

Compact Two-Way Operation-Type Detector Switch

Alps Develops a Series of Detector Switches Based on its First Compact Normal-Close-Type Switch

Duesseldorf, Germany, January 08, 2007 – ALPS ELECTRIC EUROPA GmbH has developed the first compact detector switch for digital cameras and other compact digital devices that when depressed automatically triggers an “off” state. Named the SPVS Series, this two-way operation-type normal-closing detector switch offers strong potential in a variety of applications, and boasts compactness coupled with a long-stroke. Sample shipments are to commence in February 2007.

Today’s digital cameras, digital video cameras and other digital devices while certainly small and thin, also boast remarkably increased functionality. This has placed growing importance on accurate detection to prevent data loss caused by operational error, such as when opening and closing the lid on a device’s battery or memory card slot. Compact detector switches, therefore, are essential in detecting movement in these mechanisms.

The SPVS Series of compact detector switches detects both vertical and horizontal movement and boasts a great variety of functional options. The SPVS Series boasts eight formats including: Alps’ first compact detector switch development, the normal-close-type; the traditional normal-open-type that triggers an “on” state when depressed; a right or left lever placement type; and a type that allows for flexibility in mounting with or without a positioning boss. This abundant variety of options frees design, allowing for compact detector switch configuration in various situations and conditions.

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Inside this product's small frame, the detection function controlled by the stroke, from its resting point through full extension measures 1.55mm. In normal-close-types and normal-open-types, a 1.15mm off-stroke and a 1.20mm on-stroke are assured, respectively. Also, by applying Alps' long-developed high-precision processing technologies, initial on-off positioning tolerance was successfully kept within a $\pm 0.18\text{mm}$ range (generally $\pm 0.30\text{mm}$). This small degree of tolerance absorbs inconsistencies that occur due to finger grip measurement gaps and mounting gaps from solder misalignment in manufacturing. In addition, it contributes to improved flexibility in set engineering.

SPVS Series dimensions are 3.5mm x 3.3mm x 1.0mm in width, depth and height, respectively, which makes it compatible for loading into ultra-compact miniature digital devices. Alps also realized an even smaller mounting area by adopting a J-bent terminal.

Features

Development of two-way operation-type detector switch with combined long-stroke and various application features

- On-off positioning tolerance of $\pm 0.18\text{mm}$ realized, while achieving a 1.55mm full-stroke, a 1.15mm off-stroke in normal-close-types and a 1.20mm on-stroke in normal-open-types
- Alps' premier normal-close-type compact detector switch that comes in eight formats further enhances the degree of design flexibility in set engineering
- With dimensions that measure 3.5mm x 3.3mm x 1.0mm in width, depth and height, respectively, and adoption of a J-bent terminal, the SPVS Series realizes an even smaller mounting area

Principal Applications

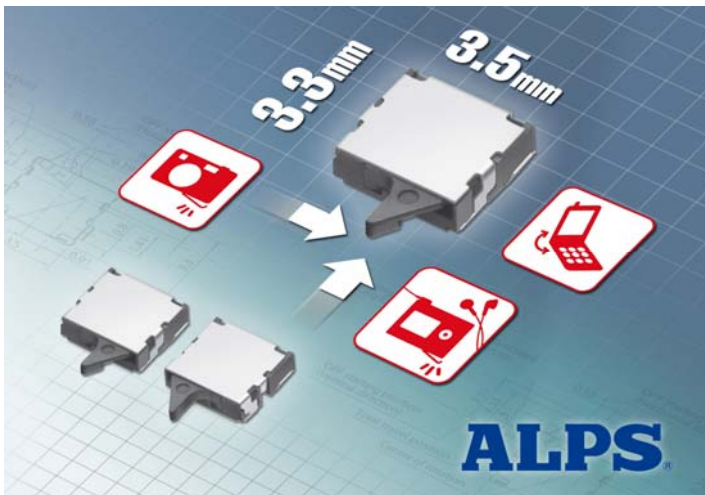
Detection mechanism for a variety of compact electronic devices such as digital cameras, digital video cameras, portable audio devices and mobile telephones

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Specifications

Product name	SPVS series	
Dimensions (W x D x H)	3.5mm x 3.3mm x 1.0mm	
Maximum ratings (resistance load)	1mA 5V DC	
Contact resistance (initial/after lifespan)	2Ω max. /5Ω max.	
Operating force	0.35N max.	
Lifespan	No load	50,000 cycles
	Load	50,000 cycles (1mA 5V DC)

This news release and a press photo are available electronically at <http://www.presseagentur.com/alps/en/>



ALPS Electric Co., Ltd.

Since its establishment in 1948 ALPS has grown as a comprehensive manufacturer of electronic components. At present ALPS is creating innovative high-value-added products in its main business segments – Components, Magnetic Devices, Communications, Peripheral Products, and Automotive Electronics – which are contributing to the advance of a digital society. ALPS is a global company that carries out its operations with 22 production bases in 9 countries as well as 57 sales bases in 14 countries. Consolidated net sales in the year ended March 31, 2005 amounted to YEN 644 billion.

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ALPS ELECTRIC EUROPA GmbH, a subsidiary of ALPS Electric Co., Ltd., was established in 1979. Since 1989, the European Head Office has been located in Düsseldorf, where a team of specialists works in Sales, Marketing, and Product Engineering. The activities of our branch offices in Munich, Paris and Milton Keynes, our sales office in Milan and our European distribution work are co-ordinated from Düsseldorf. ALPS Nordic AB, a 100 percent subsidiary of ALPS ELECTRIC EUROPA GmbH, is based in Sweden and services the Scandinavian market.

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