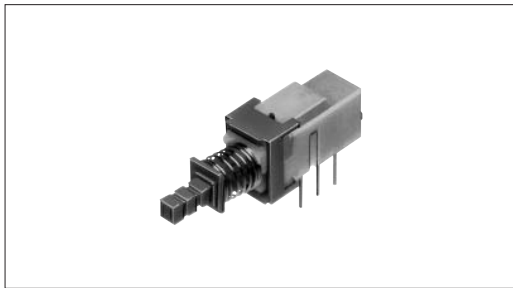


Push Switch 2.5mm-travel Large-sized Horizontal Type

SPUN Series



Large horizontal type suitable for multiple circuits.



Features

- 6.5mm in lever height from the mounting surface of a PC board.
- Standard knobs are available.

Applications

- For switches in LCD TVs, sound devices, and audio mixers
- Secondary power source of TVs and plasma display panels

Detector

Push

Slide

Rotary

Encoders

Power

Dual-in-line
Package Type

Multi Control
Devices

TACT Switch™

Custom-
Products

Horizontal
Type

Vertical
Type

Typical Specifications

Items	Specifications	
	Standard	Medium current
Rating (max.)/(min.) (Resistive load)	0.1A 30V DC/50 μ A 3V DC	1A 25V DC
Contact resistance (Initial performance/After lifetime)	20m Ω max./40m Ω max.	
Operating forces	2-poles	2 \pm 1N
	4-poles	2.5 \pm 1N
Operating life	Without load	30,000 cycles
	With load	10,000 cycles (0.1A 30V DC) / 5,000 cycles (1A 25V DC)

Products Line

Changeover timing	Travel (mm)	Total travel (mm)	Rating	Mounting method	Poles	Operating	Terminal style	Minimum packing unit (pcs.)	Products No.
Non shorting	2.5	3.5	Standard	PC board	2	Latching	Straight	100	SPUN191400
							Snap-in		SPUN191600
						Momentary	Straight		SPUN190900
							Snap-in		SPUN191000
					4	Latching	Straight		SPUN194700
							Snap-in		SPUN194900
			Momentary			Straight	SPUN192600		
						Snap-in	SPUN192800		
			2		Medium-current	Momentary	Straight		SPUN192200
							Snap-in		SPUN19C400
4	Medium-current	Latching	Straight	SPUN192200					
			Snap-in	SPUN19C400					

Note

Additional switches not included in the above list are also available. Contact us for details.

For other specifications, see **P.105**
For knobs, see **P.106**

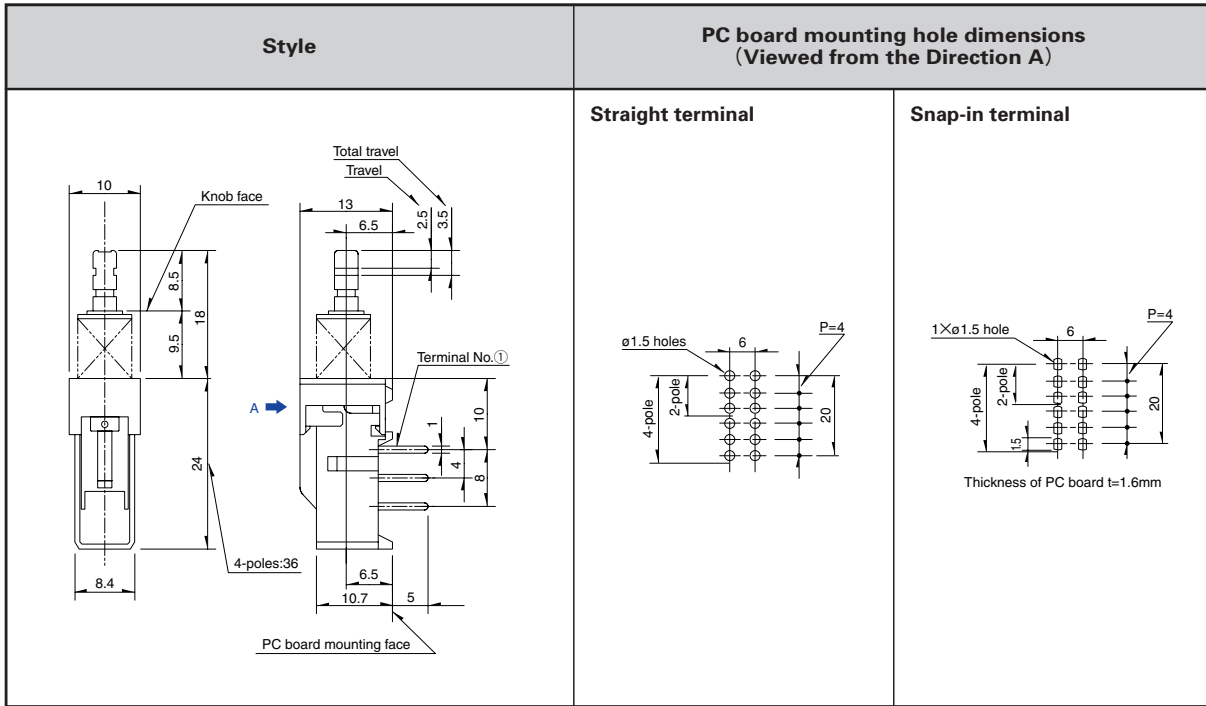
Push Switch

2.5mm-travel Large-sized Horizontal Type | SPUN Series

- Detector
- Push**
- Slide
- Rotary
- Encoders
- Power
- Dual-in-line
Package Type
- Multi Control
Devices
- TACT Switch™
- Custom-
Products

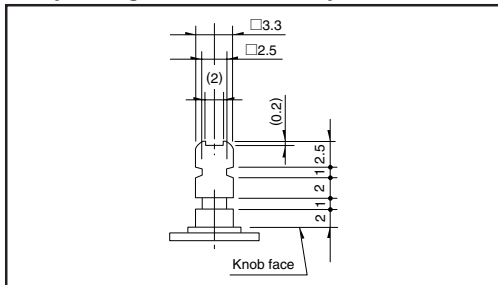
Dimensions

Unit:mm

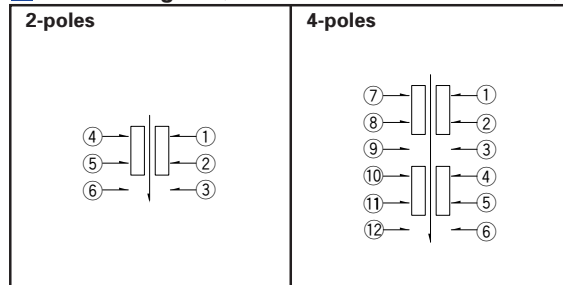


Operating Section Nose Shape

Unit:mm



Circuit Diagram (Viewed from the Direction A)



- Horizontal
Type
- Vertical
Type**

Products Specifications

Item		Series														
		SPEE	SPPJ6	SPPJ2	SPPJ3	SPUJ SPUP	SPUN	SPUN (medium current)	SPPH2	SPPH4	SPPH1	SPEA	SPEC	SPED2	SPED3	SPED4
Operating temperature range		-10°C to +60°C											-40°C to +85°C			
Rating (max.) (Resistive load)		5V 20mA	0.2A 12V DC	0.2A 30V DC	0.1A 30V DC	1A 25V DC	0.1A 12V DC	0.1A 30V DC				1A 14.5V DC				
Electrical performance	Initial contact resistance	※	20m Ω max.					30m Ω max.	100m Ω max.	20m Ω max.	30m Ω max.		100m Ω max.			
	Insulation resistance	10m Ω min 100V DC	100M Ω min. 500V DC										3M Ω min. 500V DC			
	Voltage proof	100V AC for 1min	500V AC for 1 min.										100V AC for 1 min.			
Mechanical performance	Robustness of terminal	—	5N for 1 min.						3N for 1 min.		—					
	Robustness of actuator	Operating direction	50N	30N	50N		30N		50N							
		Pulling direction	—		50N		—	10N	—	50N		—				
	Vibration		10 to 55 to 10Hz/min., the amplitude is 1.5mm for all the frequencies, in the 3 direction of X, Y and Z for 2 hours respectively													
	Resistance to soldering heat	Manual soldering	—	350±10°C 3 ⁺¹ ₀ s		300±10°C 3 ⁺¹ ₀ s	350±10°C 3 ⁺¹ ₀ s		350°C max. 3s max.	350±10°C 3 ⁺¹ ₀ s			350±10°C 3±0.5s	—	350±10°C 3±0.5s	—
		Dip soldering	—	260±5°C 5±1s	260±5°C 10±1s	260±5°C 5±1s		260±5°C 10±1s	260±5°C 5±1s		260±5°C 10±1s	260±5°C 5±1s	260°C max. 5s max.	260±5°C 10±1s	—	260±5°C 10±1s
Reflow		260°C max 10s max	—													
Durability	Operating life without load	100,000 cycles	10,000 cycles 40m Ω max.			30,000 cycles 40m Ω max.	10,000 cycles 40m Ω max.	10,000 cycles 50m Ω max.	10,000 cycles 100m Ω max.	10,000 cycles 40m Ω max.	10,000 cycles 50m Ω max.		30,000 cycles 100 Ω max.			
	Operating life with load Load : As rating	100,000 cycles	10,000 cycles 40m Ω max.			5,000 cycles 40m Ω max.	10,000 cycles 50m Ω max.	10,000 cycles 100m Ω max.	10,000 cycles 40m Ω max.	10,000 cycles 50m Ω max.		30,000 cycles 100m Ω max.				
Environmental performance	Cold	-40±2°C for 96h	-20±2°C for 96h										-40±2°C for 96h			
	Dry heat	85±2°C for 96h														
	Damp heat	40±2°C, 90 to 95%RH for 96h														

Note

1V or less, at the present rating of 1mA, 5V DC for output voltage.

Detector

Push

Slide

Rotary

Encoders

Power

Dual-in-line

Package Type

Multi Control

Devices

TACT Switch™

Custom-

Products

Horizontal
Type

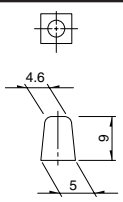
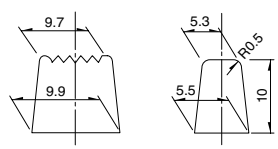
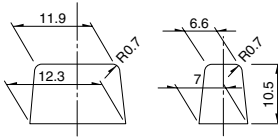
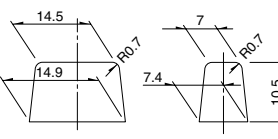
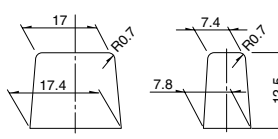
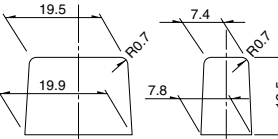
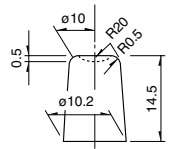
Vertical
Type

Attached Parts

Specify the Desired Knob.

Unit:mm

- Detector
- Push**
- Slide
- Rotary
- Encoders
- Power
- Dual-in-line Package Type
- Multi Control Devices
- TACT Switch™
- Custom-Products
- Horizontal Type
- Vertical Type

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	
Key pitch 12.5mm Square knob 		UE201011 UE201012 UE201013	
Key pitch 15mm Square knob 		UE202011 UE202012 UE202013	SPPJ2 SPUP SPUN SPEC
Key pitch 17.5mm Square knob 		UE203011 UE203012 UE203013	
Key pitch 20mm Square knob 		UE204011 UE204012 UE204013	
Round knob 		UE200011 UE200012 UE200013	

Note

When mounting the switch, it is recommended to secure the knob with an adhesive agent.

