

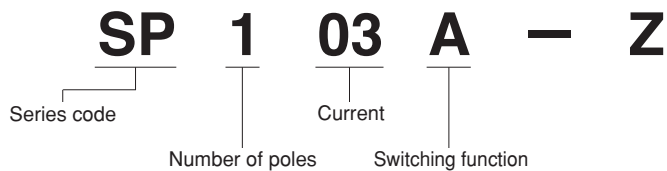
SP • SPP • S2P

Miniature Pushbutton Switches

RoHS compliant



Part Numbering



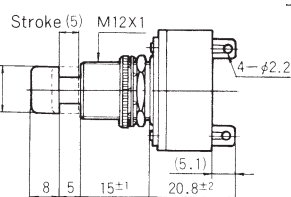
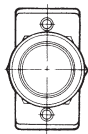
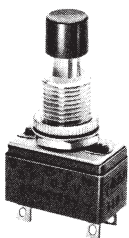
● For UL-recognized products, refer to P.276.

● Ratings are based on resistive load.

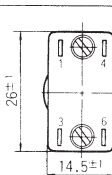
■ Soldering Page 276.

■ Packaging Specification Page 276.

SP103 (1 pole)



Part No. & rating marking side



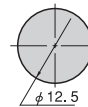
Terminal numbers are shown on the switch.
Terminal pins No.3 and No.6 are not available in switches with Switching Function "AB".

Switching function		
Part No.		
★※SP103AB-Z	ON	OFF
Connecting terminals	1-4	—
★※SP103V-Z	ON	ON
Connecting terminals	1-4	3-6

Specifications

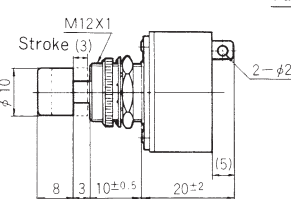
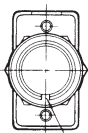
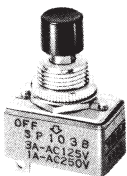
Rating		Initial contact resistance	Dielectric strength	Insulation resistance	Electrical life
SP103 AB-V	AC125V 3A	30mΩ Max.	AC1000V 1 minute	100MΩ Min.	15,000 operations

Panel Cut-Out Dimensions

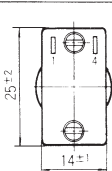


9.5 mm Max.
/Panel thickness

SP103 (1 pole)



Part No. & rating marking side



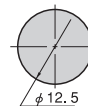
Terminal numbers are shown on the switch.

Switching function		
Part No.		
★SP103B-Z	ON	(OFF)
Connecting terminals	1-4	—
SP103C-Z	OFF	(ON)
Connecting terminals	—	1-4

Specifications

Rating		Initial contact resistance	Dielectric strength	Insulation resistance	Electrical life
SP103 B·C	AC125V 3A AC250V 1A	10mΩ Max.	AC1500V 1 minute	100MΩ Min.	10,000 operations

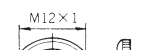
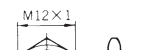




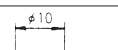
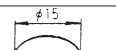
Panel Cut-Out Dimensions



Panel thickness : 4.5 mm Max.

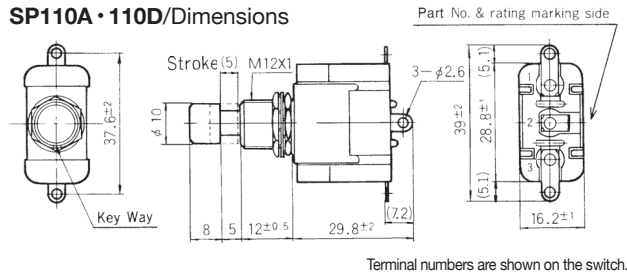
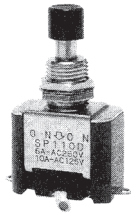
Standard Accessories

《Supplied with switch》

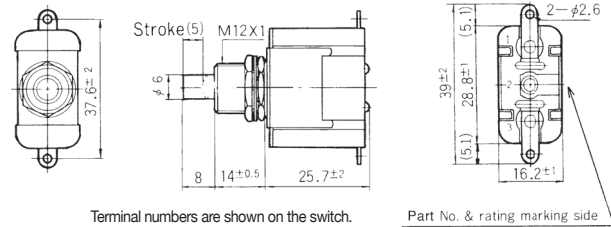
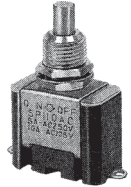
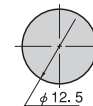
Knurled Nut 140008010236	Hex Nut 140008010221	Lockwasher 140008030055	Color Button					
			A 10 mm dia. Black Color Button is supplied with the switch. If a Color Button in a different size or color is required, please select from the below table.					
			Dimensions	Color	Part No.	Dimensions	Color	Part No.
				White	140008050162		White	140008050158
				Red	140008050155		Red	140008050164
				Black	140008050153		Black	140008050163
Chrome plated	Zinc plated						Gray	140008050165

★ : Made to order products.

(ON) and (OFF) : Momentary.

SP110 (1 pole) SP110A・110D/Dimensions

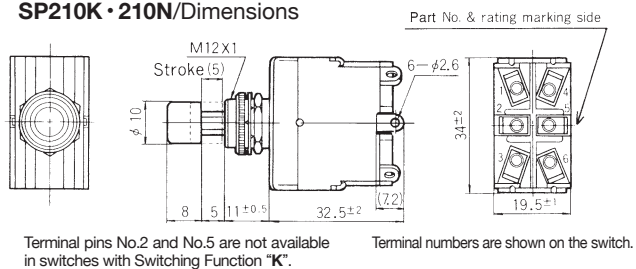
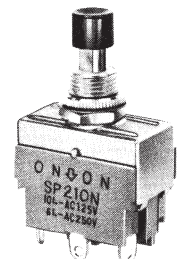
Switching function		
Part No.		
★※SP110A-Z	OFF	ON
★※SP110AC-Z	—	1-3
★※SP110D-Z	ON	ON
Connecting terminals	2-3	2-1

SP110AC/Dimensions**Panel Cut-Out Dimensions**

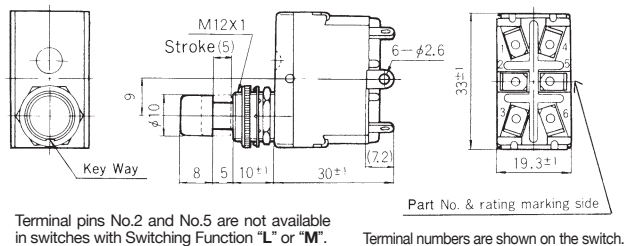
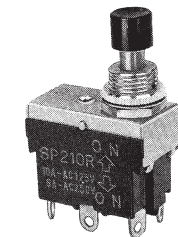
Panel thickness
SP110A・D 6.5 mm Max.
SP110AC 8.5 mm Max.

Specifications

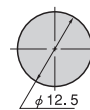
Rating	Initial contact resistance	Dielectric strength	Insulation resistance	Electrical life
SP110A SP110D	20mΩ Max.	AC1500V 1 minute	100MΩ Min.	10,000 operations
SP110AC		AC1000V 1 minute		30,000 operations

SP210 (2 poles)**SP210K・210N/Dimensions**

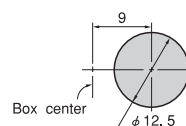
Switching function		
Part No.		
★※SP210K-Z	ON	OFF
Connecting terminals	1-3 4-6	—
★※SP210N-Z	ON	ON
Connecting terminals	2-1 5-4	2-3 5-6
★ SP210L-Z	ON	(OFF)
Connecting terminals	1-3 4-6	—
☆ SP210M-Z	OFF	(ON)
Connecting terminals	—	1-3 4-6
★ SP210R-Z	ON	(ON)
Connecting terminals	2-3 5-6	2-1 5-4

SP210L・210M・210R/Dimensions**Specifications**

Rating	Initial contact resistance	Dielectric strength	Insulation resistance	Electrical life
SP210K・N・L・M・R	20mΩ Max.	AC1500V 1 minute	100MΩ Min.	10,000 operations
		AC125V 10A AC250V 6A		

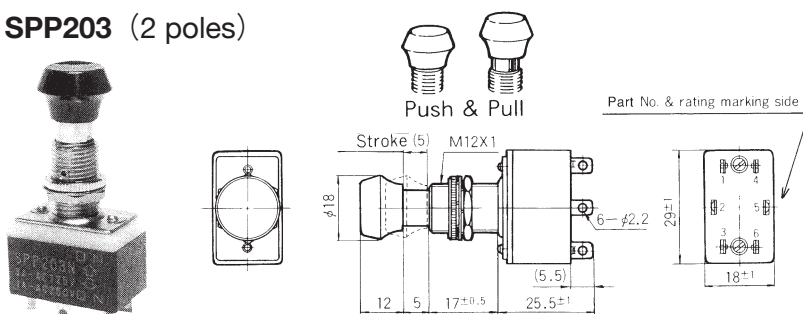
Panel Cut-Out Dimensions

210K. 210N
 Panel thickness : 5.5 mm Max.



210L. 210M. 210R
 Panel thickness : 4.5 mm Max.

SPP203 (2 poles)



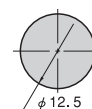
Switching function	Pull	Push
Part No.		
★SPP203K-Z	ON	OFF
Connecting terminals	2-1 5-4	—
★SPP203KA-Z	OFF	ON
Connecting terminals	—	2-1 5-4
★SPP203N-Z	ON	ON
Connecting terminals	2-3 5-6	2-1 5-4

Terminal pins No.3 and No.6 are not available in switches with Switching Function "K" or "KA".

Specifications

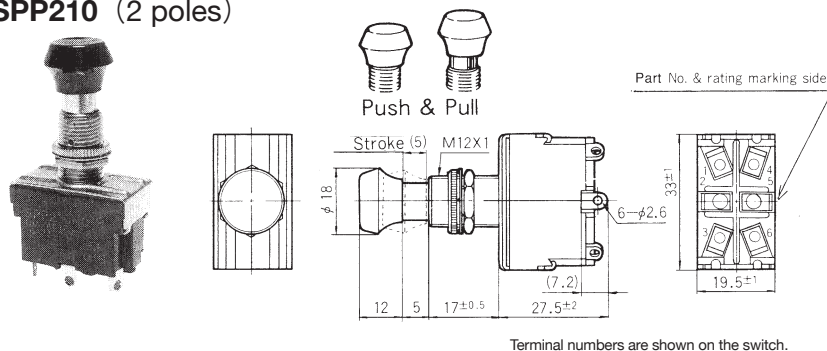
Rating	Initial contact resistance	Dielectric strength	Insulation resistance	Electrical life
SPP203K- KA	AC125V 3A	20mΩ Max.	AC1000V 1 minute	100MΩ Min.
SPP203N	AC125V 3A AC250V 1A	AC1500V 1 minute	100MΩ Min.	10,000 operations

Panel Cut-Out Dimensions



Panel thickness : 11.5 mm Max.

SPP210 (2 poles)

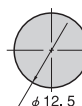


Switching function	Pull	Push
Part No.		
★SPP210K-Z	ON	OFF
Connecting terminals	1-3 4-6	—
★SPP210KA-Z	OFF	ON
Connecting terminals	—	1-3 4-6
★SPP210N-Z	ON	ON
Connecting terminals	2-3 5-6	2-1 5-4

Terminal pins No.2 and No.5 are not available in switches with Switching Function "K" or "KA".

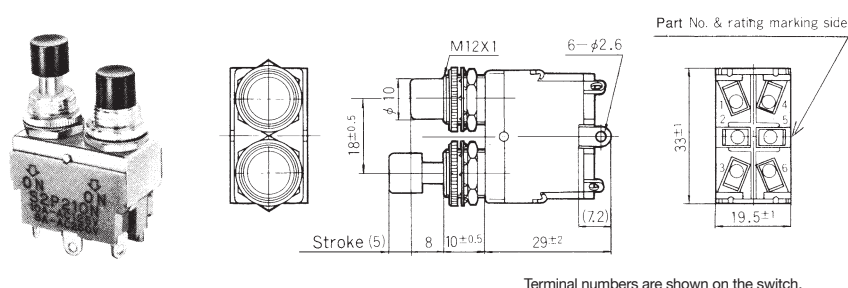
Specifications

Rating	Initial contact resistance	Dielectric strength	Insulation resistance	Electrical life
SPP210K- KA-N	AC125V 10A AC250V 6A	20mΩ Max.	AC1500V 1 minute	100MΩ Min.
				10,000 operations



Panel thickness : 11.5 mm Max.

S2P210 (2 poles)



Switching function	Viewed from part No. and rating marking side		
Part No.			
★S2P210K-Z	ON	—	OFF
Connecting terminals	1-3 4-6	—	—
★S2P210N-Z	ON	—	ON
★S2P210P-Z	ON	OFF	ON
Connecting terminals	2-3 5-6	—	2-1 5-4

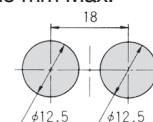
Terminal pins No.2 and No.5 are not available in switches with Switching Function "K".

Specifications

Rating	Initial contact resistance	Dielectric strength	Insulation resistance	Electrical life
S2P210K-N	AC125V 10A AC250V 6A	20mΩ Max.	AC1500V 1 minute	100MΩ Min.
S2P210P		AC1000V 1 minute	100MΩ Min.	10,000 operations
				5,000 operations

Panel Cut-Out Dimensions

Panel thickness : 4.5 mm Max.



SPP·S2P

Standard Accessories

《Supplied with switch》

Hex Nut ① 140008010235	Knurled Nut ② 140008010236	Hex Nut ③ 140008010221	Lockwasher ④ 140008030055
Nickel plated	Tin-cobalt plated	Zinc plated	

Standard Accessories Combination

(Q'ty/switch)

Part No.	Accessories	①	②	③	④	⑤	⑥
SP110		1		1	1		1
SP210			1	1	1		1
SPP203			1	1	1	1	
SPP210			1	1	1	1	
S2P210			1	1	1		2

The figures in the table show the quantities of accessories enclosed with the switch.

⑥ Color Buttons for SP, SPP, S2P

A 10 mm dia. Black Color Button is supplied with the switch. If a Color Button in a different size or color is required, please select from the below table.

Dimensions	Color	Part No.	Dimensions	Color	Part No.	Dimensions	Color	Part No.
	White	140008050162		White	140008050158		Black	140008050156
	Red	140008050155		Red	140008050164			
	Black	140008050153		Black	140008050163		Red	140008050157
				Gray	140008050165			

Packaging Specifications

Plastic Bag		1 pcs./pack
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Soldering Specifications

(SP · SPP · S2P)

- Manual Soldering
Device : Soldering iron
- 420°C, Max.; 3 seconds, Max.

UL-Recognized, CSA certified Products (Pushbutton type Only)

Eight Switch Series

Poles	Switching function	UL (※2.)			CSA (※3.)		
		8N	8P	8Y	8N	8P	8Y
1 pole	1011-Z	ON - ON	○	○	○	○	○
	1012-Z	ON - ON	○	○	○	○	○
	1021-Z	ON - (ON)	○	○	○	○	○
	1022-Z	ON - (ON)	○	○	○	○	○
2 poles	2011-Z	ON - ON	○	○	○	○	○
	2012-Z	ON - ON	○	○	○	○	○
	2021-Z	ON - (ON)	○	○	○	○	○
	2022-Z	ON - (ON)	○	○	○	○	○
3 poles	3011-Z	ON - ON	○	○	○	○	○
	3021-Z	ON - (ON)	○	○	○	○	○
4 poles	4011-Z	ON - ON	○	○	○	○	○
	4021-Z	ON - (ON)	○	○	○	○	○

If **UL** or **CSA** marking is required, please specify when ordering.

UL and CSA listed

SP Series

Poles	Switching function		UL (※2.)	CSA (※3.)
1 pole	SP103AB-Z	ON - OFF	○	
2 poles	SPP203K-Z	ON - OFF	○	○
	SPP203KA-Z	OFF - ON	○	○
	SP210N-Z	ON - ON	○	○
	SPP203N-Z		○	○

(※2.) **UL File No.E43275**

(※3.) **CSA File No.LR38341**