

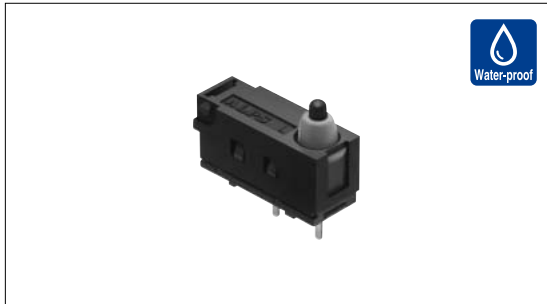
Detector Switch Water-proof Type

SPVQ4 Series

www.DataSheet4U.com



Ensures a highly reliable contact even in the minute electric current range.



Typical Specifications

| Items | | Specifications |
|--|--------------|------------------------------|
| Rating(max.)(min.) (Resistive load) | | 0.1A 12V DC/50 μ A 3V DC |
| Voltage drop (Initial/After operating life) | | 0.2V max./0.3V max. |
| Operating force | | 1 \pm 0.3N |
| Operating life | Without load | 300,000cycles |
| | With load | 300,000cycles(0.1A 12V DC) |

Product Line

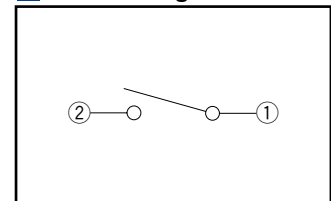
| Poles | Positions | Operating part shape | Terminal type | Main body form | Minimum order unit (pcs) | Product No. | Drawing No. |
|-------|-----------|----------------------|---------------|-------------------|--------------------------|-------------|-------------|
| 1 | 1 | Push | For PC board | Boss - left side | 6,000 | SPVQ440300 | 1 |
| | | | | Boss - right side | | SPVQ440400 | 2 |

Dimensions

Unit:mm

| No. | Style |
|-----|-------|
| 1 | |
| 2 | |

Circuit Diagram



Note

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

www.DataSheet4U.com

ALPS

Detector

Push

Slide

Rotary

Encoders








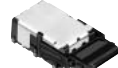










Power

Dual-in-line
Package Type

TACT Switch™

Custom-
Products

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 |  |  |  1-way  2-way |  1-way  2-way |  |  |  |  | |
| 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 | 500m max. | | | | | | 100m max. | |
| | Insulation resistance | 100M min. 250V DC | 100M 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 1 max. | 300,000cycles 1 max. | 300,000cycles or 1,200,000cycles 1 max. | 300,000cycles 1 max. | 100,000cycles 1 max. | 300,000cycles 1 max. | | |
| | Operating life with Load | (0.1mA 12V DC) 100,000cycles 1 max. | (0.1A 12V DC) 300,000cycles 1 max. | (0.1A 12V DC) 300,000cycles or 1,200,000 1 max. | (0.1A 12V DC) 300,000cycles 1 max. | (0.1A 12V DC) 100,000cycles 1 max. | (1mA 3V DC) 300,000cycles 1 max. or (50mA 60V DC) 100,000cycles 1 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 | 7.15 |
| Soldering | Manual soldering | 300 ± 10 , 3 ⁺¹ 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. | |
| Page | 61 | 62 | 63 | 67 | 73 | 74 | 76 | 77 | |

- Detector
- Push
- Slide
- Rotary
- Encoders
- Power
- Dual-in-line Package Type
- TACT Switch™
- Custom-Products

Detector Switches Soldering Conditions79

Detector Switches Cautions80