

# KSJ Series Spherical Actuator Tact Switches

## Features/Benefits

- Spherical actuator allows actuation force off center  $\pm 30^\circ$  with regard to vertical
- Total travel 1.6 mm
- Sealed against flux

## Typical Applications

- Automotive
- Cranes, off road, railway
- Factory automation
- Security systems



Tactile Switches

## Specification

FUNCTION: Momentary action  
 CONTACT ARRANGEMENT: 1 make contact = SPST, N.O.  
 DISTANCE BETWEEN BUTTON CENTERS (min.): 7.62 (0.300)  
 TERMINALS: PC pins

## Environmental

	Silver	Gold
OPERATING TEMPERATURE:	-40°C to 90°C	-40°C to 125°C
STORAGE TEMPERATURE:	-40°C to 85°C	-55°C to 125°C

## Packaging

Delivered in boxes of 500 pieces.

## Mechanical

Type	Actuation force N (grams)	Operating life (operations) axial	Operating life (operations) radial	Travel to make
KSJ0M211	2.0 (200)	100,000	30,000	0,7 $\pm$ 0,25
KSJ0M411	3.0 (300)	100,000	30,000	0,55 $\pm$ 0,25

## 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	50 mA
MINIMUM CURRENT:	1 mA	1 mA

DIELECTRIC STRENGTH (50 Hz, 1 min.):  $\geq 300$  Vrms  
 CONTACT RESISTANCE:  $\leq 50$  m $\Omega$   
 INSULATION RESISTANCE (100V):  $> 10^{11}$   $\Omega$   
 BOUNCE TIME:  $< 1$  ms

## Process

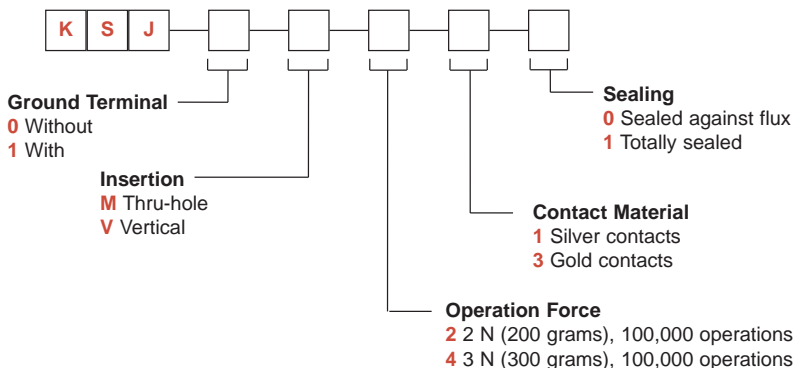
SOLDERING: Protected against flux and is compatible with the following soldering processes:

- Fluxing of PCB bottom side
- Preheating at 85°C
- Wave soldering (Tin/Lead 40-60) 250°C for 2 sec.
- Cooling down to ambient temperature.
- Eventual cleaning by brushing on soldered side. TMS Freon to be avoided.

**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.

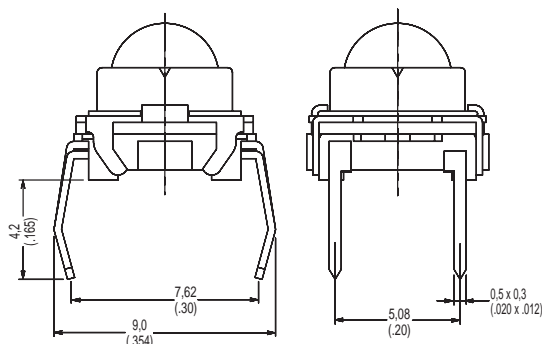




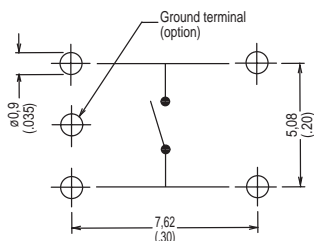
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## INSERTION

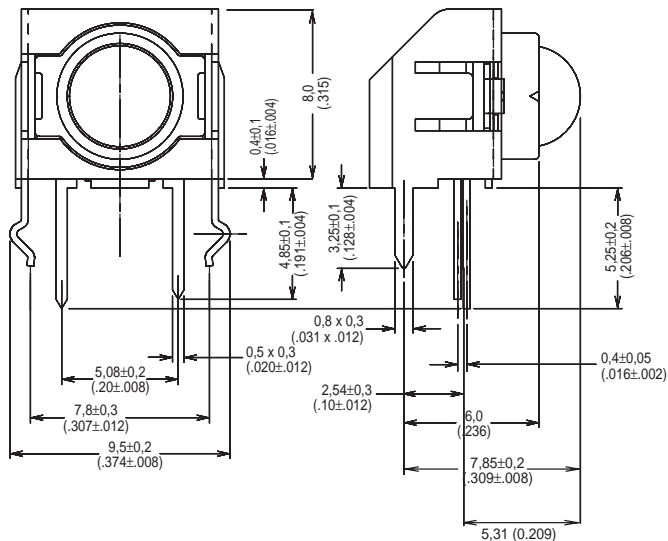
### M THRU-HOLE



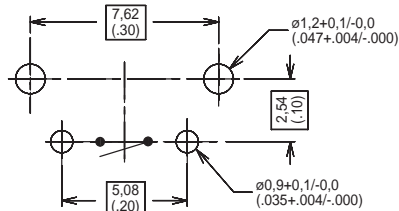
#### PCB LAYOUT



### V VERTICAL



#### PCB LAYOUT



## OPERATING FORCE

OPTION CODE	OPERATING FORCE
<b>2</b>	2 N (200 grams)
<b>4</b>	3 N (300 grams)

## 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