

# KSA & KSL Series Sealed Tact Switch

## Features/Benefits

- Designed for automatic or manual insertion
- Cambered terminals to ensure self retention
- Top or side actuated
- Washable option available
- Large choice of caps

## Typical Applications

- Automotive
- Industrial
- Telecommunication networks



## Specification

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

## Electrical

	Silver	Gold
MAXIMUM POWER:	1 VA	0.2 VA
MAXIMUM VOLTAGE:	50 VDC	50 VDC
MINIMUM VOLTAGE:	20 mV	20 mV
MAXIMUM CURRENT:	50 mA	10 mA
MINIMUM CURRENT:	1 mA	1 mA

## Mechanical

Type	Actuation force N (grams)	Operating life (operations)	Travel to make
KSA0M211	1.3 (130)	500,000	0,5 ± 0,2
KSA0M311	1.3 (130)	1,000,000	0,5 ± 0,2
KSA0M411	3.0 (300)	100,000	0,6 ± 0,2
KSA0M511	5.0 (500)	100,000	0,7 ± 0,2
KSA0M911	3.0 (300)	500,000	0,6 ± 0,2
KSL0M211	1.3 (130)	500,000	0,5 ± 0,2
KSL0M311	1.3 (130)	1,000,000	0,5 ± 0,2
KSL0M411	3.0 (300)	100,000	0,6 ± 0,2
KSL0M511	5.0 (500)	100,000	0,7 ± 0,2
KSL0M911	3.0 (300)	500,000	0,6 ± 0,2

DIELECTRIC STRENGTH: 300 Vrms  
 CONTACT RESISTANCE: < 50 mΩ  
 INSULATION RESISTANCE (100 V): > 10<sup>11</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 EIA-RS448-2

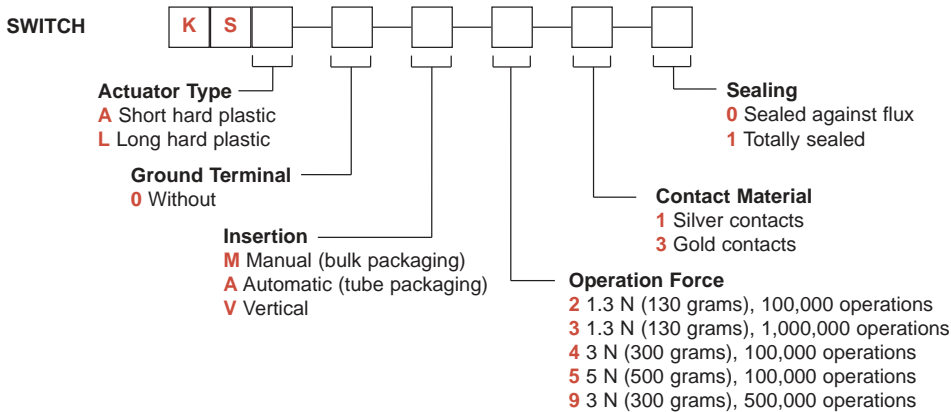
## Packaging

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).

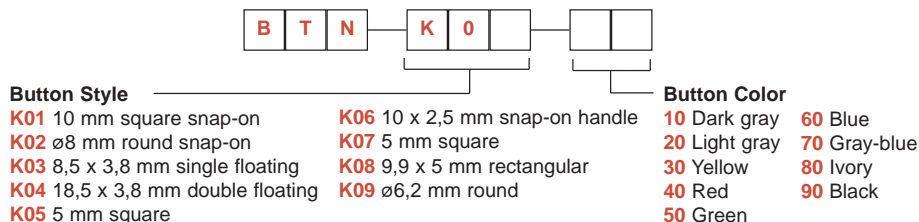
NOTE: Part numbers listed above do not represent all possible configurations. For information on specific and custom switches, consult Customer Service Center.

## 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.



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

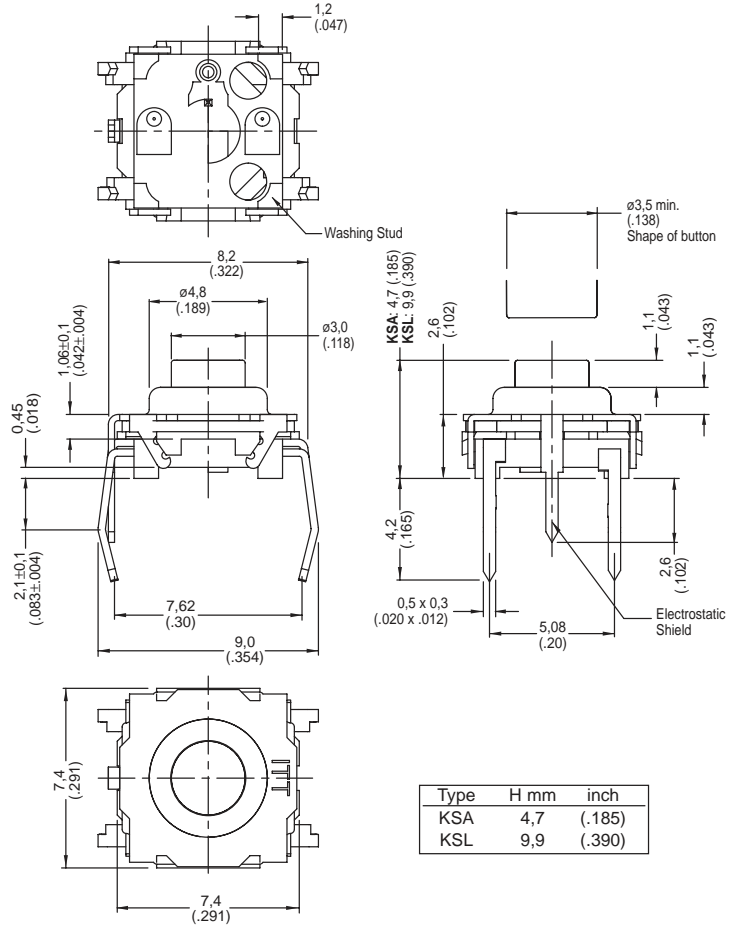


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ACTUATOR TYPE 

KSA & KSL

Tactile Switches



GROUND TERMINAL 

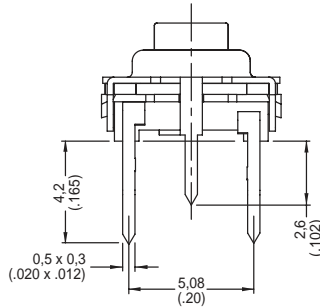
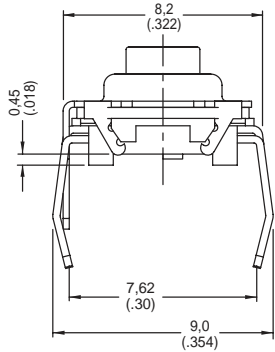
0 WITHOUT

# KSA & KSL Series Sealed Tact Switch

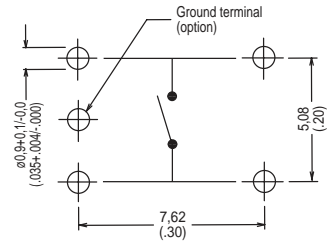
## INSERTION

**M** MANUAL (bulk packaging)

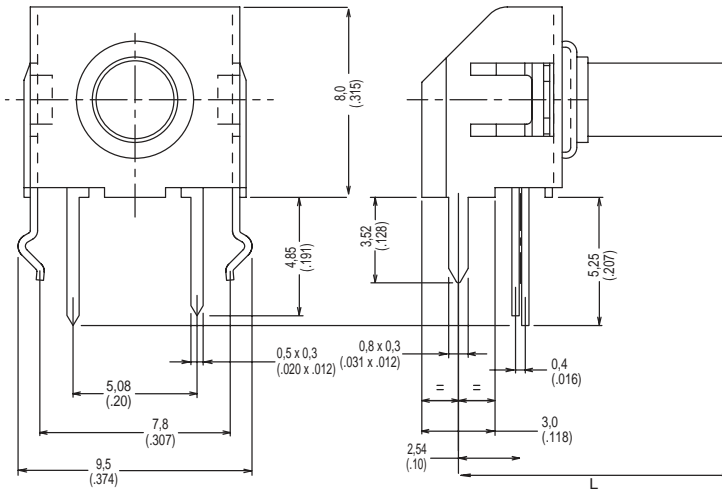
**A** AUTOMATIC (tube packaging, 65 pieces per tube)



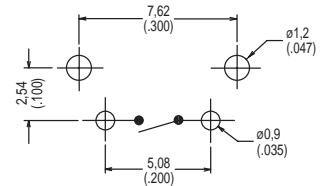
PCB LAYOUT



**V** VERTICAL



PCB LAYOUT



Dimension L

Type	L mm	inch
KSAOV	5,8	.228
KSLOV	11,1	.437

## OPERATING FORCE

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



# 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



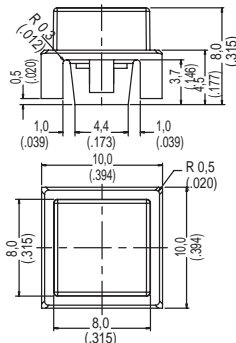
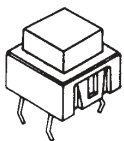
OPTION CODE	SEALING
<b>0</b>	Sealed against flux
<b>1</b>	Totally sealed

## BUTTONS

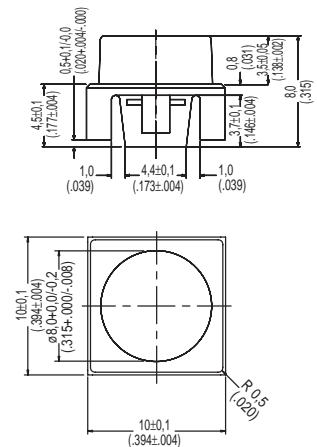
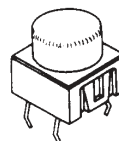
Buttons must be ordered separately and will be supplied in bulk.

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**

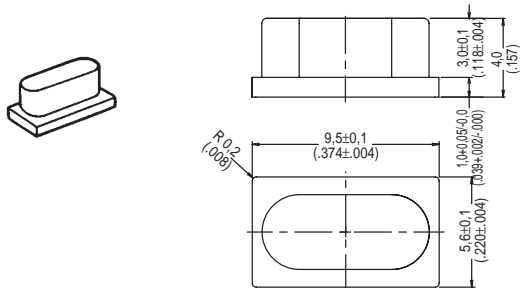


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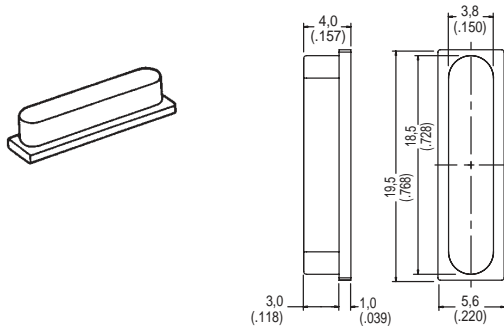


Tactile Switches

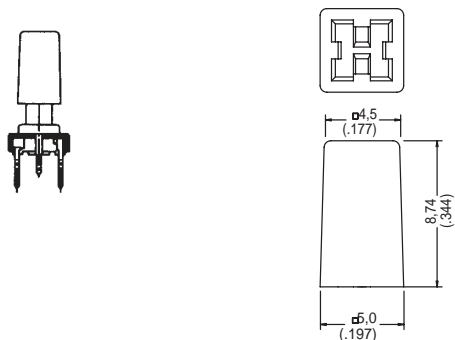
**K03**



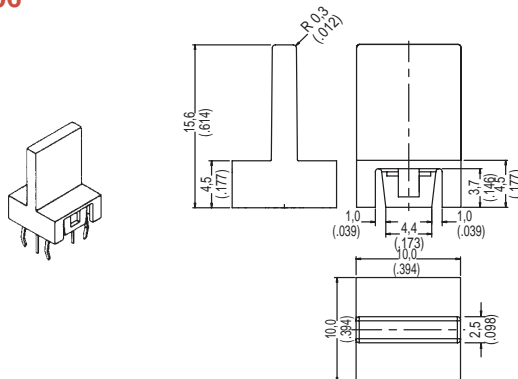
**K04**



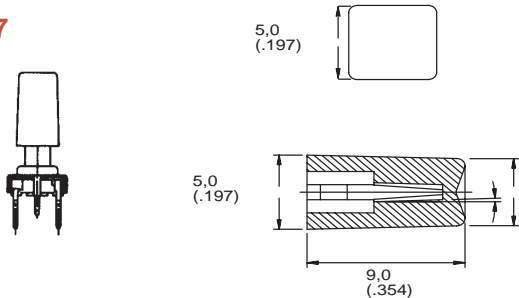
**K05**



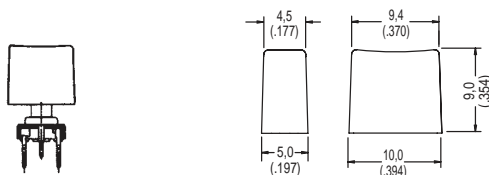
**K06**



**K07**



**K08**



**K09**

