

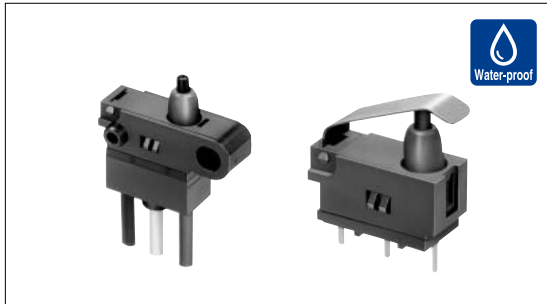
Detector Switch

Water-proof Type

SPVQ1 Series



Water-proof structure with 3mm long travel.



Typical Specifications

Items		Specifications	
Rating(max.)(min.) (Resistive load)		0.1A 12V DC/50 μ A 3V DC	
Contact resistance (Initial/After operating life)		500m Ω max./1 Ω max.	
Operating force		Push type	Actuator type
		2N max.	5.9N max.
Operating life	Without load	300,000cycles	
	With load	300,000cycles(0.1A 12V DC)	

Product Line

Poles	Positions	Changeover timing	Operating part shape	Terminal type	Main body form	Minimum order unit(pcs)	Product No.	Drawing No.
1	2	Non shorting	Push	For PC board	Normal	2,400	SPVQ140100	1
					Boss - right side		SPVQ140200	5
					Boss - left side		SPVQ140300	6
					Boss - both sides		SPVQ140400	7
			Actuator A		Normal		SPVQ130200	1
					Boss - right side		SPVQ130400	5
					Boss - left side		SPVQ130500	6
					Boss - both sides		SPVQ130600	7
			Actuator B		Normal		SPVQ130300	1
					Boss - right side		SPVQ130700	5
					Boss - left side		SPVQ130800	6
					Boss - both sides		SPVQ130900	7
			Push	With wire	With a screw hole	720	SPVQ120500	2
					Boss - right side	400	SPVQ120600	8
					Boss - left side		SPVQ120700	9
					Boss - both sides		SPVQ120800	10
			Actuator A		With a screw hole	720	SPVQ111200	3
					Boss - right side	400	SPVQ111400	8
					Boss - left side		SPVQ111500	9
					Boss - both sides		SPVQ111600	10
			Actuator B		With a screw hole	720	SPVQ111700	4
					Boss - right side	400	SPVQ111800	8
					Boss - left side		SPVQ111900	9
					Boss - both sides		SPVQ112000	10

Notes

- ※ The length of lead wire is 250mm. For length modification, please contact us.
- This unit cannot be used in water.
- Please place purchase orders per minimum order unit(integer).

Detector

Push

Slide

Rotary

Encoders

Power

Dual-in-line
Package Type

TACT Switch™

Custom-
Products

Dimensions

Unit:mm

No.	Style	Actuator configuration
1		Push Actuator A Actuator B
2		
3		

Dimensions

Unit:mm

No.	Style	
4		
5		Actuator configuration Push
6		Actuator A
7		Actuator B

Detector

Push

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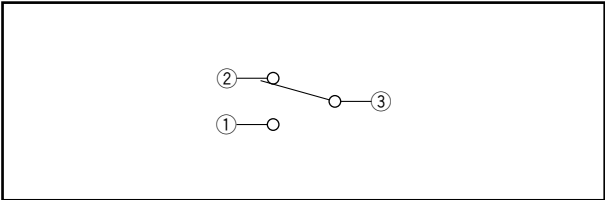
Custom-
Products

■ Dimensions

Unit:mm

No.	Style	Actuator configuration
8		Push
9		Actuator A
10		Actuator B

■ Circuit Diagram



List of Varieties (General-purpose Type / Water-proof Type / Telephone-hook Type)

Series		General-purpose Type		Water-proof Type					Telephone-hook Type	
		SSCW	SPVQ5	SPVQ1	SPVQ3	SPVQ4	SPVQ6	SSCN	SPPY5	
Photo										
Operation type				 	 					
Operating temperature range		-40 to +85							-10 to +60	
Rating (max.) (Resistive load)		0.1A 20V DC	0.1A 12V DC						0.1mA 3V DC min. 50mA 48V DC max.	
Rating (min.) (Resistive load)		100μA 3V DC	50μA 3V DC	50μA 3V DC or 1mA 5V DC	50μA 3V DC	50μA 5V DC	100μA 3V DC	0.1mA 3V DC		
Electrical performance	Initial contact resistance	500mΩ max.							100mΩ max.	
	Insulation resistance	100MΩ min. 250V DC	100MΩ min. 500V DC							
	Voltage proof	250V AC for 1 minute	500V AC for 1 minute							
Mechanical performance	Terminal strength	—————		3N for 1 minute					5N, for 1 minute	
	Actuator strength	20N						10N	5N	
Durability	Operating life without Load	100,000cycles 1Ω max.	300,000cycles 1Ω max.	300,000cycles or 1,200,000cycles 1Ω max.	300,000cycles 1Ω max.		100,000cycles 1Ω max.	300,000cycles 1Ω max.		
	Operating life with Load	(0.1mA 12V DC) 100,000cycles 1Ω max.	(0.1A 12V DC) 300,000cycles 1Ω max.	(0.1A 12V DC) 300,000cycles or 1,200,000 1Ω max.	(0.1A 12V DC) 300,000cycles 1Ω max.		(0.1A 12V DC) 100,000cycles 1Ω max.	(1mA 3V DC) 300,000cycles 1Ω max. or (50mA 60V DC) 100,000cycles 1Ω max.		
Environmental performance	Cold	-40 ± 2 for 500h							-20 ± 2 for 96h	
	Dry heat	85 ± 2 for 500h							85 ± 2 for 96h	
	Damp heat	60 ± 2 , 90 to 95%RH for 500h							40 ± 2 , 90 to 95%RH for 96h	
Dimensions (mm)		W	13.1	13.8	13.3	13	14.7	13.3	13	14.4
		D	11.35		5.8		5.4	5.3	25	28.6
		H	5.3		5.8	8	8.35	7.6	7	5
Soldering	Manual soldering	—————		300 ± 10 , 3 ⁺¹ ₀ s					350 ± 5 , 3s max.	
	Dip soldering	—————		260 ± 5 , 5 ± 1s				—————		
	Reflow soldering	—————							Please see P.79	
Number of poles		1							2	
Operation force		1N max.	2N max.	2N max. 5.9N max.	1 ± 0.5N	1 ± 0.3N	1 ± 0.5N	2N max.	0.8N max.	
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Detector

Push

Slide

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Dual-in-line
Package Type

TACT Switch™

Custom-
Products

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