

Detector Switch Water-proof Type

SPVQA Series



Fork terminals allow connection without solder.



Typical Specifications

Items		Specifications
Rating (max.) / (min.) (Resistive load)		0.1A 12V DC/50 μ A 5V DC
Contact resistance (Initial/After operating life)		500m Ω /1 Ω max.
Operating force		1 \pm 0.5N
Operating life	Without load	300,000cycles
	With load	300,000cycles (0.1A 12V DC)

Product Line

Poles	Positions	Change over timing	Operating part shape	Terminal type	Main body form	Minimum order unit (pcs)	Product No.	Drawing No.
1	1	Non shorting	Push	Press fit	Without boss L type	4,800	SPVQA10101	1
					Without boss R type		SPVQA10201	2
	1				Without boss L type		SPVQA10300	3
					Without boss R type		SPVQA10400	4
	2				Without boss L type		SPVQA10500	5
					Without boss R type		SPVQA10600	6
	1			For PC board	Without boss		SPVQA20101	7

Packing Specifications

Bulk

Number of packages (pcs.)		Export package measurements (mm)
1 case /Japan	1 case /export packing	
1,200	4,800	540 × 360 × 270

Notes

1. This unit cannot be used in water.
2. Please place purchase orders per minimum order unit N (integer).

Dimensions




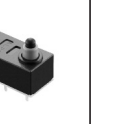
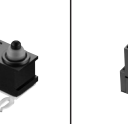
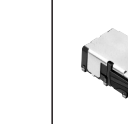








Unit:mm

No.	Style	
1		



Automotive Use

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

Series	Water-proof Type						Telephone-hook Type	
	SPVQ6	SPVQ7	SPVQ8	SPVQ9	SPVQA	SSCN	SPPY5	
Photo								
Operation type								
Operating temperature range	-40°C to +85°C						-10°C to +60°C	
Automotive use	●	●	●	●	●	●	—	
Rating (max.) (Resistive load)	0.1A 12V DC			50mA 26V DC	0.1A 12V DC		50mA 48V DC max.	
Rating (min.) (Resistive load)	50μA 5V DC					100μA 5V DC	100μA 3V DC	
Electrical performance	Initial contact resistance	500mΩ max.			75mΩ	500mΩ max.		100mΩ max.
	Insulation resistance	100MΩ min. 500V DC						
	Voltage proof	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	300,000cycles 1Ω max.			300,000cycles 200mΩ max.	300,000cycles 1Ω max.	100,000cycles 1Ω max.	300,000cycles 1Ω max.
	Operating life with Load	(0.1A 12V DC) 300,000cycles 1Ω max.			(50mA 26V DC) 300,000cycles 200mΩ max.	(0.1A 12V DC) 300,000cycles 1Ω max.	(0.1A 12V DC) 100,000cycles 1Ω max.	(50mA 48V DC) 100,000cycles (100BA 3V DC) 300,000cycles
Environmental performance	Cold	-40±2°C for 500h					-20±2°C for 96h	
	Dry heat	85±2°C for 500h					85±2°C for 96h	
	Damp heat	60±2°C, 90 to 95%RH for 500h					40±2°C, 90 to 95%RH for 96h	
Dimensions (mm)	W	13.3	14.7	8.3	15.4	15.2	13	14.4
	D	5.3	5.4	5.3	8.4	6.4	5	28.6
	H	7	6.7	6.5	7.5	7.95	25	7.15
Soldering	Manual soldering	300±10°C, 3 ⁺¹ _s				—	300±10°C, 3 ⁺¹ _s	350±5°C, 3s max.
	Dip soldering	260±5°C, 5±1s						
	Reflow soldering	—						Please see P.97
Number of poles	1			2	1		2	
Operation force	1±0.5N 3N max.	1±0.5N				2N max.	0.8N max.	
Page	85	87	89	91	92	94	95	

Detector

Push

Slide

Rotary

Encoders

Power

Dual-in-line
Package Type

TACT Switch™

Custom-
Products

- Detector Switches Soldering Conditions97
- Detector Switches Cautions98

Note

●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.