

Push Switch 1mm-travel Compact-sized Vertical Type

SPPH2 Series



1mm short travel.

Detector

Push

Slide

Rotary

Encoders

Power

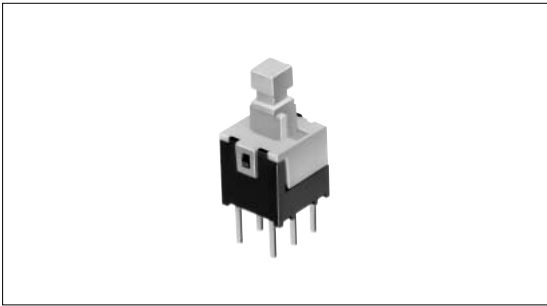
Dual-in-line
Package Type

TACT Switch™

Custom-
Products

Horizontal
Type

Vertical
Type



Typical Specifications

Items		Specifications
Rating (max.)/(min.) (Resistive load)		0.1A 12V DC/50 μ A 3V DC
Contact resistance (Initial /After operating life)		30m max./50m max.
Operating force		2 \pm 1N
Operating life	Without load	10,000cycles
	With load	10,000cycles(0.1A 12V DC)

Product Line

Changeover timing	Travel (mm)	Total travel (mm)	Rating	Mounting method	Poles	Knob style	Operation	Terminal type	Minimum order unit (pcs.)	Product No.	Drawing No.
Non shorting	1	1.5		PC board	2	Standard	Latching	Straight	10,000	SPPH210100	1
							Momentary				
							Latching	Snap-in		SPPH260100	2
							Momentary			SPPH230500	1
						Short	Latching	SPPH240100		3	
							Momentary	SPPH240300			

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 (integer).

Detector
Push
 Slide
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 Products

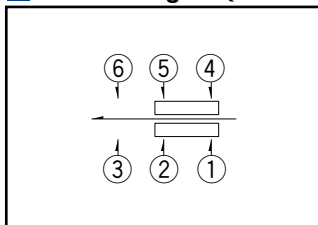
Horizontal
 Type
**Vertical
 Type**

Dimensions

Unit:mm

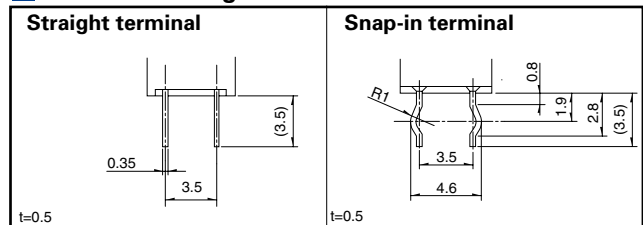
No.	Style	PC board mounting hole dimensions (Viewed from the direction A)
1		<p>Straight terminal</p> <p>Snap-in terminal</p>
2		<p>Snap-in terminal</p>
3		<p>Snap-in terminal</p>

Circuit Diagram (Viewed from Direction A)



Terminal Configuration

Unit:mm



List of Varieties

Series		SPEE	SPPJ6	SPPJ3	SPPJ2	SPUJ 1	SPUP 1	SPUN	SPUN medium current 1	SPEG	SPPH2	
Detector	Photo											
Push	Travel (mm)	0.3 0.71	1.5	2.5		2	1.5 2	2.5			1	
Slide	Total travel (mm)	0.9	2.5	3.5		3	2.5 3	3.5		1.2	1.5	
Rotary	Number of poles	1	2	1 2	2	2 4				1	2	
Encoders	Dimensions (mm)	W	4	9		6.6	7.2	7.5		10	7.15	6.5
Power		D	5	12		15.2 22.7		24 36		8.35	6	
Dual-in-line Package Type		H	1.22	4.5	8.3	9.6	8.8	10.3	13		3.5	6.5
TACT Switch™	Operating temperature range	- 10°C to + 60°C		- 40°C to + 85°C		- 10°C to + 60°C						
Custom-Products	Rating (max. χ Resistive load)	20mA 5V DC	0.2mA 5V DC	0.2mA 30V DC		0.1mA 30V DC			1A 25V DC	50mA 16V DC	0.1A 12V DC	
	Rating (min. χ Resistive load)	100 μ A 3V DC	50 μ A 3V DC							50 μ A 3V DC		
Electrical performance	Initial contact resistance	2	20m max.						200m max.	30m max.		
	Insulation resistance	10M min. 100V DC	100M min. 500V DC						3M min. 100V DC	100M min. 500V DC		
	Voltage proof	100V AC for 1minute	500V AC for 1minute						100V AC for 1minute	500V AC for 1minute		
Horizontal Type	Mechanical performance	Terminal strength	5N for 1minute						0.5N for 1minute	5N for 1minute		
		Actuator strength	Operating direction	50N	30N		50N			50N	30N	
Vertical Type	Durability	Operating life without load	100,000 cycles	10,000cycles 40m max.			30,000cycles 40m max.	10,000cycles 40m max.	35,000cycles 500m max.	10,000cycles 50m max.		
		Operating life without load Load:as rating	100,000 cycles	10,000cycles 40m max.			5,000cycles 40m max.					
Environmental performance	Soldering	Cold	-40 \pm 2 for 96h	-20 \pm 2 for 96h					-20 \pm 2 for 96h			
		Dry heat	85 \pm 2 for 96h						85 \pm 2 for 96h			
		Damp heat	40 \pm 2 , 90 to 95%RH for 96h						40 \pm 2 , 90 to 95%RH for 96h			
Soldering	Manual soldering	350 \pm 10 4 ⁺¹ ₀ s	350 \pm 10 3 ⁺¹ ₀ s		300 \pm 10 3 ⁺¹ ₀ s	350 \pm 10 3 ⁺¹ ₀ s		350 \pm 5 3s max.	350 max. 3s max.			
	Dip soldering		260 \pm 5 5 \pm 1s	260 \pm 5 10 \pm 1s	260 \pm 5 5 \pm 1s	260 \pm 5 10 \pm 1s			260 \pm 5 5 \pm 1s			
	Reflow soldering	Please see P.108							Please see P.108			
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Notes

- ※1. The operating temperature range for automotive applications can be raised upon request. Please contact us for requirements of this kind.
- ※2. 1V or less, at the present rating of 1mA, 5V DC for output voltage.

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