

# KSA & KSL Series Sealed Tact Switch

## Features/Benefits

- Designed for automatic or manual insertion
- Cambered terminals to ensure self retention
- Top or side actuated
- Large choice of caps
- RoHS compliant and compatible

## Typical Applications

- Automotive
- Industrial
- Telecommunication networks



## Specification

CONTACT ARRANGEMENT: SPST, N.O.  
DOUBLE OVERMOLDING ON TERMINAL  
MEMBRANE SEALING  
TERMINALS: PC pins, ground pin optional

## Mechanical

| Type     | Actuation force<br>N (grams) | Operating life<br>(operations) | Travel to<br>make |
|----------|------------------------------|--------------------------------|-------------------|
| KSA0M211 | 1 - 1,8                      | 100,000                        | 0,5 ± 0,2         |
| KSA0M311 | 1 - 1,8                      | 1,000,000                      | 0,5 ± 0,2         |
| KSA0M411 | 2,25 - 3,75                  | 100,000                        | 0,6 ± 0,2         |
| KSA0M511 | 4,2 - 7,0                    | 100,000                        | 0,7 ± 0,2         |
| KSA0M911 | 2,25 - 3,75                  | 500,000                        | 0,6 ± 0,2         |
| KSL0M211 | 1 - 1,8                      | 100,000                        | 0,5 ± 0,2         |
| KSL0M311 | 1 - 1,8                      | 1,000,000                      | 0,5 ± 0,2         |
| KSL0M411 | 2,25 - 3,75                  | 100,000                        | 0,6 ± 0,2         |
| KSL0M511 | 4,2 - 7                      | 100,000                        | 0,7 ± 0,2         |
| KSL0M911 | 2,25 - 3,75                  | 500,000                        | 0,6 ± 0,2         |

## Electrical

|                                | Silver              | Gold   |
|--------------------------------|---------------------|--------|
| MAXIMUM POWER:                 | 1 VA                | 0.2 VA |
| MAXIMUM VOLTAGE:               | 32 VDC              | 32 VDC |
| MINIMUM VOLTAGE:               | 20 mV               | 20 mV  |
| MAXIMUM CURRENT:               | 50 mA               | 10 mA  |
| MINIMUM CURRENT:               | 1 mA                | 1 mA   |
| DIELECTRIC STRENGTH:           | 300 Vrms            |        |
| CONTACT RESISTANCE:            | < 100m Ω            |        |
| INSULATION RESISTANCE (100 V): | > 10 <sup>9</sup> Ω |        |
| BOUNCE TIME:                   | < 1 ms              |        |

## Environmental

|                        | Silver        | Gold           |
|------------------------|---------------|----------------|
| OPERATING TEMPERATURE: | -40°C to 90°C | -40°C to 125°C |
| STORAGE TEMPERATURE:   | -40°C to 90°C | -55°C to 125°C |

## Process

Wave soldering compatible with lead free soldering profile.

## Packaging

Can be delivered in tubes of 65 pieces for automatic insertion or in boxes of 500 pieces for manual insertion (250 pieces for KSL, KSLV, KSAV).

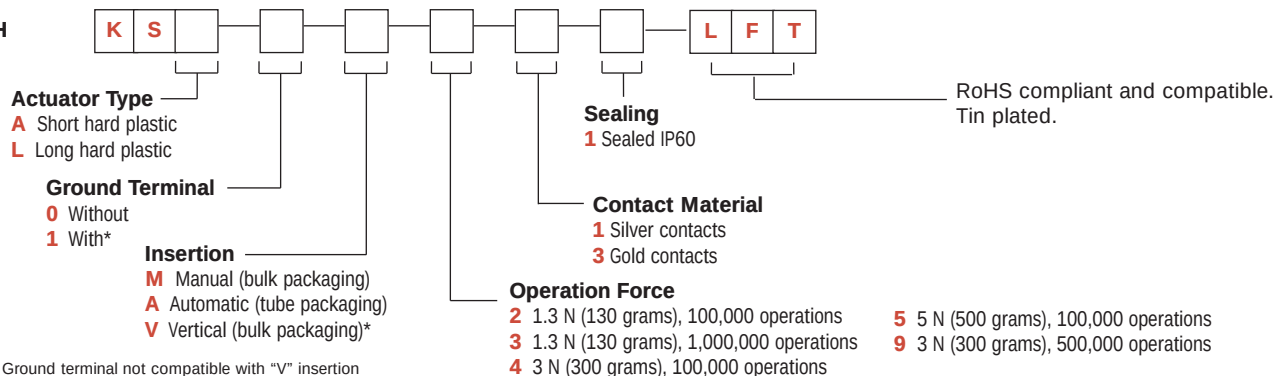
## How To Order

Our easy build-a-switch concept allows you to mix and match options to create the switch you need. To order, select desired option from each category and place it in the appropriate box.

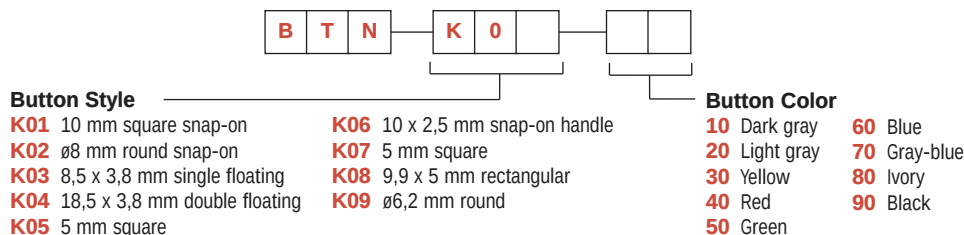
However, please note that all the combinations of these options are not feasible.

For any part number different from those listed above, please consult your local representative.

### SWITCH



### BUTTONS Buttons must be ordered separately and will be supplied in bulk.



\*NOTE: Please note that all buttons are not RoHS compliant. Please check the compliance with your C&K sales representative.

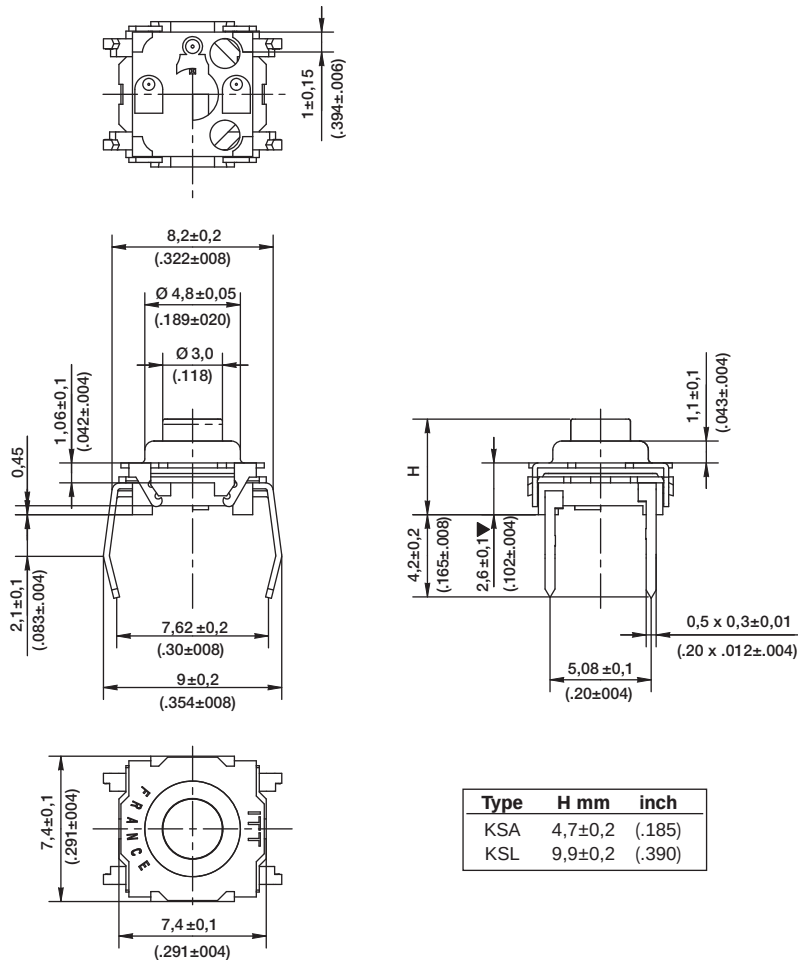


Dimensions shown in: mm (inch)  
Specifications and dimensions subject to change

www.ck-components.com

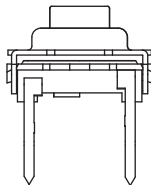
ACTUATOR TYPE

KSA & KSL

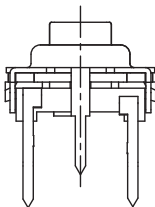


GROUND TERMINAL

0 WITHOUT



1\* WITH

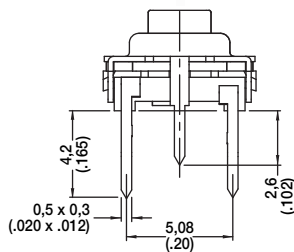
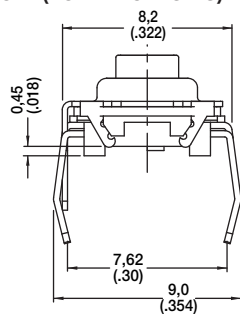


\*Not compatible with "V" insertion

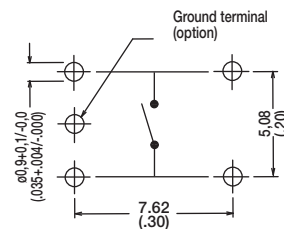
# KSA & KSL Series Sealed Tact Switch

## INSERTION

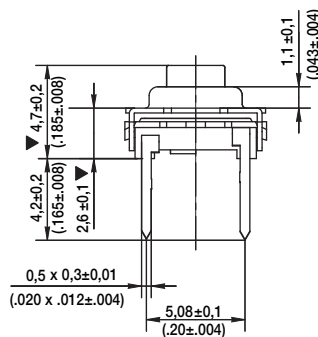
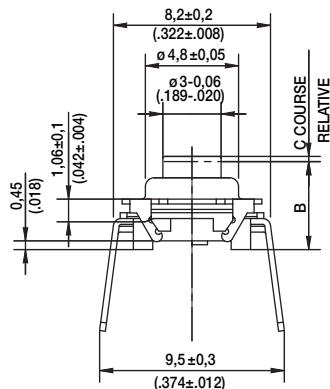
### M MANUAL (BULK PACKAGING)



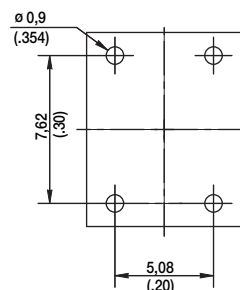
### PCB LAYOUT



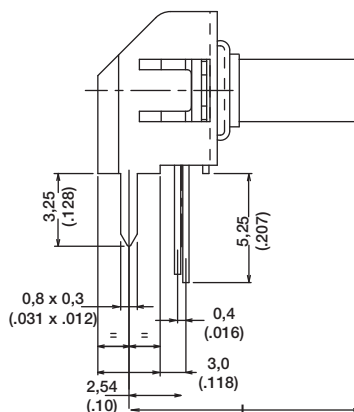
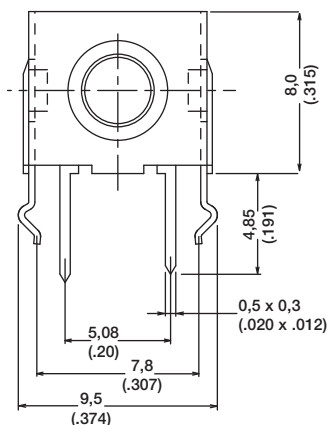
### A AUTOMATIC (TUBE PACKAGING, 65 PIECES PER TUBE)



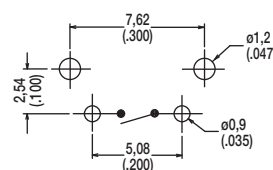
### PCB LAYOUT



### V VERTICAL



### PCB LAYOUT



### DIMENSION L

| Type  | L mm | inch |
|-------|------|------|
| KSA0V | 5,8  | .228 |
| KSL0V | 11,1 | .437 |

## OPERATING FORCE

| OPTION CODE | OPERATING FORCE                           |
|-------------|-------------------------------------------|
| <b>2</b>    | 1.3 N (130 grams)<br>100,000 operations   |
| <b>3</b>    | 1.3 N (130 grams)<br>1,000,000 operations |
| <b>4</b>    | 3.0 N (300 grams)<br>100,000 operations   |
| <b>5</b>    | 5.0 N (500 grams)<br>100,000 operations   |
| <b>9</b>    | 3.0 N (300 grams)<br>500,000 operations   |



First Angle  
Projection

Dimensions shown in: mm (inch)  
Specifications and dimensions subject to change

www.ck-components.com

**C&K**

CONTACT MATERIAL



| OPTION CODE | CONTACT MATERIAL |
|-------------|------------------|
| <b>1</b>    | Silver contacts  |
| <b>3</b>    | Gold contacts    |

SEALING



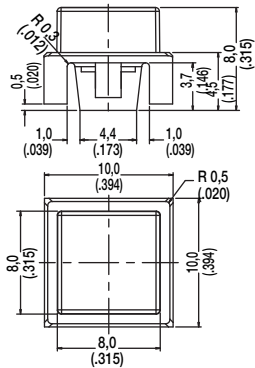
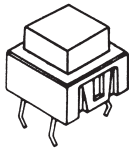
| OPTION CODE | SEALING             |
|-------------|---------------------|
| <b>0</b>    | Sealed against flux |
| <b>1</b>    | Totally sealed      |

BUTTONS

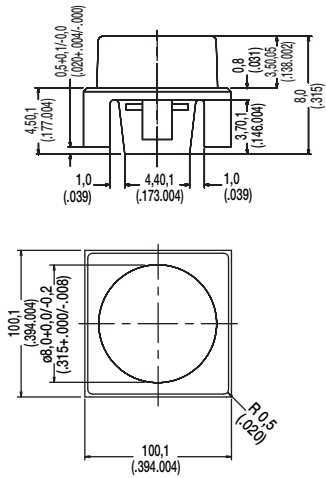
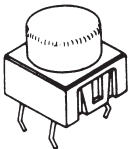
Buttons must be ordered separately and will be supplied in bulk.

| BUTTON TYPE | KSA | KSL | KSAV | KSLV |
|-------------|-----|-----|------|------|
| <b>K01</b>  | X   |     |      |      |
| <b>K02</b>  | X   |     |      |      |
| <b>K03</b>  | X   | X   | X    | X    |
| <b>K04</b>  | X   | X   | X    | X    |
| <b>K05</b>  |     | X   |      | X    |
| <b>K06</b>  | X   |     |      |      |
| <b>K07</b>  |     | X   |      | X    |
| <b>K08</b>  |     | X   |      | X    |
| <b>K09</b>  |     | X   |      | X    |

**K01**

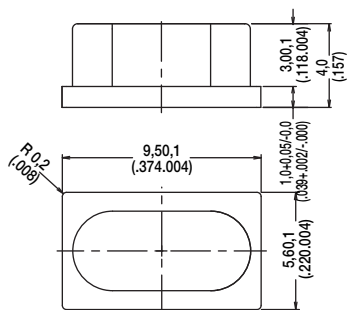


**K02**

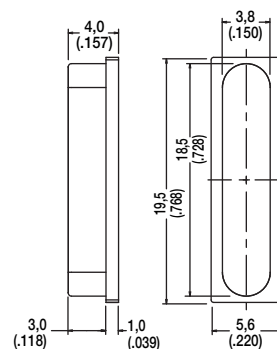


# KSA & KSL Series Sealed Tact Switch

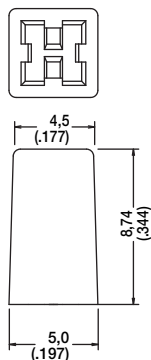
K03



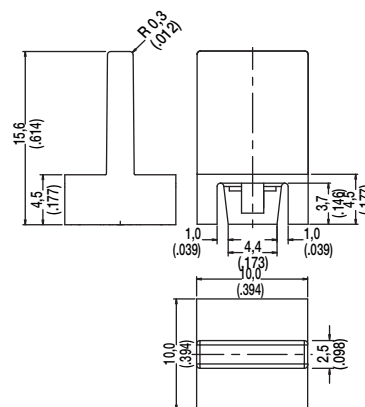
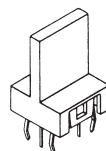
K04



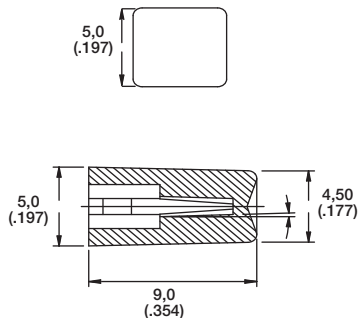
K05



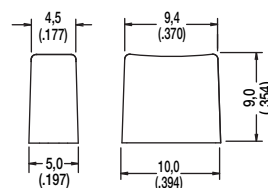
K06



K07



K08



K09

