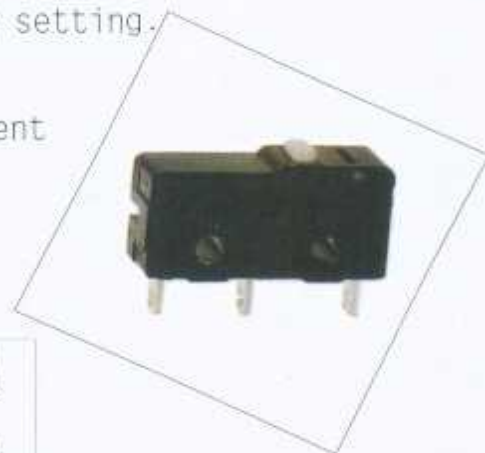


# SUBMINIATURE BASIC SWITCHES

## SP型 微動開關

### ◆ FEATURES 特徵

- Type SP in size (10.2H×19.8W×6.4D mm) and weight (approx. 2.2g)  
SP型的尺寸(10.2高×19.8寬×6.4深公厘)重量(大約2.2公克)
- All types are free from OT restriction and permit easy setting.  
所有型式不受操作動程限制，可以容易加以裝置。
- Wide switching capacity range from micro voltage/current loads (1mA 125VAC) to high-capacity loads (3A 250VAC)  
開關負載由小容量(1mA 125VAC)至大容量(3A 250VAC)



### ◆ RATINGS 規格

Rated voltage 電壓規格	Non-inductive load(A) 非電感性負載				Inductive load(A) 電感性負載				Inrush current (A) 衝擊電流	
	Resistance load 電阻負載		Lamp load 燈泡負載		Inductive load 電感性負載		Motor load 馬達負載		NC	NO
	NC	NO	NC	NO	NC	NO	NC	NO		
AC 125 250	5 3		1.5 1.0	0.7 0.5	4 4		2.5 1.5	1.3 0.8	20 max.	10 max.
DC 8 14 30 125 250	5 5 4		2 2		4 4 4		3 3 3			
	0.4 0.2		0.05 0.03		0.4 0.2		0.05 0.03			

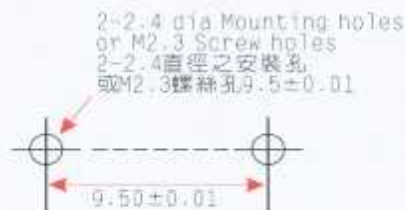
NOTES: 1. Inductive load has a power factor of 0.4min. (AC) and a time constant of 7msec (DC)  
電感性負載的功率因數為0.4(交流)一次常數為7毫秒(直流)

2. Lamp load has an inrush current of 10 times the steady-state current, while motor load has an inrush current of 5 times than the steady-state current.  
燈泡負載的衝擊電流是穩定電流的10倍  
馬達負載的衝擊電流是穩定電流的5倍

### ◆ 安裝孔

#### MOUNTING HOLES

註:各端子之厚度為0.5公厘



### ◆ APPROVED BY STANDARDS 認可標準

UL (File No. E97315)  
SP5-72 Series:  
5A 125VAC, 3A 250VAC  
SP1-72 Series:  
1A 125VAC.

CSA (File No. LR85888)  
SP5-72 Series:  
5A 125VAC, 3A 250VAC  
SP1-72 Series:  
1A 125VAC

### ◆ CHARACTERISTICS 性能

Operating speed 操作速度	0.1mm to 1m/sec. (at plunger)
Operating frequency 操作頻率	
Mechanically	400 operations/minute max.
Contact resistance 接點電阻	
Basic operating type	30 m Ω max.
Insulation resistance 絕緣電阻	100 m Ω min (at 500 VDC).
Dielectric strength 耐電壓	
Between contacts	1,000 VAC; 50/60Hz for 1 minute.
Between terminals and ground	1,500 VAC; 50/60Hz for 1 minute.
Vibration (Malfunction)	10 to 55Hz; 1.5mm double amplitude.
Shock 衝擊	
Mechanical 機械耐久	1,000m/s <sup>2</sup> (Approx. 100G).
Malfunction 誤動作耐久	300m/s <sup>2</sup> (Approx. 30G)

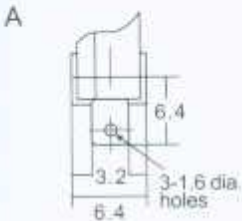
Mechanically 機械耐久	1,000m/s <sup>2</sup> (Approx. 100G).
Malfunction 誤動作耐久	300m/s <sup>2</sup> (Approx. 30G).
Ambient temperature 適溫溫度	-25°C to +85°C
Humidity 溼度	80% RH max.
Service life 使用壽命	
Mechanically	10,000,000 operations/min
Electrically	100,000 operations/min(at rated load)

## ◆ ORDERING INFORMATION 具備型式

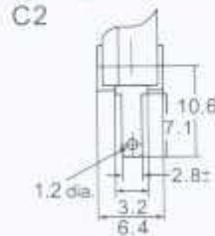
SP	[ ]	-72	[ ]	-	[ ]
RATING	CURRENT 電流規格	Actuators 引動器	Terminals 端子		
	1:1A	GL	A		
	5:5A	GL111	C2		
		GL133	C		
		GL140			
		GL13			
		GL14			
		GL24			
		GL2			

## ◆ TERMINALS 端子系列

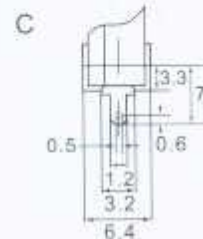
Solder terminal  
焊接端子



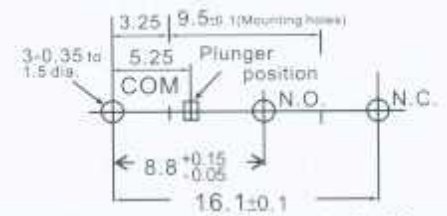
Quick connect  
terminal(#110)  
快速接頭端子



PCB terminal  
PC板端子



PC板端子之安裝孔  
Mounting holes for  
PCB terminals

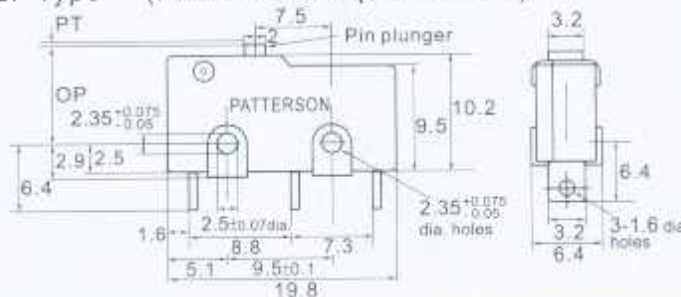


NOTE: The thickness of each terminal is 0.5mm.  
註各端子之厚度為0.5公厘

## ◆ DIMENSIONS 外觀尺寸

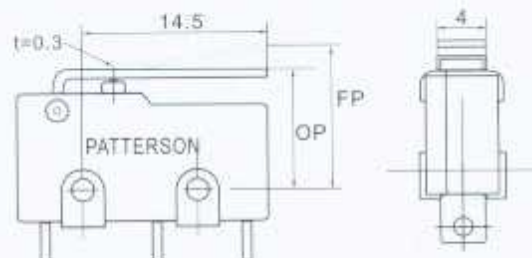
(Unless otherwise specified, a tolerance of  $\pm 0.4$ mm applies to all dimensions)  
(除特殊規格外，所有外觀尺寸容許範圍 $\pm 0.4$ mm)

● SP-[ ]-72-[ ] Pin Plunger Type \*(Phenolic resin push button)



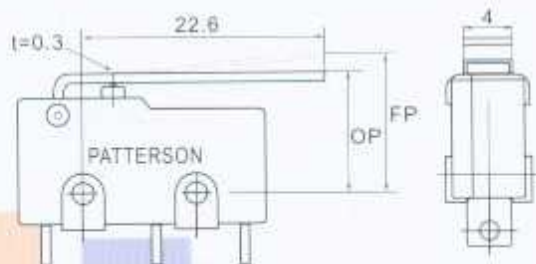
Type	SP-[ ]-72-[ ]
OF max.	150g
RF min.	25g
PT max.	0.5mm
OT min.	0.5mm
MD max.	0.1mm
FP max.	
OP	8.4±0.5mm

● SP-[ ]-72GL-[ ] Standard Lever Type \*(stainless steel lever)



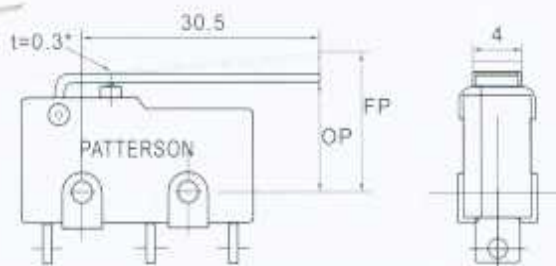
Type	SP-[ ]-72GL-[ ]
OF max.	50g
RF min.	6g
OT min.	1.2mm
MD max.	0.8mm
FP max.	13.6mm
OP	8.8±0.8mm

●SP-□-72GL111-□ Long Lever Type \*(stainless steel lever)



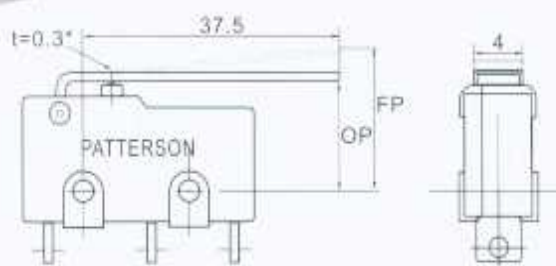
Type	SP□-72GL111-□
OF max.	50g
RF min.	6g
OT min.	1.2mm
MD max.	0.8mm
FP max.	14.5mm
OP	9.7±0.8mm

●SP-□-72GL133-□ Long Lever Type \*(stainless steel lever)



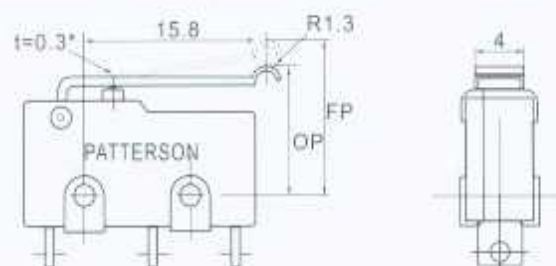
Type	SP□-72GL133-□
OF max.	30g
RF min.	5g
OT min.	1.5mm
MD max.	1mm
FP max.	16.5mm
OP	11.6±0.8mm

●SP-□-72GL140-□ Long Lever Type \*(stainless steel lever)



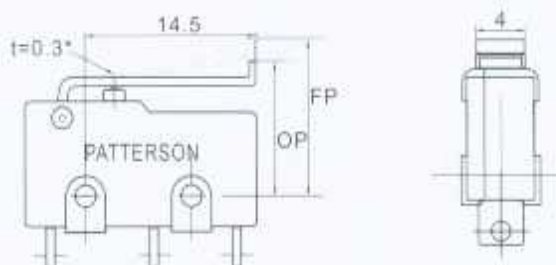
Type	SP□-72GL140-□
OF max.	30g
RF min.	5g
OT min.	1.5mm
MD max.	1mm
FP max.	16.9mm
OP	12±0.8mm

●SP-□-72GL13-□ Simulated Lever Type \*(stainless steel lever)



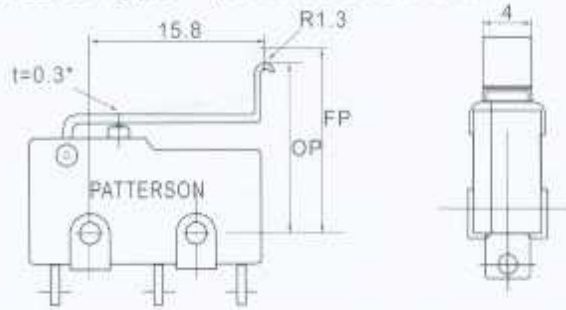
Type	SP□-72GL13-□
OF max.	50g
RF min.	6g
OT min.	1.2mm
MD max.	0.8mm
FP max.	15.5mm
OP	10.7±0.8mm

●SP-□-72GL14-□ Edge Lever Type \*(stainless steel lever)



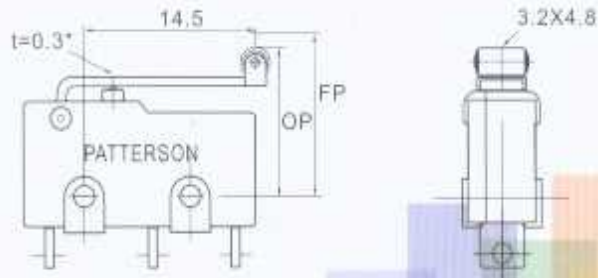
Type	SP□-72GL14-□
OF max.	50g
RF min.	6g
OT min.	1.2mm
MD max.	0.8mm
FP max.	14.9mm
OP	10.1±0.8mm

●SP-□-72GL24-□ Formed Lever Type \*(stainless steel lever)



Type	SP□-72GL24-□
OF max.	50g
RF min.	6g
OT min.	1.2mm
MD max.	0.8mm
FP max.	24.8mm
OP	22.5±0.8mm

●SP-□-72GL2-□ Roller Lever Type \*(stainless steel lever)



Type	SP□-72GL2-□
OF max.	50g
RF min.	6g
OT min.	1.2mm
MD max.	0.8mm
FP max.	19.3mm
OP	14.5±0.8mm