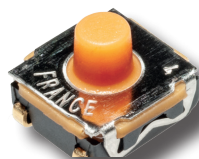
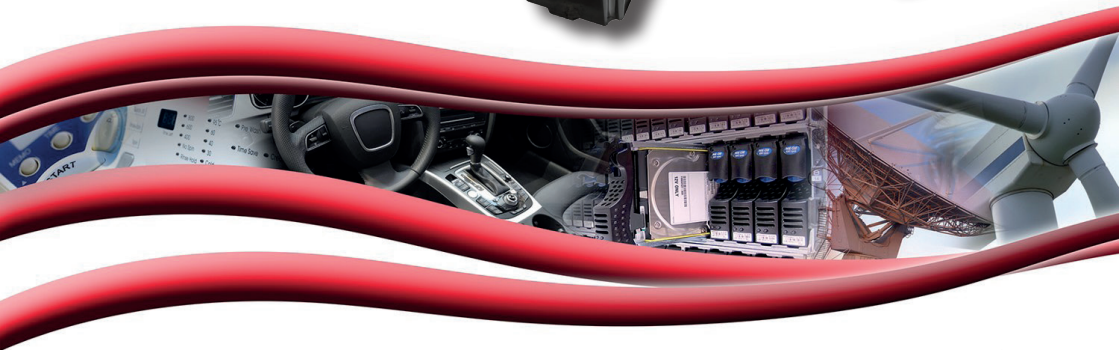
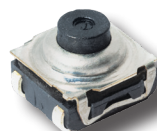
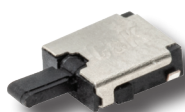


# C&K<sup>®</sup>



## THE TRUSTED BRAND IN SWITCH DESIGN



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# FDSD & FDSE Series Micro Mini Detect Switches



## **Features/Benefits**

- **Extremely small package size**
- **Vertical Side or Angled Actuation**
- **Flat or Bending Terminations**
- **Long Travel Type**
- **RoHS Compatible and Compliant**

The FDSD and FDSE ranges are one of the world's smallest detect switches suitable for applications that require vertical side detection.

The FDSD series of micro-mini side-actuated detect switches are available in an extremely small package size of just 4.20 mm x 3.60 mm x 1.20 mm, with optional flat or bent terminals that allows for simple PCB mounting. The SPST-NO beryllium copper contacts have a resistance of less than 1 ohm and are rated for 10 mA at 5 VDC with a lifetime of 50,000 operations. The detect switch requires a maximum force of 40 gf and can travel through an angle of 60 degrees or 3.05 mm.

The FDSE range adds an angled capability to the range. Housed in the same package size, the SPST-NC contacts are also beryllium copper and offer a 50,000-operation lifetime. The contact resistance is less than 3 ohms and the electrical rating is 1 mA at 5 VDC. The angled detect switch requires a maximum force of 35 gf and can travel through an angle of 60 degrees or 3.14 mm.

## **Typical Applications**



### **Medical devices**

(Such as

- Electronic inhalers,
- Drug auto-injector...)



### **Consumer electronics**

(Such as:

- Smartphones,
- Digital still cameras,
- Camcorders...)



### **Safety & Security applications**

(Such as:

- Intrusion alarm,
- PIR sensor,
- Intrusion detection...)

# KSC-DCT Series Dual Circuit Technology Tact Switch

## *Features/Benefits*

- *SPDT NC-NO function*
- *Silicone actuator*
- *J or G terminations*
- *Tape & reel*
- *IP67*



The KSC DCT series is a dual-circuit technology tact switch, the latest significant addition to the extensive KSC range of tactile switches.

The new KSC-DCT tact switches offer SPDT NC-NO dual-circuit functionality that provides two outputs from a single input. Housed in a tiny 6.2 mm x 6.2 mm x 2.9 mm PCB-mount package, the silicone 70SH actuator included in the package extends the height to 5.2 mm above the PCB surface for easy operation and easier integration through pre/post travel.

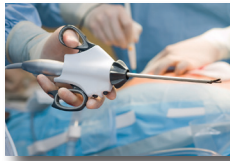
Rated for 300,000 operations, the new switches require an operating force of 4.75 N and provide a nominal travel distance of 0.85 mm. Incorporating C&K Switches' industry-recognized haptics, the KSC-DCT switches provide excellent levels of feedback when pressed.

## Typical Applications



### **Automotive exterior applications**

(Such as:  
- Door handle,  
- Trunk opener...)



### **Medical equipment**

(Such as :  
- Electro-surgery instruments,  
- Minimally invasive surgical tools...)



### **Industrial electronics**

(Such as:  
- Security applications,  
- Smoke detectors,  
- Door Intercoms...)

# PT Double Pole Series Sealed Power Toggle Switch



## **Features/Benefits**

- ***IP66 / IP68 versatile rating to withstand harsh outdoor environments, intense, wet weather, wind blown rain, dust, dirt***
- ***UL 61058-1 certified has global acceptance with no additional testing needed***
- ***Integrated panel seal for extra protection***

C&K has introduced a new “Double Pole” option to its recently launched line of PT Series sealed power toggle switches.

PT switches are manufactured to be reliable and rugged, making them capable of withstanding forceful vibrations and harsh outdoor conditions where dirt, dust and water immersion and jet spray are constant factors. Switches incorporated into vehicles and equipment for such industries need to work consistently, no matter the conditions – a factor recognized by C&K when it designed the PT Series.

Designed with a high-strength, heat-resistant housing, the toggle switch is built with a patented single-piece injection-molded seal for extra protection, and has superior oil and fuel resistance. PT switches have a versatile IP66/IP68 seal rating, are IEC/UL 61058-1 certified and are rated at 15 amps for maintained functions and 10 amps for momentary functions, making it easy for engineers to incorporate these switches into their designs.

## **Typical Applications**



### **Off-road, construction / agricultural vehicles**

(Such as:

- Cab/cabin controls,
- Instrument panels...)



### **Material handling equipment**

(Such as:

- Cab/cabin controls,
- Instrument panels...)



### **Outdoor industrial equipment**

(Such as:

- Remote controls,
- Instrument panels...)

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# ATP16 & ATP19 & ATP22 Series Anti-Vandal Sealed Pushbutton Switch



## **Features/Benefits**

- **Momentary or Lock version**
- **IP67 sealed**
- **Rated at 2A / 36 Vdc**
- **1,000,000 life cycle**
- **Various colors of LED illuminate indicator**

C&K recently launched 3 anti-vandal sealed pushbutton switches called ATP16, ATP19 & ATP22 series. Aimed at designers of equipment and devices used in public spaces or remote locations that are often at high risk of theft or intentional damage, these switches are designed to withstand deliberate damage and vandalism, which in turn can reduce the need for costly in-field repairs and product recalls.

The lightweight yet high-strength steel bushing and housing material of the ATP19 and ATP22 are rated up to IK10. All ATP switches are also lightweight, IP67-rated and corrosion resistant. As the devices integrating this switch are often outdoors, the switch has been designed to withstand extreme environmental conditions and water exposure.

The ATP are available in momentary or lock versions to provide versatility to customers. They come with a LED illuminate indicator in a variety of color options, as well as different choices of actuator with ring or power logo. Complementing the other switches in the ATP range, the ATP16, the latest addition to the range, is rated to 2A/36 VDC with an operating life of 200,000 cycles at full load.

## **Typical Applications**



### **Security systems**

(Such as:

- Access controls,
- Intercoms,
- Emergency communication...)



### **Industrial equipment**

(Such as:

- Service station equipment,
- ATM and ticket machines,
- Elevators...)



### **Consumer applications**

(Such as

- High end appliance,
- Boating & marine
- Vending machines...)

**[www.ckswitches.com](http://www.ckswitches.com)**

# KSC-XA Series

## Soft Sound Tact Switch



### **Features/Benefits**

- ***New soft sound***
- ***Extended cage***
- ***IP67***
- ***Long life***
- ***J terminations***

The KSC XA tactile switch has been designed specifically for automotive interior and openings applications.

The new switch is in a smaller form factor than existing competitor products that deliver the required sound and haptic feedback. It is provided in a compact 6.2 x 6.2 x 4.9 mm package, making it ideal for applications such as steering wheel or gear shift paddles.

The KSC XA provides a soft sound, making it well-suited to cars from multiple manufacturers. It is based on C&K's well-established KSC range of switches, which enables it to be lower cost than competitive products.

Operating life is up to 1,000,000 cycles, delivering improved reliability for automotive applications. The switch is housed in an extended cage, it is fully sealed, and it is compatible with potting, which is often used in opening applications. These capabilities have helped it to achieve IP67 rating for resistance to dust and moisture – thus enabling it to withstand the extreme environmental conditions and exposure to water that are often experienced in automotive use cases.

### **Typical Applications**



#### **Automotive interiors**

(Such as:

- Trunk opening system,
- Automatic gear shift paddle,
- Steering wheel,
- Window lifter,
- Seat adjustment module...)

**[www.ckswitches.com](http://www.ckswitches.com)**

# LCW Series Subminiature Sealed Snap-acting Switches



## **Features/Benefits**

- **Compact design**
- **Quick connect, solder terminals, PC terminals, wire leads**
- **Wide variety of actuator styles**
- **IP67**

C&K launched the compact LCW series of sub-miniature sealed snap-acting switches. With a contact rating up to 0.1 amp as first release, the new products deliver a highly repeatable action, making them ideal for very high-precision, detection applications.

With a variety of actuator configurations (pin plunger, short lever, lever, and simulated lever), the snap-action switches are highly adaptable. Their compact size and range of available terminal configurations delivers more efficient use of the PCB area available.

A major advantage of the snap switch is their ability to detect any vandalism. For example, if someone forcibly damages an energy meter, the snap mechanism will automatically send a signal to detect this attack. Snap-acting switches installed in smart energy meters may not be actuated for years, yet should still operate reliably should the meter be vandalized.

Additionally, the low priced LCW series of snap-acting switches are highly reliable and IP67 sealed. With an electrical life of 10,000 cycles, they support applications with extended lifespans.

## **Typical Applications**



### **Anti-tampering applications**

(Such as:

- E-meters,
- Smoke detectors,
- Fire alarm panel...)



### **Industrial equipment**

(Such as:

- Energy management,
- Damper actuators,
- Limit switch for door opening...)

# CORPORATE OVERVIEW



C&K is a leading manufacturer of high-quality electromechanical switches. The company's unmatched custom design capabilities are recognized globally by design engineers who demand reliable switch performance.

Used in automotive, industrial, IoT, wearables, medical, telecom, consumer products, aerospace, and POS terminals, C&K products include tactile, pushbutton, snap-acting, toggle, rocker, detect, DIP, keyswitch, navigation, rotary, slide, switchlock, thumbwheel, smart card readers, high-rel connectors and custom assemblies

**+55,000**

Products



**9,000,000**

Switch Combinations



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