

Push Switch

2.2mm-travel Medium-sized Vertical Type

SPPH4 Series



Easy to use mid-size vertical type push switch.

Detector

Push

Slide

Rotary

Encoders

Power

Dual-in-line
Package Type

TACT Switch™

Custom-
Products

Horizontal
Type

Vertical
Type



Typical Specifications

Items	Specifications
Rating (max.)/(min.) (Resistive load)	0.1A 30V DC/50 μ A 3V DC
Contact resistance (initial performance)	100m Ω max.
Operating force	2 $\pm$ 1N
Operating life with load	10,000cycles (0.1A 30V DC)

Product Line

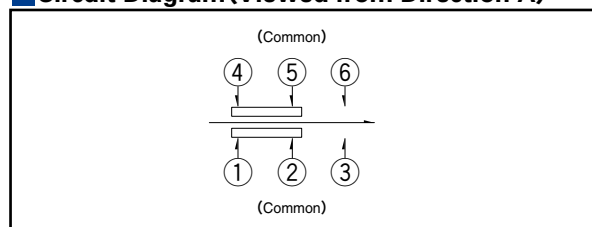
Changeover timing	Travel (mm)	Total travel (mm)	Rating	Mounting method	Poles	Operation	Terminal type	Location lug	Minimum order unit (pcs.)	Product No.
Non shorting	2.2	3	—	PC board	2	Latching	Straight	With	6,000	SPPH410100
						Momentary				SPPH410200
						Latching	Snap-in	Without		SPPH420100
						Momentary		With		SPPH430100
										SPPH430200

Dimensions

Unit:mm

Style	PC board mounting hole dimensions (Viewed from the direction A)

Circuit Diagram (Viewed from Direction A)



Terminal Configuration

Unit:mm

Straight terminal	Snap-in terminal

Notes

1. Above dimensions indicate "with location lug" version.
2. Please place purchase orders per minimum order unit (integer).
3. Products other than those listed in the above chart are also available. Please contact us for details.

List of Varieties

Series		SPPH4	SPPH1	SPEC	SPED2	SPED3	SPED4	SPED5	SPEF	
Photo										
Travel (mm)		2.2	1.5	2.5	—				1.5	
Total travel (mm)		3	2.5	3.4	4.5	3.8			2.7	
Number of poles		2				1				
Dimensions (mm)	W	8.5	10	12	14			13.5	9.4	
	D	6.5	10		16.8	18		18.2	9	
	H	8.5		12.5	26.7	20.7			6.9	
Operating temperature range		−10℃ to +60℃		−40℃ to +85℃						
Rating (max.) (Resistive load)		0.1A 30V DC				1A 14.5V DC				
Rating (min.) (Resistive load)		50μA 3V DC								
Electrical performance	Initial contact resistance	100mΩ max.	20mΩ max.	30mΩ max.	100mΩ max.					
	Insulation resistance	100MΩ min. 500V DC				3MΩ min. 500V DC			3MΩ min. 100VDC	
	Voltage proof	500V AC for 1minute				100V AC for 1minute				
Mechanical performance	Terminal strength		5N for 1minute		3N for 1minute	_____				
	Actuator strength	Operating direction	30N	50N					90N	
		Pulling direction	10N	—	50N	_____			30N	
Durability	Operating life without load	10,000cycles 100mΩ max.	10,000cycles 40mΩ max.	10,000cycles 50mΩ max.	30,000cycles 100mΩ max.					
	Operating life without load Load:as rating									
Environmental performance	Cold		−20±2℃ for 96h			−40±2℃ for 96h				
	Dry heat		85±2℃ for 96h							
	Damp heat		40±2℃, 90 to 95%RH for 96h							
Soldering	Manual soldering	350±10℃ 3 ⁺¹ ₀ s			350±10℃ 3±0.5s ※3	—	350±10℃ 3±0.5s	—	350±5℃ 3s max.	
	Dip soldering	260±5℃ 5±1s	260±5℃ 10±1s	260℃ max. 5s max.	260±5℃ 10±1s ※3	—	260±5℃ 10±1s	—	260±5℃10±1s ※4	
	Reflow soldering	_____							Please see P.108	
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TypeVertical
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Notes

- ※3. Applicable to SPED220200 (PC board type) only.
- ※4. Applicable to SPEF110100 only.