

KSC Series Sealed Tact Switch for SMT

Features/Benefits

- Positive tactile feeling
- Range of 6 actuation forces
- J or G terminations
- Tape & reel
- IP 67

Typical Applications

- Automotive
- Cellular phones
- Industrial electronics
- Network infrastructure and IT



Specification

FUNCTION: momentary action

CONTACT ARRANGEMENT: 1 make contact = SPST, N.O.

TERMINALS: J bend & Gullwing type for SMT

Mechanical

Type	Operating force FA (Newtons) Min/Max	Operating life (operations)	Travel (mm)
KSC121J	1.2 / 2.5	200 000	0.3 ± 0.15
KSC141J	2.25 / 3.75	200 000	0.3 ± 0.15
KSC151J	4.3 / 7.3	100 000	0.3 ± 0.15
KSC201J	0.9 / 2N	300 000	0.3 +0.2 /-0.15
KSC221J	1.5 / 2.5	500 000	0.35 +0.3 /-0.1
KSC222J	1.5 / 2.5	1 000 000	0.35 +0.3 /-0.1
KSC241J	2.6 / 4.4	300 000	0.5 ± 0.2
KSC251J	4.1 / 7.0	300 000	0.5 ± 0.2
KSC321J	1.6 / 2.4	300 000	0.2 +0.3 /0
KSC341J	2.25 / 3.75	300 000	0.2 +0.3 /0
KSC351J	4.1 / 6.9	100 000	0.25 +0.3 /0
KSC401J 50SH	0.9 / 2.0	300 000	0.5 ± 0.25
KSC411J 70SH	1.05 / 1.75	300 000	0.35 ± 0.15
KSC421J 70SH	1.25 / 2.12	300 000	0.5 ± 0.25
KSC422J 70SH	1.25 / 2.12	1 000 000	0.5 ± 0.25
KSC441J 70SH	3.0 / 5.0	300 000	0.75 ± 0.25
KSC442J 70SH	3.0 / 5.0	1 000 000	0.75 ± 0.25
KSC621J	1.0 / 1.65	300 000	0.5 ± 0.2
KSC641J	2.25 / 3.75	300 000	0.5 ± 0.2
KSC421V	1.3 / 2.1	300 000	0.375 ± 0.225
KSC621V	1.1 / 1.9	100 000	0.5 ± 0.2

Electrical

MAXIMUM POWER:

Silver

Gold

MAXIMUM VOLTAGE:

MINIMUM VOLTAGE:

MAXIMUM CURRENT:

MINIMUM CURRENT:

1 VA

32 VDC

20 mV

50 mA

1 mA

0.2 VA

32 VDC

20 mV

10 mA

1 mA

DIELECTRIC STRENGTH (50 Hz, 1 min.): 250 V

CONTACT RESISTANCE: < 100 mΩ

INSULATION RESISTANCE (100 V): > 10⁹ Ω

BOUNCE TIME: < 1 ms

Environmental

Silver

Gold

OPERATING TEMPERATURE:

STORAGE TEMPERATURE:

-40°C to 85°C

-55°C to 85°C

-40°C to 125°C

-55°C to 125°C

Process

SOLDERING: Depending on the application, this component is suited to the following methods:

- Terminals being silver or gold plated over a nickel barrier, the use of slightly activated flux is suitable.
- Soldering on double wave machine for vertical versions: soldering time < 5 sec.
- Cleaning according to typical washing processes.
- Infrared Reflow Soldering in accordance with IEC 61760-1.

Packaging

KSC1, KSC2 and KSC3 are delivered on continuous tape and reels of 2,000 pieces, KSC4 in reels of 1,000 pieces. KSC 6 in reels of 750 pieces. KSCV in boxes of 500 pieces. Dimensions of reels according to EIA RS481 or IEC 2863. External diameter 330 mm ± 2 mm.

NOTE: Specifications listed above are for switches with standard options.

For information on specific and custom switches, consult Customer Service Center.

A detect switch version is available KSC4D1J and KSC4D1G.

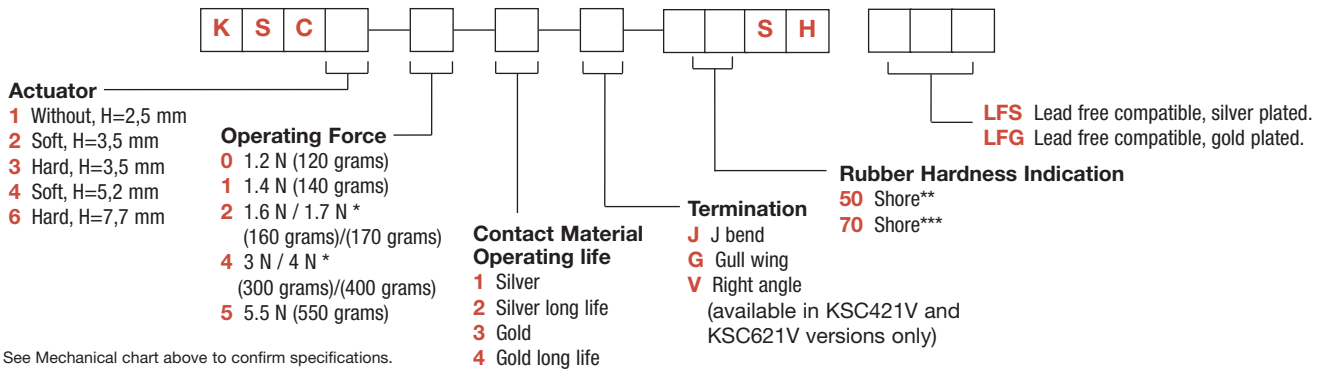
Please see Detect chapter, page F-7.

KSC vertical series have an IP40 sealing level.

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.

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



* See Mechanical chart above to confirm specifications.

** Applies to KSC401J50SH only.

*** Applies to KSC 411J70SH, KSC421J70SH,

KSC441J70SH



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

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Tactile Switches



B

[illegible][illegible]

KSC4 KSC421V ONLY

[illegible]

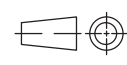
Technical drawing of the 1000 series ball valve, showing front and side views with dimensions in mm and inches.

Front View Dimensions:

- Top width: 7,4 (291)
- Inner width: 6,25 ± 0,25 (246 ± 010)
- Left side height (from center): 2,1 (083), 3,4 (134), 3,15 (124)
- Right side height: 6,9 maxi (079)
- Bottom width: 7,4 (291)
- Bottom inner width: 4,52 (178)
- Bottom height: 5,8 (228)

Side View Dimensions:

- Top width: 7,6 ± 0,25 (299 ± 010)
- Inner width: 2,5 ± 0,15 (098 ± 006)
- Left side height: 0,3 maxi (012)
- Right side height: 1,6 ± 0,1 (063 ± 004)
- Bottom width: 1,5 (059)
- Bottom height: 6,47 (255)
- Internal diameter: ø30 (+0,05 / +0,10) (118 0)
- Outer diameter: ø4,7 ± 0,1 (185 ± 004)



First Angle
Projection

Dimensions shown in: mm (inch)
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KSC Series Sealed Tact Switch for SMT

OPERATING FORCE

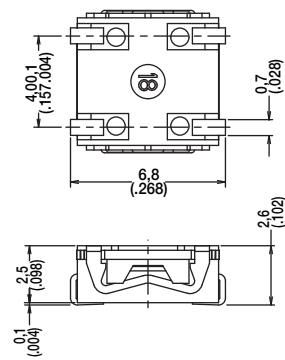
OPTION CODE	OPERATING FORCE
0	1.2 N (120 grams)
1	1.4 N (140 grams)
2	1.6 N / 1.7 N (160/170 grams)
4	3 N / 3.5 N (300/350 grams)
5	5.5 N (550 grams)

CONTACT MATERIAL

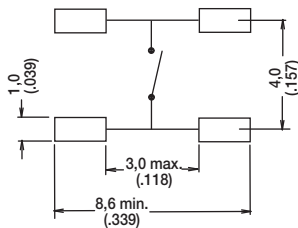
OPTION CODE	MATERIAL
1	SILVER
3	GOLD

TERMINATION

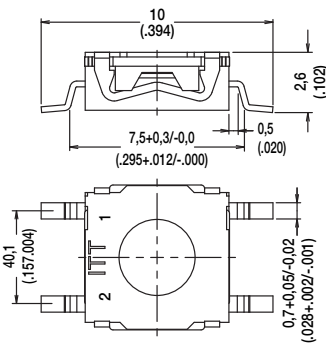
J J BEND



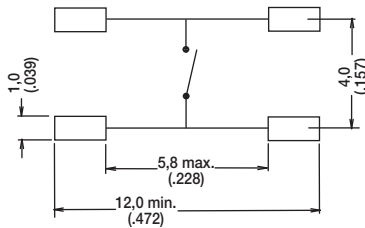
PAD LAYOUT



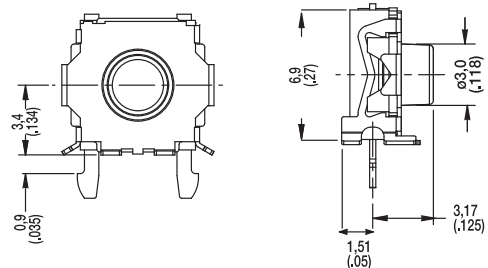
G GULLWING



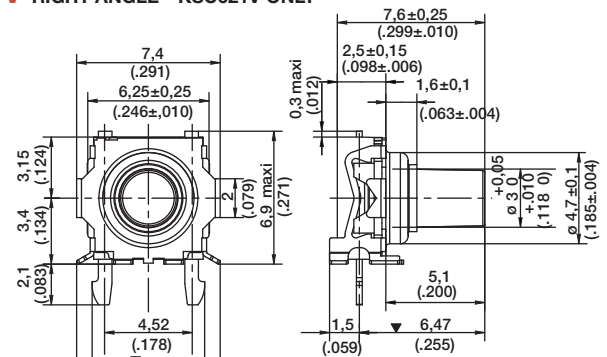
PAD LAYOUT



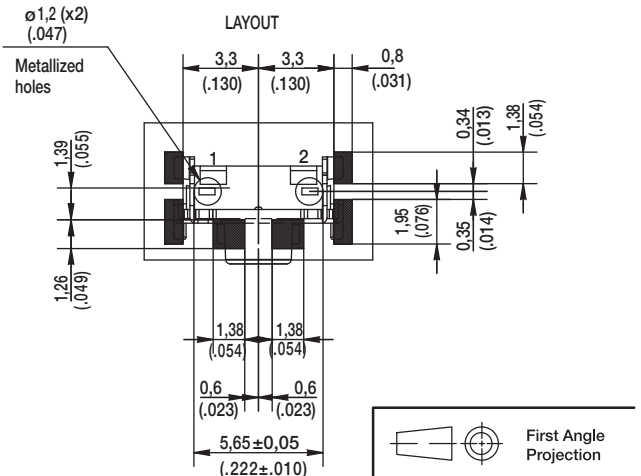
V RIGHT ANGLE - KSC421V ONLY



V RIGHT ANGLE - KSC621V ONLY



PAD LAYOUT

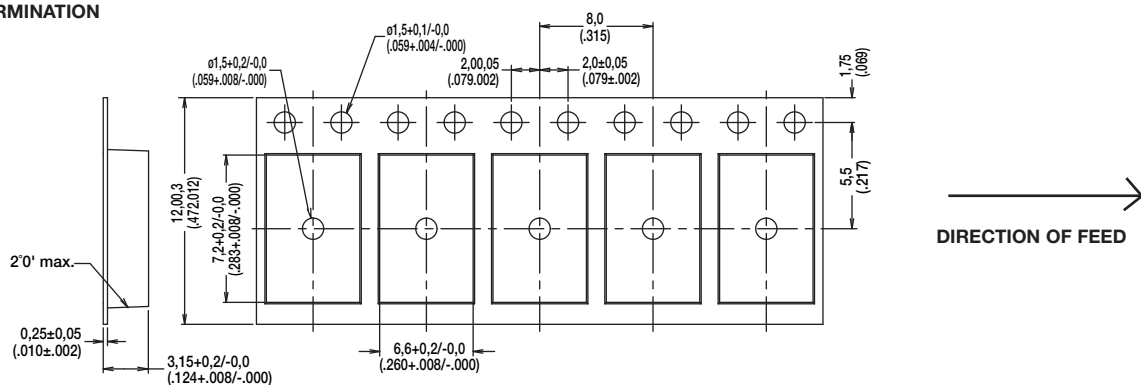


Dimensions shown in: mm (inch)
Specifications and dimensions subject to change

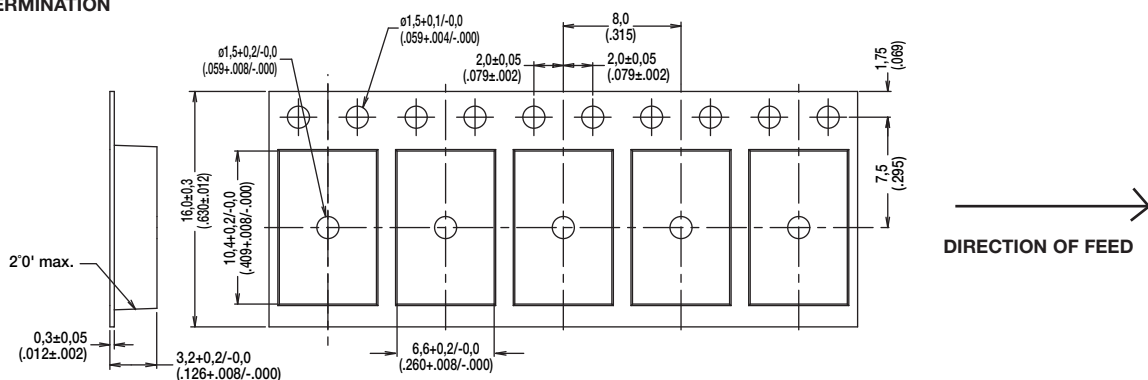
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TAPE & REEL

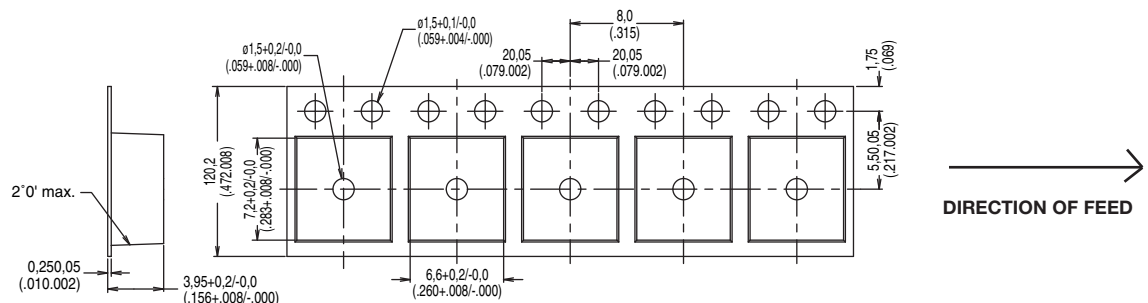
FOR KSC1 J TERMINATION



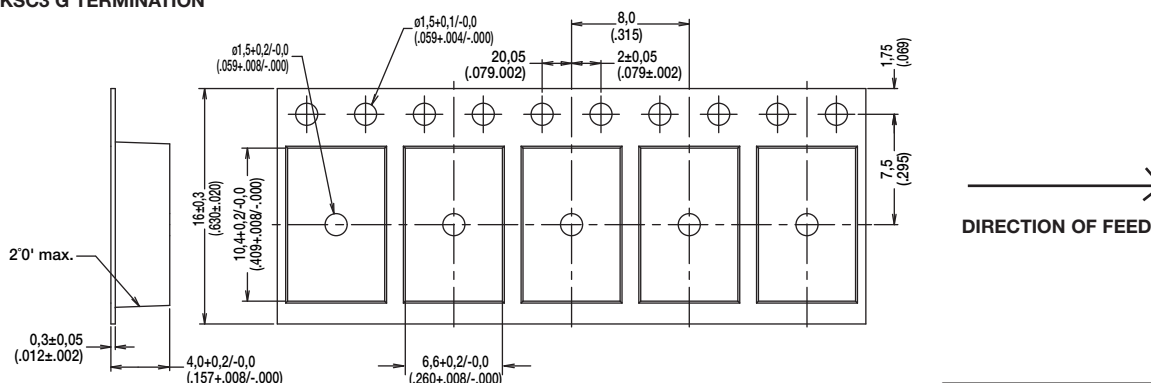
FOR KSC1 G TERMINATION



FOR KSC2 & KSC3 J TERMINATION



FOR KSC2 & KSC3 G TERMINATION



Dimensions shown in: mm (inch)

Specifications and dimensions subject to change

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TAPE & REEL

B

Tactile Switches

Technical drawing of a mechanical part, showing a cross-section and a top view.

Dimensions and Tolerances:

- Cross-section (Left):**
 - Flange thickness: 20 ± 0.1 (0.008)
 - Flange width: 5.6 ± 0.03 (0.016)
 - Internal width: 0.4 ± 0.03 (0.016)
 - Internal height: 7.3 ± 0.1 (0.028)
 - Internal width: 0.15 ± 0.02 (0.006)
- Top View (Right):**
 - Overall width: 162.0 ± 0.3 (0.012)
 - Overall height: 162.0 ± 0.3 (0.012)
 - Distance from top edge to first hole center: 12 ± 0.1 (0.472)
 - Distance between hole centers: 2 ± 0.05 (0.079)
 - Distance from hole center to right edge: 4 ± 0.1 (0.157)
 - Distance from left edge to first hole center: 6.7 ± 0.1 (0.264)
 - Distance from bottom edge to first hole center: 7.5 ± 0.1 (0.295)
 - Distance from hole center to bottom edge: 2.05 ± 0.05 (0.081)
 - Distance from hole center to right edge: 1.5 ± 0.2 (0.059)
 - Radius of internal feature: $R1.15$ (0.045)



Direction of feed



Direction of feed



C&K