

Push Switch 2.5mm-travel Large-sized Horizontal Type

SPUN Series



Large horizontal type suitable for multiple circuits.

Detector

Push

Slide

Rotary

Encoders

Power

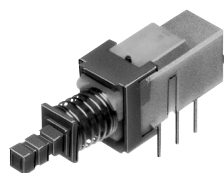
Dual-in-line
Package Type

TACT Switch™

Custom-
Products

Horizontal
Type

Vertical
Type



Typical Specifications

Items		Specifications	
		Standard	Medium-current
Rating (max.) / (min.) (Resistive load)		0.1A 30V DC/ 50μA 3V DC	1A 25V DC
Contact resistance (Initial / After operating life)		20mΩ max./40mΩ max.	
Operating forces	2-poles	2 ± 1N	3 ± 1.5N
	4-poles	2.5 ± 1N	4 ± 2N
Operating life	Without load	30,000cycles	10,000cycles
	With load	10,000cycles (0.1A 30V DC)	5,000cycles (1A 25V DC)

Product Line

Product Line									
Changeover timing	Travel (mm)	Total travel (mm)	Rating	Mounting method	Poles	Operation	Terminal type	Minimum order unit (pcs.)	Product No.
Non shorting	2.5	3.5	Standard	PC board	2	Latching	Straight	1,250	SPUN191400
							Snap-in		SPUN191600
						Momentary	Straight		SPUN190900
							Snap-in		SPUN191000
					4	Latching	Straight	700	SPUN194700
							Snap-in		SPUN194900
					2		Straight	1,250	SPUN192600
							Snap-in		SPUN192800
			4			700	SPUN19C400		

Packing Specifications

Bulk

Product No.	Number of packages (pcs.)		Export package measurements (mm)
	1 case / Japan	1 case/export packing	
SPUN190900 SPUN191000 SPUN191400 SPUN191600 SPUN192600 SPUN192800	250	1,250	400 × 270 × 290
SPUN194700 SPUN194900 SPUN19C400	140	700	

Notes

1. Products other than those listed in the above chart are also available. Please contact us for details.
2. Please place purchase orders per minimum order unit N (integer).
3. Please contact us for automotive use.

Refer to P.126 for knobs.

Dimensions		Unit:mm	
Style		PC board mounting hole dimensions (Viewed from the direction A)	
		Straight terminal 	Snap-in terminal

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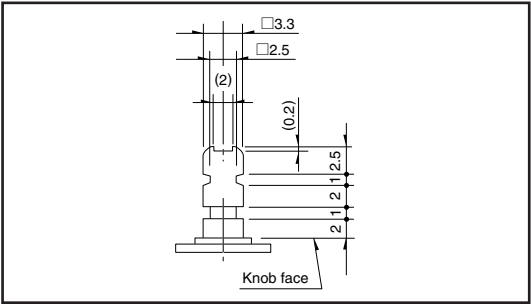
Power

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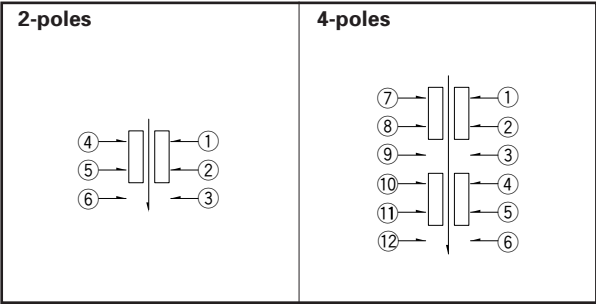
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Actuator Configuration at Front Edge Unit:mm



Circuit Diagram (Viewed from Direction A)



Horizontal
Type

Vertical
Type

List of Varieties

Series		SPEE	SPPJ3	SPPJ2	SPUJ ※1	SPUP ※1	SPUN	SPUN medium current※1	SPEG	SPEJ		
Photo												
Travel (mm)		0.3 0.71	2.5		2	1.5 2	2.5		—	1.7		
Total travel (mm)		0.9	3.5		3	2.5 3	3.5		1.1	1.7		
Number of poles		1	1 2	2	2 4				1	2		
Dimensions (mm)	W	4	6.6	7.2	7.5		10		7.15	7		
	D	5	12		15.2 22.7		24 36		8.35	7		
	H	1.22	8.3	9.6	8.8	10.3	13		3.5	8		
Operating temperature range		−10℃ to +60℃	−40℃ to +85℃		−10℃ to +60℃					−40℃ to +85℃		
Automotive use		—										
Rating (max.) (Resistive load)		20mA 5V DC	0.2A 30V DC		0.1A 30V DC			1A 25V DC	50mA 16V DC	0.2A 14V DC		
Rating (min.) (Resistive load)		100μA 3V DC	50μA 3V DC			50μA 3V DC				—		
Electrical performance	Initial contact resistance	※2	20mΩ max.						200mΩ max.	150mΩ max.		
	Insulation resistance	10MΩ min. 100V DC	100MΩ min. 500V DC						3MΩ min. 100V DC	100MΩ min. 500V DC		
	Voltage proof	100V AC for 1minute	500V AC for 1minute						100V AC for 1minute	500V AC for 1minute		
Mechanical performance	Terminal strength		—	5N for 1minute					0.5N for 1minute	—		
	Actuator strength	Operating direction	50N	30N		50N			50N	49N		
		Pulling direction										
Durability	Operating life without load	100,000 cycles	10,000cycles 40mΩ max.				30,000cycles 40mΩ max.	10,000cycles 40mΩ max.	30,000cycles 500mΩ max.	10,000 cycles		
	Operating life without load Load:as rating	100,000 cycles	10,000cycles 40mΩ max.				5,000cycles 40mΩ max.			10,000cycles 0.2A 14V DC		
Environmental performance	Cold		−40±2℃ for 96h	−20±2℃ for 96h						−40±2℃ for 500h		
	Dry heat		85±2℃ for 96h								85±2℃ for 500h	
	Damp heat		40±2℃, 90 to 95%RH for 96h								60±2℃, 90 to 95% RH for 500h	
Soldering	Manual soldering	350±10℃ 4 ⁺¹ ₀ s	350±10℃ 3 ⁺¹ ₀ s		300±10℃ 3 ⁺¹ ₀ s		350±10℃ 3 ⁺¹ ₀ s		350±5℃ 3s max.	350±10℃ 4s max.		
	Dip soldering	—	260±5℃ 5±1s	260±5℃ 10±1s	260±5℃ 5±1s		260±5℃ 10±1s		—			
	Reflow soldering	Please see P.127								Please see P.133		
Page		102	103	105	107	108	109		111	113		

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● Push Switches Attached Parts	126
● Soldering Conditions	127
● Push Switches Products Caution	128

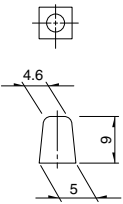
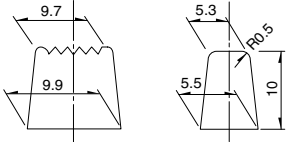
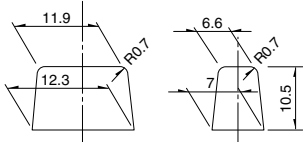
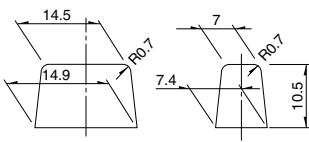
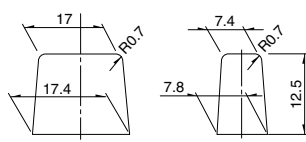
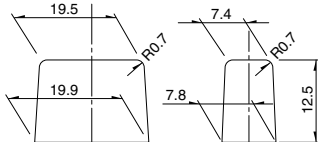
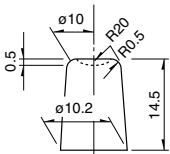
Notes

- ※1. The operating temperature range for automotive applications can be raised upon request. Please contact us for details.
- ※2. 1V or less, at the present rating of 1mA 5V DC for output voltage.
- marks in "Available for automotive use" indicate that all of the series products can work at the operating temperature range from -40°C to +85°C.

Attached Parts

Please specify required knob.

Unit:mm

Knob outline drawing	Variety		Series
	Color	Model	
	Black Red White	UJ206022 UJ206020 UJ206026	SPPJ3 SPUJ
Key pitch 10mm Square knob 		4093-1 4093-2 4093-3	SPPJ2 SPUP SPUN SPEC
Key pitch 12.5mm Square knob 		UE201011 UE201012 UE201013	
Key pitch 15mm Square knob 		UE202011 UE202012 UE202013	
Key pitch 17.5mm Square knob 		UE203011 UE203012 UE203013	
Key pitch 20mm Square knob 		UE204011 UE204012 UE204013	
Round knob 		UE200011 UE200012 UE200013	

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Note

We recommend the use of adhesive to secure the knob when mounting onto switches.

