

# 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  
 SEALING: IP60  
 TERMINALS: PC pins, ground pin optional

## Mechanical

Type	Actuation force N	Operating life (operations)	Travel to 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	3,5 - 6,5	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	3,5 - 6,5	100,000	0,7 ± 0,2
KSL0M911	2,25 - 3,75	500,000	0,6 ± 0,2

**NOTE:** Other versions in terms of force, termination length and corrosion protection available. Please contact your sales representative.

This data sheet does not provide enough information for applications which require a certain level of quality or safety such as automotive, medical systems, safety equipment. Please contact your sales representative to get contractual specification package.

## 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 85°C	-40°C to 125°C
STORAGE TEMPERATURE:	-40°C to 85°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).

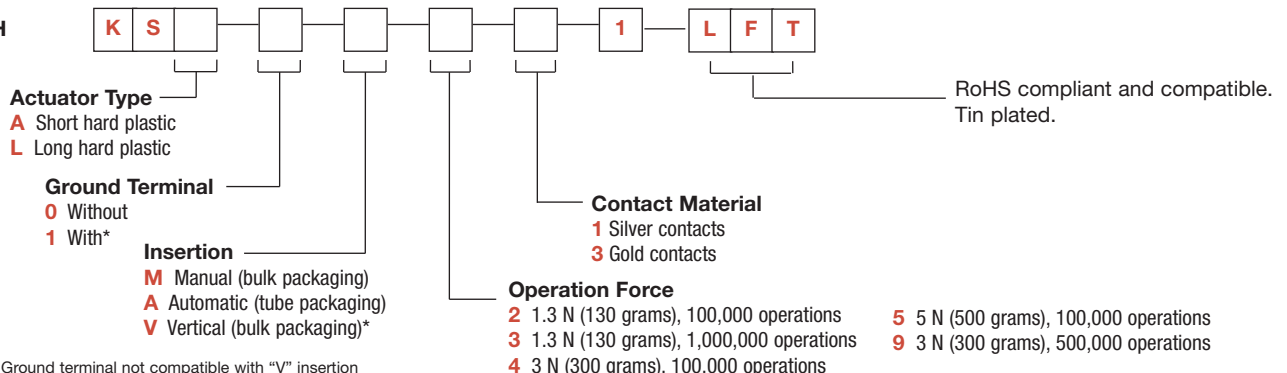
## How To Order

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.**

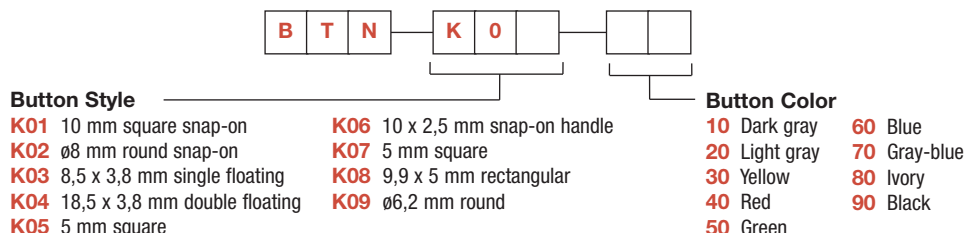
**For any part number different from those listed above, please consult your local representative.**

## SWITCH



\*Note: "1" Ground terminal not compatible with "V" insertion

## 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.



# KSA & KSL Series Sealed Tact Switch

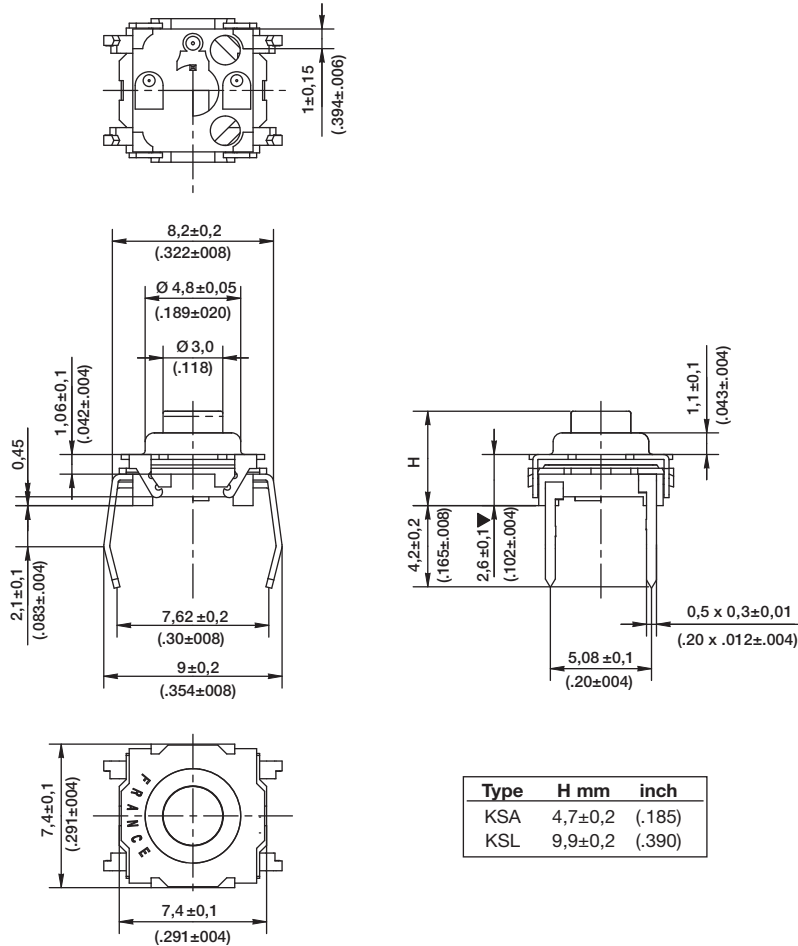
ACTUATOR TYPE

KSA & KSL



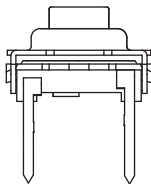
B

Tactile Switches

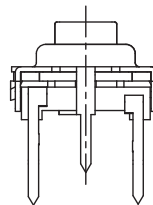


GROUND TERMINAL

0 WITHOUT



1\* WITH



\*Not compatible with "V" insertion



First Angle  
Projection



13 feb 14

B-70

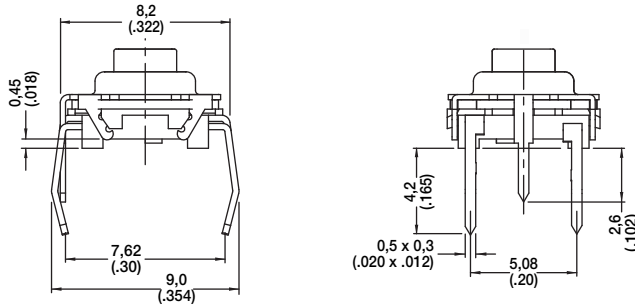
Dimensions are shown: mm (inches)  
Specifications and dimensions subject to change

[www.ck-components.com](http://www.ck-components.com)

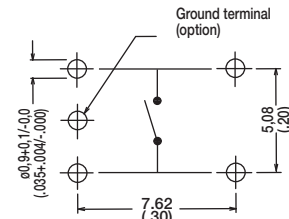
# KSA & KSL Series Sealed Tact Switch

## INSERTION

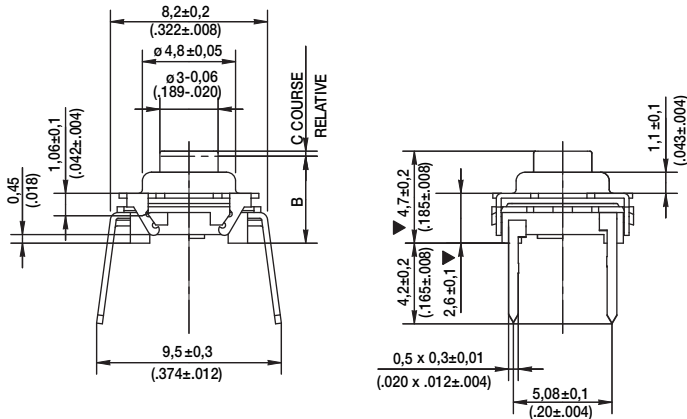
### M MANUAL (BULK PACKAGING)



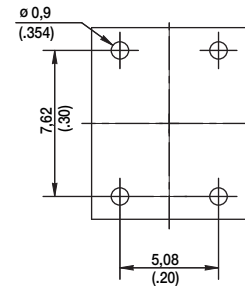
### PCB LAYOUT



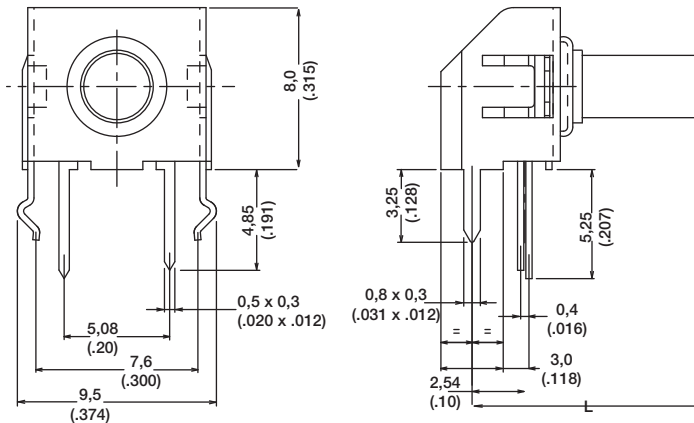
### A AUTOMATIC (TUBE PACKAGING, 65 PIECES PER TUBE)



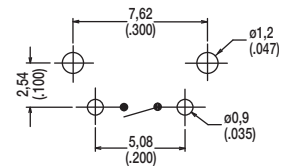
### PCB LAYOUT



### V VERTICAL



### PCB LAYOUT



### DIMENSION L

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

## OPERATING FORCE

OPTION CODE	OPERATING FORCE
2	1.3 N (130 grams) 100,000 operations
3	1.3 N (130 grams) 1,000,000 operations
4	3.0 N (300 grams) 100,000 operations
5	5.0 N (500 grams) 100,000 operations
9	3.0 N (300 grams) 500,000 operations



First Angle Projection

Dimensions are shown: mm (inches)  
Specifications and dimensions subject to change

# KSA & KSL Series Sealed Tact Switch

## CONTACT MATERIAL

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

B

Tactile Switches

## SEALING

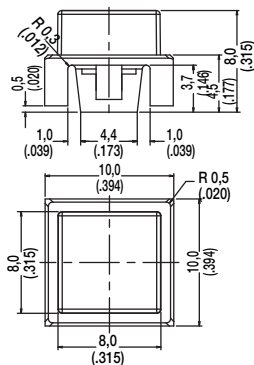
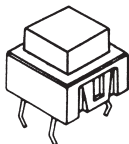
OPTION CODE	SEALING
<b>1</b>	Sealing level IP60

## BUTTONS

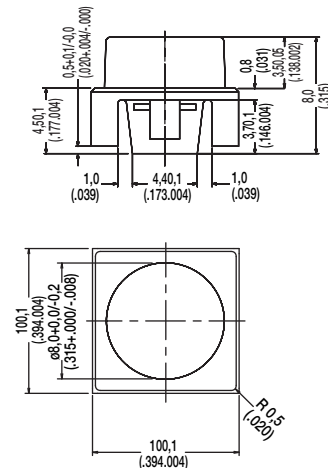
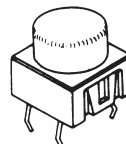
Buttons must be ordered separately and will be supplied in bulk.

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**



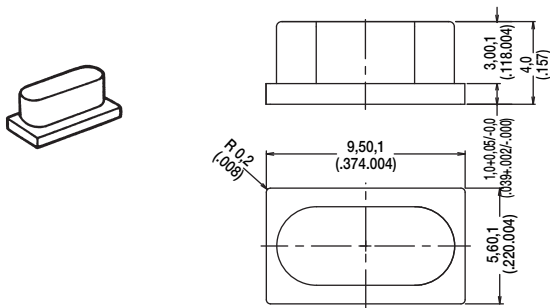
**K02**



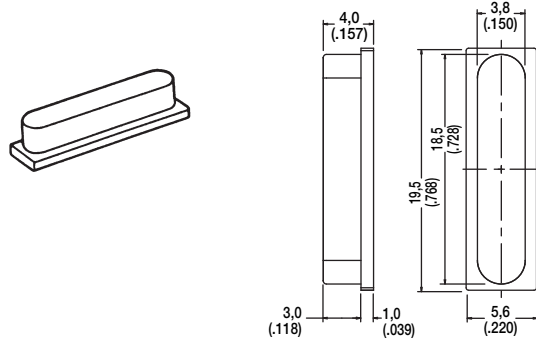
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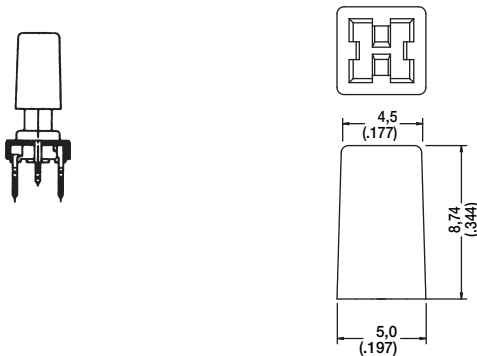
**K03**



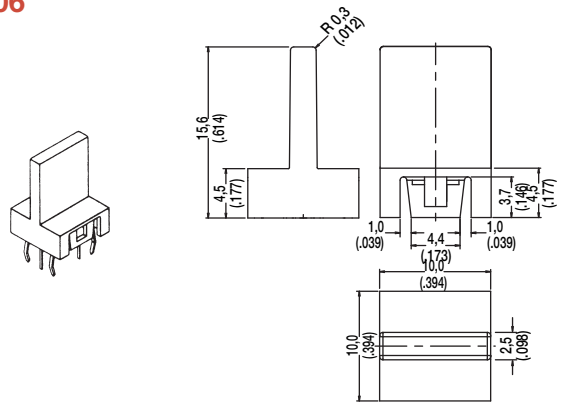
**K04**



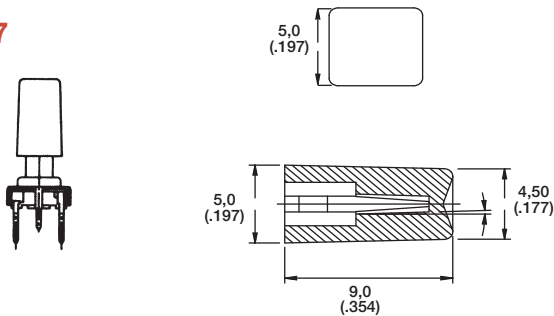
**K05**



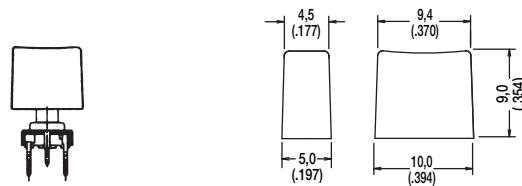
**K06**



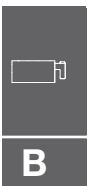
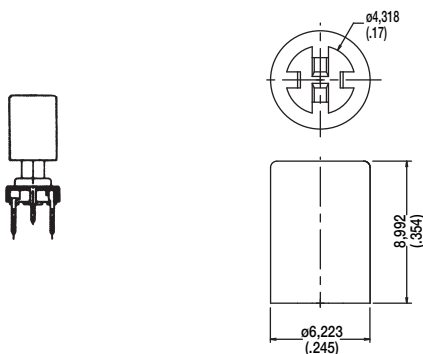
**K07**



**K08**



**K09**



Tactile Switches



Dimensions are shown: mm (inches)  
Specifications and dimensions subject to change

# Mouser Electronics

Authorized Distributor

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## C&K Components:

[KSL0M511](#) [KSL0M512](#) [KSL0V411](#) [KSL0V311](#) [KSL0V511](#) [KSA0V411](#) [KSA0V511](#) [KSA0M211](#) [KSL0V211](#)  
[KSL0M212](#) [KSL0M211](#) [KSA0M411](#) [KSL1M411](#) [KSL0M312](#) [KSL0M412](#) [KSL0M411](#) [KSA0V211](#) [KSA0M311](#)  
[KSA0M511](#) [KSL1M211](#) [KSL1M311](#) [KSL0M412 LFT](#) [KSL0M211 LFT](#) [KSA0M211 LFT](#) [KSL0V411 LFT](#) [KSA0M411](#)  
[LFT](#) [KSA0V211 ACTION.H2.9 LFT](#) [KSA0A311LFT](#) [KSA0A331LFT](#) [KSA0A411LFT](#) [KSA0A431LFT](#) [KSA0A511LFT](#)  
[KSA0A531LFT](#) [KSA0A931LFT](#) [Ksa0a211Act2.9Lft](#) [KSA0M212LFT](#) [KSA0M311LFT](#) [KSA0M312LFT](#) [KSA0M331LFT](#)  
[KSA0M332LFT](#) [KSA0M412LFT](#) [KSA0M431LFT](#) [KSA0M432LFT](#) [KSA0M511LFT](#) [KSA0M512LFT](#) [KSA0M531LFT](#)  
[KSA0M532LFT](#) [KSA0M912LFT](#) [KSA0M931LFT](#) [KSA0M911LFT](#) [Ksa0m211Act2.9Lft](#) [KSA0V211LFT](#) [KSA0V311LFT](#)  
[KSA0V331LFT](#) [KSA0V411LFT](#) [KSA0V431LFT](#) [KSA0V511LFT](#) [KSA0V531LFT](#) [KSA0V911LFT](#)  
[Ksa0v211Acti0n.H2.9Lft](#) [Ksa0v511Acti0n.H2.9Lft](#) [Ksa0v211SansEtrierLft](#) [Ksa0v511SansEtrierLft](#)  
[Ksa0v511Act2.9SsEtri](#) [Ksa0v211C0nnexi0ns3.3LFT](#) [Ksa0v411C0nnexi0ns3.3LFT](#) [Ksa0v511C0nnexi0n3.3LFT](#)  
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