

# 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

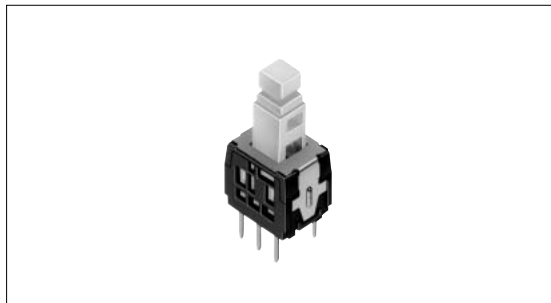
Dual-in-line  
Package Type

TACT Switch™

Custom-  
Products

Horizontal  
Type

Vertical  
Type



## Typical Specifications

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

## Product Line

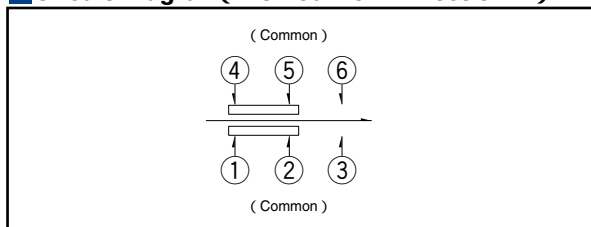
Changeover timing	Travel (mm)	Total travel (mm)	Rating	Mounting method	Poles	Operation	Terminal type	Location lug	Minimum order unit (pcs.)	Product No.
Non shorting	2.2	3		PC board	2	Latching	Straight	With	6,000	SPPH410100
						Momentary		Without		SPPH410200
						Latching	Snap-in	With		SPPH420100
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

## Dimensions

Unit:mm

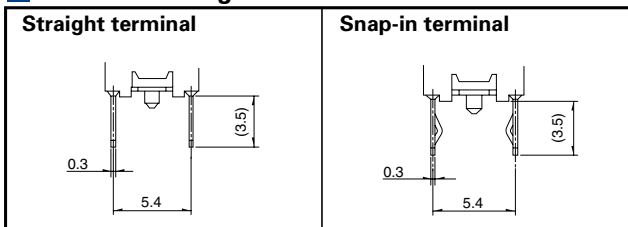
Style	PC board mounting hole dimensions (Viewed from the direction A)
	<p>Thickness of PC board t=1.6mm</p>

## Circuit Diagram (Viewed from Direction A)



## Terminal Configuration










Unit:mm



## Notes

- Above dimensions indicate "with location lug" version.
- Please place purchase orders per minimum order unit (integer).
- 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°C to + 60°C		- 40°C to + 85°C						
Rating (max. ) (Resistive load)	0.1A 30V DC				1A 14.5V DC				
Rating (min. ) (Resistive load)	50μA 3V DC								
Electrical performance	Initial contact resistance	100m max.	20m max.	30m max.	100m max.				
	Insulation resistance	100M min. 500V DC			3M min. 500V DC			3M 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 100m max.	10,000cycles 40m max.	10,000cycles 50m max.	30,000cycles 100m 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 <sup>+1</sup> 0s			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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### Notes

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