

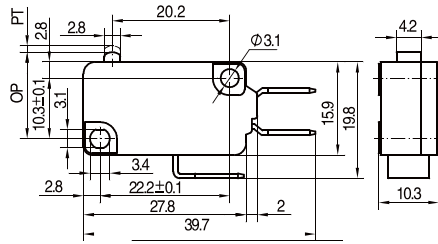
Micro Switches

Micro Switches

MP51 Series



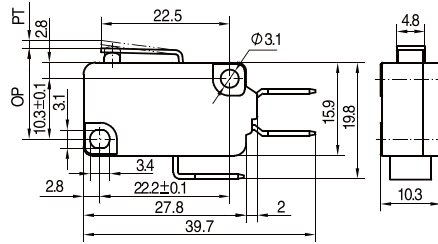
MP51__00A__



型號 Model	MP51_00_A100	MP51_00_A150	MP51_00_A200	MP51_00_A300
OF Max(N)	1.00	1.50	2.00	3.00
RF Min(N)	0.20	0.30	0.50	0.70
PT Max(mm)	1.4			
OT Min(mm)	1.0			
MD Max(mm)	0.4			
OP(mm)	14.9 ± 0.4			



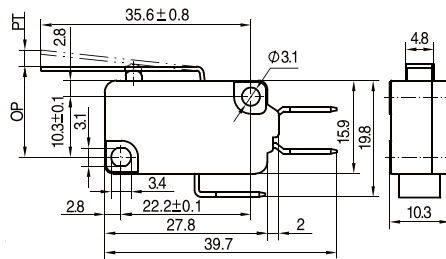
MP51__01A__



型號 Model	MP51_01_A100	MP51_01_A150	MP51_01_A200	MP51_01_A300
OF Max(N)	1.00	1.50	2.00	3.00
RF Min(N)	0.20	0.30	0.50	0.70
PT Max(mm)	1.4			
OT Min(mm)	1.0			
MD Max(mm)	0.5			
OP(mm)	15.8 ± 0.5			



MP51__03A__



型號 Model	MP51_03_A100	MP51_03_A150	MP51_03_A200	MP51_03_A300
OF Max(N)	0.50	0.70	0.90	1.30
RF Min(N)	0.10	0.15	0.20	0.30
PT Max(mm)	4.0			
OT Min(mm)	2.0			
MD Max(mm)	1.0			
OP(mm)	16.3 ± 1.2			

How to order:

MP51

1 DEGREE OF TEMPERATURE: ▲
 blank T105
 T T125
 H T150
 G T200

2 CURRENT RATINGS:
 MP51:
 25 25(4)A250VAC
 16 16(4)A250VAC/16A125VAC
 10 10(3)A250VAC/10A125VAC
 05 5(2)A250VAC/5A125VAC
 01 1(0.3)A250VAC/1A125VAC

MP51T
 21 21(4)A250VAC
 16 16(4)A250VAC/16A125VAC
 10 10(3)A250VAC/10A125VAC
 05 5(2)A250VAC/5A125VAC
 01 1(0.3)A250VAC/1A125VAC

MP51H
 22 22A125VAC
 10 10(3)A250VAC/10A125VAC
 05 5(2)A250VAC/5A125VAC
 01 1(0.3)A250VAC/1A125VAC

MP51G
 22 22A125VAC
 10 10A125VAC
 05 5A125VAC/0.1A30VDC,
 1A30VDC
 01 1A125VAC/0.1A30VDC,
 1A30VDC
3 CONTACT:
 Z SPDT
 T SPST-NO
 D SPST-NC

4 INDICATING OF LEVER:
 blank Away from Plunger
 N Near to Plunger

5 LEVER TYPE:
 00 No lever
 01 Short Lever
 02 Long Lever
 03 Middle Lever
 04 Short Roller
 05 Long Roller
 06 Arc Roller

Not Standard Levers see Page 6

6 CASE MATERIAL:
 blank Thermoplastic
 G Thermosetting

7 OUTLINE CHARACTERISTIC:
 blank Basic Form
 2 Flat Terminal
 3 Side Common Terminal
8 TERMINAL TYPES:
 A 250 Quick Connect Terminal
 B 187 Quick Connect Terminal(0.8mm)
 C 187 Quick Connect Terminal(0.5mm)
 D Solder/187 Common Terminal
 E Screw Terminal
 F Solder Terminal
 L Left Side PCB Terminal
 R Right Side PCB Terminal
 H 250 Quick Terminal No.2

9 PLUNGER SPEC:
 blank Standard plunger
 01 Short Plunger
 02 Middle Plunger
 03 Long Plunger
 04 Flat Plunger

10 OPERATING FORCE:
 015 0.15N
 025 0.25N
 050 0.5N
 100 1N
 150 1.5N
 200 2N
 300 3N
 400 4N

11 CONTACT GAP:
 blank 0.5mm
 X 1mm
 Y 3mm

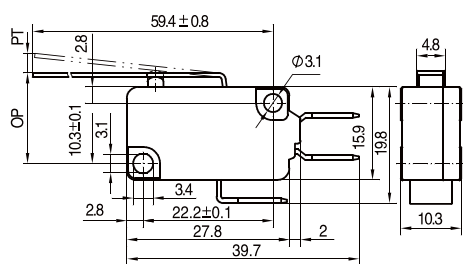


▲ Revised 2010-10-12

Micro Switches

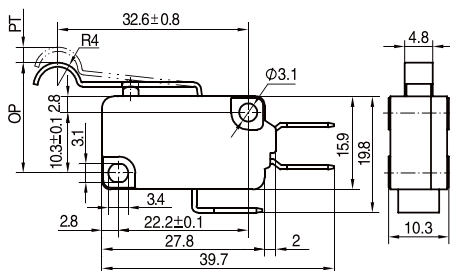
Micro Switches

MP51 Series



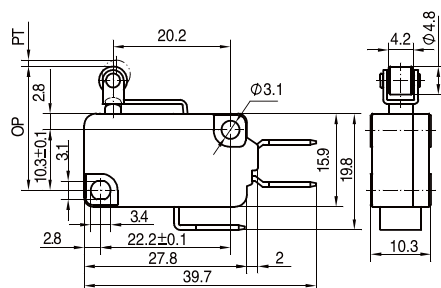
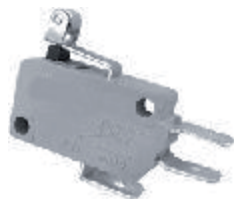
型號 Model	MP51_02_A100	MP51_02_A150	MP51_02_A20	MP51_02_A300
OF Max(N)	0.25	0.37	0.50	0.75
RF Min(N)	0.05	0.10	0.15	0.20
PT Max(mm)	8.0			
OT Min(mm)	4.0			
MD Max(mm)	2.0			
OP(mm)	17.2±2.5			

MP51_02A_



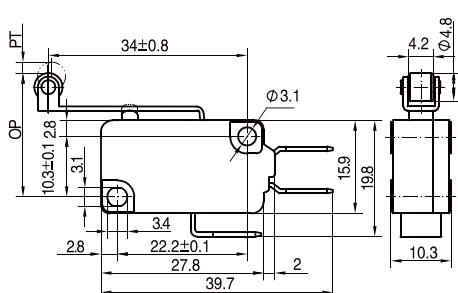
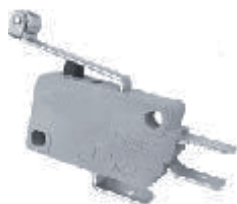
型號 Model	MP51_06_A100	MP51_06_A150	MP51_06_A200	MP51_06_A300
OF Max(N)	0.54	0.80	1.05	1.60
RF Min(N)	0.10	0.15	0.20	0.30
PT Max(mm)	4.0			
OT Min(mm)	2.0			
MD Max(mm)	1.0			
OP(mm)	19.5±1.2			

MP51_06A_



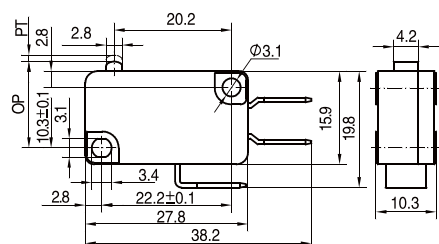
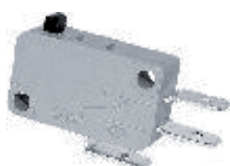
型號 Model	MP51_04_A100	MP51_04_A150	MP51_04_A200	MP51_04_A300
OF Max(N)	1.10	1.60	2.20	3.20
RF Min(N)	0.15	0.30	0.40	0.60
PT Max(mm)	1.4			
OT Min(mm)	1.0			
MD Max(mm)	0.4			
OP(mm)	21.4±0.6			

MP51_04A_



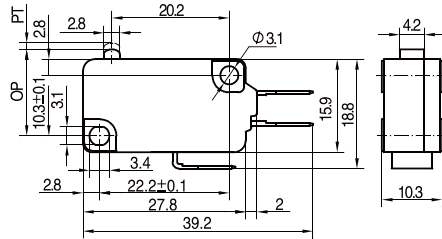
型號 Model	MP51_05_A100	MP51_05_A150	MP51_05_A200	MP51_05_A300
OF Max(N)	0.50	0.80	1.10	1.60
RF Min(N)	0.10	0.15	0.20	0.30
PT Max(mm)	4.0			
OT Min(mm)	2.0			
MD Max(mm)	1.0			
OP(mm)	21.4±1.2			

MP51_05A_



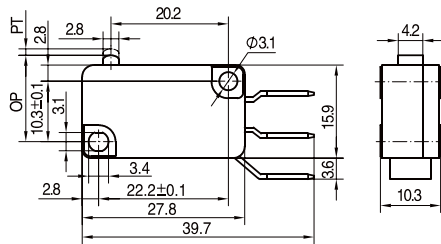
型號 Model	MP51_00_2A100	MP51_00_2A150	MP51_00_2A200	MP51_00_2A300
OF Max(N)	1.00	1.50	2.00	3.00
RF Min(N)	0.20	0.35	0.50	0.80
PT Max(mm)	1.2			
OT Min(mm)	1.0			
MD Max(mm)	0.4			
OP(mm)	14.9±0.4			

MP51_002A_



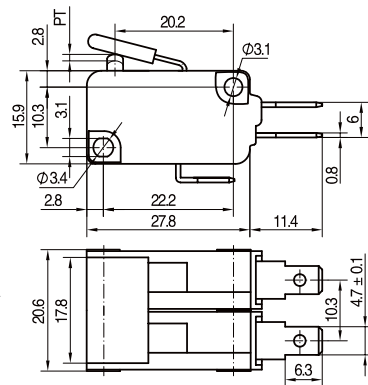
型號 Model	MP51_00_C015	MP51_00_C025	MP51_00_C050
OF Max(N)	0.15	0.25	0.50
RF Min(N)	0.04	0.07	0.15
PT Max(mm)	1.4		
OT Min(mm)	1.0		
MD Max(mm)	0.4		
OP(mm)	14.9 ± 0.4		

MP51_00C_



型號 Model	MP51_00_3A100	MP51_00_3A150	MP51_00_3A200	MP51_00_3A300
OF Max(N)	1.00	1.50	2.00	3.00
RF Min(N)	0.20	0.30	0.50	0.70
PT Max(mm)	1.4			
OT Min(mm)	1.0			
MD Max(mm)	0.4			
OP(mm)	14.9 ± 0.4			

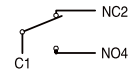
MP51_003A_



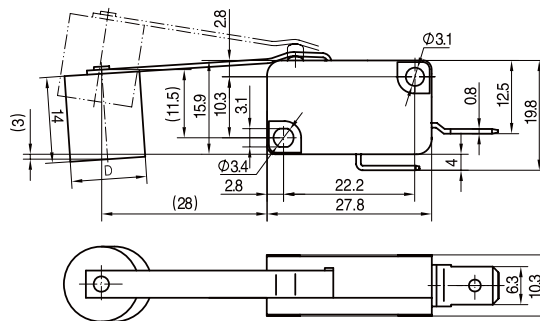
型號 Model	MP5116ZSB400Y88
OF (N)	2.80-4.00
PT max(mm)	1.4-2.0

注：動作力和動作行程均為開關子處未裝動臂時單個開關所測值。
Note: Operating force and operating travel are all measured by single switch when the button place does not installed the lever.

SCHEMATIC DIAGRAM

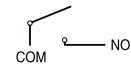


Special Article



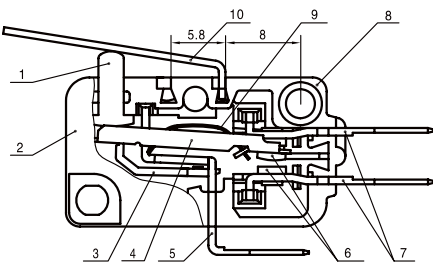
型號 Type	D	重錘材料 Counterpoise material
MP5116TNB92A080A	Φ12.7	HPb59-1
MP5116TNY92A080A	Φ13.4	Q235

SCHEMATIC DIAGRAM



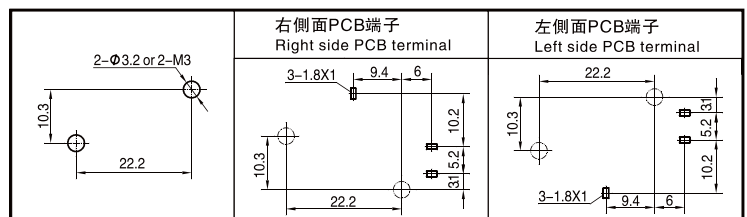
Special Article

INTERNAL CONFIGURATION DRAWING



- 1 Plunger
- 2 Cover
- 3 Lever
- 4 Moving piece
- 5 Support
- 6 Contact
- 7 Terminal
- 8 Case
- 9 Spring sheet
- 10 Moving arm(lever)

MOUNTING HOLE DIMENSIONS



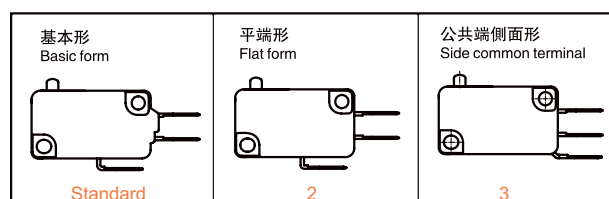
SPECIFICATIONS

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 25cycles/min
絕緣電阻 Insulation resistance	$\geq 100M\Omega$ (500VDC)
接觸電阻 Contact resistance	$\leq 30m\Omega$ (初始值)(Initial value)
耐電壓 Test voltage	同極不相接端子間 Between terminals of the same polarity
	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.
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 expectancy	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、TUV、SEMKO、DEMKO、NEMKO、FIMKO、CE、EK、CQC

CIRULT ILLUSTRATION

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

OUTLINE CHARACTERISTIC ILLUSTRATION



PLUNGER SPEC ILLUSTRATION

按鈕標記 Mark on plunger	Standard	01	02	03	04
按鈕尺寸 Plunger dimension					

CONNECT TERMINAL DIMENSIONS

端子種類 Terminal types	A 快接端子#250 Quick-connect terminal #250	B 快接端子#187(t=0.8) Quick-connect terminal #187	C 快接端子#187(t=0.5) Quick-connect terminal #187	D 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				

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

NOT STANDARD LEVERS

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
Q2		P2		P5	
R		B3		U	
B4		E2		U3	
H		E3		V	
D		E4		X	
C		I1		Y	
N1		J2		W	
T		O1		M	
N		P3		J4	