Features/Benefits

- Positive tactile feeling
- J or G terminations
- Various heights
- IP67

Typical Applications

- Automotive
- Medical instruments
- Industrial electronics
- Network infrastructure and IT
- Elevator



Sp	ecifi	cati	on
	00111	outi	~

FUNCTION: Momentary action CONTACT ARRANGEMENT: 1 make contact = SPST, N.O. TERMINALS: J bend & Gullwing type for SMT SEALING: IP67 except KSC5 (IP50)

Liability Limitation

This datasheet does not provide enough information for applications that require a certain level of quality or safety such as automotive, medical systems, or safety equipement. Please contact customer service for the contractual specification package.

Environmental	Silver	Gold
OPERATING TEMPERATURE:	-40°C to 85°C	-40°C to 125°C
STORAGE TEMPERATURE:	-55°C to 85°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 \leq 5 sec.
- Cleaning according to typical washing processes.
- Lead free reflow soldering process in accordance with IEC 61760-1.

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 1 mA* MINIMUM CURRENT: 0.1 mA

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

CONTACT RESISTANCE: \leq 100m Ω

INSULATION RESISTANCE (100 V): \geq 10M Ω

BOUNCE TIME: ≤ 1 ms

 * Ultra low current with 10 μA - 1 VDC version are available upon request for KSC2 and KSC4

Packaging

Tape and Reel (see series for quantity information)

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

KSC Product Range

KSC1	KSC2	KSC3	KSC4	KSC5	KSC6	KSC7	KSC8	KSC9	KSC10
Without actuator	Soft actuator	Hard actuator	Soft actuator	Hard actuator	Hard actuator	Soft actuator	Hard actuator	Hard actuator	Soft actuator
H = 2.5 mm	H = 3.5 mm	H = 3.5 mm	H = 5.2 mm	H = 5.6 mm	H = 7.7 mm	H = 4.3 mm	H = 4.9 mm	H = 7.7 mm compatible with button	H = 4.9 mm
IP67	IP67	IP67	IP67	IP50	IP67	IP67	IP67	IP67	IP67



Note: KSC Series is subject to variants. Please contact customer service for other options.

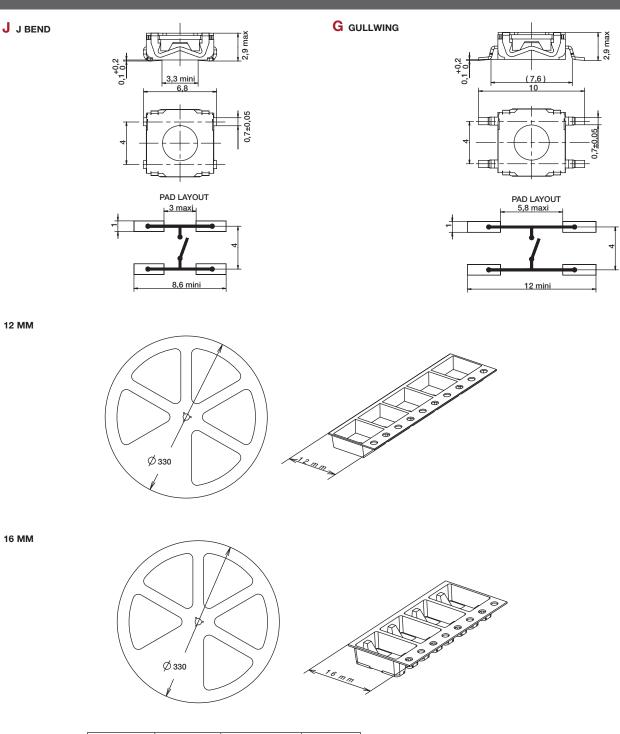


www.ckswitches.com

KSC Series Sealed Tact Switch for SMT

٦ آر

Tactile Switches



12 mm	Pieces	16 mm	Pieces
KSC1J	2,000	KSC1G	2,000
KSC2J	2,000	KSC2G	2,000
KSC3J	2,000	KSC3G	2,000
		KSC4J & G	1,000
		KSC5J & G	1,000
		KSC6J & G	750
		KSC7J & G	1,000
		KSC8J & G	1,000
		KSC9J & G	750
		KSC10J & G	1,000



First Angle Projection

Dimensions are shown: mm Specifications and dimensions subject to change

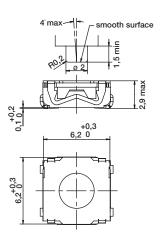
KSC1 without actuator 2,5 mm high



Туре	Operating force FA (Newtons)	Operating life (operations)	Travel (mm)
KSC121	1.8 ± 0.65	200,000	0.3 ± 0.15
KSC141	3 ± 0.75	200,000	0.3 ± 0.15
KSC151	5.5 ± 1.4	100,000	0.35 ± 0.15

Packaging

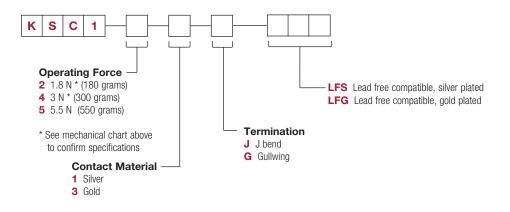
Switches delivered on continuous tape & reels of 2,000 pieces Dimensions according to EIA RS-481/ IEC 60286-3 standard External diameter 330 \pm 2 mm



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.







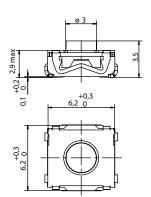
First Angle Projection

KSC2 soft actuator 3,5 mm high



ĥ

	Operating	Operating	
Туре	force FA	life	Travel
	(Newtons)	(operations)	(mm)
	. ,		
KSC201	1.6 ± 0.6	5,000,000	0.3 ± 0.2
KSC221	2 ± 0.5	500,000	0.35 + 0.25/- 0.15
KSC222	2 ± 0.5	1,000,000	0.35 + 0.25/- 0.15
KSC241	3.5 ± 0.9	300,000	0.5 ± 0.2
KSC251	5.55 ± 1.45	300,000	0.5 ± 0.2
KSC241 SPD	3.55 ± 0.9	300,000	0.5 ± 0.2
KSC251 SPD	6.2 ± 1.55	100,000	0.6 ± 0.2



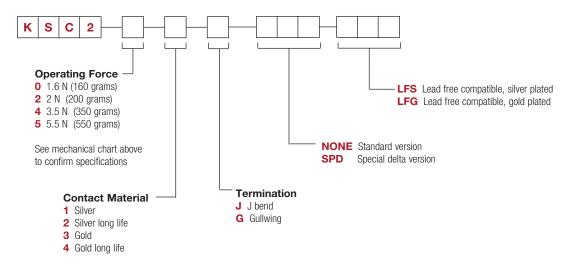
Packaging

Switches delivered on continuous tape & reels of 2,000 pieces Dimensions according to EIA RS-481/ IEC 60286-3 standard External diameter 330 \pm 2 mm

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.





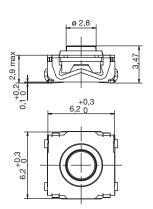
Specifications and dimensions subject to change
www.ckswitches.com

First Angle Projection

KSC3 hard actuator 3,5 mm high



Туре	Operating force FA (Newtons)	Operating life (operations)	Travel (mm)
KSC321	2 ± 0.4	300,000	0.2 + 0.3/- 0
KSC341	3 ± 0.75	300,000	0.2 + 0.3/- 0
KSC351	5 ± 1	100,000	0.25 + 0.3/- 0



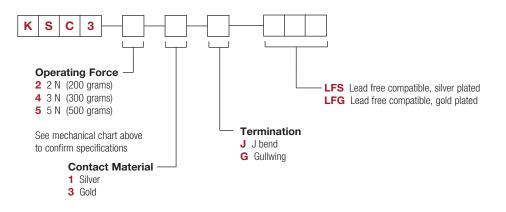
Packaging

Switches delivered on continuous tape & reels of 2,000 pieces Dimensions according to EIA RS-481/ IEC 60286-3 standard External diameter 330 \pm 2 mm

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.







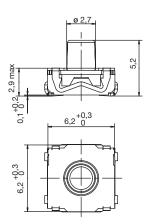
Specifications and dimensions subject to change

First Angle Projection

KSC4 soft actuator 5,2 mm high



Туре	Operating force FA (Newtons)	Operating life (operations)	Travel (mm)
KSC401 50SH	1.45 ± 0.55	5,000,000	0.5 ± 0.25
KSC411 70SH	1.4 ± 0.35	1,000,000	0.35 ± 0.20
KSC421 70SH	1.7 ± 0.45	300,000	0.5 ± 0.25
KSC422 70SH	1.7 ± 0.45	1,000,000	0.5 ± 0.25
KSC441 70SH	4 ± 1	300,000	0.75 ± 0.25
KSC442 70SH	4 ± 1	1,000,000	0.75 ± 0.25
KSC451 70SH	4.25 ± 0.75	300,000	0.8 ± 0.2
KSC441 SPD	3.5 ± 0.9	300,000	0.7 ± 0.2
KSC441 ST1	3.4 ± 1	300,000	0.7 ± 0.25
KSC441 ST2	3.4 ± 1	300,000	0.35 ± 0.20
KSC461 ST1	6.25 ± 1.75	100,000	1 ± 0.3
KSC461 ST2	6.25 ± 1.75	300,000	0.5 ± 0.2



Packaging

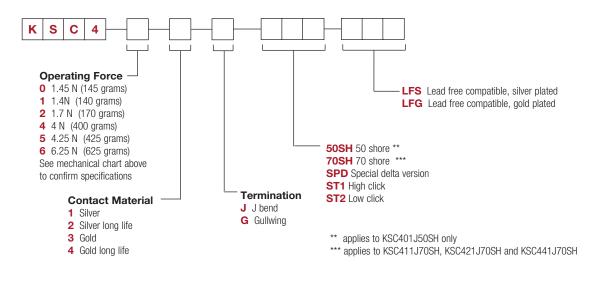
Switches delivered on continuous tape & reels of 1,000 pieces Dimensions according to EIA RS-481/ IEC 60286-3 standard External diameter 330 \pm 2 mm

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.





Specifications and dimensions subject to change

First Angle Projection Dimensions are shown: mm

FJ



KSC-DCT Series Dual Circuit Technology Tact Switch

Features/Benefits

- SPDT NC-NO function
- Silicone actuator
- J or G terminations
- Tape & reel
- IP67

Typical Applications

- Automotive
- Medical equipment
- Industrial electronics



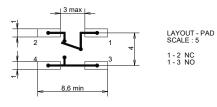
Туре	Force (N)	Operating Life (operations)	Travel (mm)
KSC441J DCT 70SH LFS	4.75 +/-1.25	300,000	0.85+0.35/-0.25
KSC441G DCT 70SH LFS	4.75 +/-1.25	300,000	0.85+0.35/-0.25

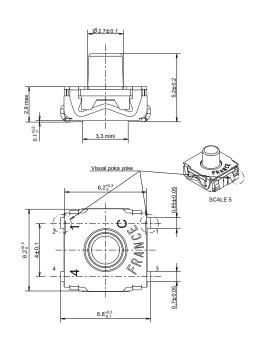
Packaging

In reels of 1,000 pieces.

Dimensions of reels according to EIA RS481 or IEC 2863. External diameter 330 \pm 2 mm

PCB Layout

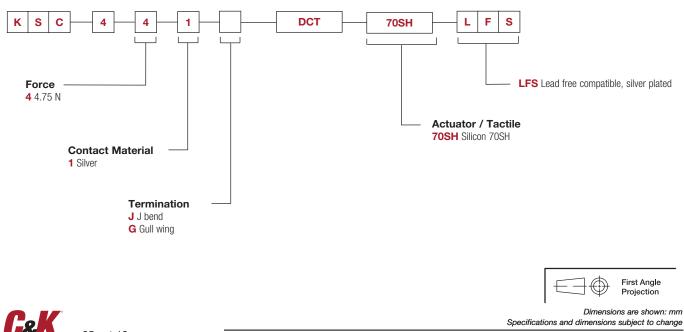




How To Order

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.







Features/Benefits

- **Extended Cage** •
- Silicone actuator
- J or G terminations
- Tape & reel
- IP67 •

Typical Applications

- Automotive
- Medical equipment •
- Industrial electronics •

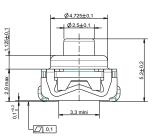
٦ آ

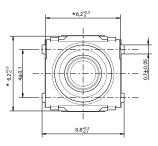
Туре	Force (N)	Operating Life (operations)	Travel (mm)
KSC421G 70SH LFS PF	1.8+/-0.45	300,000	0.5+/-0.25
KSC421J 70SH LFS PF	1.8+/-0.45	300,000	0.5+/-0.25
KSC422G 70SH LFS PF	1.8+/-0.45	1,000,000	0.5+/-0.25
KSC422J 70SH LFS PF	1.8+/-0.45	1,000,000	0.5+/-0.25
KSC441G 70SH LFS PF	4 +/- 1	300,000	0.65+/-0.25
KSC441J 70SH LFS PF	4 +/- 1	300,000	0.65+/-0.25
KSC442G 70SH LFS PF	4 +/- 1	1,000,000	0.65+/-0.25
KSC442J 70SH LFS PF	4 +/- 1	1,000,000	0.65+/-0.25
KSC461G 70SH LFS PF	6.25+/- 1.75	300,000	0.75+/-0.25
KSC461J 70SH LFS PF	6.25+/- 1.75	300,000	0.75+/-0.25
KSC471G 70SH LFS PF	4 +/- 1	300,000	0.65+/-0.25
KSC471J 70SH LFS PF	4 +/- 1	300,000	0.65+/-0.25

Max. potting height: 2.9 mm

Packaging

In reels of 1,000 pieces. Dimensions of reels according to EIA RS481 or IEC 2863. External diameter 330 ± 2 mm

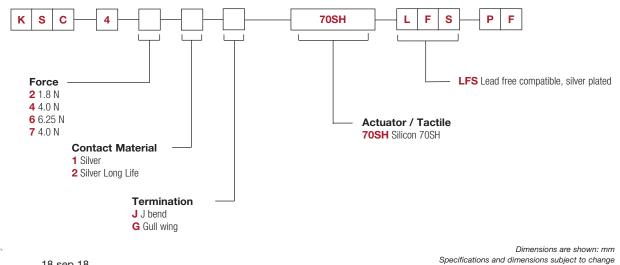




How To Order

-2

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.



____j



Dimensions are shown: mm Specifications and dimensions subject to change



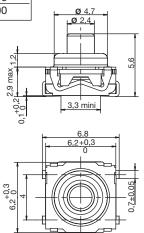
KSC5 hard actuator 5,6 mm high



	Operating force	Operating force	Travel to	Travel to		
	axial FA	lateral FL	make	make	Life expectancy	Life expectancy
Туре	N (grams)	N (grams) ±30%	axial (mm)	lateral (mm)	cycles, axial	cycles, lateral
KSC521	2 ± 0.5	1.2 - 2.6	0.25 ± 0.15	0.5 ± 0.25	100,000	10,000
KSC541	3 ± 0.75	1.8 - 3.8	0.25 ± 0.15	0.5 ± 0.25	100,000	10,000

Packaging

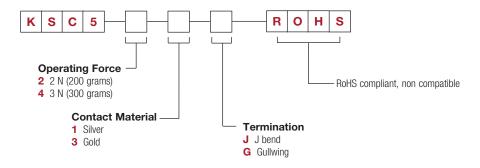
Switches delivered on continuous tape & reels of 1,000 pieces, dimensions according to EIA RS-481/ IEC 60286-3 standard External diameter 330 \pm 2 mm



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.







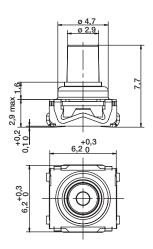
KSC6 hard actuator 7,7 mm high



Туре	Operating force FA (Newtons)	Operating life (operations)	Travel (mm)
KSC621	1.7 ± 0.5	300,000	0.4 ± 0.2
KSC631	2.55 ± 0.65	300,000	0.4 ± 0.2
KSC641	3.4 ± 0.85	300,000	0.4 ± 0.2

Packaging

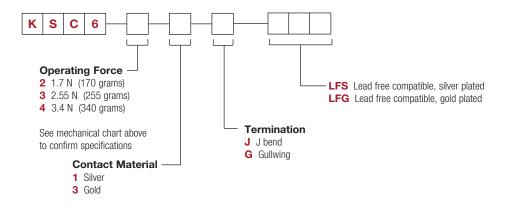
Switches delivered on continuous tape & reels of 750 pieces Dimensions according to EIA RS-481/ IEC 60286-3 standard External diameter 330 \pm 2 mm



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.





Specifications and dimensions subject to change

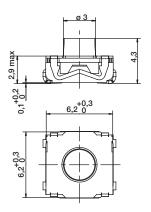
First Angle Projection

KSC7 soft actuator 4,3 mm high



5

Туре	Operating force FA (Newtons)	Operating life (operations)	Travel (mm)
KSC701	1.6 ± 0.6	5,000,000	0.3 ± 0.2
KSC721	2.25 ± 0.55	300,000	0.3 ± 0.15
KSC741	3.9 ± 1	300,000	0.4 ± 0.2



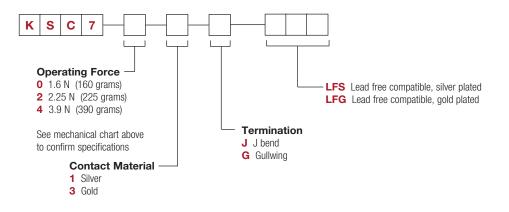
Packaging

Switches delivered on continuous tape & reels of 1,000 pieces Dimensions according to EIA RS-481/ IEC 60286-3 standard External diameter 330 \pm 2 mm

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.





www.ckswitches.com

Specifications and dimensions subject to change

First Angle Projection Dimensions are shown: mm

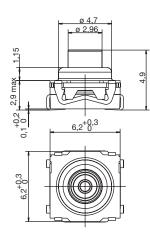
KSC8 hard actuator 4,9 mm high



Туре	Operating force FA (Newtons)	Operating life (operations)	Travel (mm)
KSC821	3.15 ± 0.75	300,000	0.65 ± 0.2
KSC821 OL	1.7 ± 0.5	300,000	0.4 ± 0.2
KSC831 OL	2.55 ± 0.65	300,000	0.4 ± 0.2
KSC841 OL	3.4 ± 0.85	300,000	0.4 ± 0.2

Packaging

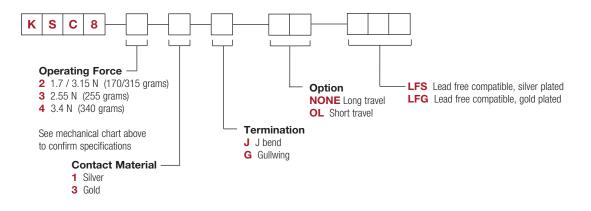
Switches delivered on continuous tape & reels of 1,000 pieces Dimensions according to EIA RS-481/ IEC 60286-3 standard External diameter 330 \pm 2 mm



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.







6

First Angle

KSC9 hard actuator 7,7 mm high



В

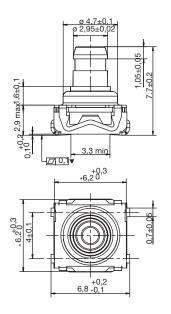
Tactile Switches



Туре	Operating force FA (Newtons)	Operating life (operations)	Travel (mm)
KSC921	1.7 ± 0.5	300,000	0.4 ± 0.2
KSC931	2.25 ± 0.65	300,000	0.4 ± 0.2
KSC941	3.4 ± 0.85	300,000	0.4 ± 0.2

Packaging

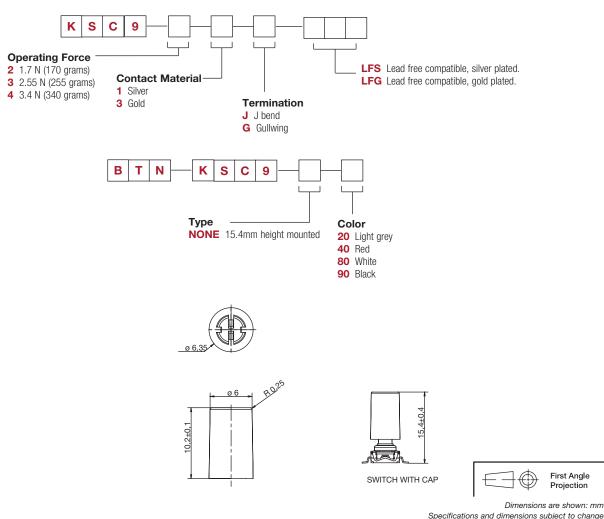
Switches delivered on continuous tape & reels of 750 pieces Dimensions according to EIA RS-481/ IEC 60286-3 standard External diameter 330 ± 2 mm



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.



KSC10 Series Sealed Tact Switches for SMT

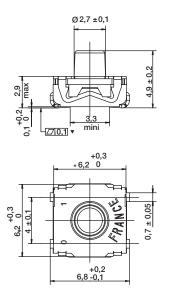
KSC10 soft actuator 4,9 mm high



Туре	Operating force FA (Newtons)	Operating life (operations)	Travel (mm)
KSC1001	1.45 ± 0.55	5,000,000	0.45 ± 0.25

Packaging

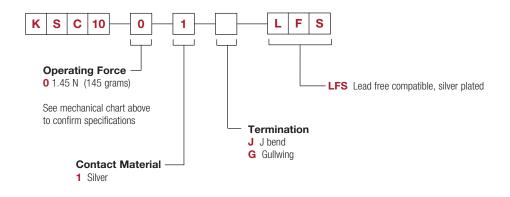
Switches delivered on continuous tape & reels of 1,000 pieces Dimensions according to EIA RS-481/ IEC 60286-3 standard External diameter 330 \pm 2 mm



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.



Note: KSC10 offered with yellow actuator as standard, hardness 55 Shore



B-63



First Angle

KSC V2 Series Side Actuated Sealed Tact Switch

Features/Benefits

- Full SMD side actuated
- Haptic adaptability
- Pin in paste terminations
- Tape & reel
- IP67

Specification

FUNCTION: momentary action CONTACT ARRANGEMENT: 1 make contact = SPST, N.O. TERMINALS:

Force

(N)

 1.6 ± 0.6

 1.55 ± 0.45

 3.5 ± 1.0

 3.5 ± 1.0

 1.8 ± 0.5

 1.8 ± 0.5

 3.4 ± 1.0

NOTE: Basic version is based on KSC441V2 SPDELTA LFS.

Other configurations of haptics are available upon demand.

MISUSE OVERLOAD: 40N with back support SHEAR FORCE:10N without back support

Operating Life

(operations)

1.000.000

300.000

300,000

300,000

300.000

300.000

300,000

- 2 pin in paste signal terminals
- 3 SMD ground terminals

Type

KSC201 V2 LFS

KSC421 V2 70SH LFS

KSC441V2 70SH SP DELTA

LFS KSC443V2 SP DELTA LFG

KSC421 V2 RT LFS

KSC423 V2 RT LFG

KSC441 V2 RT LFS

Mechanical

Typical Applications

Automotive

Travel

(mm)

 0.5 ± 0.2

0.45 ± 0.25

 0.7 ± 0.2

 0.7 ± 0.2

 0.5 ± 0.2

 0.5 ± 0.2

 0.35 ± 0.2

- Industrial electronics
- Network equipment
- Telecommunications



Electrical

Silver		

Gold

1 VA	0.2 VA
32 VDC	32 VDC
20 mV	20 mV
50 mA	10 mA
50 mA	10 mA
1 mA	0.1 mA
	32 VDC 20 mV 50 mA

DIELECTRIC STRENGTH (50 Hz, 1 min.): ≥ 250 Vrms CONTACT RESISTANCE: ≤ 100 m Ω INSULATION RESISTANCE (100 V, initial stage): $> 10^{\circ}\Omega$ BOUNCE TIME: < 1 ms

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

Process

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

- Cleaning according to typical washing processes.

- Lead free reflow soldering process in accordance with IEC 61760-1.

TERMINALS: pin in paste, silver or gold plated TOP PLATE: tin plated MSL level: 1 Vacuum pick head mandatory

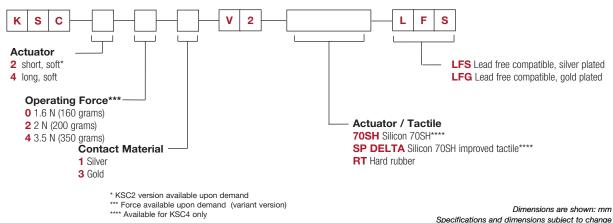
Packaging

In reels of 800 pieces. Dimensions of reels according to EIA RS481 or IEC 2863. External diameter 380 mm \pm 2 mm.

NOTE: This product is designed and manufactured for general electronic devices. For systems where reliability and safety are required, please contact your sales representative to secure product integration and function to secure usage.

How To Order

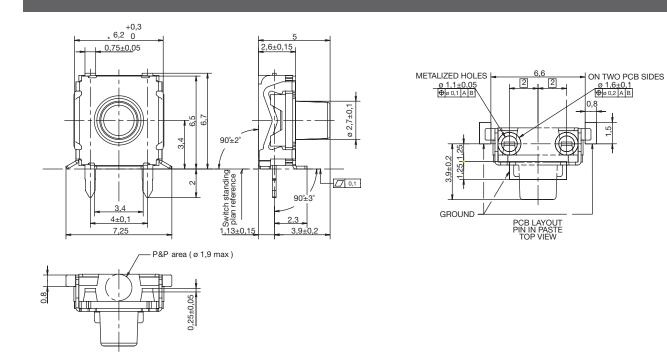
Our easy build-a-switch concept allows you to mix and match options to create the switch you need. To order, select desired option from each category and place it in the appropriate box. For any part number different from those listed above, please consult your local representative.



h

Β

KSC V2 Series Side Actuated Sealed Tact Switch



С ,75±0,1 4±0,1 <u>2±0,</u>1 SECTION C-C \oplus \oplus \oplus \oplus \oplus ⊕ æ \oplus \oplus \oplus \oplus \oplus æ 7,5±0,1 16 +0 2,85 4,5 Ø 1,5 0+0,1 3,7 7,1<u>±0,1</u> 4,1 SECTION A-A С 9,3<u>±0,1</u> 5,35

INTEGRATION



First Angle Projection

Specifications and dimensions subject to change

5,1±0,1

. 70°

20°

50° _ 30°

TAPE AND REEL

-2



Mouser Electronics

Authorized Distributor

Click to View Pricing, Inventory, Delivery & Lifecycle Information:

C&K Components:

KSC245JLFG KSC445J70SHLFG KSC245GLFG KSC471JLFS

C&K Switches:

KSC121G KSC123J KSC121J KSC241J KSC241G KSC441G KSC421V30ACT3.17 KSC421G KSC421J KSC351J KSC351G KSC321J KSC321G KSC141G KSC141G KSC141J KSC411JB KSC221G KSC621J KSC621G KSC401JB KSC341G KSC641J KSC641G KSC151G KSC151J KSC541G KSC541J KSC121J-LFS KSC441J70SH LFS KSC411J70SH LFS KSC221G LFS KSC221J LFS KSC641G LFS KSC351J LFS KSC241G LFS KSC421G70SH LFS KSC241J LFS KSC241J LFS KSC321J LFS KSC641G LFS KSC441G 70SH LFS KSC401J 50SH LFS KSC621J LFS KSC421J 70SH LFS KSC421 V30 ACT2.95 LFS KSC441G 70SH LFS KSC401J 50SH LFS KSC621J LFS KSC421J 70SH LFS KSC421 V30 ACT2.95 LFS KSC222G LFS KSC442G 70SH LFS KSC403J 50SH LFG KSC521G ROHS KSC411G 70SH LFS KSC422G 70SH LFS KSC422J 70SH LFS KSC442J 70SH LFS KSC441G ST1 LFS KSC441G ST2 LFS KSC441J ST2 LFS KSC441J ST1 LFS KSC421 V30 ACT3.17 LFS KSC443J 70SH LFG KSC521J ROHS KSC541J ROHS KSC721J LFS KSC721G LFS KSC741J LFS KSC741G LFS KSC221J KSC341J KSC441J KSC441V2 SP Delta LFS KSC921G LFS KSC921J LFS KSC931G LFS KSC931J LFS KSC941G LFS KSC941G LFS KSC701G LFS KSC1001J LFS KSC471GLFS KSC445G70SHLFG KSC1001G LFS KSC701J LFS KSC441V270SHSPDELTALFS KSC421v30Act2.95Lfs Ksc421v30Act3.17Lfs