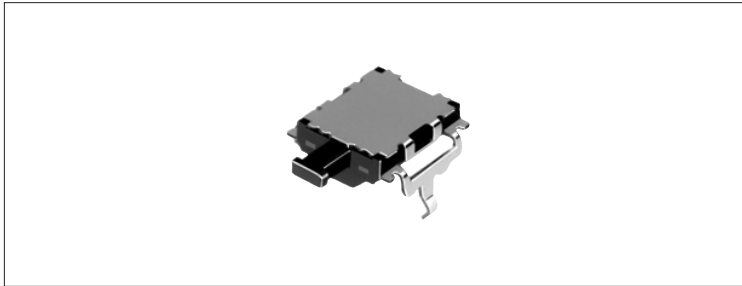


# One-way Operation Type Detector Switch

SPVC1 Series

Push type suitable for normal ON/OFF.

- Power
- Push
- Slide
- Rotary
- Encoders
- Detector**
- Dual-in-line Package Type
- Multi Control Devices
- TACT
- Custom-Products



Car Use

## Features

- This is a low-profile unit with a 2.8mm height from the mounting surface of a PC board.
- Two types of circuit configuration : push ON and push OFF.
- Permits snap-in temporary mounting on PC board (t1).

## Applications

- For detection mechanisms in car navigation systems and car audio systems

## Typical Specifications

Items		Specifications
Rating (max.) (Resistive load)		10mA 16V DC
Contact resistance (Initial performance/After lifetime)		1Ω max./2Ω max.
Operating force		0.85N max.
Operating life	Without load	25,000 cycles
	With load	25,000 cycles (10mA 16V DC)

## Products Line

Poles	Positions	Terminal style	Circuit arrangement	Minimum packing unit (pcs.)	Products No.
1	1	Snap-in	Push ON	100	SPVC110300
			Push OFF		SPVC110100

For other detailed specifications, see P.304

**Dimensions**

Unit:mm

Style	PC board mounting hole dimensions (Viewed from direction A)
	<p>2-<math>\phi</math>1.1 holes</p>

Power

Push

Slide

Rotary

Encoders

**Detector**

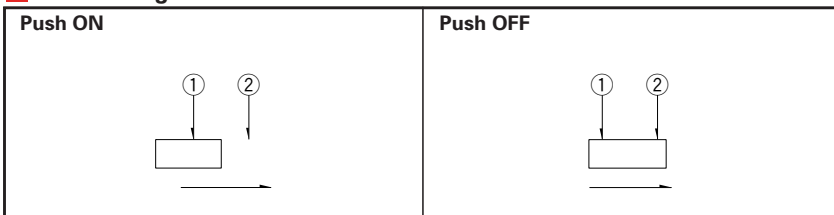
Dual-in-line  
Package Type

Multi Control  
Devices

TACT

Custom-  
Products

**Circuit Diagram**



## Products Specifications

Items		Series										
		SPVC1	SPVF	SSCU	SSCT	SSCF	SSCN	SPVQ1	SPVQ3	SPVQ4	SSCW	SREF
Power	Operating temperature range	-10°C to +60°C					-40°C to +85°C					-10°C to +60°C
	Rating (max.) (Resistive load)	10mA 16V DC	1mA 5V DC	0.1A 12V DC								1mA 5V DC
Push	Electrical performance	Initial contact resistance	1 Ω max.	500mΩ max.	70mΩ max.	20mΩ max.	100mΩ max.	500mΩ max.				1 Ω max.
Slide		Insulation resistance	100MΩ min. 100V DC		100MΩ min. 250V DC		100MΩ min. 100V DC	100MΩ min. 500V DC			100MΩ min. 250V DC	100MΩ min. 100V DC
Rotary		Voltage proof	100V AC for 1 min.		250V AC for 1 min.		100V AC for 1 min.	500V AC for 1 min.			250V AC for 1 min.	100V AC for 1 min.
Encoders	Mechanical performance	Robustness of terminal	3N for 1 min.	3N for 30 s	3N for 1 min.		5N for 1 min.	3N for 1 min.			—	
Detector		Robustness of actuator	10N	1N	5N	10N			20N		5N	
Dual-in-line Package Type		Vibration	10 to 55 to 10Hz/min., the amplitude is 1.5mm for all the frequencies, in the 3 direction of X, Y and Z for 2 hours respectively									
Multi Control Devices		Resistance to soldering heat	Manual soldering	350±10°C, 3 <sup>+1</sup> <sub>-0</sub> s	300±10°C, 3 <sup>+1</sup> <sub>-0</sub> s	350±5°C, 3s max.		350±10°C, 3 <sup>+1</sup> <sub>-0</sub> s	300±10°C, 3 <sup>+1</sup> <sub>-0</sub> s			—
TACT	Dip soldering		260±5°C, 3s max.	260±5°C, 5±1s	—	260±5°C, 5±1s		—	260±5°C, 5±1s		—	
Custom-Products	Reflow soldering		—									
Durability	Operating life without load	25,000 cycles 2 Ω max.	100,000 cycles 1 Ω max.	10,000 cycles 100mΩ max.	10,000 cycles 40mΩ max.	50,000 cycles 200mΩ max.	100,000 cycles 1 Ω max.	300,000 cycles 1 Ω max.	300,000 cycles or 1,000,000 cycles 1 Ω max.	300,000 cycles 1 Ω max.	100,000 cycles 1 Ω max.	150,000 cycles 2 Ω max.
	Operating life with load	(10mA 16V DC) 25,000 cycles 2 Ω max.	(1mA 5V DC) 100,000 cycles 1 Ω max.	(0.1A 12V DC) 10,000 cycles 150mΩ max.	(0.1A 12V DC) 10,000 cycles 60mΩ max.	(0.1A 12V DC) 50,000 cycles 300mΩ max.	(0.1A 12V DC) 100,000 cycles 1 Ω max.	(0.1A 12V DC) 300,000 cycles 1 Ω max.	(0.1A 12V DC) 300,000 cycles or 1,000,000 cycles 1 Ω max.	(0.1A 12V DC) 300,000 cycles 1 Ω max.	(0.1A 12V DC) 100,000 cycles 1 Ω max.	(1mA 5V DC) 150,000 cycles 2 Ω max.
Environmental performance	Cold	-20±2°C for 96h	-40±2°C for 96h	-20±2°C for 96h			-40±2°C for 500h					-20±2°C for 96h
	Dry heat	85±2°C for 96h					85±2°C for 500h					85±2°C for 96h
	Damp heat	40±2°C, 90 to 95%RH for 96h					60±2°C, 90 to 95%RH for 500h					40±2°C, 90 to 95%RH for 96h