

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 N (grams)	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	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 ⁹ 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

<p>Actuator Type</p> <p>A Short hard plastic</p> <p>L Long hard plastic</p> <p>Ground Terminal</p> <p>0 Without</p> <p>1 With*</p> <p>Insertion</p> <p>M Manual (bulk packaging)</p> <p>A Automatic (tube packaging)</p> <p>V Vertical (bulk packaging)*</p>	<p>Sealing</p> <p>1 Sealed IP60</p> <p>Contact Material</p> <p>1 Silver contacts</p> <p>3 Gold contacts</p> <p>Operation Force</p> <p>2 1.3 N (130 grams), 100,000 operations</p> <p>3 1.3 N (130 grams), 1,000,000 operations</p> <p>4 3 N (300 grams), 100,000 operations</p>	<p>RoHS compliant and compatible.</p> <p>Tin plated.</p> <p>5 5 N (500 grams), 100,000 operations</p> <p>9 3 N (300 grams), 500,000 operations</p>
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*Note: "1" Ground terminal not compatible with "V" insertion

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

<p>Button Style</p> <p>K01 10 mm square snap-on</p> <p>K02 ø8 mm round snap-on</p> <p>K03 8,5 x 3,8 mm single floating</p> <p>K04 18,5 x 3,8 mm double floating</p> <p>K05 5 mm square</p> <p>K06 10 x 2,5 mm snap-on handle</p> <p>K07 5 mm square</p> <p>K08 9,9 x 5 mm rectangular</p> <p>K09 ø6,2 mm round</p>	<p>Button Color</p> <p>10 Dark gray</p> <p>20 Light gray</p> <p>30 Yellow</p> <p>40 Red</p> <p>50 Green</p> <p>60 Blue</p> <p>70 Gray-blue</p> <p>80 Ivory</p> <p>90 Black</p>
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*NOTE: Please note that all buttons are not RoHS compliant. Please check the compliance with your ITT sales representative.

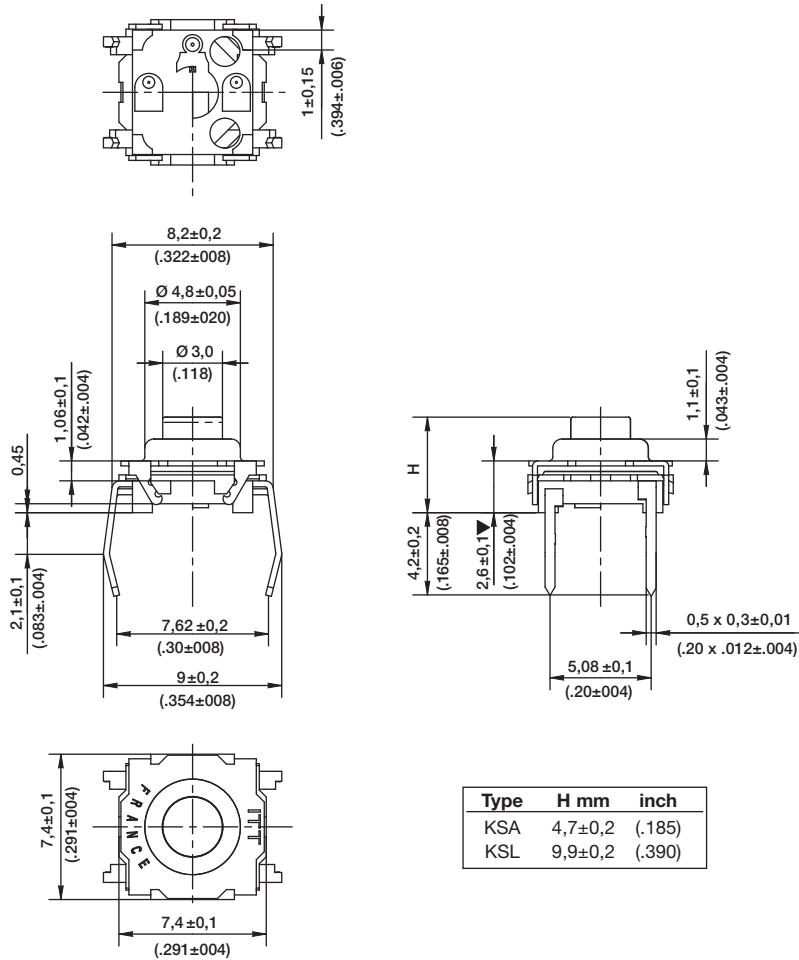


Dimensions shown in: mm (inch)
Specifications and dimensions subject to change

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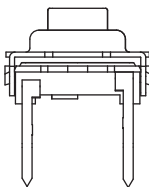
ACTUATOR TYPE

KSA & KSL

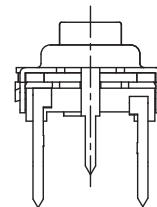


GROUND TERMINAL

0 WITHOUT



1* WITH



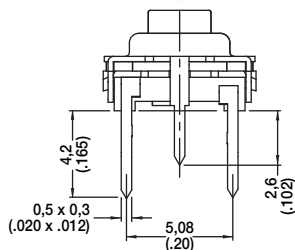
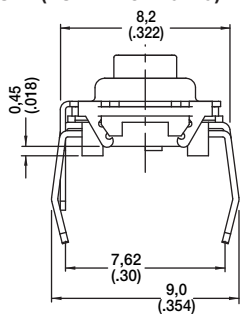
*Not compatible with "V" insertion



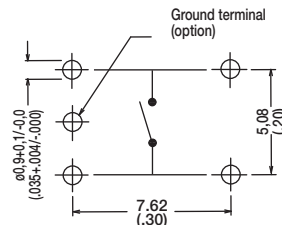
KSA & KSL Series Sealed Tact Switch

INSERTION

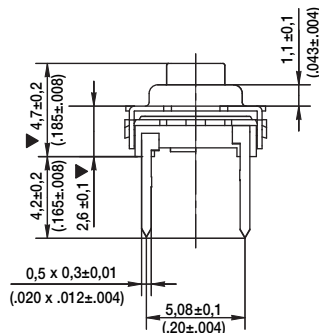
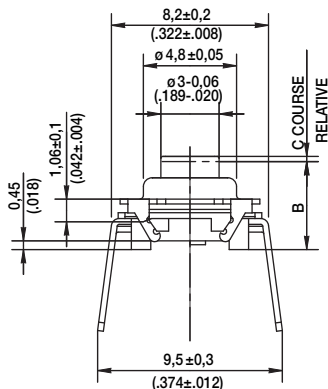
M MANUAL (BULK PACKAGING)



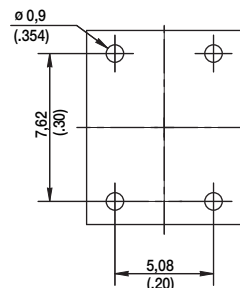
PCB LAYOUT



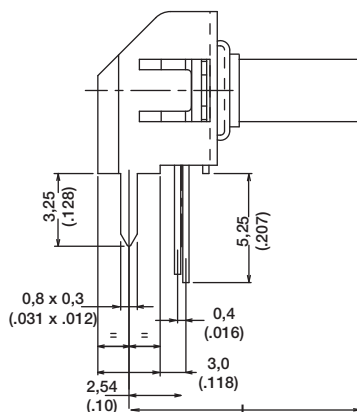
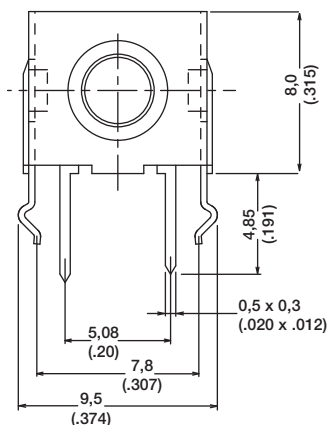
A AUTOMATIC (TUBE PACKAGING, 65 PIECES PER TUBE)



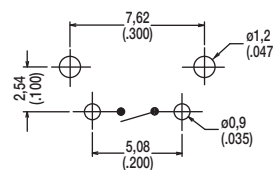
PCB LAYOUT



V VERTICAL



PCB LAYOUT



DIMENSION L

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

OPERATING FORCE

OPTION CODE	OPERATING FORCE
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 shown in: mm (inch)
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Tactile Switches

CONTACT MATERIAL



OPTION CODE	CONTACT MATERIAL
1	Silver contacts
3	Gold contacts

SEALING



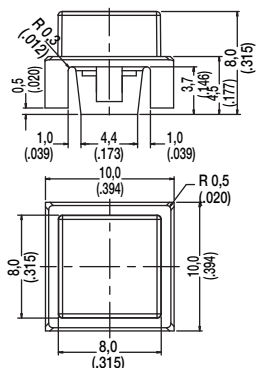
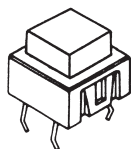
OPTION CODE	SEALING
0	Sealed against flux
1	Totally sealed

BUTTONS

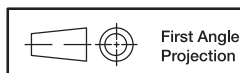
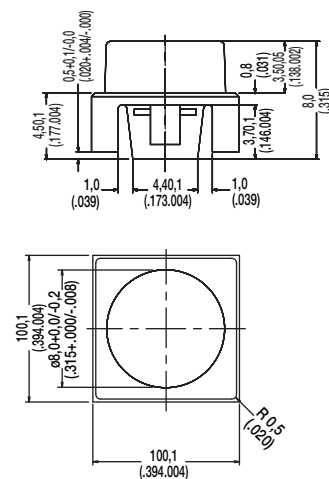
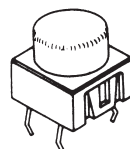
Buttons must be ordered separately and will be supplied in bulk.

BUTTON TYPE	KSA	KSL	KSAV	KSLV
K01	X			
K02	X			
K03	X	X	X	X
K04	X	X	X	X
K05		X		X
K06	X			
K07		X		X
K08		X		X
K09		X		X

K01



K02



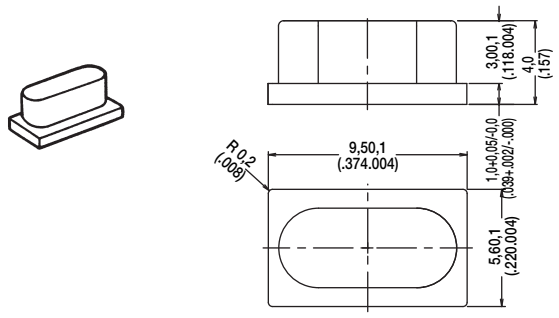
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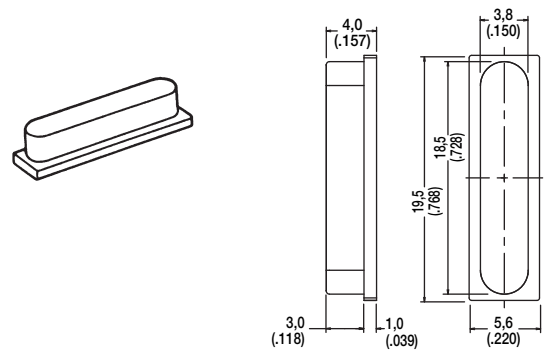


Tactile Switches
B

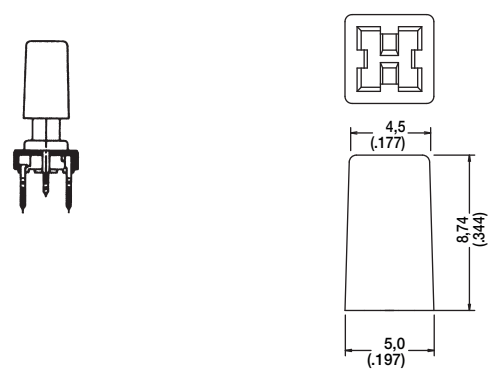
K03



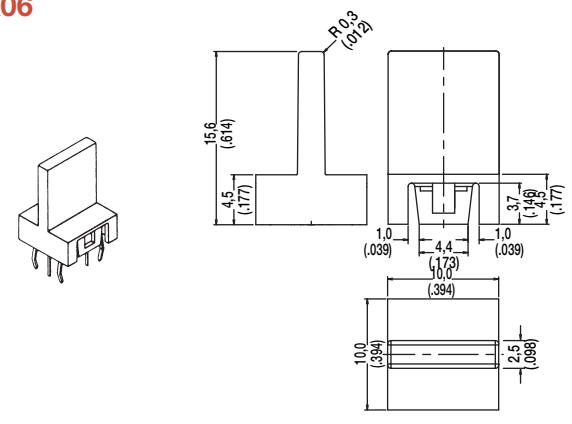
K04



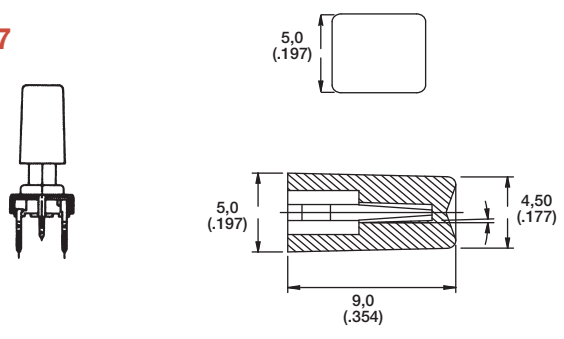
K05



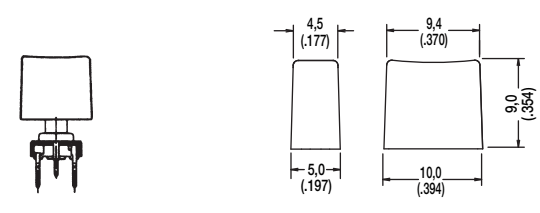
K06



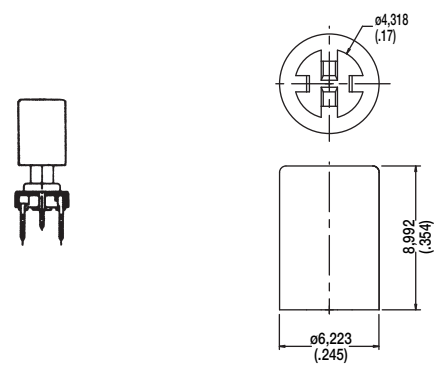
K07



K08



K09



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