

NEWS RELEASE

PR1910E

ALPS Develops "SPVQ8 Series" Compact Type Sliding Contact Detector Switch

50% More Compact Than Conventional Product

Duesseldorf, Germany, September 22, 2010 – ALPS ELECTRIC has created the world's smallest^{*1} waterproof type detector switch, the "SPVQ8 Series," for detecting mechanism operation in automotive and home appliances. Sample shipments will commence in September of this year.

Demand for electronic control in vehicles is increasing as the automobile industry seeks improvement in safety, comfort and convenience. Such applications include detecting the open/close status of doors and trunks, as well as door lock/unlock positions, giving rise to the adoption of waterproof type detector switches. Furthermore, in the automobile and home appliance fields, units that involve detection are getting smaller and lighter, requiring their integrated parts to maintain conventional performance in a smaller size.

The SPVQ8 Series achieves a 50% reduction in volume (body size: W 8.3mm X D 5.3mm X H 6.5mm), compared to the conventional product (SPVQ3 Series: W 13.0mm X D 5.8mm X H 8.35mm) and was developed for a wide variety of purposes including those subject to use around water.

In addition, by applying Alps' unique precision processing technology, we have achieved a "clip type" product which clips the fixed contacts from both sides. This two-sided sliding contact structure is resistant to particles, dust, vibration, and impact, ensuring reliable contact. The switch's water and dust resistance is compliant with IP67^{*2}.





Furthermore, the product maintains an overstroke^{*3} of 2mm from the ON position. Also, the strengthened knob area supports diagonal pressing at a maximum of 40 degrees. These features enable a smaller detector unit area and contribute to freedom in application design.

The SPVQ8 Series is available in 300,000 or 1,000,000 cycle operating life versions, with a wide variety of 36 types available based on the variations below:

• Configuration of guide bosses (boss-less, single-sided or dual-sided boss)

• Configuration of terminal (print terminal, angled terminal and lead terminal^{*4})

- Output (normal open and normal close^{*5})
- Operating life (300,000 cycles and 1,000,000 cycles)

*1 According to Alps' research as of August 10.

*2 IP67 (International Protection) is a regulation which indicates the amount of protection against the ingress of solid foreign objects and water. IP67 indicates that there is no ingress of dust, and is resistant against immersion in water at a depth of 1m, for 30 minutes.

*3 Overstroke refers to the travel distance from ON position to full stroke position.

*4 Lead terminal version is currently under development.

*5 Normal open refers to off status when not operated. Normal close refers to on status when not operated.

Features

A waterproof type detector switch that is 50% more compact than the conventional product

- 1. Sliding contact structure ensures reliable contact
- 2. 2mm overstroke assured
- 3. Supports diagonal pressing at a maximum of 40 degrees

4. Wide variety of selections in boss and terminal configuration, output and operating life

5. Water and dust resistance complies with IP67

Principal Applications

Open/close and position detection in doors, trunks and hoods for automobiles

Detecting mechanism operation in home electronics, appliances and household equipment





| Specifications | | | |
|--|--------------|--------------------------------|------------------|
| Product name | | SPVQ8 Series | |
| Dimensions (W × D × H) | | 8.3mm x 5.3mm x 6.5mm | |
| Operating Temperature Range | | -40 degrees C to +85 degrees C | |
| Max. Rating (resistive load) | | 0.1A 12V DC | |
| Min. Rating (resistive load) | | 50µA 5V DC | |
| Contact Resistance (Initial / After Operating Life) | | 500mΩ / 1Ω max. | |
| Operating Force | | 1±0.5N | |
| Operating Life | Without Load | 300,000 cycles | 1,000,000 cycles |
| | With Load | 300,000 cycles | 1,000,000 cycles |

For more information on the new product please visit http://www.alps.com/products/e/npv_product/100917_SPVQ8/SPVQ8_E.PDF



ALPS Electric Co., Ltd.

ALPS Electric (Tokyo: 6770) is a leading global manufacturer of high-quality electronic components for mobile devices, home electronics, vehicles and industrial equipment. With the philosophy of "Perfecting the Art of Electronics" ALPS Electric supplies over 40,000 different components to about 2,000 companies all over the world. For more information, visit www.alps.com.





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Contact:

PR Agency:

ALPS ELECTRIC EUROPE GmbH

Phone.: +49-211-59 77-0 Fax: +49-211-59 77-146 Email: info@alps-europe.com Internet: <u>www.alps.com</u> MEXPERTS AG Kurt Loeffler / Peter Gramenz Phone.: +49-89-897361-0 Fax: +49-89-87 29 43 Email: kurt.loeffler@mexperts.de Internet: <u>www.mexperts.de</u> Press Portal: <u>www.presseagentur.com</u>

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