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

<table>
<thead>
<tr>
<th>Type</th>
<th>Actuation force N</th>
<th>Operating life (operations)</th>
<th>Travel to make</th>
</tr>
</thead>
<tbody>
<tr>
<td>KSA0M211</td>
<td>1.4 ± 0.4</td>
<td>100,000</td>
<td>0.5 ± 0.2</td>
</tr>
<tr>
<td>KSA0M311</td>
<td>1.4 ± 0.4</td>
<td>1,000,000</td>
<td>0.5 ± 0.2</td>
</tr>
<tr>
<td>KSA0M411</td>
<td>3 ± 0.75</td>
<td>100,000</td>
<td>0.6 ± 0.2</td>
</tr>
<tr>
<td>KSA0M511</td>
<td>5 ± 1.5</td>
<td>100,000</td>
<td>0.7 ± 0.2</td>
</tr>
<tr>
<td>KSA0M911</td>
<td>3 ± 0.75</td>
<td>500,000</td>
<td>0.6 ± 0.2</td>
</tr>
<tr>
<td>KSL0M211</td>
<td>1.4 ± 0.4</td>
<td>100,000</td>
<td>0.5 ± 0.2</td>
</tr>
<tr>
<td>KSL0M311</td>
<td>1.4 ± 0.4</td>
<td>1,000,000</td>
<td>0.5 ± 0.2</td>
</tr>
<tr>
<td>KSL0M411</td>
<td>3 ± 0.75</td>
<td>100,000</td>
<td>0.6 ± 0.2</td>
</tr>
<tr>
<td>KSL0M511</td>
<td>5 ± 1.5</td>
<td>100,000</td>
<td>0.7 ± 0.2</td>
</tr>
</tbody>
</table>

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

Electrical
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: 250 Vrms
CONTACT RESISTANCE: ≤ 100m Ω
INSULATION RESISTANCE (100 V): ≥ 10^9 Ω
BOUNCE TIME: ≤ 1 ms

Environmental
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: 250 Vrms
CONTACT RESISTANCE: ≤ 100m Ω
INSULATION RESISTANCE (100 V): ≥ 10^9 Ω
BOUNCE TIME: ≤ 1 ms

Operating Temperature: -40°C to 85°C
Storage Temperature: -40°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.

NOTES
- Actuator Type:
  - A Short hard plastic
  - L Long hard plastic
- Ground Terminal:
  - 0 Without
  - 1 With
- Insertion:
  - M Manual (bulk packaging)
  - A Automatic (tube packaging)
  - V Vertical (bulk packaging)*
- Operation Force:
  - 2 1.3 N (130 grams), 100,000 operations
  - 3 1.3 N (130 grams), 1,000,000 operations
  - 4 3 N (300 grams), 100,000 operations
  - 5 5 N (500 grams), 100,000 operations
  - 9 3 N (300 grams), 500,000 operations

*Note: “1” Ground terminal not compatible with “V” insertion

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

BUTTONS
- Button Style:
  - K01 10 mm square snap-on
  - K02 ø8 mm round snap-on
  - K03 8.5 x 3.8 mm single floating
- Button Color:
  - 10 Dark gray
  - 20 Light gray
  - 30 Yellow
  - 40 Red
  - 50 Green
  - 60 Blue
  - 70 Gray-blue
  - 80 Ivory
  - 90 Black
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Sealed Tact Switch

**ACTUATOR TYPE**

**GROUND TERMINAL**

0 **WITHOUT**

1* **WITH**

*Not compatible with "V" insertion

KSA & KSL

Sealed Tact Switch

Type H mm inch

<table>
<thead>
<tr>
<th>Type</th>
<th>H</th>
<th>mm</th>
<th>inch</th>
</tr>
</thead>
<tbody>
<tr>
<td>KSA</td>
<td>4,7±0,2</td>
<td>(.185)</td>
<td></td>
</tr>
<tr>
<td>KSL</td>
<td>9,9±0,2</td>
<td>(.390)</td>
<td></td>
</tr>
</tbody>
</table>

Dimensions are shown: mm
Specifications and dimensions subject to change

www.ckswitches.com

15 Oct 21
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Sealed Tact Switch

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**INSERTION**

**M MANUAL (BULK PACKAGING)**

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

**V VERTICAL**

**OPERATING FORCE**

<table>
<thead>
<tr>
<th>OPTION CODE</th>
<th>OPERATING FORCE</th>
</tr>
</thead>
<tbody>
<tr>
<td>2</td>
<td>1.3 N (130 grams) 100,000 operations</td>
</tr>
<tr>
<td>3</td>
<td>1.3 N (130 grams) 1,000,000 operations</td>
</tr>
<tr>
<td>4</td>
<td>3.0 N (300 grams) 100,000 operations</td>
</tr>
<tr>
<td>5</td>
<td>5.0 N (500 grams) 100,000 operations</td>
</tr>
<tr>
<td>9</td>
<td>3.9 N (350 grams) 500,000 operations</td>
</tr>
</tbody>
</table>

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www.ckswitches.com
Tactile Switches

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CONTACT MATERIAL

<table>
<thead>
<tr>
<th>OPTION CODE</th>
<th>CONTACT MATERIAL</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Silver contacts</td>
</tr>
<tr>
<td>3</td>
<td>Gold contacts</td>
</tr>
</tbody>
</table>

SEALING

<table>
<thead>
<tr>
<th>OPTION CODE</th>
<th>SEALING</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Sealing level IP60</td>
</tr>
</tbody>
</table>

BUTTONS

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

<table>
<thead>
<tr>
<th>BUTTON TYPE</th>
<th>KSA</th>
<th>KSL</th>
<th>KSAV</th>
<th>KSLV</th>
</tr>
</thead>
<tbody>
<tr>
<td>K01</td>
<td>X</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>K02</td>
<td>X</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>K03</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
</tbody>
</table>

K01

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K02

K03

First Angle Projection

Dimensions are shown: mm
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