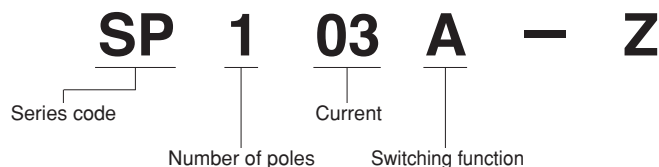


SP • SPP • S2P

Miniature Pushbutton Switches

RoHS compliant

Part Numbering



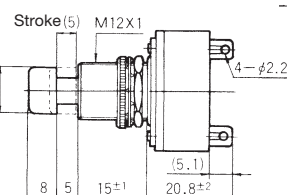
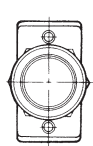
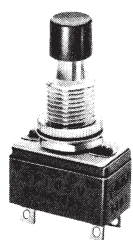
● For UL-recognized products, refer to P.280.

● Ratings are based on resistive load.

■ Soldering Page 280.

■ Packaging Specification Page 280.

SP103 (1 pole)



Part No. & rating marking side

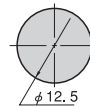
Terminal numbers are shown on the switch.
Terminal pins No.3 and No.6 are not available in switches with Switching Function "AB".

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

Specifications

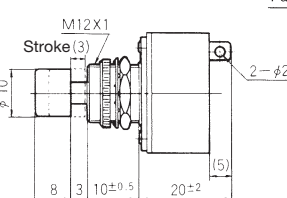
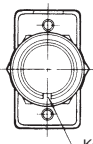
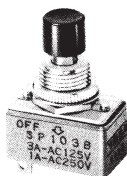
Rating		Initial contact resistance	Dielectric strength	Insulation resistance	Electrical life
SP103 AB-V	AC125V 3A	30mΩ Max.	AC1000V 1 minute	100MΩ Min.	15,000 operations

Panel Cut-Out Dimensions



Panel thickness : 9.5 mm Max.

SP103 (1 pole)



Part No. & rating marking side

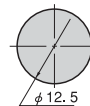
Terminal numbers are shown on the switch.

Switching function	ON	(OFF)
Part No.	★SP103B-Z	(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

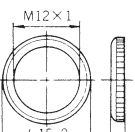
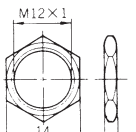
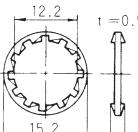
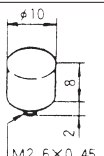
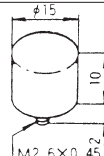
Panel Cut-Out Dimensions



Panel thickness : 4.5 mm Max.

Standard Accessories

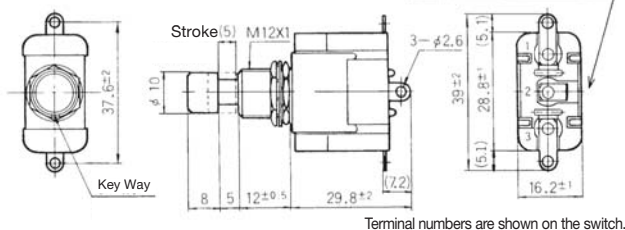
《Supplied with switch》

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

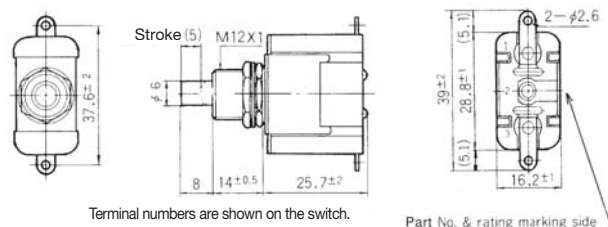
★ : Made to order products.

(ON) and (OFF) : Momentary.

SP110 (1 pole) SP110A・110D/Dimensions

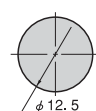


SP110AC/Dimensions



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

Panel Cut-Out Dimensions



Panel thickness

SP110A・D 6.5 mm Max.

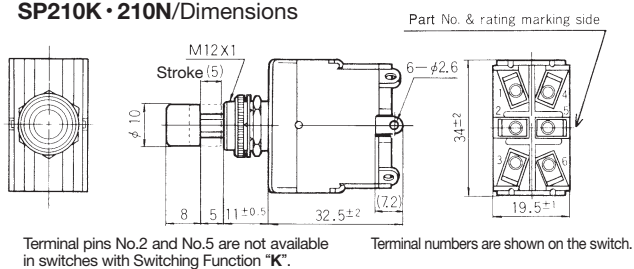
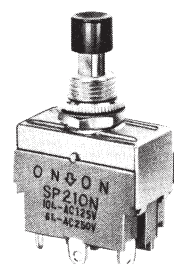
SP110AC 8.5 mm Max.

Specifications

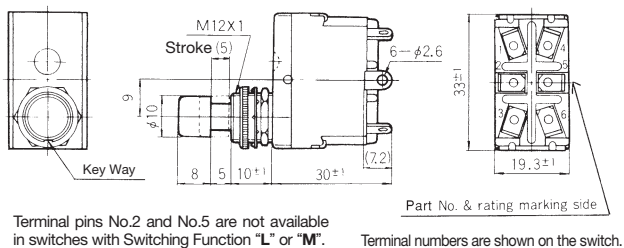
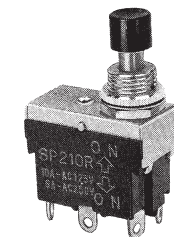
Rating	Initial contact resistance	Dielectric strength	Insulation resistance	Electrical life
SP110A SP110D	20mΩ Max.	AC1500V 1 minute	100MΩ Min.	10,000 operations
SP110AC		AC1000V 1 minute		30,000 operations

SP210 (2 poles)

SP210K・210N/Dimensions

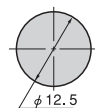


SP210L・210M・210R/Dimensions



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

Panel Cut-Out Dimensions

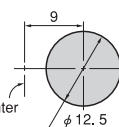


210K, 210N

Panel thickness : 5.5 mm Max.

210L, 210M, 210R

Panel thickness : 4.5 mm Max.

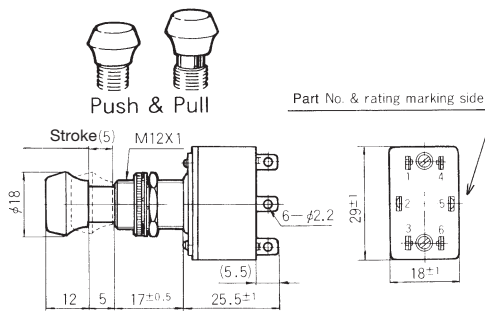
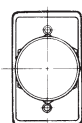
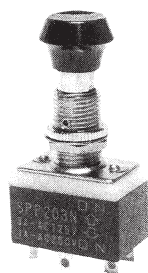


Specifications

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

SPP-S2P

SPP203 (2 poles)



Terminal numbers are shown on the switch.

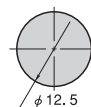
Switching function		
Part No.		
★SPP203K-Z	ON	OFF
Connecting terminals	2-1 5-4	—
★SPP203KA-Z	OFF	ON
Connecting terminals	—	2-1 5-4
★SPP203N-Z	ON	ON
Connecting terminals	2-3 5-6	2-1 5-4

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

Specifications

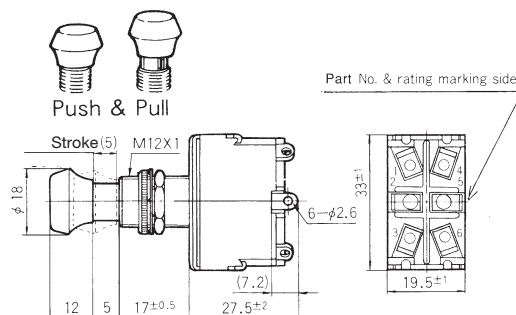
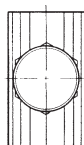
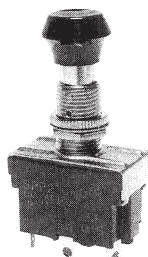
Rating	Initial contact resistance	Dielectric strength	Insulation resistance	Electrical life
SPP203K·KA	20mΩ Max.	AC1000V 1 minute	100MΩ Min.	10,000 operations
SPP203N		AC1500V 1 minute		

Panel Cut-Out Dimensions



Panel thickness : 11.5 mm Max.

SPP210 (2 poles)



Terminal numbers are shown on the switch.

Switching function		
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

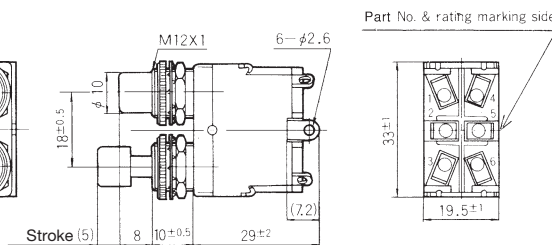
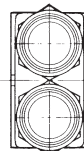
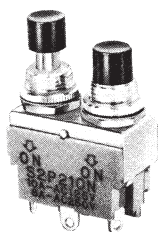
Rating	Initial contact resistance	Dielectric strength	Insulation resistance	Electrical life
SPP210K·KA·N	20mΩ Max.	AC1500V 1 minute	100MΩ Min.	10,000 operations
SPP210N		AC125V 10A AC250V 6A		

Panel Cut-Out Dimensions



Panel thickness : 11.5 mm Max.

S2P210 (2 poles)



Terminal numbers are shown on the switch.

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

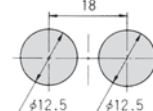
● : Terminal pins No.2 and No.5 are not available in switches with Switching Function "K".

Specifications

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

Panel Cut-Out Dimensions

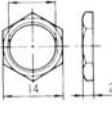
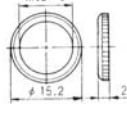
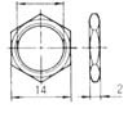
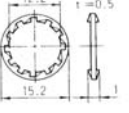
Panel thickness : 4.5 mm Max.



★ : Made to order products. (ON) : Momentary.

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

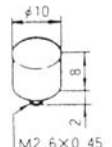
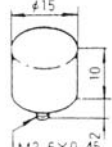
(Q'ty/switch)

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

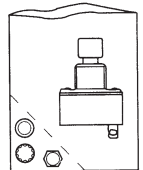
The figures in the table show the quantities of accessories enclosed with the switch.

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 and CSA listed
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.

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 ON - ON	○	○

(※2.) **UL File No.E43275**

(※3.) **CSA File No.LR38341**