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SP • SPP • S2P

Miniature Pushbutton Switches

RoHS compliant

■Part Numbering

SP 1 03 A — Z

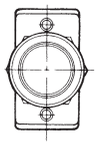
- SP: Series code
- 1: Number of poles
- 03: Current
- A: Switching function

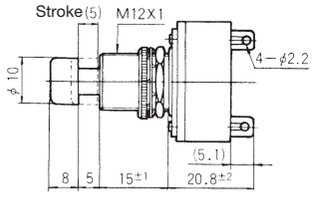
●For **UL**-recognized products, refer to P.280.
●Ratings are based on resistive load.

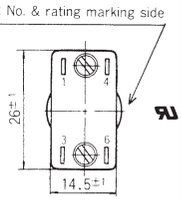
■**Soldering** ····· Page 280.
■**Packaging Specification** ····· Page 280.

SP103 (1 pole)









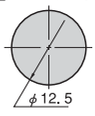
Terminal numbers are shown on the switch.
Terminal pins No.3 and No.6 are not available in switches with Switching Function "**AB**".

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

■Specifications

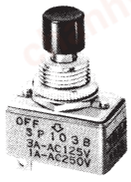
Rating		Initial contact resistance	Dielectric strength	Insulation resistance	Electrical life
SP103 AB·V	AC125V 3A	30mΩ Max.	AC1000V 1 minute	100MΩ Min.	15,000 operations

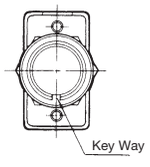
■Panel Cut-Out Dimensions

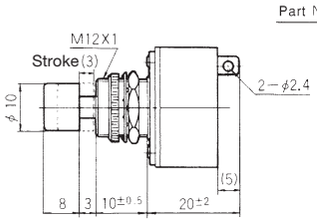


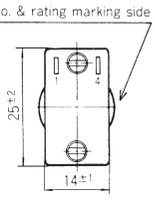
Panel thickness : 9.5 mm Max.

SP103 (1 pole)









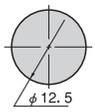
Terminal numbers are shown on the switch.

Part No. \ Switching function		
★**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

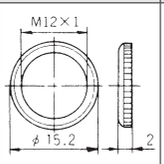
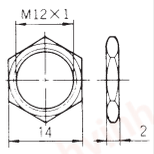
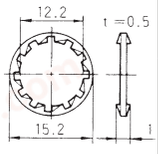
■Panel Cut-Out Dimensions



Panel thickness : 4.5 mm Max.

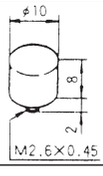
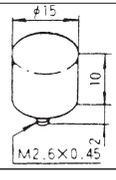
■Standard Accessories

《Supplied with switch》

Knurled Nut 140008010236	Hex Nut 140008010221	Lockwasher 140008030055
		
Chrome plated	Zinc plated	

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**
				Gray	**140008050165**

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

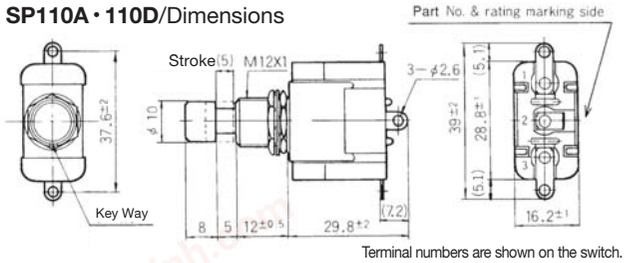
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SP

SP110 (1 pole)

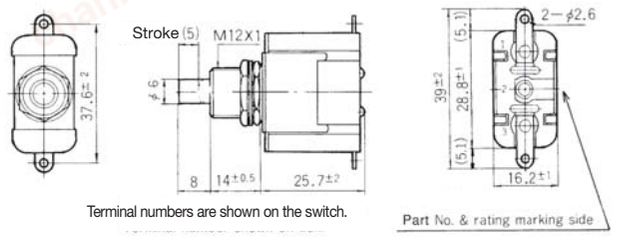


SP110A・110D/Dimensions



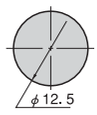


SP110AC/Dimensions



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

■Panel Cut-Out Dimensions

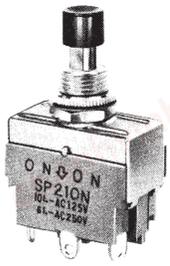


Panel thickness
SP110A・D 6.5 mm Max.
SP110AC 8.5 mm Max.

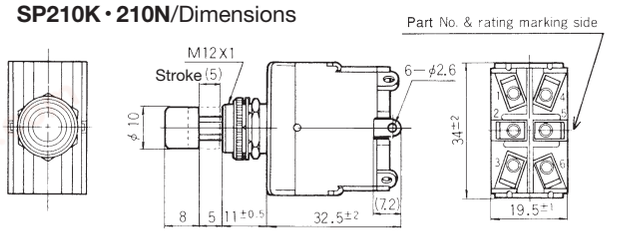
■Specifications

Rating		Initial contact resistance	Dielectric strength	Insulation resistance	Electrical life
SP110A **SP110D**	AC125V 10A AC250V 6A	20mΩ Max.	AC1500V 1 minute	100MΩ Min.	10,000 operations
SP110AC			AC1000V 1 minute		30,000 operations

SP210 (2 poles)

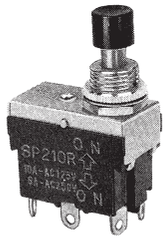


SP210K・210N/Dimensions

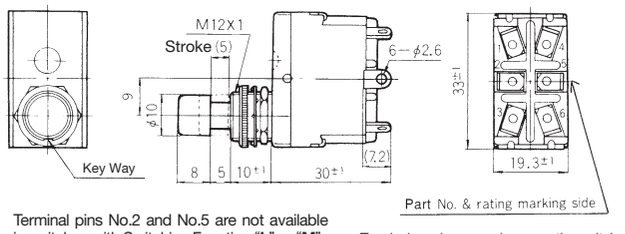


Terminal pins No.2 and No.5 are not available in switches with Switching Function "**K**".

Terminal numbers are shown on the switch.



SP210L・210M・210R/Dimensions



Terminal pins No.2 and No.5 are not available in switches with Switching Function "**L**" or "**M**".

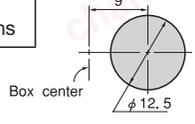
Terminal numbers are shown on the switch.

Part No. \ Switching function		
★※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

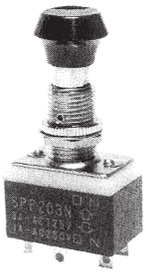
Rating		Initial contact resistance	Dielectric strength	Insulation resistance	Electrical life
SP210K・N・L・M・R	AC125V 10A AC250V 6A	20mΩ Max.	AC1500V 1 minute	100MΩ Min.	10,000 operations

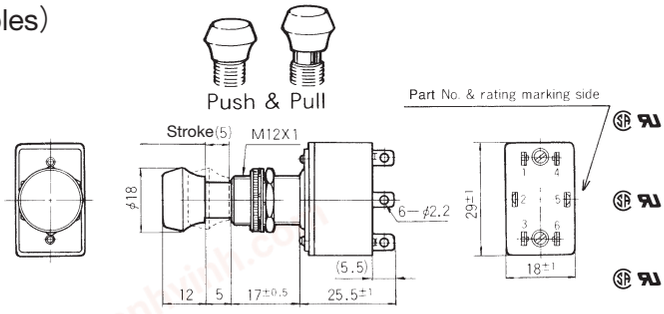
(ON) and (OFF) : Momentary. ☆ : Semi-standard products. ★ : Made to order products.

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SPP•S2P

SPP203 (2 poles)





Terminal numbers are shown on the switch.

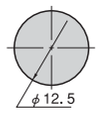
Part No. \ Switching function	Pull	Push
★SPP203K—Z	ON	OFF
Connecting terminals	2—1 5—4	—
★SPP203KA—Z	OFF	ON
Connecting terminals	—	2—1 5—4
★SPP203N—Z	ON	ON
Connecting terminals	2—3 5—6	2—1 5—4

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

■Specifications

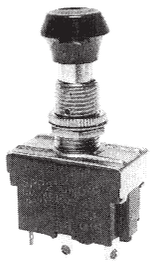
Rating		Initial contact resistance	Dielectric strength	Insulation resistance	Electrical life
SPP203K• KA	AC125V 3A	20mΩ Max.	AC1000V 1 minute	100MΩ Min.	10,000 operations
SPP203N	AC125V 3A AC250V 1A		AC1500V 1 minute		

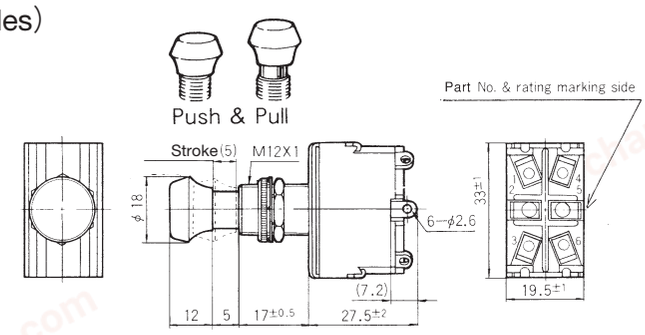
■Panel Cut-Out Dimensions



Panel thickness : 11.5 mm Max.

SPP210 (2 poles)





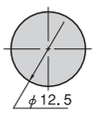
Terminal numbers are shown on the switch.

Part No. \ Switching function	Pull	Push
★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

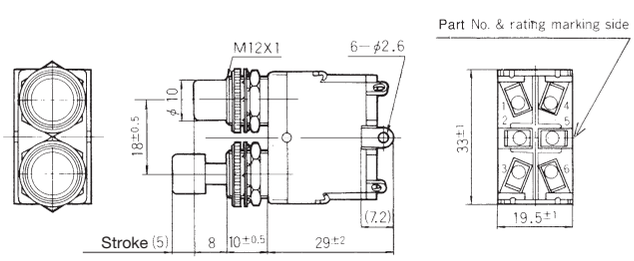


■Panel Cut-Out Dimensions

Panel thickness : 11.5 mm Max.

S2P210 (2 poles)





Terminal numbers are shown on the switch.

Part No. \ Switching function	Viewed from part No. and rating marking side		
★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

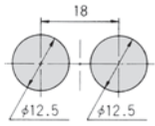
● : Terminal pins No.2 and No.5 are not available in switches with Switching Function "**K**".

■Specifications

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

■Panel Cut-Out Dimensions

Panel thickness : 4.5 mm Max.

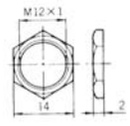
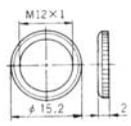
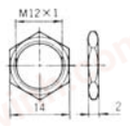
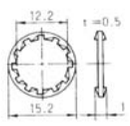


★ : Made to order products. (ON) : Momentary.

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■Standard Accessories

《Supplied with switch》

Hex Nut ①140008010235	Knurled Nut ②140008010236	Hex Nut ③140008010221	Lockwasher ④140008030055
			
Nickel plated	Tin-cobalt plated	Zinc plated	

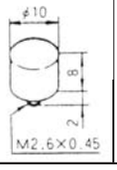
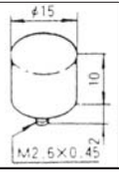
■Standard Accessories Combination

(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.

⑥Color 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.

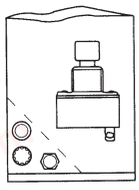
Dimensions	Color	Part No.	Dimensions	Color	Part No.
	White	**140008050162**		White	**140008050158**
	Red	**140008050155**		Red	**140008050164**
	Black	**140008050153**		Black	**140008050163**
				Gray	**140008050165**

⑤Button for SPP

Dimensions	Color	Part No.
	Black	**140008050156**
	Red	**140008050157**

■Packaging Specifications

Plastic Bag 1 pcs/pack



■Soldering Specifications (SP •SPP •S2P)

(1) Manual Soldering
Device : Soldering iron
(2) 420℃, Max.; 3 seconds, Max.

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

■Eight Switch Series

Poles	Switching function		(※2.)			(※3.)		
			8N	8P	8Y	8N	8P	8Y
1 pole	1011−Z	ON − ON	○	○	○	○	○	○
	1012−Z		○	○		○	○	
	1021−Z	ON −(ON)	○	○	○	○	○	○
	1022−Z		○	○		○	○	
2 poles	2011−Z	ON − ON	○	○	○	○	○	○
	2012−Z		○	○		○	○	
	2021−Z	ON −(ON)	○	○	○	○	○	○
	2022−Z		○	○		○	○	
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		(※2.)	(※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**