



**THE DATASHEET OF
KSC441G 70SH LFS**



KSC4 Series

Sealed Tactile Switch for SMT 6.2 x 6.2 mm, with 5.2 mm Height Soft Actuator



Specifications

Function	Momentary action
Contact Arrangement	1 make contact = SPST, N.O.
Terminals	J bend & Gullwing type for SMT
Sealing	IP67
Packaging	Switches delivered on continuous tape & reels of 1,000 pieces Dimensions according to EIA RS-481/ IEC 60286-3 standard External diameter 330 ± 2 mm

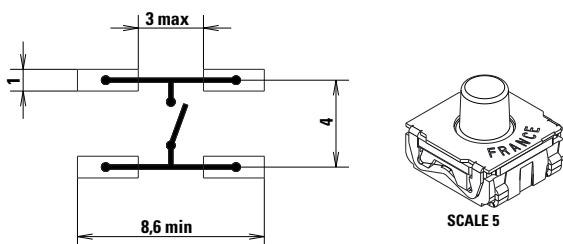
Electrical Characteristics

Dielectric Strength (50 Hz, 1 min.)	≥ 250 Vrms	
Contact Resistance	≤ 100mΩ	
Insulation Resistance (100 V)	≥ 1000 M Ω	
Bounce Time	≤ 1 ms	
	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	0.1 mA

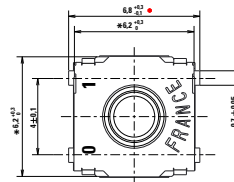
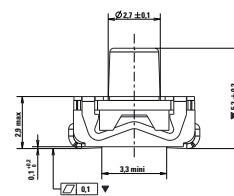
Environmental Characteristics

	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

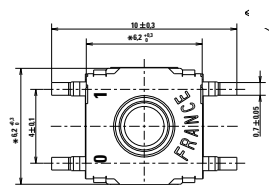
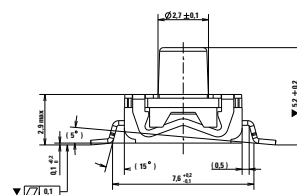
J Terminations



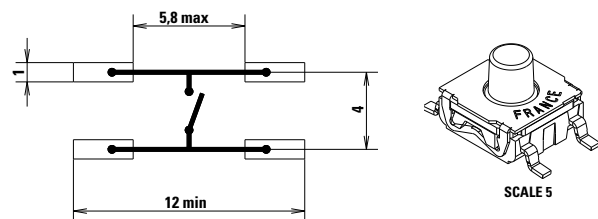
J Dimensions (mm)



G Dimensions (mm)



G Terminations



Description

The KSC4 series of sealed tact switches for SMT are IP67 rated, 5.2mm high soft actuator tactile switches. They meet the size and performance requirements of products with small surface areas, but can also withstand harsh elements like vibration and shock. The KSC4 switches are perfect for industrial, consumer and automotive applications.

Features & Benefits

- Positive adaptable tactile feeling
- Soft actuator 5.2mm high
- IP67

Applications

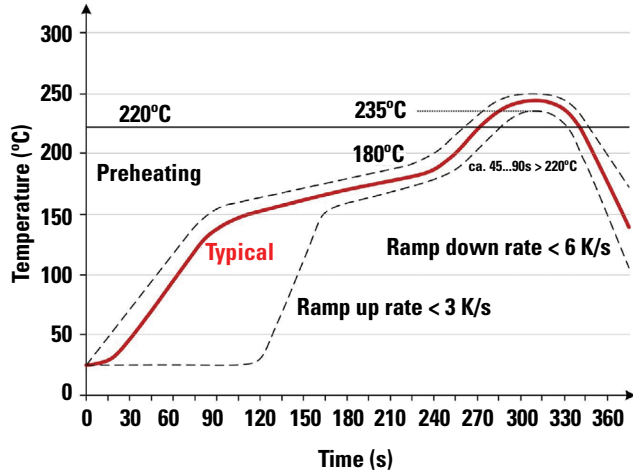
- Industrial electronics
- Consumer products
- Transportation

KSC4 Series

Sealed Tactile Switch for SMT 6.2 x 6.2 mm,
with 5.2 mm Height Soft Actuator



Soldering Profile

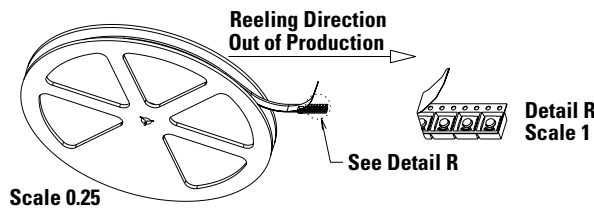


Note: Up to 2 reflow cycles in accordance with the above temperature profile

Soldering process: 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.
- Lead free soldering process in accordance with the definition on the left.

Tape & Reel



Packaging Details

Type	Tape & reel
Number of Parts in Packaging	1,000
Other Information	Tape and reel per EIA 481
Transport Conditions	According to specification NF H00-060

Ordering Number

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.

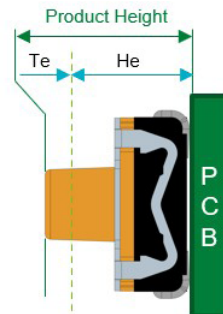
KSC4 - x - x - x - xxx - xxx

<p>Operating Force</p> <p>0: 1.45 N (145 grams) 1: 1.4 N (140 grams) 2: 1.7 N (170 grams) 3: 2.75N (275 grams) 4: 4 N (400 grams) 5: 4.25 N (425 grams) 6: 6.25 N (625 grams)</p>	<p>Contact Material</p> <p>1: Silver 2: Silver long life 3: Gold 4: Gold long life</p>	<p>Termination</p> <p>J: J Bend G: Gullwing</p>	<p>LFS: Lead free compatible, silver plated LFG: Lead free compatible, gold plated</p> <p>50SH: 50 shore¹ 70SH: 70 shore² SPD: Special delta version ST1: High click ST2: Low click</p>
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Notes:
 1. Applies to KSC40x only
 2. Applies to KSC41x, KSC42x, KSC43x and KSC44x

KSC4 Series

Sealed Tactile Switch for SMT 6.2 x 6.2 mm,
with 5.2 mm Height Soft Actuator



Te : Electrical Travel
He : Electrical Height

Mechanical Characteristics

Supply Status	LITTELFUSE Orderable Part Number	Description	Contact & Terminals Plating	Terminals	Operating Force Fa (Newtons)	Tactile ratio (Min)	Operating Life (operations)	Electrical Travel (mm)
✓	Y31C01245FPLFS	KSC401G 50 SH LFS	Silver	G	1.45±0.55	Min 15%	5,000,000	0.5±0.25
✓	Y31C01241FPLFS	KSC401J 50 SH LFS	Silver	J	1.45±0.55	Min 15%	5,000,000	0.5±0.25
✓	Y31C03245FPLFG	KSC403G 50 SH LFG	Gold	G	1.45±0.55	Min 15%	5,000,000	0.5±0.25
✓	Y31C03241FPLFG	KSC403J 50 SH LFG	Gold	J	1.45±0.55	Min 15%	5,000,000	0.5±0.25
✓	Y31C11445FPLFS	KSC411G 70 SH LFS	Silver	G	1.4±0.35	Min 10%	1,000,000	0.35±0.2
✓	Y31C11441FPLFS	KSC411J 70 SH LFS	Silver	J	1.4±0.35	Min 10%	1,000,000	0.35±0.2
✓	Y31C13445FPLFG	KSC413G 70 SH LFG	Gold	G	1.4±0.35	Min 10%	1,000,000	0.35±0.2
✓	Y31C13441FPLFG	KSC413J 70 SH LFG	Gold	J	1.4±0.35	Min 10%	1,000,000	0.35±0.2
✓	Y31C21445FPLFS	KSC421G 70 SH LFS	Silver	G	1.7±0.45	Min 15%	300,000	0.5±0.25
✓	Y31C21241FPLFS	KSC421J 50 SH LFS	Silver	J	2±0.6	Min 10%	300,000	0.7±0.25
✓	Y31C21441FPLFS	KSC421J 70 SH LFS	Silver	J	1.7±0.45	Min 15%	300,000	0.5±0.25
✓	Y31C22445FPLFS	KSC422G 70 SH LFS	Silver	G	1.7±0.45	Min 15%	1,000,000	0.5±0.25
✓	Y31C22441FPLFS	KSC422J 70 SH LFS	Silver	J	1.7±0.45	Min 15%	1,000,000	0.5±0.25
✓	Y31C23445FPLFG	KSC423G 70 SH LFG	Gold	G	1.7±0.45	Min 15%	300,000	0.5±0.25
✓	Y31C23441FPLFG	KSC423J 70 SH LFG	Gold	J	1.7±0.45	Min 15%	300,000	0.5±0.25
✓	Y31C24445FPLFG	KSC424G 70 SH LFG	Gold	G	1.7±0.45	Min 15%	1,000,000	0.5±0.25
✓	Y31C24441FPLFG	KSC424J 70 SH LFG	Gold	J	1.7±0.45	Min 15%	1,000,000	0.5±0.25
✓	Y31C34445FPLFG	KSC434G 70 SH LFG	Gold	G	2.75±0.75	Min 15%	1,000,000	0.55±0.25
✓	Y31C41445FPLFS	KSC441G 70 SH LFS	Silver	G	4±1	Min 10%	300,000	0.75±0.25
✓	Y31C41441FPLFS	KSC441J 70 SH LFS	Silver	J	4±1	Min 10%	300,000	0.75±0.25
✓	Y31C31441FPLFS	KSC441J 70 SH SP DELTA LFS	Silver	J	3.5±0.9	Min 20%-Max 60%	300,000	0.7±0.2
✓	Y31C42445FPLFS	KSC442G 70 SH LFS	Silver	G	4±1	Min 10%	1,000,000	0.75±0.25
✓	Y31C42441FPLFS	KSC442J 70 SH LFS	Silver	J	4±1	Min 10%	1,000,000	0.75±0.25
✓	Y31C43445FPLFG	KSC443G 70 SH LFG	Gold	G	4±1	Min 10%	300,000	0.75±0.25
✓	Y31C43441FPLFG	KSC443J 70 SH LFG	Gold	J	4±1	Min 10%	300,000	0.75±0.25
✓	Y31C44441FPLFG	KSC444J 70 SH LFG	Gold	J	4±1	Min 10%	1,000,000	0.75±0.25
✓	Y31C51441FPLFS	KSC451J 70SH LFS	Silver	J	4.25±0.75	Min 15%	300,000	0.8±0.2

KSC4 Series

Sealed Tactile Switch for SMT 6.2 x 6.2 mm,
with 5.2 mm Height Soft Actuator



Versions with acoustic specification

Supply Status	LITTELFUSE Orderable Part Number	Description	Contact & Terminals Plating	Terminals	Operating Force Fa (Newtons)	Tactile ratio (Min)	Operating Life (operations)	Electrical Travel (mm)
✓	Y31CZ2841FPLFS	KSC422J 70 SH ST1 LFS	Silver	J	1.9±0.5	Min 25%	1,000,000	0.5±0.25
✓	Y31C41845FPLFS	KSC441G ST1 LFS	Silver	G	3.4±1	Min 15%	300,000	0.7±0.25
✓	Y31C41945FPLFS	KSC441G ST2 LFS	Silver	G	3.4±1	Min 15%	300,000	0.35±0.2
✓	Y31C41841FPLFS	KSC441J ST1 LFS	Silver	J	3.4±1	Min 15%	300,000	0.7±0.25
✓	Y31C41941FPLFS	KSC441J ST2 LFS	Silver	J	3.4±1	Min 15%	300,000	0.35±0.2
✓	Y31C43845FPLFG	KSC443G ST1 LFG	Gold	G	3.4±1	Min 15%	300,000	0.7±0.25
ORO	Y31C43945FPLFG	KSC443G ST2 LFG	Gold	G	3.4±1	Min 15%	300,000	0.35±0.2
✓	Y31C43941FPLFG	KSC443J ST2 LFG	Gold	J	3.4±1	Min 15%	300,000	0.35±0.2
✓	Y31C61845FPLFS	KSC461G ST1 LFS	Silver	G	6.25±1.75	Min 10%	100,000	1±0.3
✓	Y31C61945FPLFS	KSC461G ST2 LFS	Silver	G	6.25±1.75	Min 10%	300,000	0.5±0.2
✓	Y31C61841FPLFS	KSC461J ST1 LFS	Silver	J	6.25±1.75	Min 10%	100,000	1±0.3
✓	Y31C61941FPLFS	KSC461J ST2 LFS	Silver	J	6.25±1.75	Min 10%	300,000	0.5±0.2
✓	Y31C63845FPLFG	KSC463G ST1 LFG	Gold	G	6.25±1.75	Min 10%	100,000	1±0.3
✓	Y31C63945FPLFG	KSC463G ST2 LFG	Gold	G	6.25±1.75	Min 10%	300,000	0.5±0.2
✓	Y31C63841FPLFG	KSC463J ST1 LFG	Gold	J	6.25±1.75	Min 10%	100,000	1±0.3
✓	Y31C63941FPLFG	KSC463J ST2 LFG	Gold	J	6.25±1.75	Min 10%	300,000	0.5±0.2
✓	Y31C63941FPLFG	KSC463J ST2 LFG	Gold	J	6.25±1.75	Min 10%	300,000	0.5±0.2

Versions defined by Electrical Height rather than Electrical Travel, with tighter tolerances

Supply Status	LITTELFUSE Orderable Part Number	Description	Contact & Terminals Plating	Terminals	Operating Force Fa (Newtons)	Tactile Ratio (Min)	Operating Life (operations)	Electrical Travel (mm) (for information only)	Electrical Height from PCB (mm)	Product Height from PCB (mm)
ORO	Y31HV1N41FP	KSC421JR SPT LFS	Silver	J	2.5±0.7	Min 30%	1,000,000	0.28	4.82±0.08	5,1±0.1
✓	Y31C314R1FPLFS	KSC431JR LFS	Silver	J	3±1	Min 10%	1,000,000	0.47	4.7±0.1	5,17±0.1
✓	Y31C414R1FPLFS	KSC441JR SPD LFS	Silver	J	3.5±1	Min 15% - Max 60%	1,000,000	0.58	4.59±0.1	5,17±0.1
✓	Y31C714R1FPLFS	KSC471JR LFS	Silver	J	4±1	Min 5%	1,000,000	0.65	4.52±0.1	5,17±0.1
✓	Y31H71GR1FP	KSC471JR SPT LFS	Silver	J	4±0.7	Min 30%	1,000,000	0.35	4.75±0.08	5,1±0.1

Notes: Supply status: ✓ Available for ordering;

ORO: Available On Request Only. Please contact your Littelfuse representative for details.
For long life version, please consult the specific Tireless Endurance datasheet : KSC4 TE



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 equipment. Please contact customer service for the contractual specification package.

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