











Push Switches









List of Varieties

Series		Horizontal				
		SPPJ3	SPPJ2	SPUJ	SPUN	SPUN medium current
Photo						
Dimensions (mm)	W	5 or 6.6	7.2	7.5	10	
	D	12		15.2 22.7	24 36	
	H	8.3	9.6	8.8	13	
Travel (mm)		2.5		2	2.5	
Total travel (mm)		3.5		3	3.5	
Number of poles		1 2	2	2 4		
Operating temperature range		-40°C to +85°C		-10°C to +60°C		
Automotive use		●	●	—	—	—
Life cycle						
Rating (max.) (Resistive load)		0.2A 30V DC		0.1A 30V DC		1A 25V DC
Rating (min.) (Resistive load)		50μA 3V DC				—
Durability	Operating life without load	10,000 cycles 40mΩ max.			30,000 cycles 40mΩ max.	10,000 cycles 40mΩ max.
	Operating life with load (at max. rated load)	10,000 cycles 40mΩ max.			5,000 cycles 40mΩ max.	
Electrical performance	Initial contact resistance	20mΩ max.				
	Insulation resistance	100MΩ min. 500V DC				
	Voltage proof	500V AC for 1minute				
Mechanical performance	Terminal strength	5N for 1minute				
	Actuator strength	Operating direction	50N	30N	50N	
		Pulling direction	—	—	50N	
Environmental performance	Cold	-40°C 96h	-20°C 96h			
	Dry heat	85°C 96h				
	Damp heat	40°C, 90 to 95%RH 96h				
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Note

● Indicates applicability to all products in the series.

Series		Vertical				
		SPEH	SPEJ	SPPH4	SPPH1	
Photo						
Dimensions (mm)	W	6	7	6.5	10	
	D	6	7	8.5	10	
	H	5	5.95	8.5		
Travel (mm)		—	—	2.2	1.5	
Total travel (mm)		1.6	1.7	3	2.5	
Number of poles		1	2			
Operating temperature range		-40°C to +90°C	-40°C to +85°C	-10°C to +60°C		
Automotive use		●	●	—	●	
Life cycle						
Rating (max.) (Resistive load)		50mA 16V DC	0.2A 14V DC	0.1A 30V DC		
Rating (min.) (Resistive load)		10μA 1V DC	—	50μA 3V DC		
Durability	Operating life without load	100,000cycles 400mΩ max.	10,000cycles 150mΩ max.	10,000cycles 100mΩ max.	10,000cycles 40mΩ max.	
	Operating life with load (at max. rated load)	100,000cycles 400mΩ max.	10,000cycles 150mΩ max.	10,000cycles 100mΩ max.	10,000cycles 40mΩ max.	
Electrical performance	Initial contact resistance	200mΩ max.	150mΩ max.	100mΩ max.	20mΩ max.	
	Insulation resistance	100MΩ min. 100V DC	100MΩ min. 500V DC			
	Voltage proof	250V AC for 1minute	500V AC for 1minute			
Mechanical performance	Terminal strength	—	—	5N for 1minute		
	Actuator strength	Operating direction	50N	49N	30N	50N
		Pulling direction	—	—	10N	—
Environmental performance	Cold	-40°C 1000h	-40°C 500h	-20°C 96h		
	Dry heat	90°C 1000h	85°C 500h	85°C 96h		
	Damp heat	60°C, 90 to 95%RH 1000h	60°C, 90 to 95%RH 500h	40°C, 90 to 95%RH 96h		
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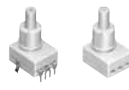








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Note

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Push Switches

List of Varieties

Series		Vertical					
		SPEF		SPED2	SPED3	SPED4	SPED5
Photo							
Dimensions (mm)	W	9.4		14			13.5
	D	9		16.8	18		18.2
	H	6.9		18.3	13.2	13.1	14.3
Travel (mm)		1.5		—	—	—	—
Total travel (mm)		2.7		4.5	3.8		
Number of poles		1		1 2	1		
Operating temperature range		-40°C to +85°C			-40°C to +95°C		
Automotive use		●	●	●	●	●	●
Life cycle							
Rating (max.) (Resistive load)		1A 14.5V DC			2A 14.5V DC		
Rating (min.) (Resistive load)		50μA 3V DC		—	—	—	—
Durability	Operating life without load	—	—	—	—	—	—
	Operating life with load (at max. rated load)	30,000 cycles 100mΩ max.					
Electrical performance	Initial contact resistance	100mΩ max.					
	Insulation resistance	3MΩ min. 100V DC			3MΩ min. 500V DC		
	Voltage proof	100V AC for 1minute					
Mechanical performance	Terminal strength	—	—	—	—	—	Wire strength 30N
	Actuator strength	Operating direction			98N	90N	98N
		Pulling direction			30N	—	—
Environmental performance	Cold	-40°C 96h					
	Dry heat	85°C 96h		85°C 96h (Connector type) 105°C 192h (Dip type)	105°C 192h		
	Damp heat	40°C, 90 to 95%RH 96h					
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