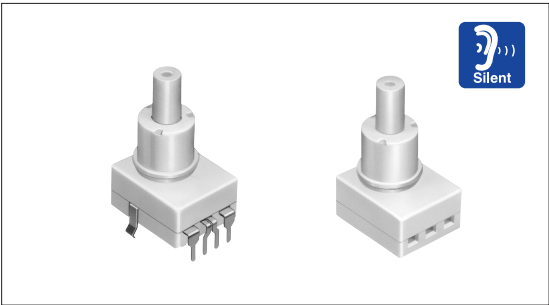


Push Switch
4.5mm-travel Push-push Type
SPED2 Series



Smooth and linear operation feeling.

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



Typical Specifications

Items	Specifications
Rating (Resistive load)	1A 14.5V DC
Contact resistance (Initial performance/After Test)	100mΩ max./100mΩ max.
Operating force	4.17±0.74N
Operating life (With load)	30,000cycles
Circuit configuration	2-poles, 1-position

Product Line

Changeover timing	Total travel (mm)	Mounting method	Poles	Operation	Terminal type	Minimum order unit (pcs.)	Product No.	Drawing No.
Non shorting	4.5	PC board	2	Alternate	For PC board	1,120	SPED220200	1
		Connector			—	2,000	SPED210200	2

Packing Specifications

Bulk

Product No.	Number of packages (pcs.)		Export package measurements (mm)
	1 case /Japan	1 case /export packing	
SPED220200	280	1,120	555×375×223
SPED210200	400	2,000	400×270×290

Dimensions

Unit:mm

No.	Style	PC board mounting dimensions (Viewed from the mounting face side)
1		
2		

Notes

1. Factory setting for contact points can be either ① or ②.
2. Please place purchase orders per minimum order unit N (integer).

ALPS

List of Varieties

Detector

Push

Slide

Rotary

Encoders

Power

Dual-in-line
Package Type

TACT Switch™

Custom-
Products

Horizontal
Type

Vertical
Type

Series		SPPH2	SPPH4	SPPH1	SPEC	SPED2	SPED3	SPED4	SPED5	SPEF	
Photo											
Travel (mm)		1	2.2	1.5	2.5	—				1.5	
Total travel (mm)		1.5	3	2.5	3.4	4.5	3.8			2.7	
Number of poles		2					1				
Dimensions (mm)	W	6.5	8.5	10	12	14			13.5	9.4	
	D	6	6.5	10		16.8	18		18.2	9	
	H	6.5	8.5		12.5	26.7	20.7	16.97	20.7	6.9	
Operating temperature range		−10°C to +60°C			−40°C to +85°C						
Automotive use		—		●	●	●	●	●	●	●	●
Rating (max.) (Resistive load)		0.1A 12V DC	0.1A 30V DC			1A 14.5V DC					
Rating (min.) (Resistive load)		50μA 3V DC									
Electrical performance	Initial contact resistance	30mΩ max.	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 50mΩ max.	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°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									
Soldering	Manual soldering	350°C max. 3s max.	350±10°C 3 ⁺¹ ₀ s			350±10°C 3±0.5s ※3	—	350±10°C 3±0.5s	—	350±5°C 3s max.	
	Dip soldering	260±5°C 5±1s		260±5°C 10±1s	260°C max. 5s max.	260±5°C 10±1s ※3	—	260±5°C 10±1s	—	260±5°C 10±1s ※4	
	Reflow soldering	—									Please see P.127
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Notes

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