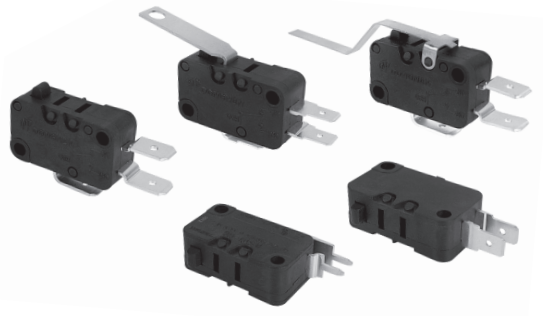


MS10型微動開關系列 Micro switch series

◆ 穩定可靠的微動開關 Stable and reliable micro switch

- 長壽命，高可靠。
Long life, high reliability.
- 低動作力性能穩定
Low operating force stable performance
- 接線端子種類齊全
A variety of contact terminals
- 多種溫度等級
A variety of temperature deprees
- 配備各種形式動臂
A variety of levers



◆ 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		$\geq 100\text{M}\Omega$ (500VDC)
接觸電阻 Contact resistance		動作力 $>0.75\text{N}$: $\leq 50\text{m}\Omega$ (見注) 動作力 $\leq 0.75\text{N}$: $\leq 100\text{m}\Omega$ (見注) OF $>0.75\text{N}$: $\leq 50\text{m}\Omega$ (See note) OF $\leq 0.75\text{N}$: $\leq 100\text{m}\Omega$ (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 $>0.5\text{N}$ — 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: OF $>0.5\text{N}$ — 1000m/s^2 (approx. 100G)max OF $\leq 0.5\text{N}$ — 400m/s^2 (approx. 40G)max Malfunction: OF $>0.5\text{N}$ — 200m/s^2 (approx. 20G)max OF $\leq 0.5\text{N}$ — 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6g(無動臂型) Approx. 6g(No lever)
安全認證 Safety approvals		UL、CUL、CQC、ENEC、DEMKO

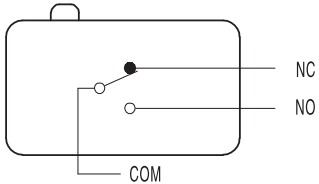
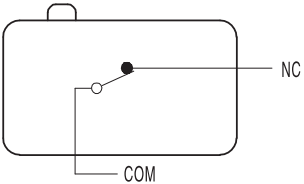
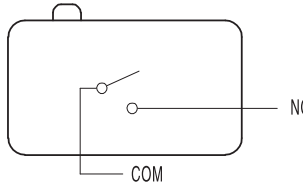
注：指無動臂時按鈕上的動作力。 Note: Refers to the operating force of no lever.

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

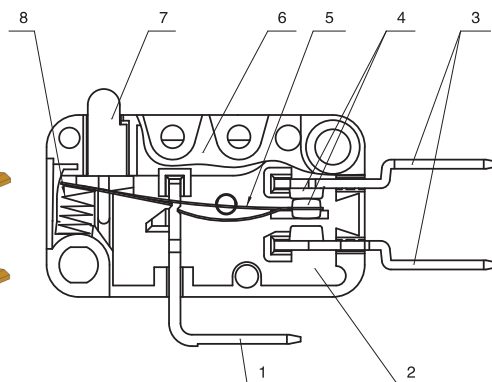
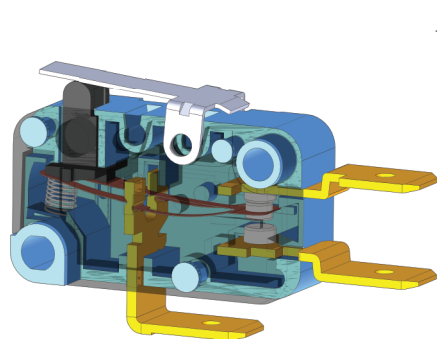
MS10 □-□□□-□□-(□)
1 2 3 4 5 6 7

1 溫度等級 Degrees of temperature	無標記 No mark: 25T125	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。 3) 若動臂為內安裝式, 則在動臂代號後加字母N。 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 plunger. 3) If lever is amoundard inside, add "N" after the lever code.
2 額定值 Ratings	MS10-16: 16(4)A125/250VAC 16GPA125/250VAC 1/2hp125/250VAC 10A30VDC MS10-10: 10A125/250VAC 10(3)A125/250VAC 10GPA125/250VAC 1/4hp250VAC 1/2hp125VAC 1/3hp125/250VAC 8A30VDC MS10-06: 6A125/250VAC 6(2)A125/250VAC 6GPA125/250VAC 1/4hp125/250VAC 6A30VDC MS10-03: 3A125/250VAC 3(1)A125/250VAC 3GPA125/250VAC 1/6hp125/250VA 3A30VDC MS10-01: 1A125/250VAC 1(0.3)A125/250VAC 1GPA125/250VAC 1/8hp125/250VA 1A30VDC	5 端子類型 Terminal type 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) F: 焊接端子 Solder terminal P: PCB端子 PCB terminal Y: 非標準端子 Not standard terminal
	6 動作力(max) Operating force 015: 0.15N 025: 0.25N 050: 0.5N 100: 1N 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.	7 附加規格編號 Additional spec numbers 適用於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 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.
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)	

◆ 接觸形式說明圖 Circuit illustration

轉換式 SPDT	常閉式 SPST-NC	常開式 SPST-NO
		

◆ 内部構造圖 Internal configuration drawing



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

◆ 接線端配置及尺寸 Connect terminals collocation and dimensions

A 快接端子#250 Quick connect terminal #250	B 快接端子#187 (t=0.8) Quick connect terminal #187 (t=0.8)	C 快接端子#187 (t=0.5) Quick connect terminal #187 (t=0.5)
D 焊接/快接#187 共用端子 Solder/Quick connect terminal #187	H 端面PCB端子 Upper PCB terminal	F 焊接端子 Solder terminal

微動開關系列
MICRO SWITCH SERIES

型 號 Model	MS10-□Z0-A015	MS10-□Z0-A025	MS10-□Z0-A050	MS10-□Z0-A100
OF Max(N)	0.15	0.25	0.50	1.00
RF Min(N)	0.02	0.06	0.13	0.25
PT Max(mm)	1.2			
OT Min(mm)	1.0			
MD Max(mm)	0.3			
OP(mm)	14.6±0.5			

型 號 Model	MS10-□ZB1-A015	MS10-□ZB1-A025	MS10-□ZB1-A050	MS10-□ZB1-A100
OF Max(N)	0.05	0.065	0.2	0.4
RF Min(N)	0.005	0.015	0.03	0.08
PT Max(mm)	6.2			
OT Min(mm)	2.5			
MD Max(mm)	1.7			
OP(mm)	3.2 ± 2			

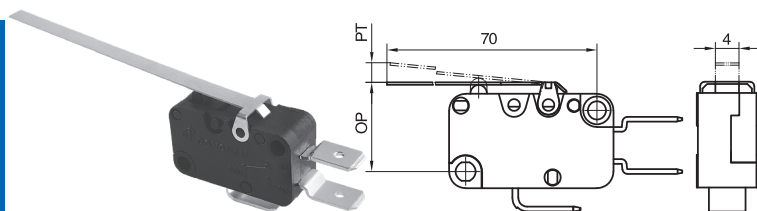
型 號 Model	MS10-□Z1-A015	MS10-□Z1-A025	MS10-□Z1-A050	MS10-□Z1-A100
OF Max(N)	0.15	0.25	0.50	1.00
RF Min(N)	0.02	0.06	0.13	0.25
PT Max(mm)	1.3			
OT Min(mm)	1.0			
MD Max(mm)	0.3			
OP(mm)	15±0.6			

型 號 Model	MS10-□Z3-A015	MS10-□Z3-A025	MS10-□Z3-A050	MS10-□Z3-A100
OF Max(N)	0.10	0.15	0.25	0.50
RF Min(N)	0.015	0.025	0.06	0.12
PT Max(mm)	3.5			
OT Min(mm)	2.0			
MD Max(mm)	1.0			
OP(mm)	15 ± 1.2			

To provide a safe and reliable on-off service let electric appliances more perfect

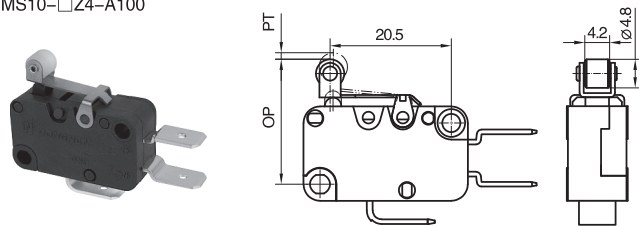
◆ 外形尺寸和動作特性 Dimensions and operating characteristics

MS10-□Z2-A015
MS10-□Z2-A025
MS10-□Z2-A050
MS10-□Z2-A100



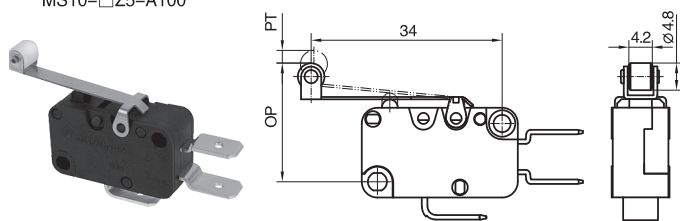
型號 Model	MS10-□Z2-A015	MS10-□Z2-A025	MS10-□Z2-A050	MS10-□Z2-A100
OF Max(N)	0.05	0.07	0.14	0.25
RF Min(N)	0.005	0.015	0.025	0.05
PT Max(mm)	7.6			
OT Min(mm)	4.0			
MD Max(mm)	1.8			
OP(mm)	15.2 ± 2.5			

MS10-□Z4-A015
MS10-□Z4-A025
MS10-□Z4-A050
MS10-□Z4-A100



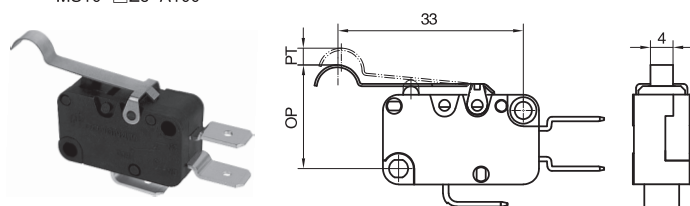
型號 Model	MS10-□Z4-A015	MS10-□Z4-A025	MS10-□Z4-A050	MS10-□Z4-A100
OF Max(N)	0.15	0.25	0.50	1.00
RF Min(N)	0.02	0.05	0.12	0.25
PT Max(mm)	1.3			
OT Min(mm)	1.0			
MD Max(mm)	0.4			
OP(mm)	20.3 ± 0.8			

MS10-□Z5-A015
MS10-□Z5-A025
MS10-□Z5-A050
MS10-□Z5-A100



型號 Model	MS10-□Z5-A015	MS10-□Z5-A025	MS10-□Z5-A050	MS10-□Z5-A100
OF Max(N)	0.10	0.15	0.25	0.50
RF Min(N)	0.015	0.025	0.06	0.12
PT Max(mm)	3.5			
OT Min(mm)	2.0			
MD Max(mm)	1.0			
OP(mm)	20.3 ± 1.2			

MS10-□Z6-A015
MS10-□Z6-A025
MS10-□Z6-A050
MS10-□Z6-A100



型號 Model	MS10-□Z6-A015	MS10-□Z6-A025	MS10-□Z6-A050	MS10-□Z6-A100
OF Max(N)	0.10	0.15	0.25	0.50
RF Min(N)	0.015	0.025	0.06	0.12
PT Max(mm)	3.5			
OT Min(mm)	2.0			
MD Max(mm)	1.0			
OP(mm)	18.6 ± 1.2			