

Detector Switch

Two-way Operation Type

SPVF Series



Compact and user friendly, detectable from both horizontal and vertical direction.

Detector

Push

Slide

Rotary

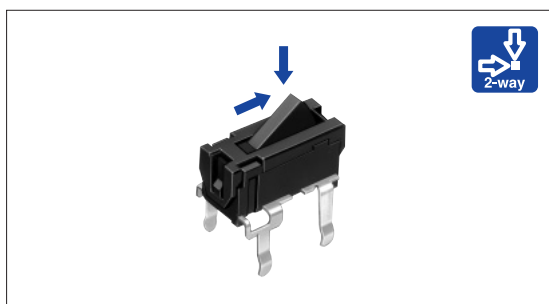
Encoders

Power

Dual-in-line
Package Type

TACT Switch™

Custom-
Products



Typical Specifications

Items		Specifications
Rating (max.) / (min.) (Resistive load)		1mA 5V DC/50μA 3V DC
Contact resistance (Initial /After operating life)		500mΩ max./1Ω max.
Operating force		0.3N max.
Operating life	Without load	100,000cycles
	With load	100,000cycles (1mA 5V DC)

Product Line

Poles	Positions	Terminal type	Terminal pitch (mm)	Minimum order unit (pcs)	Product No.	Drawing No.	
1	1	Snap-in	5.2	10,000	SPVF110100	1	
					SPVF120100	2	
					SPVF130100	3	
					SPVF140100	4	
			6.8		SPVF210200	5	
					SPVF220200	6	
					SPVF230200	7	
					SPVF240200	8	
2			—	5,000	SPVF350100	9	

Packing Specifications

Bulk

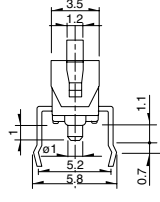
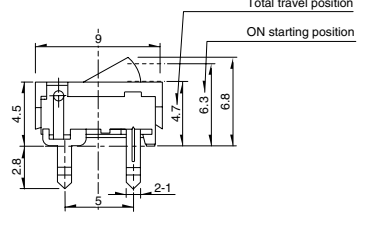
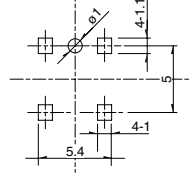
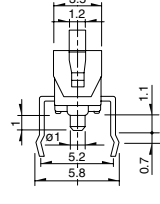
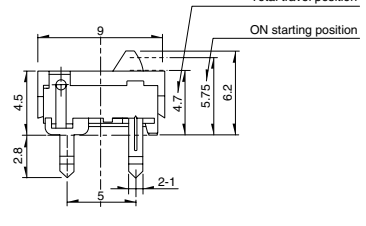
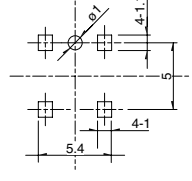
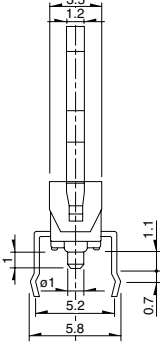
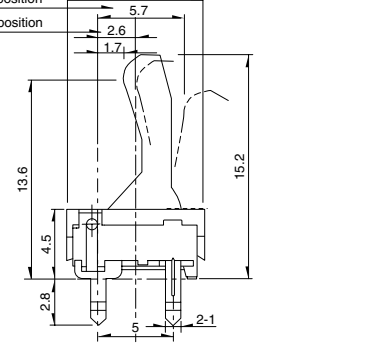
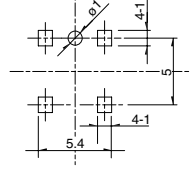
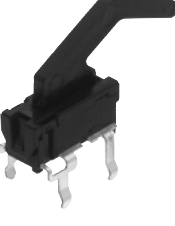
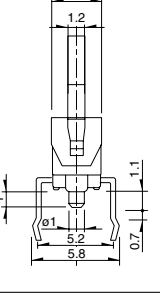
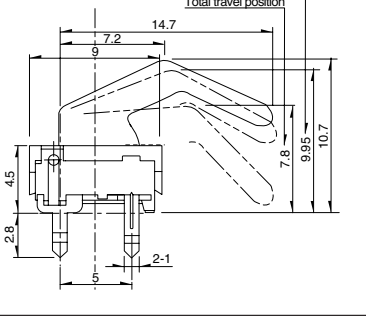
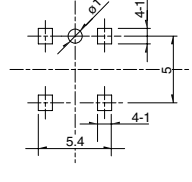
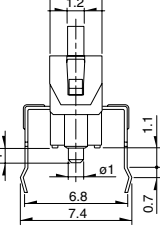
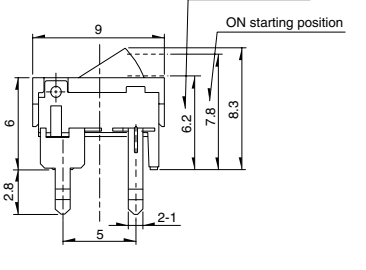
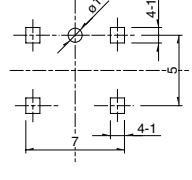
Product No.	Number of packages (pcs.)		Export package measurements (mm)
	1 case /Japan	1 case/ export packing	
SPVF110100 SPVF120100 SPVF130100 SPVF140100 SPVF210200 SPVF210200 SPVF220200 SPVF230200 SPVF240200	2,000	10,000	400×270×290
SPVF350100	1,000	5,000	

Note

Please place purchase orders per minimum order unit N (integer).

Dimensions

Unit:mm

No.	Photo	Style	PC board mounting hole dimensions
1		 	
2		 	
3		 	
4		 	
5		 	

Detector

Push

Slide

Rotary

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Power

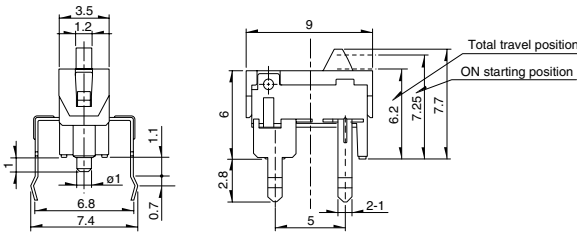
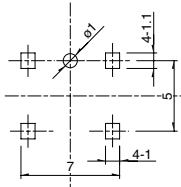
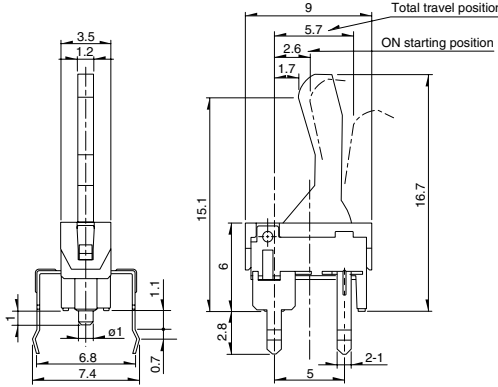
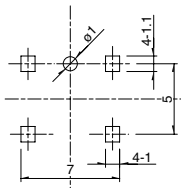
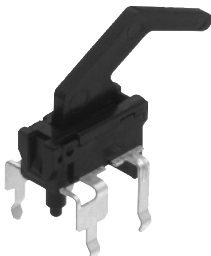
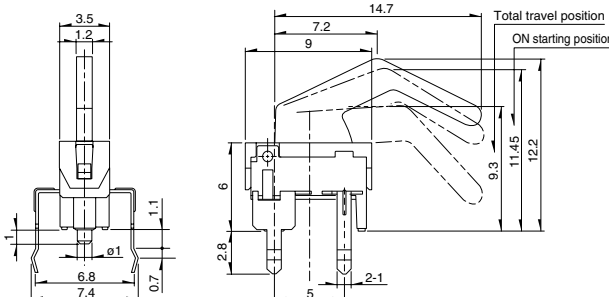
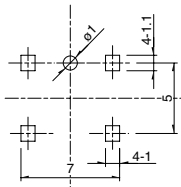
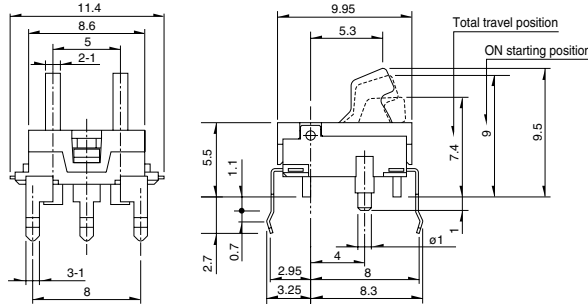
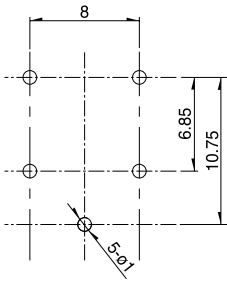
Dual-in-line
Package Type

TACT Switch™

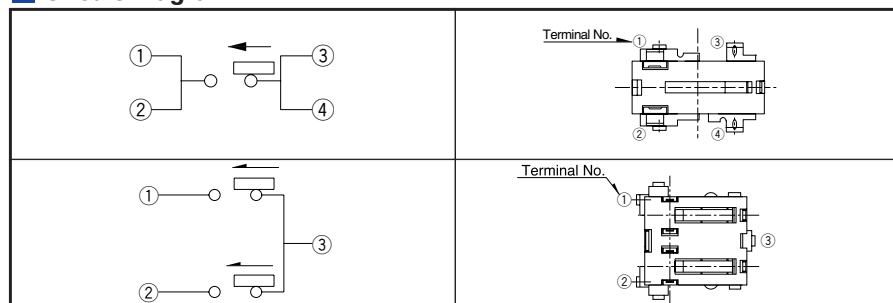
Custom-
Products

Dimensions

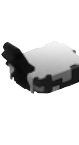
Unit:mm

No.	Photo	Style	PC board mounting hole dimensions
6			
7			
8			
9			

Circuit Diagram



List of Varieties (General-purpose Type)

Series		General-purpose Type							
		SPPB	SPVE	SPPW8	SPVM	SPVR	SPVF	SSCU	
Photo									
Operation type									
Operating temperature range		-40℃ to +85℃	-10℃ to +60℃		-40℃ to +85℃		-10℃ to +60℃	-40℃ to +85℃	
Automotive use			—	—			—		
Rating (max.) (Resistive load)		0.1A 30V DC			1mA 5V DC			0.1A 12V DC	
Rating (min.) (Resistive load)		50μA 3V DC		100μA 3V DC	50μA 3V DC	100μA 3V DC	50μA 3V DC		
Electrical performance	Initial contact resistance	1Ω max.	500mΩ max.	1Ω max.	2Ω max.	3Ω max.	500mΩ max.	70mΩ max.	
	Insulation resistance	100MΩ min. 100V DC						100MΩ min. 250V DC	
	Voltage proof	100V AC for 1 minute						250V AC for 1 minute	
Mechanical performance	Terminal strength	3N for 1 minute	0.5N for 1 minute	3N for 1 minute	1N for 1 minute	0.5N for 1 minute	3N for 30s	3N for 1 minute	
	Actuator strength	10N	5N	10N	5N	2N	1N	5N	
Durability	Operating life without Load	50,000cycles 2Ω max.	50,000cycles 1Ω max.	100,000cycles 2Ω max.	50,000cycles 5Ω max.		100,000cycles 1Ω max.	10,000cycles 100mΩ max.	
	Operating life with Load	(0.1A 30V DC) 50,000cycles 2Ω max.	(0.1A 30V DC) 50,000cycles 1Ω max.	(0.1A 30V DC) 100,000cycles 2Ω max.	(1mA 5V DC) 50,000cycles 5Ω max.		(1mA 5V DC) 100,000cycles 1Ω max.	(0.1A 12V DC) 10,000cycles 100mΩ max.	
Environmental performance	Cold	-40±2℃ for 500h	-20±2℃ for 96h		-40±2℃ for 500h		-40±2℃ for 96h	-40±2℃ for 500h	
	Dry heat	85±2℃ for 500h	85±2℃ for 96h		85±2℃ for 500h		85±2℃ for 96h	85±2℃ for 500h	
	Damp heat	60±2℃, 90 to 95%RH for 500h	40±2℃, 90 to 95%RH for 96h		60±2℃, 90 to 95%RH for 500h		40±2℃, 90 to 95%RH for 96h	60±2℃, 90 to 95%RH for 500h	
Dimensions (mm)		W	6.3	3.4	5	2.8	3.6	9	11
		D	3		4	3.5	4.2	3.5	5.8
		H	4.9	2.3		1.5	1.2	4.5	7
Soldering	Manual soldering	300±5℃, 5s max.	350±5℃, 3s max.				300±10℃, 3 ⁺¹ ₋₀ s	350±5℃, 3s max.	
	Dip soldering	255±5℃, 5±1s	—	255±5℃, 5±1s	—		245±5℃, 5±1s	—	
	Reflow soldering	Please see P.102					—		
Number of poles		1					1.2	1	
Operation force		0.35N max.	0.3N max.		0.4N max.	0.35N max.	0.3N max.	0.5N max.	
Page		44	50	52	54	56	57	60	

Detector

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Package Type

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Custom-
Products

- Detector Switches Soldering Conditions102
- Detector Switches Cautions103