

NEWS RELEASE

PR0122E

Alps Alpine Develops SSCZ Single-Pole, Double-Throw Detector Switch

Compact Detector Switch Lineup Expanded

Munich, Germany, March 25, 2022 – Alps Alpine has developed the SSCZ compact detector switch, expanding its switch series lineup for open/shut detection in car doors and other automotive parts.

Electronic components required for the ongoing electrification of vehicles need to be made smaller and lighter, and there are growing safety demands, including higher accuracy and the capability for early detection of surrounding circuit breaks or other abnormalities to counter equipment failure and accidental or erroneous operation.

Failure detection functionality, greater locking/unlocking accuracy and mounting improvements are also sought for door lock modules that require compact detector switches. To fill this need, Alps Alpine has developed the SSCZ compact detector switch through modification of the already available SSCW switch.

Automotive safety features have been bolstered in recent years and the number of vehicles with speed-sensitive or other types of automatic locking is on the rise. In automatic locking systems, the ECU automatically switches between locked and unlocked states depending on the situation, which necessitates detection of door lock status.

Whereas the existing SSCW switch (single pole, single throw) is mainly used for detecting locked status in vehicle doors, the newly developed SSCZ allows detection of two states – locked and unlocked – by employing a single-pole, double-throw (one-pole, two-position) design. Use of double-sided sliding contacts ensures high contact reliability even when subjected to impacts or vibrations. Meanwhile, changes to the internal structure realize a

300,000-cycle operating life, three times longer than the existing model.

Alps Alpine has been manufacturing and supplying detector switches for automotive use for more than 20 years and plans to gradually expand the scope of application beyond their principle use in door open/shut detection. For example, there is growing demand for application in detection of electric vehicle charger connection and smart rear-view mirror on/off detection. We remain committed to developing products that best match the needs of customers and the market, at the same time working to find solutions to social issues through our business.

Product Photo

SSCZ110101



Features

1. Single-pole, double-throw (one-pole, two-position) switch
2. Supports solderless mounting – use of connector terminal allows connections simply by inserting the terminal
3. 300,000-cycle operating life – long life realized by switching to a structure with low stress amplitude
4. Mounting compatibility with the existing SSCW switch (single pole, single throw) – a common mount housing design for single-pole, single-throw and single-pole, double throw switches would allow use of the switches for grade differentiation

Principal Applications

Open/shut detection for side doors, sliding doors and trunks

Specifications

Dimensions	5.3mm x 13.84mm x 15.4mm
Operating force	1.1N (max.)
Rating	0.1A 16V DC (max.) / 50µA 3V DC (min.)
Operating life	300,000 cycles
Contact resistance	500mΩ (max.)

Alps Alpine Co., Ltd. On January 1, 2019, Alps Electric Co., Ltd. and Alpine Electronics, Inc. integrated their businesses and started out afresh as Alps Alpine Co., Ltd with 38,471 employees. Alps Alpine will steadily bring about synergies by drawing on the two companies' advantages in core devices, system design and software development.

The new company will endeavour to create its own unique value for not only the automotive market, but also mobile devices and consumer electronics, as well as new sectors such as energy, healthcare and industry. For more information please visit www.alpsalpine.com

Alps Alpine Europe GmbH, a subsidiary of Alps Alpine Co., Ltd., was established in 1979. Since 2013 the European Head Office has been located in Munich and as such co-ordinates the Sales, Marketing and Product Engineering activities of our offices in Dusseldorf, Stuttgart, Wolfsburg, Paris, Milton Keynes, Frolunda and Milan, as well as the production activities of our manufacturing site in Dortmund. Alps Electric Europe GmbH changed its name on 01.04.2020 to Alps Alpine Europe GmbH.

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