of light operating force



- | | |
|-------|--------------|
| 1 按鈕 | Plunger |
| 2 蓋 | Cover |
| 3 杠杆 | Lever |
| 4 可動片 | Moving piece |
| 5 支架 | Support |
| 6 電觸點 | Contact |
| 7 端子 | Terminal |
| 8 基座 | Case |

◆ KW3A直流大間隙內部構造圖 Internal structure diagram of DC large gap



- | | |
|-------|--------------|
| 1 按鈕 | Plunger |
| 2 蓋 | Cover |
| 3 簧片 | Spring sheet |
| 4 杠杆 | Lever |
| 5 可動片 | Moving piece |
| 6 支架 | Support |
| 7 電觸點 | Contact |
| 8 磁鐵 | Magnet |
| 9 端子 | Terminal |
| 10 基座 | Case |

◆ 安裝孔尺寸 Mounting hole dimensions

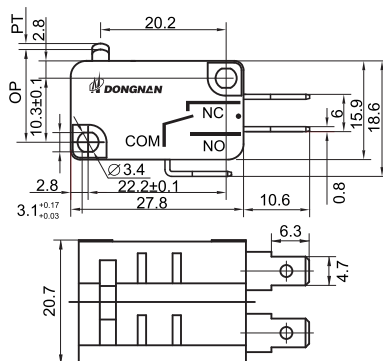
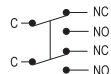
右側面PCB端子 Right side PCB terminal	左側面PCB端子 Left side PCB terminal

型 号 Model	KW3A-5Z0-C020-65B	KW3A-5Z0-C050-65B	KW3A-5Z0-C075-65B
OF Max (N)	0.20	0.50	0.75
RF Min (N)	0.05	0.10	0.20
PT Max (mm)		1.4	
OT Min (mm)		1.0	
MD Max (mm)		0.4	
OP (mm)		14.9±0.4	

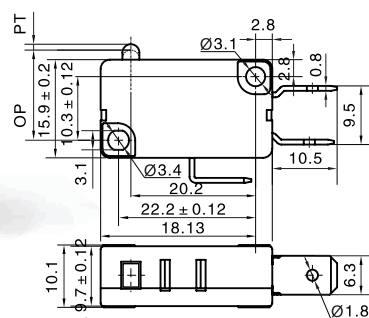
◆ 外形尺寸和動作特性 Dimensions and operating characteristics

KW3A雙聯開關 Double switch
KW3A-16Z0B-B400-22

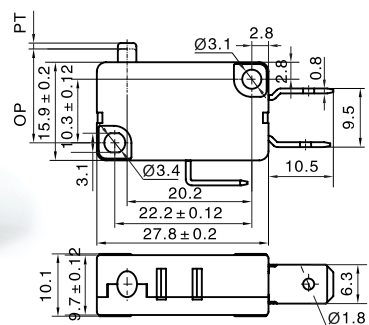
Schematic diagram



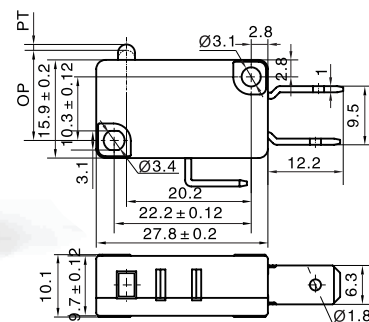
型號 Model	KW3A-16Z0B-B400-22
OF Max (N)	4.00
RF Min (N)	1.00
PT Max (mm)	1.4
OT Min (mm)	1.0
MD Max (mm)	0.4
OP (mm)	14.9 ± 0.5

KW3A-15FZ0D-A750Z4
KW3A-15FZ0D-A1000Z4
直流開關 DC Switch

型號 Model	KW3A-15FZ0D-A750Z4	KW3A-15FZ0D-A1000Z4
OF Max(N)	7.50	10.00
RF Min(N)	2.0	3.0
PT Max(mm)	1.2	
OT Min(mm)	1.0	
MD Max(mm)	0.8	
OP(mm)	14.3 ± 0.5	

KW3A-15FZ0E-A550Z5
KW3A-20FZ0E-A550Z5
直流開關 DC Switch

型號 Model	KW3A-15FZ0E-A550Z5	KW3A-20FZ0E-A550Z5
OF Max(N)	5.50	5.50
RF Min(N)	1.50	1.50
PT Max(mm)	1.2	
OT Min(mm)	1.0	
MD Max(mm)	0.8	
OP(mm)	14.8 ± 0.5	

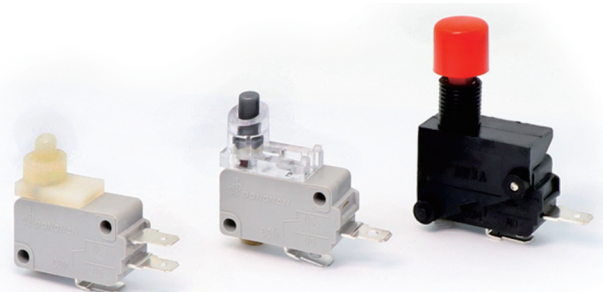
KW3A-15FZ0F-A550Z4
KW3A-15FZ0F-A850Z4
直流開關 DC Switch

型號 Model	KW3A-15FZ0F-A550Z4	KW3A-15FZ0F-A850Z4
OF Max(N)	5.50	8.50
RF Min(N)	1.50	2.5
PT Max(mm)	1.2	
OT Min(mm)	1.0	
MD Max(mm)	1.0	
OP(mm)	14.6 ± 0.5	

KW3A 微動開關組件壹 Micro switch groupware

◆ 特點和用途 Characteristic and usage

- 自鎖式或按鈕式，大電流。
Self locked or button type, big current
- 結構緊湊，體積小。
Tight configuration, small size.
- 可直接用手操動
Can be operated by hand
- 用于特殊場合的電源通斷和電氣控制
Applied to power on/off and electric control in special situations



◆ 技術特性 Technical Characteristics

項 目 Item		特性值 Value	
		按鈕型 Button type	自鎖型 Self lock
溫度等級 Degrees of temperature		T105	
額定電壓 Rated voltage		AC250V	
絕緣電阻 Insulation resistance		$\geq 100\text{M}\Omega$ (500VDC)	
接觸電阻 Contact resistance		$\leq 30\text{m}\Omega$ (初始值 initial value)	
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.	AC3750V, 50/60Hz, 1min	
電氣壽命 Electrical life		50,000次/cycles	10,000次/cycles

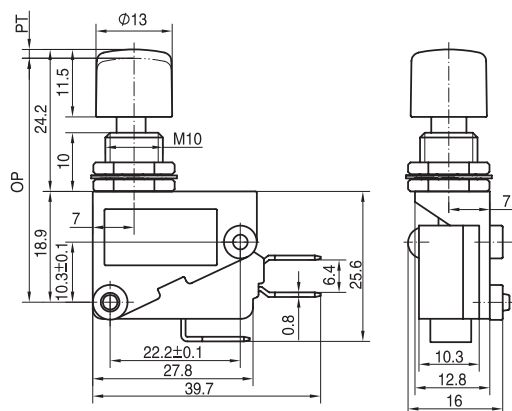
◆ 型號規格命名及含義 Model number legend and meanings

KW3A - □ □ □ □ □ - (□)
1 2 3 4 5 6

1 結構型式 Configuration types	A: 按鈕型 Button type B: 自鎖型 Self lock	4 端子類型 Terminal types	見P13表格中7端子類型 Please see the 7 terminal types in the form of page 13
2 額定值 Ratings	見P12表格中額定值 Please see the rating in the form of Page12	5 按鈕顏色 Button color	R:紅色 Red G:綠色 Green B:藍色 Blue (僅適用於按鈕型 Only used in Button type)
3 接觸形式 Circuit	Z: 轉換式 SPDT T: 常開(接通)式 SPST-NO D: 常閉(接斷)式 SPST-NC	6 附加規格編號 Additional spec numbers	適用於:當開關組件與標準規格有某些差別時。 Apply to: When switch components have some difference with standard specifications. 附加規格編號用阿拉伯數字表示，在沒有附加規格編號時，該位置空缺。 Additional specs number shows by Arabic numerals. If there is no additional numbers,the place is vacant.

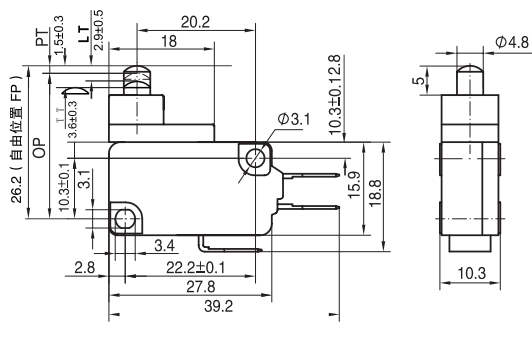
◆ 外形和安裝尺寸 Outline and mounting dimensions

KW3A-A□ZA□



OF (N)	1.50–2.00
RF Min (N)	0.40
PT Max (mm)	1.2
OTMin (mm)	1.0
MDMax (mm)	0.4
OP (mm)	42 ± 0.5

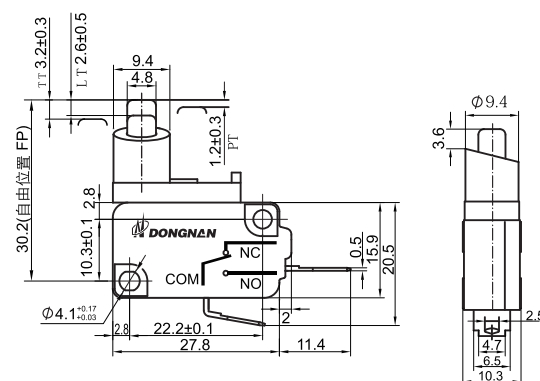
KW3A-B□ZC



Total travel

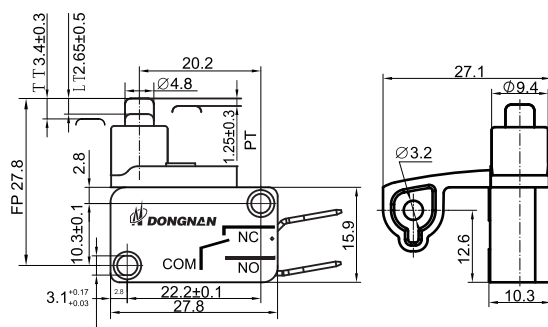
OF (N)	2.00-4.00
TT (mm)	3.6±0.3
LT (mm)	2.9±0.5
PT (mm)	1.5±0.3

KW3A-B16TD-02



OF (N)	2.00-4.00
TT (mm)	3.2±0.3
LT (mm)	2.6±0.5
PT (mm)	1.2±0.3

KW3A-B16TD-1003



OF (N)	2.00-4.00
TT (mm)	3.4±0.3
LT (mm)	2.65±0.5
PT (mm)	1.25±0.3

KW3A 微動開關組件貳 Micro switch groupware

◆ 特點和用途 Characteristic and usage

- 防傾倒式，大電流。
Dumping prevention type, big current
- 可利用開關方向和位置的變化，實現電源通斷的自動切換。
Using the change of switch direction and position then automatically control the power on or off.

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

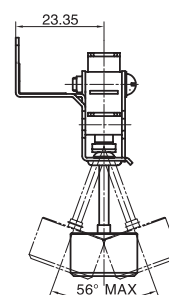
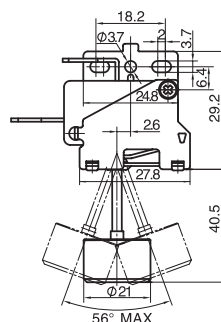
KW3A- □ □ □ □ - □ □ □ □ - (□)
1 2 3 6 7 8 9 10 11



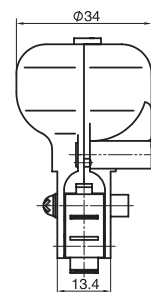
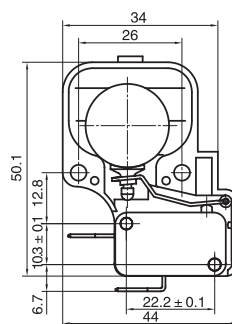
1 結構型式 Configuration types	2 額定值 Ratings	3 接觸形式 Circuit	6-11
C-防傾倒式 I Dumping prevention type I D- 防傾倒式 II Dumping prevention type II	見P3 表格中額定值 Please see the rating in the form of Page 3	Z: 轉換式 SPDT T: 常開(按通)式 SPST-NO D: 常閉(按斷)式 SPST-NC	含義同KW3A基本型相應編號6-11,見本目錄第8頁。 Same meaning with KW3A basic part number naming (6-11), see catalogue page 8.

◆ 外形和安裝尺寸 Outline and mouting dimintions

KW3A-C□DB-A120A

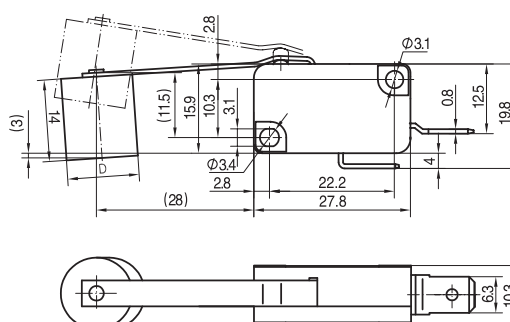


KW3A-D□DB-A 70B



防傾倒式 Safety type III

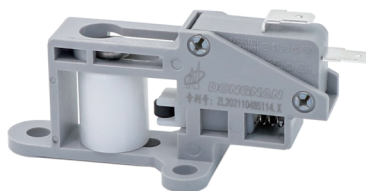
KW3A-16TA□9B-A080A



KW3A-G型晾衣架開關組件 Clothes hanger switch assembly

◆ 特點和用途 Characteristic and usage

- 產品性能可靠，動作無異響
Reliable product performance, no abnormal sound during the action
- 外形體積小巧，適合各個角度隨意安裝
Small size, suitable for random installation at all angles
- 產品結構簡潔，安裝拆解方便
Product structure is simple, easy to install and disassemble



◆ 技術特性 Specifications

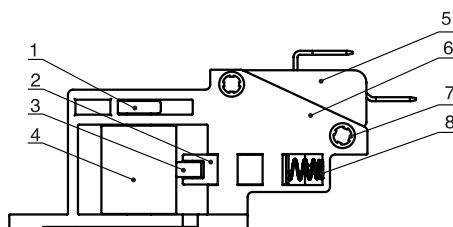
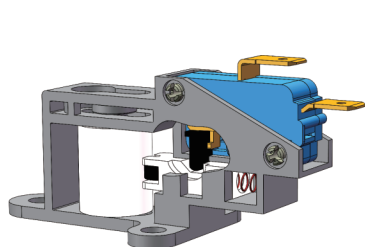
項目 Item		特性值 Value
工作速度 Operating speed		0.1mm ~ 1m/s (與驅動方式有關)(related with actuator forms)
工作頻率 Operating frequency		機械 60次/min; 電氣 15次/min Mechanical 60 cycles/min; Electrical 15cycles/min
絕緣電阻 Insulation resistance		$\geq 100\text{M}\Omega$ (500VDC)
接觸電阻 Contact resistance		$\leq 30\text{m}\Omega$ (初始值 initial value)
耐電壓 Test voltage	同極不相接端子間 Between terminals of the same polarity	AC1000V, 50/60Hz, 1min
	帶電金屬零件與外殼之間、接線端與易觸及的不帶電金屬件之間 Between electrification metal parts and case, between connect terminal and non electrification metal parts.	AC1500V, 50/60Hz, 1min
抗振動 Vibration resistance		10 ~ 55Hz, 1.5mm 雙振幅 Double amplitude
抗衝擊 Shock resistance		破壞：動作力 $>0.5\text{N}$ — 1000m/s^2 (約100G)max 動作力 $\leq 0.5\text{N}$ — 400m/s^2 (約40G)max 故障：動作力 $>0.5\text{N}$ — 200m/s^2 (約20G)max 動作力 $\leq 0.5\text{N}$ — 100m/s^2 (約10G)max Destruction: OP $>0.5\text{N}$ — 1000m/s^2 (approx.100G)max OP $\leq 0.5\text{N}$ — 400m/s^2 (approx.40G)max Malfunction: OP $>0.5\text{N}$ — 200m/s^2 (approx.20G)max OP $\leq 0.5\text{N}$ — 100m/s^2 (approx.10G)max
壽命 life		機械 $\geq 200,000$ 次; Mechanical $\geq 2,00,000$ cycles 電氣 $\geq 50,000$ 次 Electrical $\geq 50,000$ cycles
質量 Weight		約25g(無動臂型) Approx. 25g(No lever)
安全認證 Safety approvals		UL、TUV、CE、CQC

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

KW3A-G □
1 2

1 組件規格 Component specifications	G: 晾衣架開關用組件 G: Components for clothes hanger switches
2 KW3A微動開關 KW3A Micro switch	同KW3A微動開關命名規則 Same as KW3A microswitch naming rules

◆ 內部構造圖 Internal configuration drawing



- | | |
|---------|--------------|
| 1: 銷軸 | Pin |
| 2: 推杆 | Push rod |
| 3: 滾子 | Roller |
| 4: 滾輪 | Roller |
| 5: 微動開關 | Micro switch |
| 6: 固定座 | Fixed seat |
| 7: 固定銷 | Fixed pin |
| 8: 復位彈簧 | Reset spring |

◆ 外形和安裝尺寸 Outline and mounting dimensions

