ShanPu

Pushbutton Switches Series SP86N / SP86NH /SP86L /SP86G



General Specifications

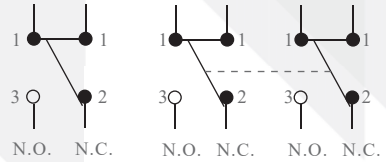
Switch circuit	:SPDT
Switch contact rating	:12mA @ 24V DC max
LED rating	:Limited forward current(IF) at 20mA max
Contact Resistance	:50m Ohm Max(initial)
Insulation Resistance	:100M Ohm Min
Operating Force	:170gf±50gf (SP86N / SP86L) 400gf±100gf (SP86NH)
Total Travel	:2.5mm±0.5mm
Mechanical Life	:1,000,000 Cycles Min. (SP86N / SP86NH) 500,000 Cycles Min. (SP86L)
Solder Specifications	:260℃ for 3 seconds
Operating Temperature	:-10 ℃ ~ +60 ℃
Function	:Momentary (SP86N / SP86NH) :Alternate (SP86L)

Material

Cap	:Acrylonitrile Butadiene Styrene (ABS)
Case	:Polyamide (PA)
Fixed Support	:Stainless steel wire
Terminal	:Phosphor bronze (PBS) with gold plating
Moving Contact	:Phosphor bronze (PBS) with gold plating
Spring	:Piano wire
LED	:3mm Diameter LED Lamp

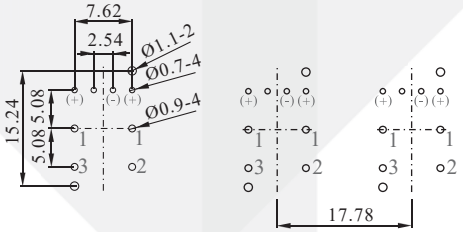
Circuit & PCB Layout

/ SP86N/SP86L/SP86G / SP86NH



Contact Configuration

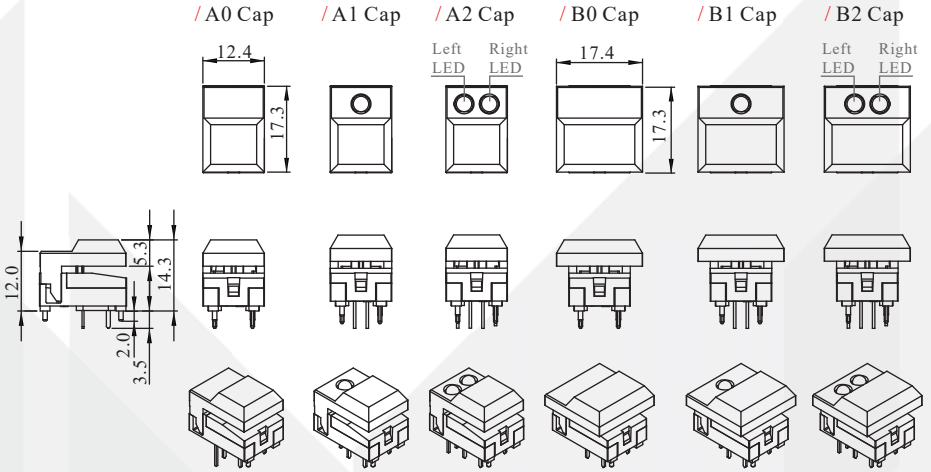
/ SP86N/SP86L/SP86G / SP86NH



PCB Layout

Recommend add resistor to limited each LED forward current at 20mA

Dimension (SP86N)



How to order (SP86N)

SP86N — □□ — □ — □□

CAP Styles	
Small CAP	
A0	Without LED
A1	One-LED
A2	Two-LED
Large CAP	
B0	Without LED
B1	One-LED
B2	Two-LED

CAP Colors	
5	Black
9	Grey

LED Colors	
00	Without LED
One LED	
01	Red
02	Yellow
03	Green
07	Blue
2 LEDs	

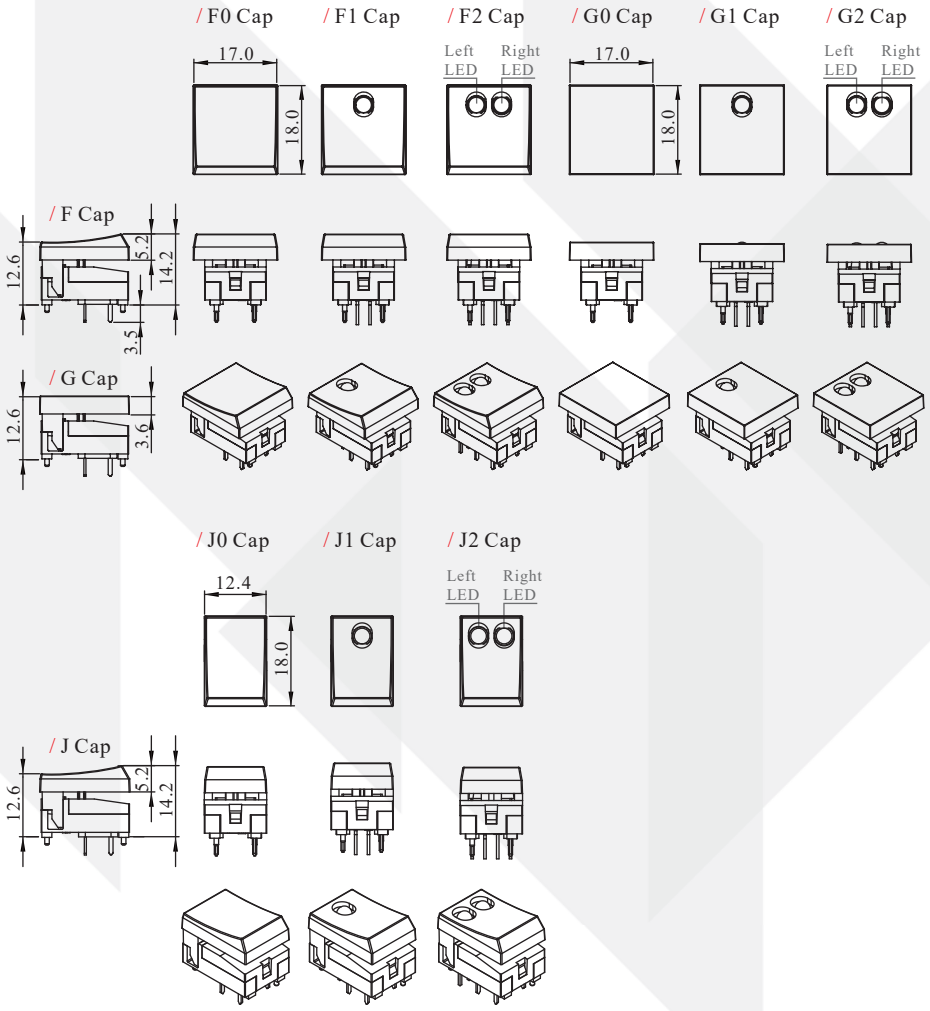
Left		Right	
1	Red	1	Red
2	Yellow	2	Yellow
3	Green	3	Green
7	Blue	7	Blue

EXAMPLE :
SP86N-B0-1-01
SP86N-A2-5-13

ShanPu

Pushbutton Switches Series SP86N / SP86NH /SP86L /SP86G

Dimension (SP86N)



How to Order

SP86N — □□ — □ — □□

CAP Styles	
F CAP	
F0	Without LED
F1	One-LED
F2	Two-LED
G CAP	
G0	Without LED
G1	One-LED
G2	Two-LED
J CAP	
J0	Without LED
J1	One-LED
J2	Two-LED

CAP Colors	
5	Black
9	Grey

LED Colors			
00	Without LED		
One LED			
01	Red		
02	Yellow		
03	Green		
07	Blue		
2 LEDs			
Left		Right	
1	Red	1	Red
2	Yellow	2	Yellow
3	Green	3	Green
7	Blue	7	Blue

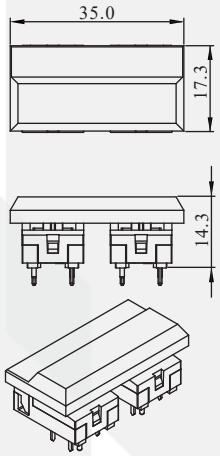
EXAMPLE :
SP86N-F0-5-01
SP86N-G2-9-13

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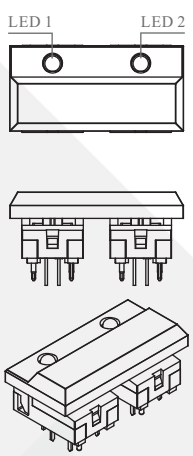
Pushbutton Switches Series SP86N / SP86NH /SP86L /SP86G

Dimension (SP86NH)

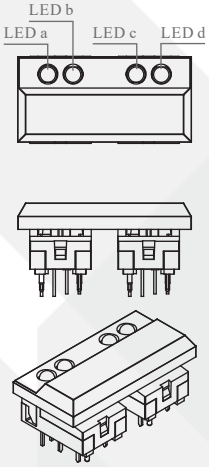
/ H0 Cap



/ H2 Cap

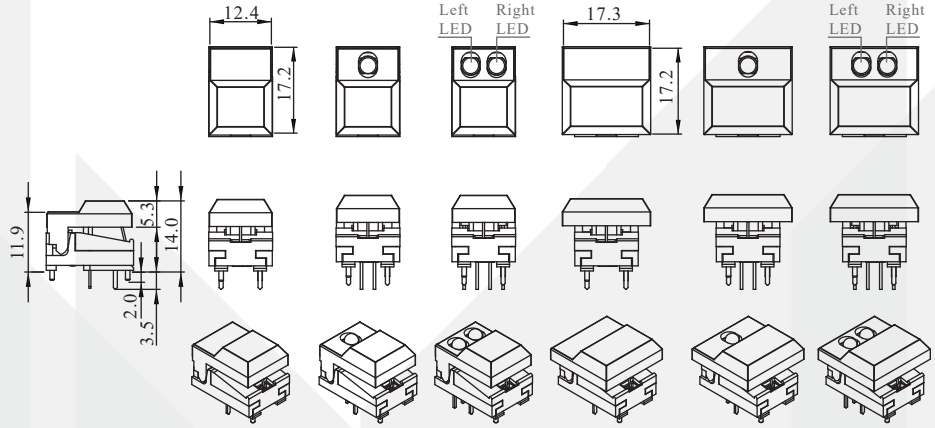


/ H4 Cap



Dimension (SP86L)

/ A0 Cap / A1 Cap / A2 Cap / B0 Cap / B1 Cap / B2 Cap



How to order (SP86NH)

SP86N — H□ — □ — □□□□

Double wide CAP

H0	Without LED
H2	Two-LED
H4	Four-LED

EXAMPLE :
SP86NH2511

CAP Colors

5	Black
9	Grey

LED Colors Option

2 LEDs		
Led 1	Led 2	
1 2 3 7	1 2 3 7	Red Yellow Green Blue

4 LEDs				
Led a	Led b	Led c	Led d	
1 2 3 7	1 2 3 7	1 2 3 7	1 2 3 7	Red Yellow Green Blue

*Repeat the code for the following LED(s)

How to order (SP86L)

SP86L — □□ — □ — □□

CAP Styles

Small CAP	
A0	Without LED
A1	One-LED
A2	Two-LED
Large CAP	
B0	Without LED
B1	One-LED
B2	Two-LED

EXAMPLE :
SP86L-B2-9-12

CAP Colors

5	Black
9	Grey

LED Colors

00	Without LED
One LED	
01	Red
02	Yellow
03	Green
07	Blue

2 LEDs			
Left		Right	
1	Red	1	Red
2	Yellow	2	Yellow
3	Green	3	Green
7	Blue	7	Blue

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Pushbutton Switches Series SP86N / SP86NH /SP86L /SP86G

General Description (SP86G)



The SP86G is a new design that continues the aesthetics of the SP86N switch and the award-winning Smart Cap module button.

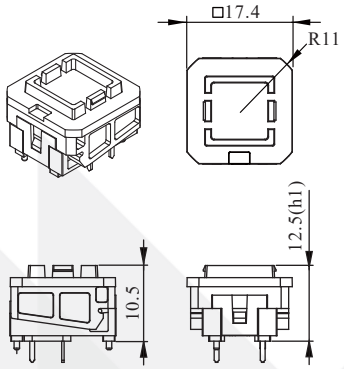
The core concept of this architecture is to keep the switch body unchanged while upgrading the top cover to provide customers with more diverse options for the SP86 series push-button switches.

SP86G是款延續SP86N開關與榮獲過台灣精品獎的Smart Cap模組按鍵的新外觀。

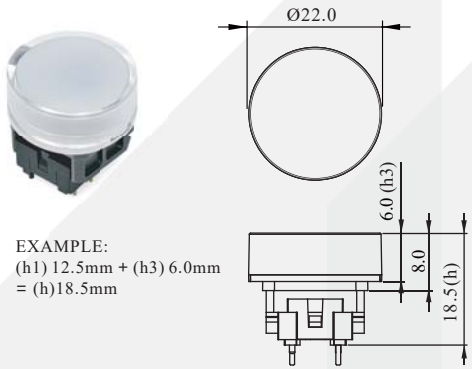
這個架構的核心理念是：讓開關本體保持不變，透過上蓋升級，使客戶更多元化選擇SP86系列按鍵開關。

Dimension (SP86G)

/ SP86G



/ EXAMPLE: SP86G-0-YCS0284



EXAMPLE:
(h1) 12.5mm + (h3) 6.0mm
= (h)18.5mm

How to Order

SP86G — 0 — □□□□□□□□

LED Colors	
0	Without LED

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EXAMPLE :
SP86G-0-YCS0284