

# KSB & KSF Series Low-profile Tact Switch



## Features/Benefits

- Low profile
- Protected against flux
- KSB without top sealing
- KSF with top sealing
- RoHS compliant and compatible

## Typical Applications

- Low profile keyboards
- Instrumentation
- Industrial control
- Medical
- Military

## Specification

CONTACT ARRANGEMENT: SPST, N.O.  
DOUBLE OVERMOLDING ON TERMINAL  
SEALING: IP40 (KSB) AND IP60  
TERMINALS: PC pins

## Mechanical

Type	Actuation force Newtons	Operating life (operations)
KSB0M110	1.2 - 2.0	100,000
KSB0M410	2.25 - 3.75	500,000
KSF0M211	1.0 - 2.0	100,000
KSF0M311	1.4 - 2.4	500,000
KSF0M411	2.25 - 3.75	100,000
KSF0M511	4.2 - 6.25	100,000
KSF0M911	2.3 - 3.9	500,000

**NOTE:** Specifications listed above are for switches with standard options.  
For information on specific and custom switches, consult Customer Service Center.

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 (50 Hz, 1 min.):	300 Vrms	
CONTACT RESISTANCE:	KSF 100 m Ω; KSB 100 m 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

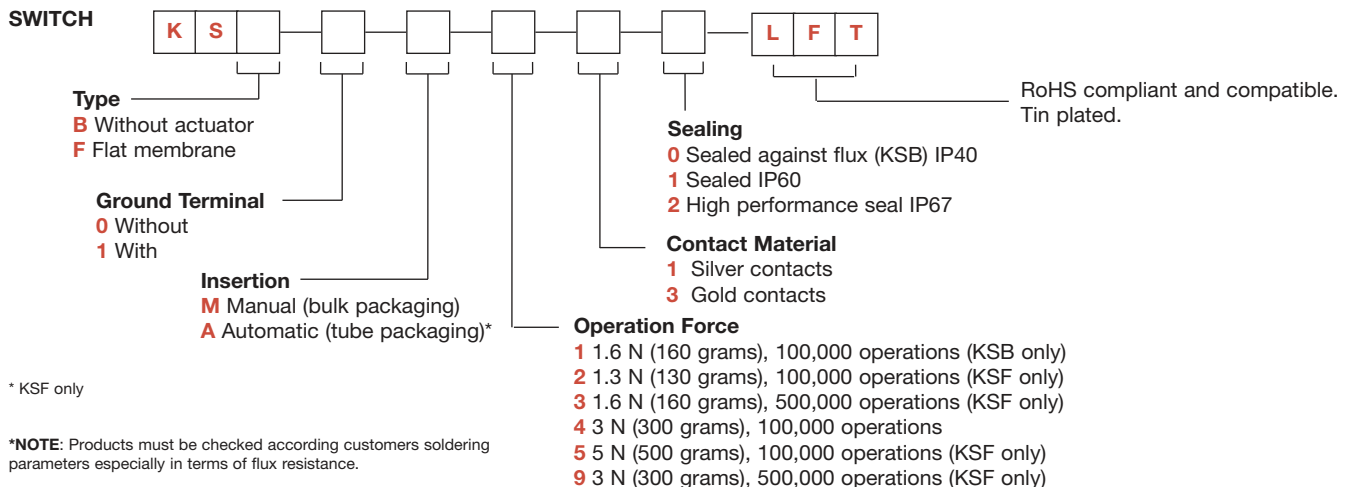
KSF can be delivered in tubes of 65 pieces for automatic insertion or boxes of 500 parts. KSB in boxes of 500 pieces for manual insertion.

## 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.

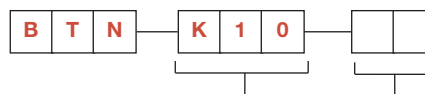
**However, please note that all the combinations of these options are not feasible.**

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



**BUTTON for KSF** Button must be ordered separately and will be supplied in bulk.

**Button Style**  
**K10** 10 mm square



**Button Color**  
**10** Dark gray    **60** Blue  
**20** Light gray    **70** Gray-blue  
**30** Yellow    **80** Ivory  
**40** Red    **90** Black  
**50** Green

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

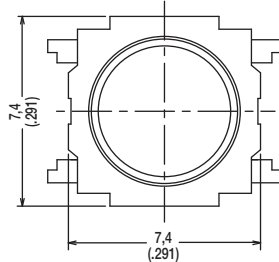
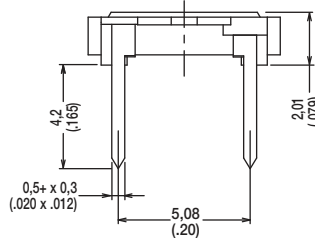
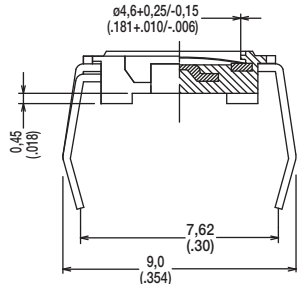


# KSB & KSF Series Low-profile Tact Switch

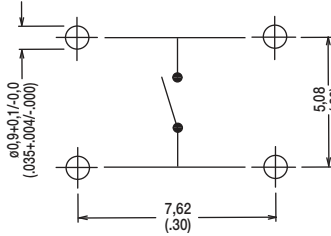
## KSB



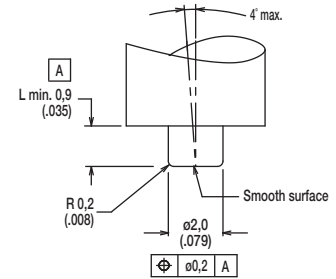
KSB0M110



### PCB LAYOUT



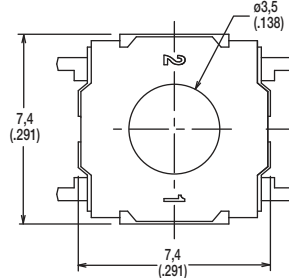
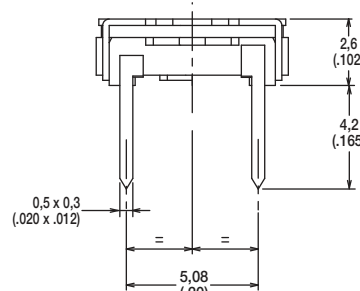
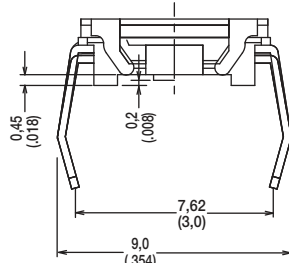
### RECOMMENDED SHAPE OF ACTUATOR



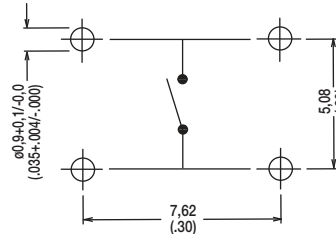
## KSF



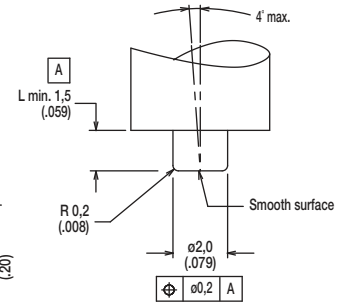
KSF0M111



### PCB LAYOUT

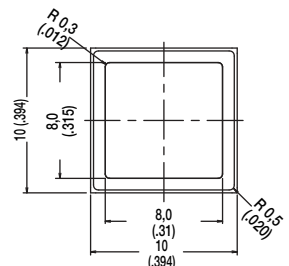
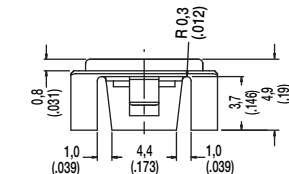
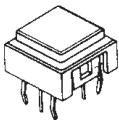


### RECOMMENDED SHAPE OF ACTUATOR



## BUTTON

**K10** BUTTON FOR KSF ONLY Button must be ordered separately and will be supplied in bulk.



First Angle  
Projection

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

# 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).

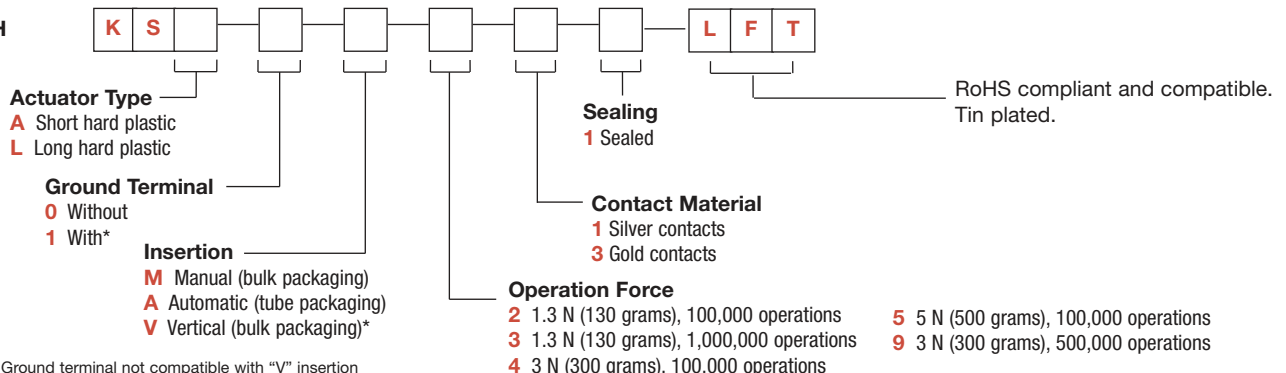
## How To Order

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.

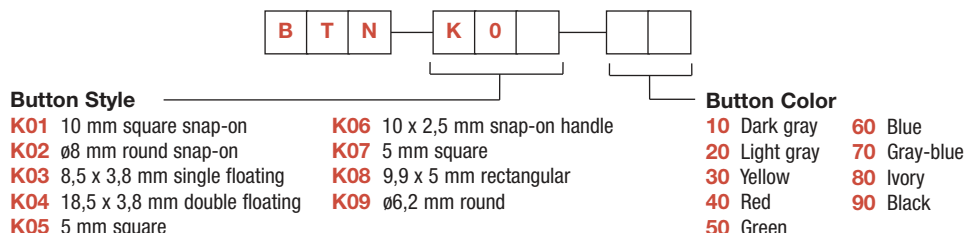
For any part number different from those listed above, please consult your local representative.

## 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.



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

# KSA & KSL Series Sealed Tact Switch

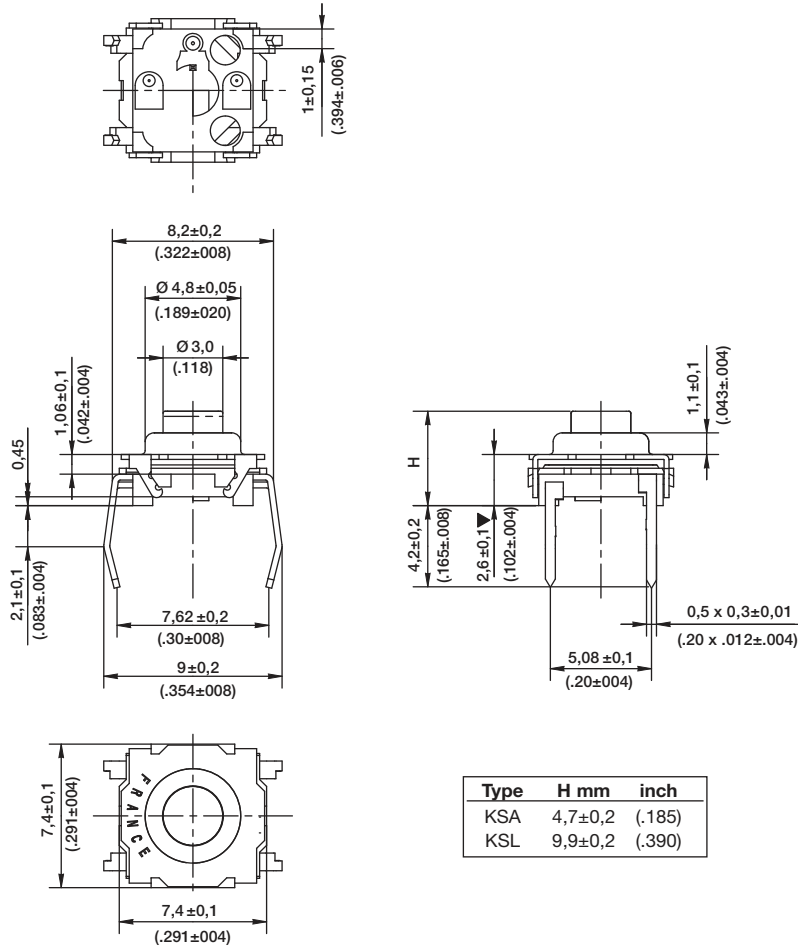
ACTUATOR TYPE

KSA & KSL



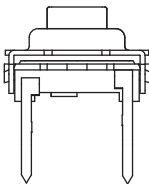
B

Tactile Switches

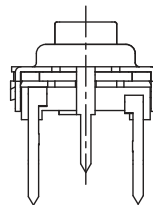


GROUND TERMINAL

0 WITHOUT



1\* WITH



\*Not compatible with "V" insertion



First Angle  
Projection

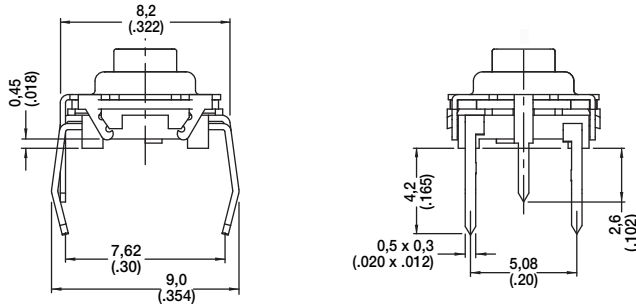


Dimensions are shown: Inch (mm)  
Specifications and dimensions subject to change

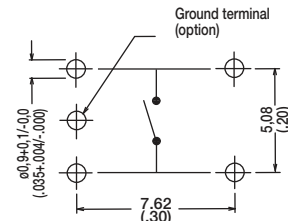
# KSA & KSL Series Sealed Tact Switch

## INSERTION

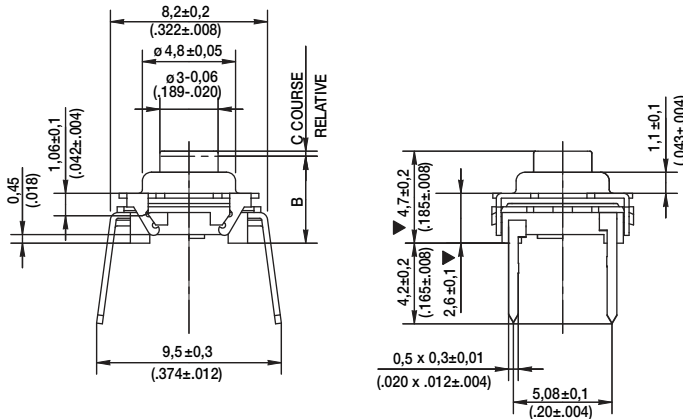
### M MANUAL (BULK PACKAGING)



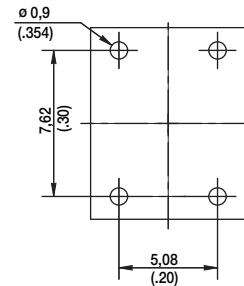
### PCB LAYOUT



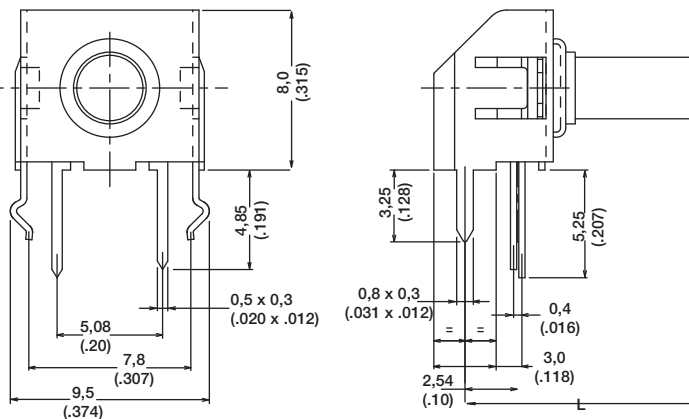
### A AUTOMATIC (TUBE PACKAGING, 65 PIECES PER TUBE)



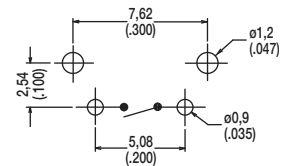
### PCB LAYOUT



### V VERTICAL



### PCB LAYOUT

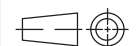


### DIMENSION L

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) 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



First Angle  
Projection

Dimensions are shown: Inch (mm)  
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

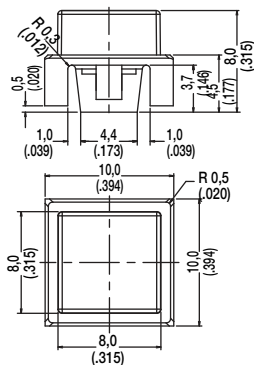
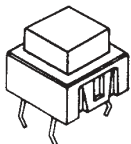
OPTION CODE	SEALING
<b>1</b>	Totally sealed - sealed IP64

## BUTTONS

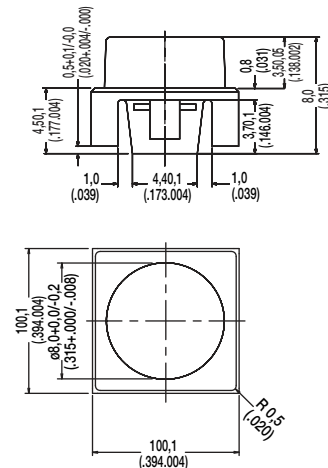
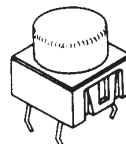
Buttons must be ordered separately and will be supplied in bulk.

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**

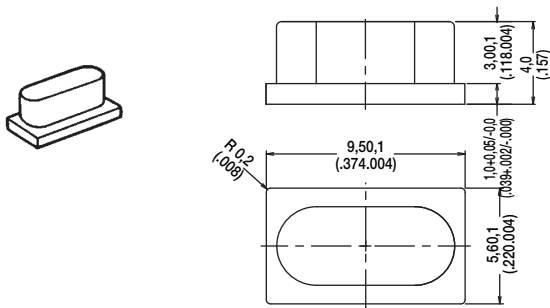


Dimensions are shown: Inch (mm)  
Specifications and dimensions subject to change

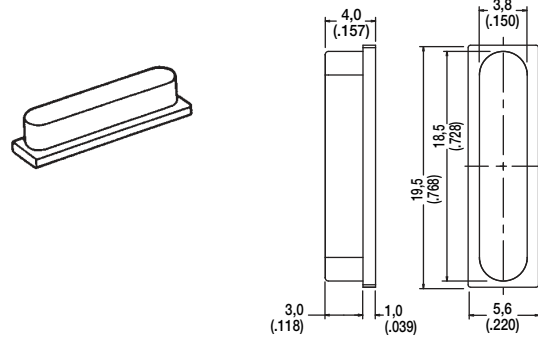


# KSA & KSL Series Sealed Tact Switch

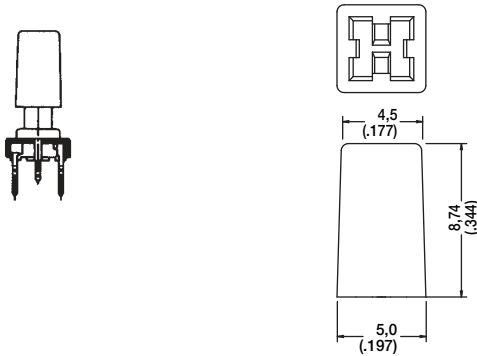
**K03**



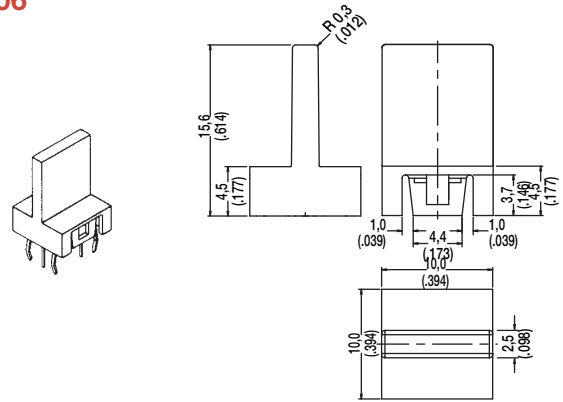
**K04**



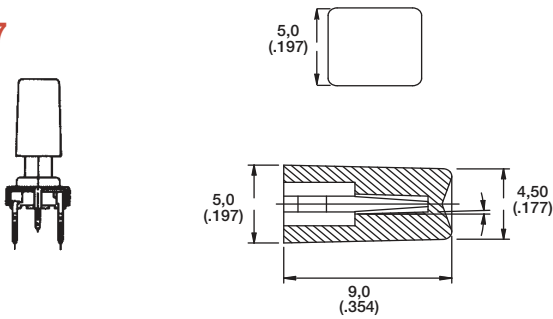
**K05**



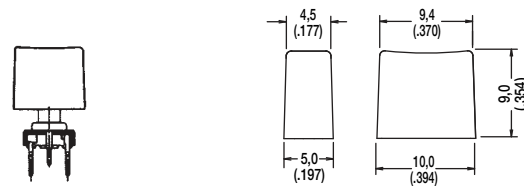
**K06**



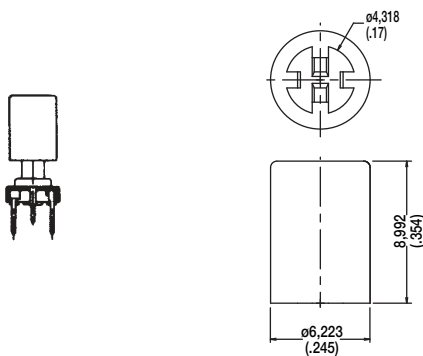
**K07**



**K08**



**K09**



Tactile Switches



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

# KSA & KSL MKII Series High Performance Sealed Tact Switch

## Features/Benefits

- Highest tact switch sealing performance
- Improved sealing through a modification of the crimping technique and to a double overmolding of the terminal
- Totally sealed
- Up to 1M operations
- RoHS compliant and compatible

## Typical Applications

- Automotive
- Industrial
- Telecommunication networks
- Household appliances
- Heating control systems



## Specification

CONTACT ARRANGEMENT: SPST, N.O.  
 TERMINALS: PC pins  
 SEALING: IP67  
 Double overmold on terminals

## Mechanical

Type	Actuation force N (grams)	Operating life (operations)	Travel to make
KSA0M212	1,0 - 1,65	100,000	0,5 ± 0,15
KSA0M312	1,0 - 1,65	1,000,000	0,5 ± 0,15
KSA0M412	2,75 - 3,75	100,000	0,6 ± 0,25
KSA0M512	3,75 - 6,25	100,000	0,7 ± 0,25

## 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)

**NOTE:** Specifications listed above are for switches with standard options.  
 For information on specific and custom switches, consult Customer Service Center.

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

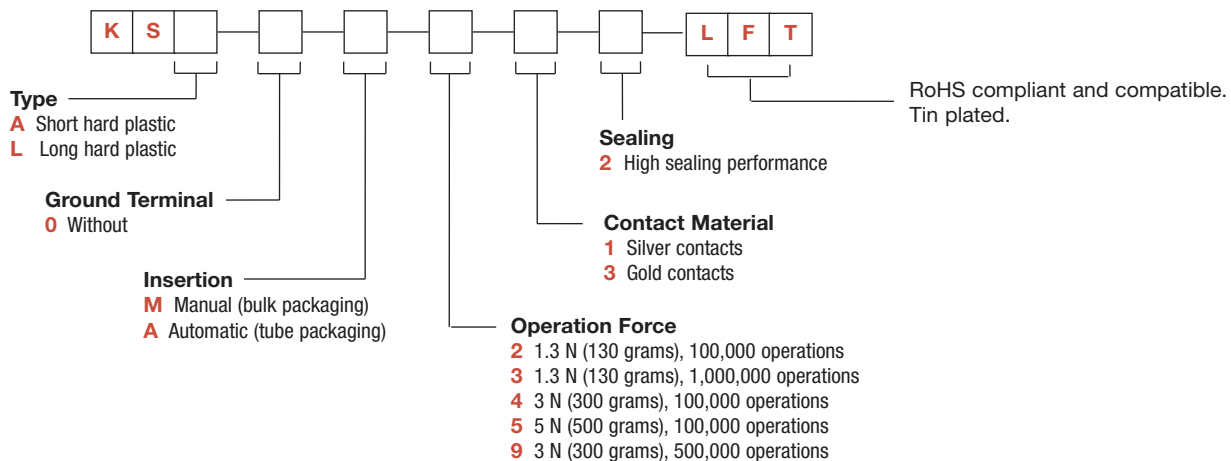
Wave soldering compatible with lead free soldering profile.

## 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.**







# KSI Series Sealed Tact Switches



## Features/Benefits

- Long and soft actuator
- Distinctive tactile feel
- 1.1 & 3 N actuation force
- Ground terminal optional
- RoHS compliant and compatible

## Typical Applications

- Automotive
- Automation
- Door entry systems
- Remote controls

## Specification

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

## Mechanical

Type	Actuation force N	Operating life (operations)	Travel to make
KSI0M411	2.25 - 4.0	100,000	1,1 ± 0,2
KSI0V211	1.5 - 2.5	100,000	0,7 ± 0,2
KSI0V411	2.25 - 4.0	100,000	1,1 ± 0,2

Durometer for silicone actuator is 50 shore

## Packaging

Delivered in boxes of 500 pieces (M version) or 250 pieces (V version).

**NOTE:** Specifications listed above are for switches with standard options.  
 For information on specific and custom switches, consult Customer Service Center.

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 (50 Hz, 1 min.):	300 Vrms	
CONTACT RESISTANCE:	< 50 mΩ	
INSULATION RESISTANCE (100V):	> 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

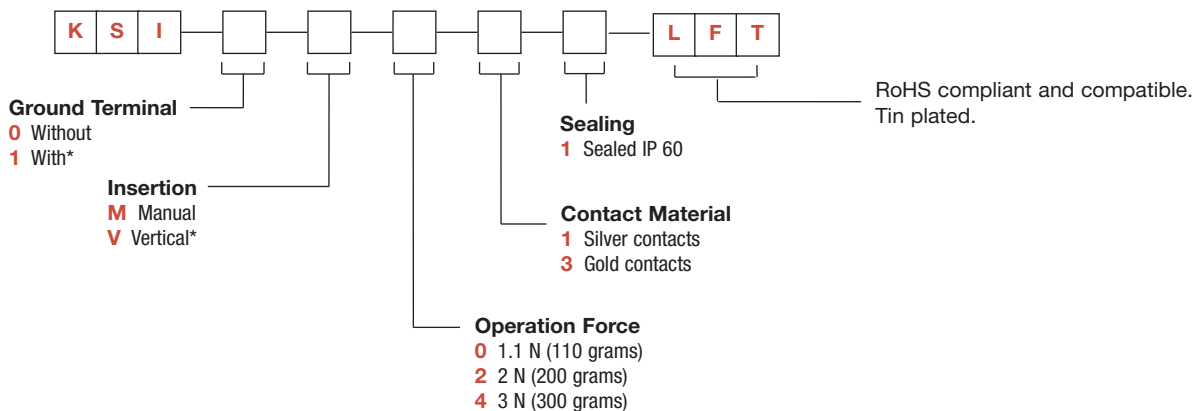
Wave soldering, compatible with lead free soldering profile.

## 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 in the table above, please consult your local representative.**



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

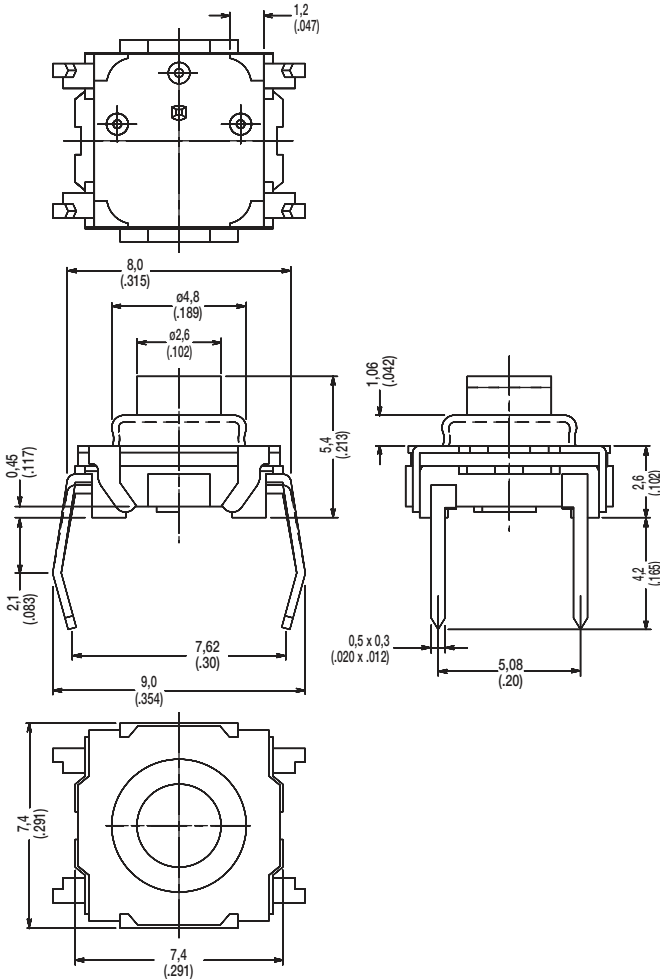
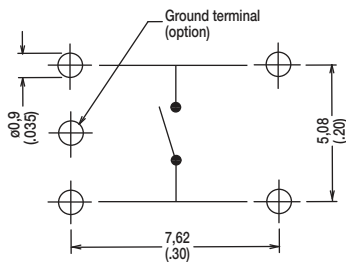
# KSI Series Sealed Tact Switches

**KSI**

**M** MANUAL



**PCB LAYOUT**



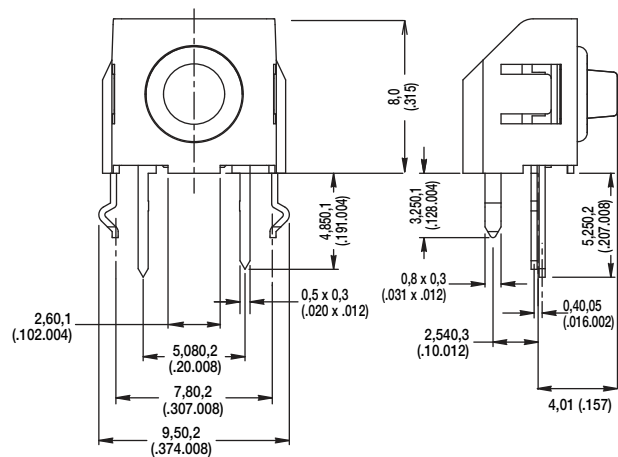
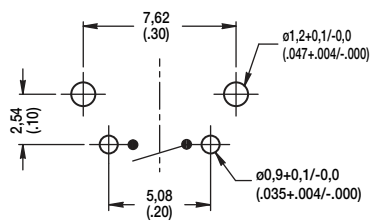
**B**

**Tactile Switches**

**V** VERTICAL



**PCB LAYOUT**



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



# KSJ Series Spherical Actuator Tact Switches

## Features/Benefits

- Spherical actuator allows actuation force off center  $\pm 30^\circ$  with regard to vertical
- Total travel 1.2 mm
- Sealed against flux
- RoHS compliant and compatible

## Typical Applications

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



## Specification

FUNCTION: Momentary action  
 CONTACT ARRANGEMENT: 1 make contact = SPST, N.O.  
 DISTANCE BETWEEN BUTTON CENTERS (min.): 7.62 (0.300)  
 TERMINALS: PC pins  
 SEALING: IP60

## Mechanical

Type	Actuation force N (grams)	Operating life (operations) axial	Operating life (operations) radial	Travel to make
KSJ0M21160SH	1,5 - 2,5	100,000	30,000	0,7 $\pm$ 0,25
KSJ0M41180SH	2,25 - 3,75	100,000	30,000	0,55 $\pm$ 0,25
KSJ0M21180SH	1,5 - 2,5	100,000	30,000	0,35 $\pm$ 0,2
KSJ0M91180SH	3,1 - 4,7	100,000	30,000	0,7 $\pm$ 0,25

## Environmental

OPERATING TEMPERATURE: -40°C to 85°C  
 STORAGE TEMPERATURE: -40°C to 85°C

## Packaging

Delivered in boxes of 500 pieces.

## 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	50 mA
MINIMUM CURRENT:	1 mA	1 mA
DIELECTRIC STRENGTH (50 Hz, 1 min.): $\geq 300$ Vrms		
CONTACT RESISTANCE: $\leq 100$ mOhms		
INSULATION RESISTANCE (100V): $> 10^9$ ohms		
BOUNCE TIME: $< 1$ ms		

## Process

Wave soldering, compatible with lead free soldering profile.

**NOTE:** Specifications listed above are for switches with standard options.  
 For information on specific and custom switches, consult Customer Service Center.

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.

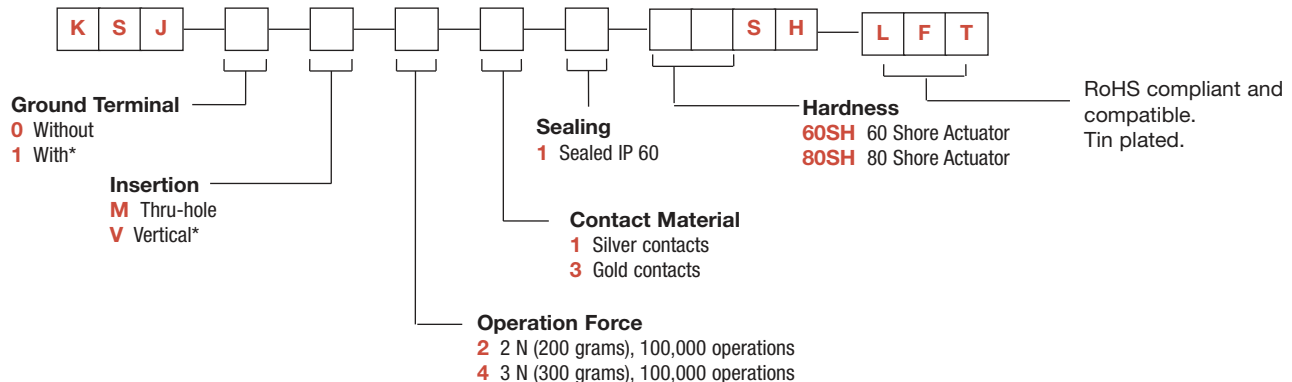
\* Please contact your C&K representative for any question regarding the product integration.

## 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.**

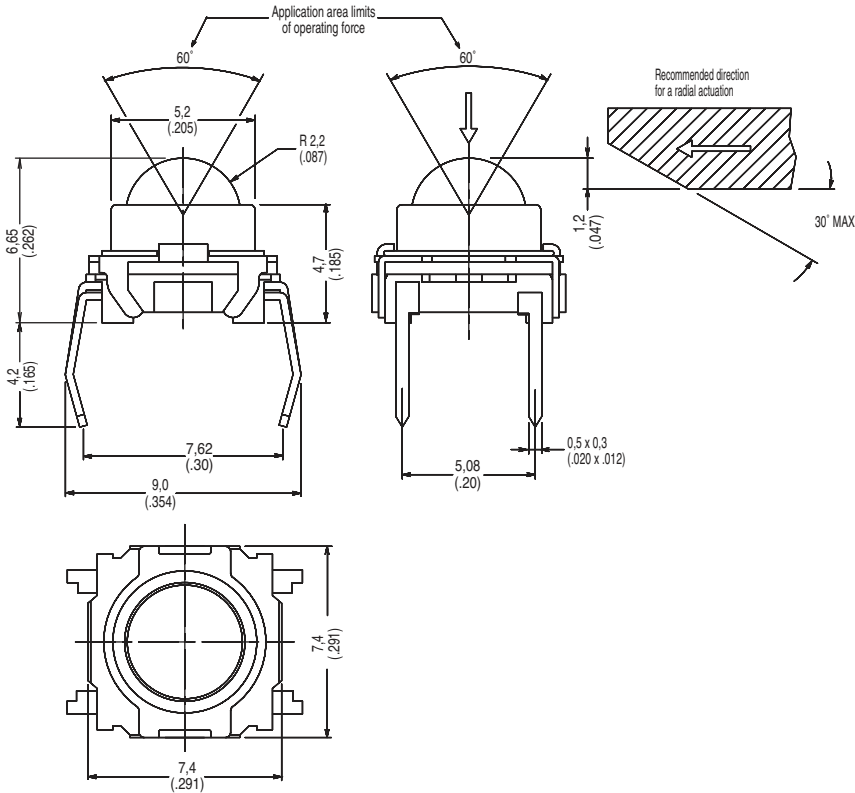
**For any part number different from those listed in the table above, please consult your local representative.**



\*Note: "1" ground terminal option not available with "V" version.  
 The bracket for the "V" version plays this role.

# KSJ Series Spherical Actuator Tact Switches

**KSJ**



KSJ0M211

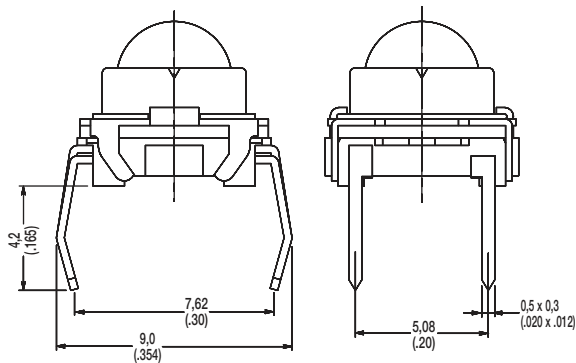


**B**

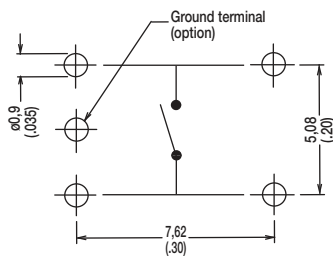
Tactile Switches

## INSERTION

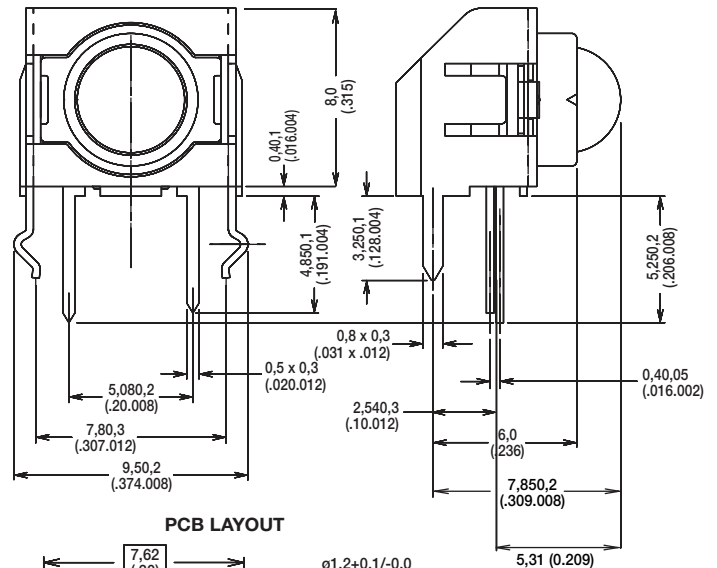
**M THRU-HOLE**



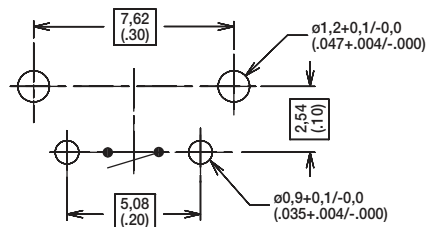
**PCB LAYOUT**



**V VERTICAL**



**PCB LAYOUT**



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



# PTS635 Series 3,5 mm Tact Switches



## Features/Benefits

- Compact size 6 x 3.5 mm
- Variety of switch heights
- Choice of actuation force
- RoHS compliant and compatible

## Typical Applications

- Consumer products
- Instrumentation
- Computer products
- Industrial

B

Tactile Switches

## Specification

FUNCTION: Momentary action  
CONTACT ARRANGEMENT: SPST, N.O.  
TERMINALS: PC pins

## Mechanical

ACTUATION FORCE: PTS635L models: 130 grams.  
PTS635H models: 200 grams.  
LIFE EXPECTANCY: 20,000 operations.

## Electrical

CONTACT RATING: 50 mA @ 12 V DC.  
DIELECTRIC STRENGTH: 250 V AC min.  
CONTACT RESISTANCE: 100 mΩ max. initial.  
INSULATION RESISTANCE: 10<sup>11</sup> Ω min.

## Environmental

OPERATING TEMPERATURE: -40°C to 60°C

**NOTE:** Specifications listed above are for switches with standard options.  
For information on specific and custom switches, consult Customer Service Center.

## Process

SOLDERING: Preheating to 100°C for 45 sec. max. Keep flux flush with top surface of PCB; do not apply to component side of PCB and area where terminals are located. Soldering to 255°C for 5 sec. max. Clean by brushing on solder surface. Do not clean switch with solvents.

## Materials

BASE: 6/6 nylon or glass filled polyester (PBT) (UL 94V-0).  
ACTUATOR: 6/6 nylon or polyacetal (UL 94HB).  
COVER PLATE: PTS635S and PTS635V models: Tin plated stainless steel  
DOME CONTACTS: Phosphor bronze, silver clad.  
STATIONARY CONTACTS: Brass, silver plated.  
TERMINALS: Brass, silver plated. Insert molded.

## Packaging

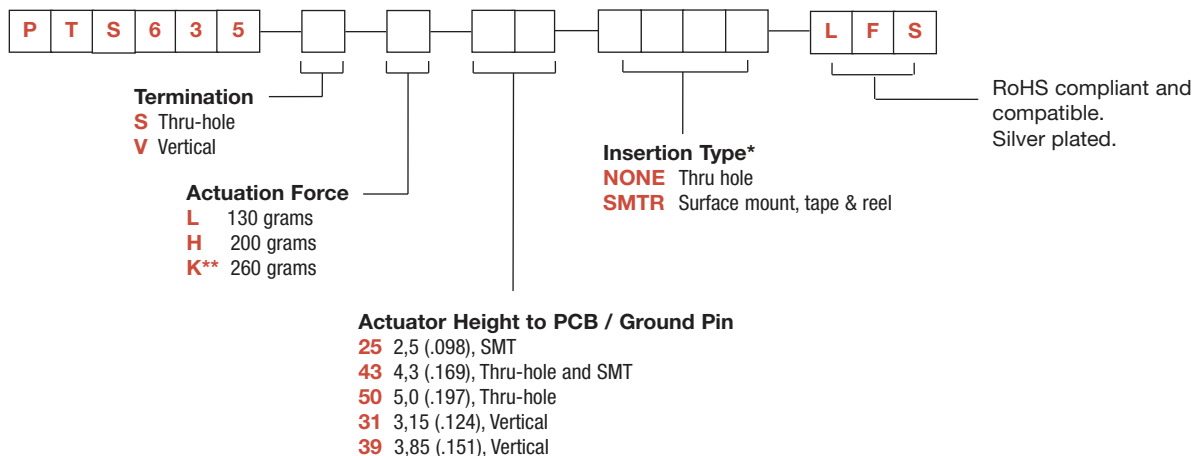
Bulk packaging.

## Tape & reel for:

PTS635Sx43SMTR, 1700 pcs per reel  
PTS635Sx25SMTR, 3000 pcs per reel

## 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.



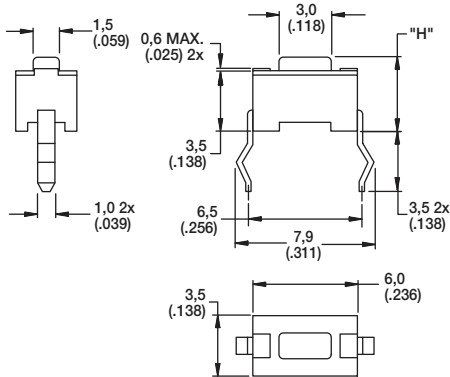
\* SM and SMTR only available with PTS635 43 and 25 actuator options.

\*\* Only for the PTS635Sx25SMTR.

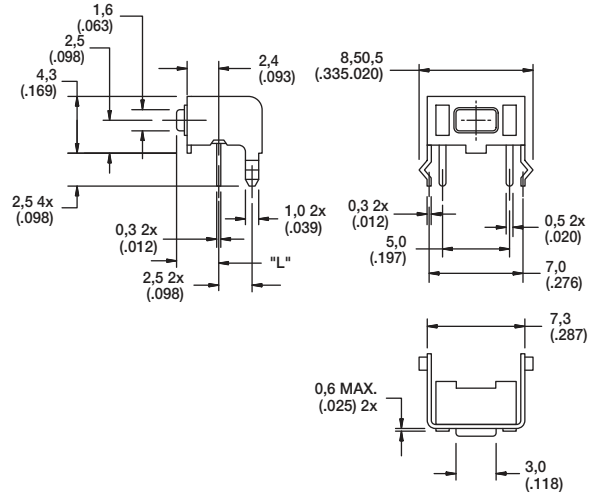
# PTS635 Series 3,5 mm Tact Switches

SERIES

## PTS635



PTS635S Model

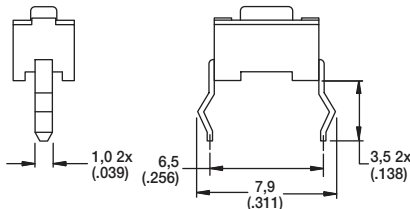


B

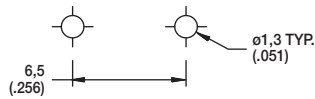
Tactile Switches

TERMINATION

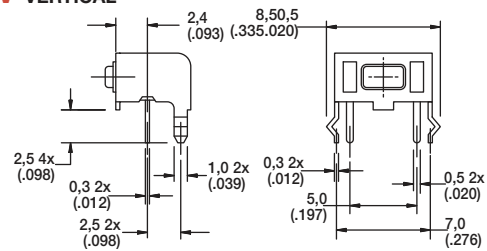
## S THRU-HOLE



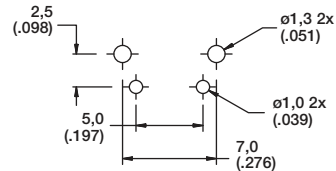
PCB LAYOUT



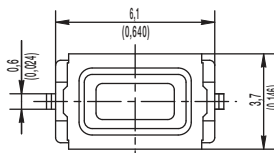
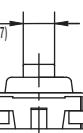
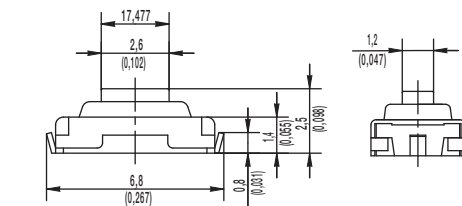
## V VERTICAL



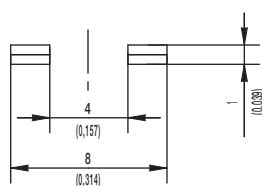
PCB LAYOUT



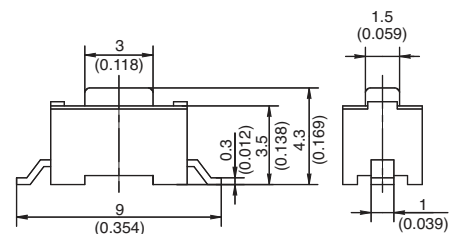
## SMT 25



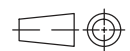
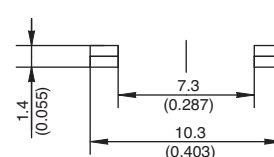
PCB LAYOUT



## SMT 43



PCB LAYOUT



First Angle  
Projection

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

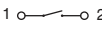
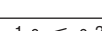
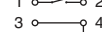



# PTS635 Series 3,5 mm Tact Switches

## ACTUATION FORCE

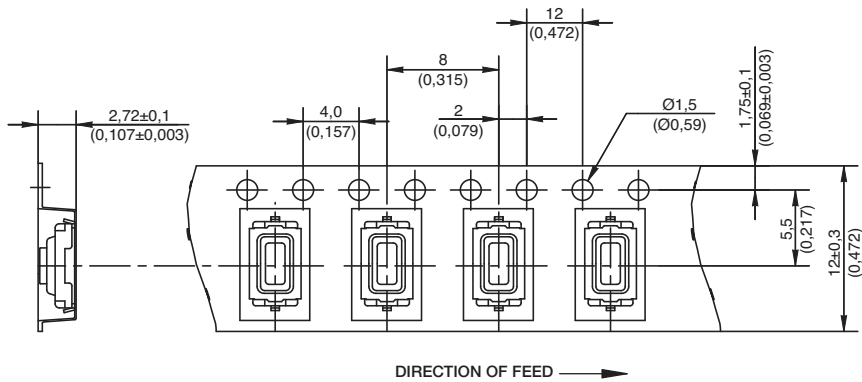
OPTION CODE	FORCE
<b>L</b>	130 grams
<b>H</b>	200 grams

## ACTUATOR HEIGHT

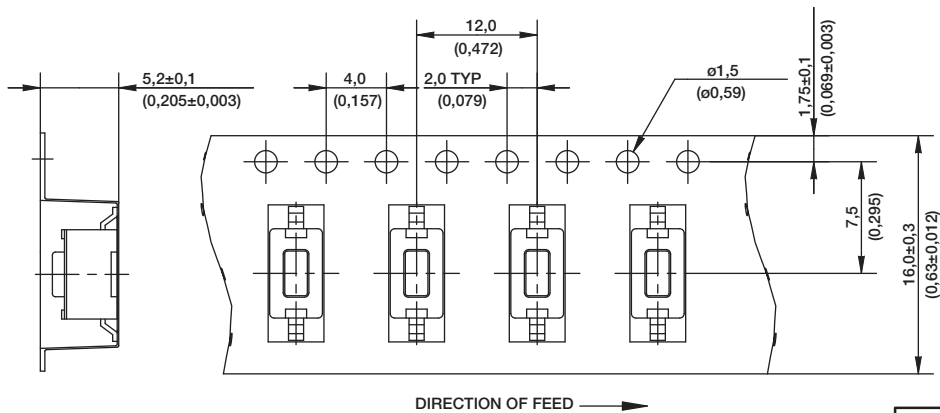
OPTION CODE	HEIGHT "H" or LENGTH "L"	TERMINATION	SCHEMATIC
<b>43</b>	4,3 (.169)	Thru-hole	1  2
<b>50</b>	5,0 (.197)	Thru-hole	1  2
<b>31</b>	3,15 (.124)	Vertical	1  2
<b>39</b>	3,85 (.151)	Vertical	3  4

## INSERTION TYPE

### SMT 25



### SMT 43



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



# PTS645 Series 6 mm Tact Switches



## Features/Benefits

- Compact size 6 x 6 mm
- Variety of actuator lengths
- Choice of actuation force
- RoHS compliant and compatible

## Typical Applications

- Consumer products
- Instrumentation
- Computer products
- Industrial

B

Tactile Switches

## Specification

FUNCTION: Momentary action  
CONTACT ARRANGEMENT: SPST, N.O.  
TERMINALS: PC pins

## Mechanical

ACTUATION FORCE: PTS645 models: 130 grams, 160 grams,  
200 grams, 260 grams  
LIFE EXPECTANCY: 50,000 operations.

## Electrical

CONTACT RATING: 50 mA @ 12 V DC.  
DIELECTRIC STRENGTH: 250 V AC min.  
CONTACT RESISTANCE: 100 mΩ max. initial.  
INSULATION RESISTANCE: 10<sup>11</sup> Ω min.

## Environmental

OPERATING TEMPERATURE: -20°C to 60°C

**NOTE:** Specifications listed above are for switches with standard options.  
For information on specific and custom switches, consult Customer Service Center.

## Process

SOLDERING: Preheating to 100°C for 45 sec. max. Keep flux flush with top surface of PCB; do not apply to component side of PCB and area where terminals are located. Soldering to 255°C for 5 sec. max. Clean by brushing on solder surface. Do not clean switch with solvents.

## Materials

BASE: 6/6 nylon or glass filled polyester (PBT).  
ACTUATOR: 6/6 nylon or polyacetal.  
COVER PLATE: PTS645S: Polyester or stainless steel.  
PTS645T and PTS645V: Tin alloy or stainless steel.  
DOME CONTACTS: Phosphor bronze, silver clad.  
STATIONARY CONTACTS: Brass, silver plated.  
TERMINALS: Brass, silver plated. Insert molded.

## Packaging

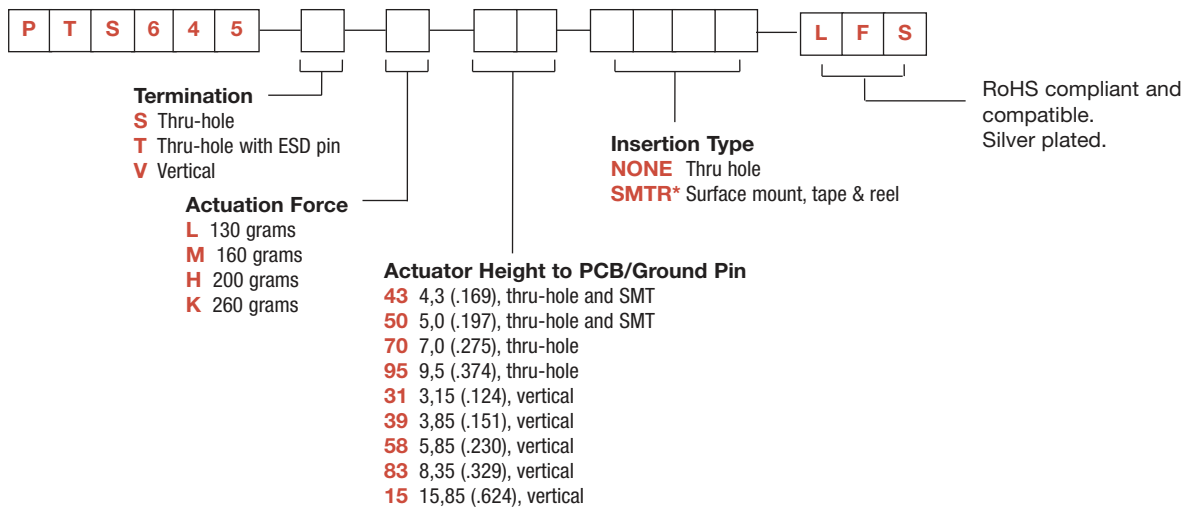
Bulk packaging.

### Tape & reel for the SMT type:

Reel of 1,000 pieces

## 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.

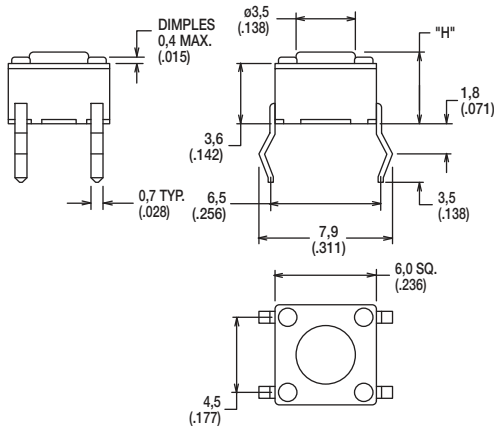


\*Only the PTS645 in horizontal type without ESD pin is available in SMT type.

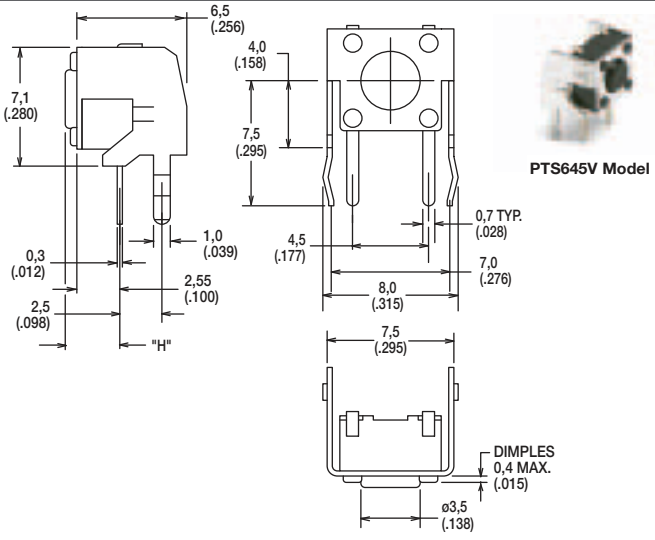
# PTS645 Series 6 mm Tact Switches

SERIES

## PTS645



PTS645S Model

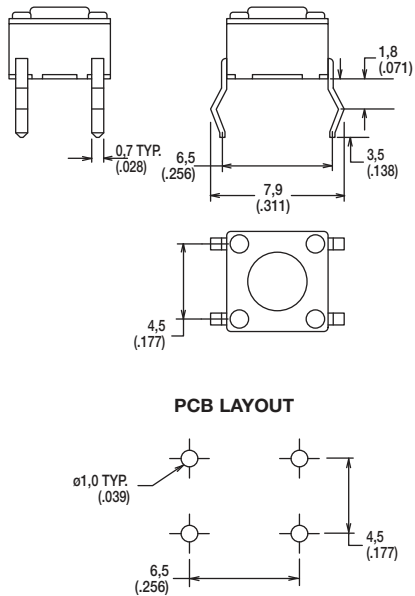


PTS645V Model

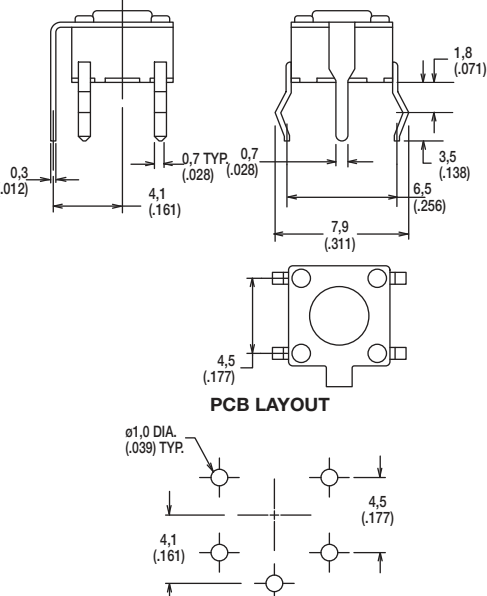
Tactile Switches

TERMINATION

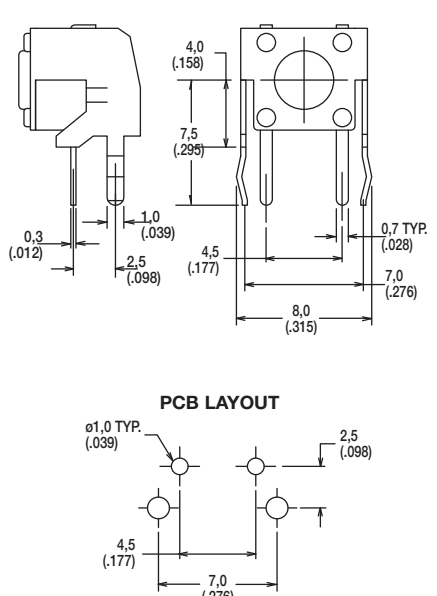
### S STRAIGHT



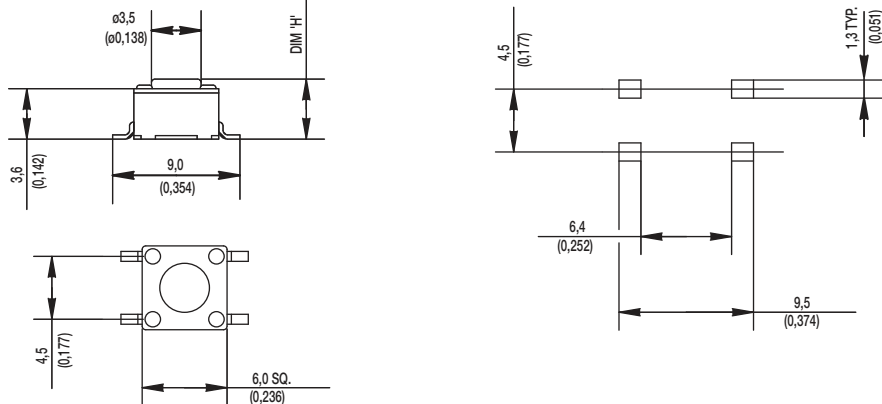
### T STRAIGHT WITH EMC PIN



### V VERTICAL



### SMT



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



# PTS645 Series 6 mm Tact Switches

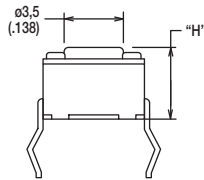
## ACTUATION FORCE

OPTION CODE	FORCE
<b>L</b>	130 grams
<b>M</b>	160 grams
<b>H</b>	200 grams
<b>K</b>	260 grams

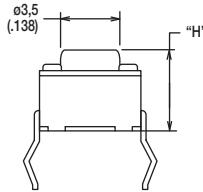
## ACTUATOR HEIGHT

OPTION CODE	HEIGHT "H" or LENGTH "L"	TERMINATION	SCHEMATIC	
			Without EMC pin	With EMC pin
<b>43</b>	4,3 (.169)	Thru-hole and SMT		
<b>50</b>	5,0 (.197)	Thru-hole and SMT		
<b>70</b>	7,0 (.275)	Thru-hole		
<b>95</b>	9,5 (.374)	Thru-hole		
<b>31</b>	3,15 (.124)	Vertical		
<b>39</b>	3,85 (.151)	Vertical		
<b>58</b>	5,85 (.230)	Vertical		
<b>83</b>	8,35 (.329)	Vertical		
<b>15</b>	15,85 (.624)	Vertical		

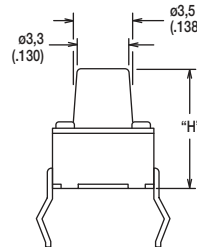
**43**



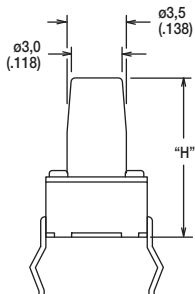
**50**



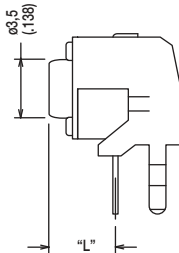
**70**



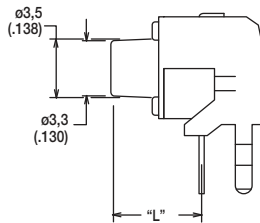
**95**



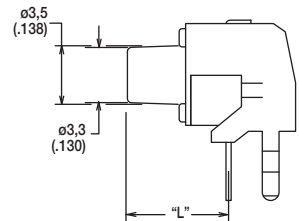
**31**



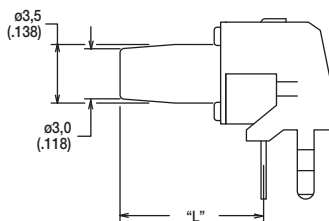
**39**



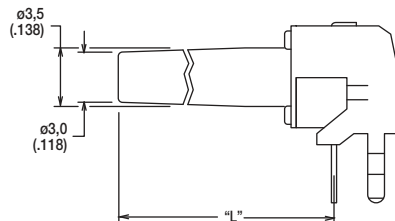
**58**



**83**



**15**



**B**

Tactile Switches



First Angle  
Projection

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

# PTS125 Series 12 mm Tact Switches



## Features/Benefits

- Stable control feeling
- Thru-hole or vertical actuation
- 160 or 260 grams actuation force
- RoHS compliant and compatible

## Typical Applications

- Consumer products
- Instrumentation
- Computer products
- Industrial

## Specification

FUNCTION: Momentary action  
CONTACT ARRANGEMENT: SPST, N.O.  
TERMINALS: PC pins

## Mechanical

ACTUATION FORCE: PTS125M models: 160 grams.  
PTS125 K models: 260 grams.  
LIFE EXPECTANCY: 200,000 operations, M option;  
100,000 operations, K option.

## Electrical

CONTACT RATING: 50 mA @ 12 V DC.0  
DIELECTRIC STRENGTH: 250 V AC min.  
CONTACT RESISTANCE: 100 mΩ max. initial.  
INSULATION RESISTANCE: 10<sup>11</sup> Ω min.

**NOTE:** Specifications listed above are for switches with standard options.  
For information on specific and custom switches, consult Customer Service Center.

## Environmental

OPERATING TEMPERATURE: -40°C to 60°C

## Process

SOLDERING: Preheating to 100°C for 45 sec. max. Keep flux flush with top surface of PCB; do not apply to component side of PCB and area where terminals are located. Soldering to 255°C for 5 sec. max. Clean by brushing on solder surface. Do not clean switch with solvents.

## Materials

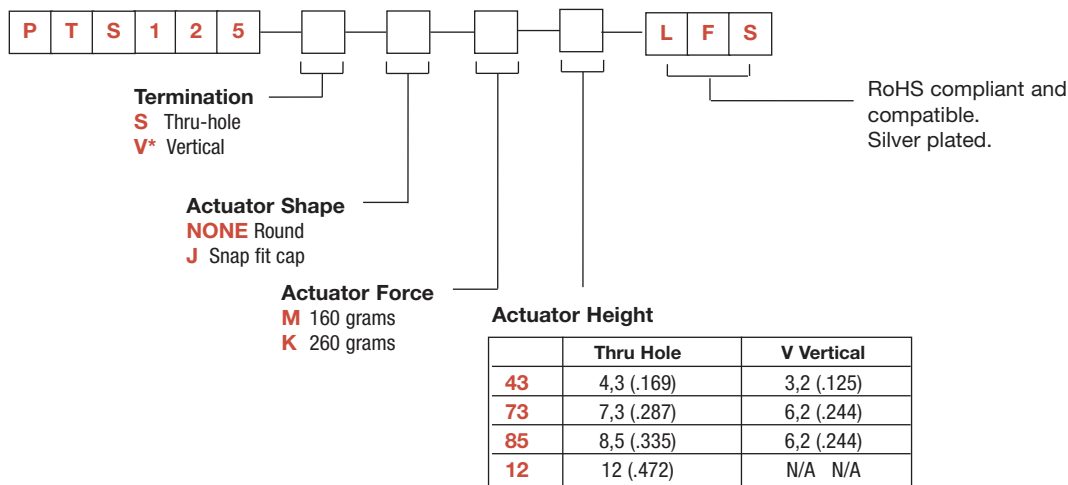
BASE: 6/6 nylon or glass filled polyester (PBT) (UL 94V-0).  
ACTUATOR: PBT (UL94V0) or polyacetal (UL 94HB).  
COVER PLATE: Tin alloy.  
DOME CONTACTS: Phosphor bronze, silver clad.  
STATIONARY CONTACTS: Brass, silver plated.  
TERMINALS: Brass, silver plated. Insert molded.

## Packaging

Tube packaging.

## How To Order

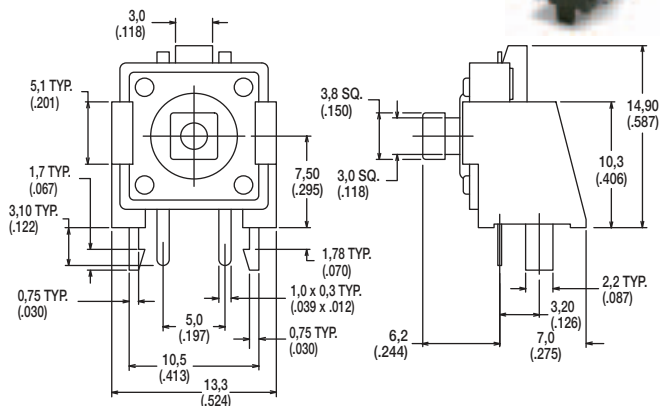
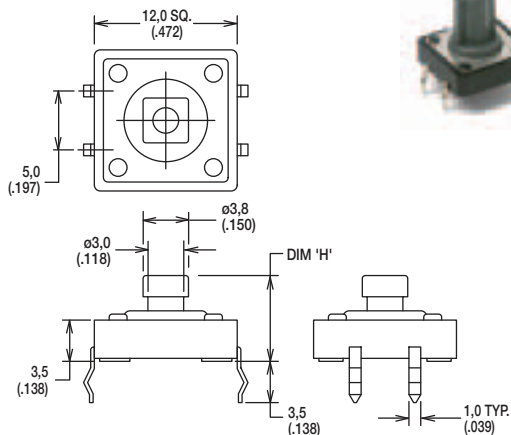
Our easy build-a-switch concept allows you to mix and match options to create the switch you need. To order, select desired option from each category and place it in the appropriate box.



\* V option available with J73 actuator only.

# PTS125 Series 12 mm Tact Switches

SERIES

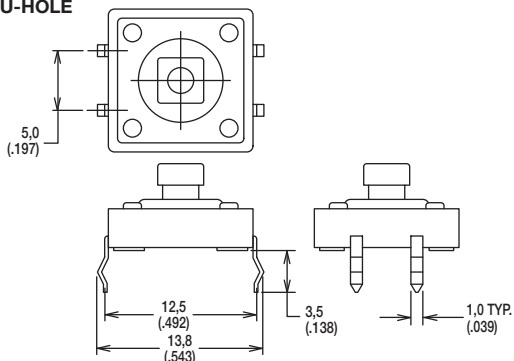


B

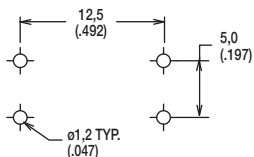
Tactile Switches

TERMINATION

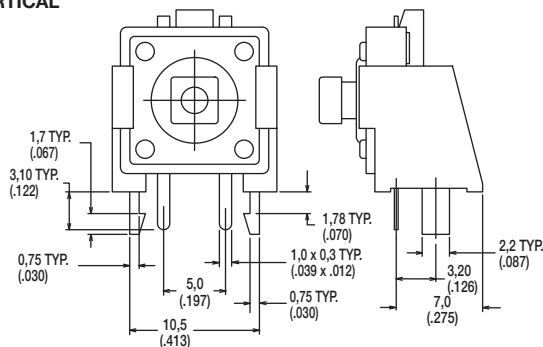
**S** THRU-HOLE



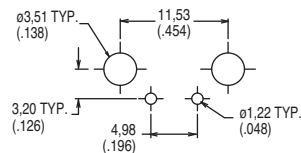
PCB LAYOUT



**V** VERTICAL



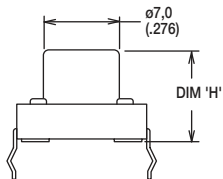
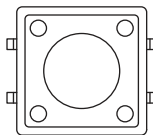
PCB LAYOUT



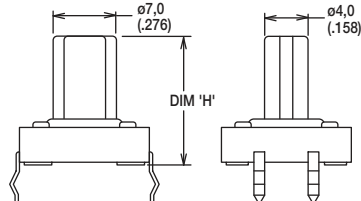
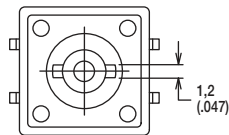
ACTUATOR SHAPE

**NONE** ROUND

43 and 85 heights only

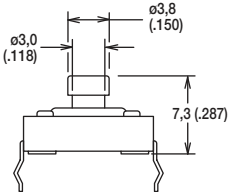
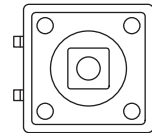


12 height only



**J** SNAP-FIT CAP

73 height only



First Angle Projection



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

# PTS125 Series 12 mm Tact Switches

## ACTUATION FORCE



OPTION CODE	FORCE
<b>M</b>	160 grams
<b>K</b>	260 grams

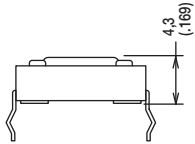
B

Tactile Switches

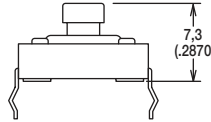
## ACTUATOR HEIGHT



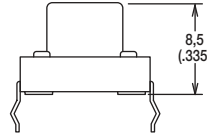
**43** 4,3 mm



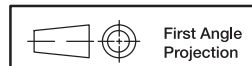
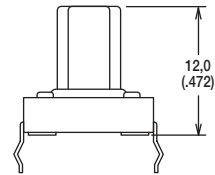
**73** 7,3 mm SNAP-FIT



**85** 8,5 mm



**12** 12 mm



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