

K12S Series

High Performance SMT Keyswitches



Specifications

Function	Momentary
Contact Arrangement	SPST or DPST
Contact Type	NO or NC (NO/NC on request)
Terminals	SMT
Total Travel	1.5 mm
Operating Force	3N Detect; 5N; 6N; 9N; 12N; 4/8N and 6/12N
Sealing	IP40 or IP67
Packaging	Reels of 900 pieces

Electrical & Environmental Characteristics

Switching Power Min./Max.	0.02 W / 3W
Switching Voltage Min./Max.	2 V / 30 V DC
Switching Current Min./Max.	10 mA / 100 mA
Dielectric Strength	> 300 V RMS
Operating Life	> 10 ⁶ operations (detect version) / 2x10 ⁵ operations (versions with tactile effect)
Contact Resistance	Initial < 100mΩ - After test < 250 mΩ
Insulation Resistance	> 10 ⁹ Ω
Bounce Time	< 10 ms
Operating Temperature	-40°C to 85°C
Storage Temperature	-40°C to 95°C
Solderability	Lead free soldering compatible

Note:
RoHS compliant and Halogen free

Description

The K12S High Performance SMT is an illuminated keyswitch that provides an excellent tactile feel for the user. It can be IP40 or IP67 sealed, making it ready for use in any off-road, motorcycles, automotive, industrial or medical appliances– and it complies with all RoHS requirements.

The K12S is known for its reliability, is available in DPST or detect versions, and is compatible with an SMT lead-free soldering process.

Features & Benefits

- Harsh environment applications - IP67
- Compatible with SMT lead free soldering process
- Illuminated
- Excellent tactile feel
- High reliability / long life
- SPST, DPST, Double Stroke and Detect versions available
- RoHS compliant

Applications

- Motorcycles
- Off-road transportation
- Joysticks and Armrests
- Remote controls
- Automotive
- Industrial
- Medical

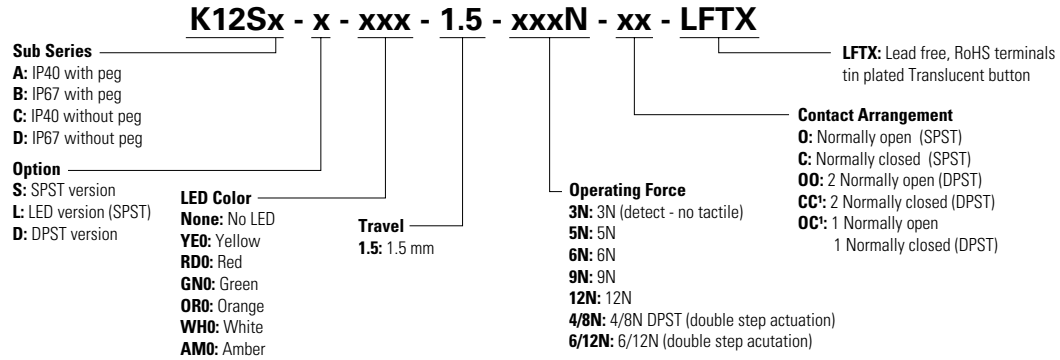
K12S Series

High Performance SMT Keyswitches



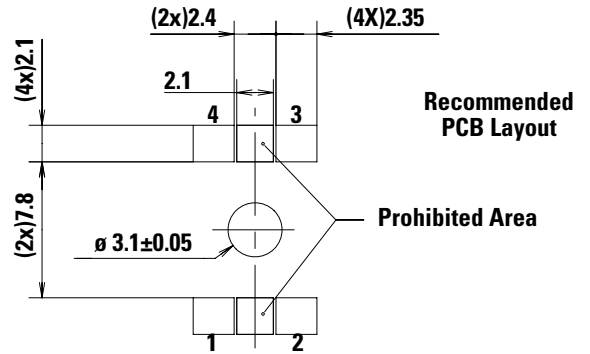
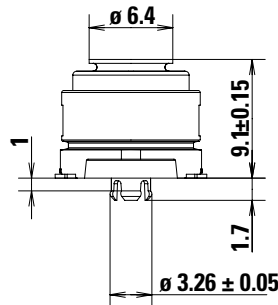
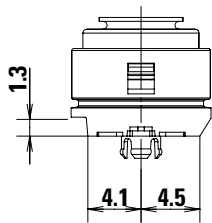
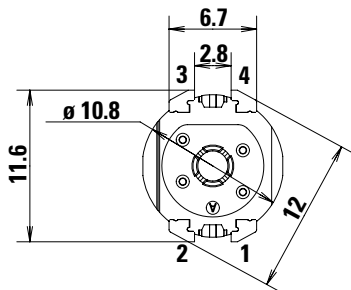
Ordering Number

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.

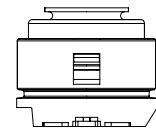


Notes:
1. Contact technical support for this configuration

K12SA / K12SC IP40 with peg / IP40 without peg

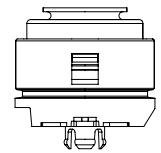


K12SC version



Without Peg

K12SA version



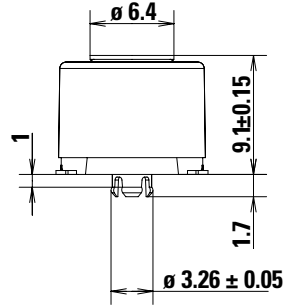
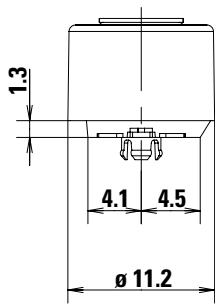
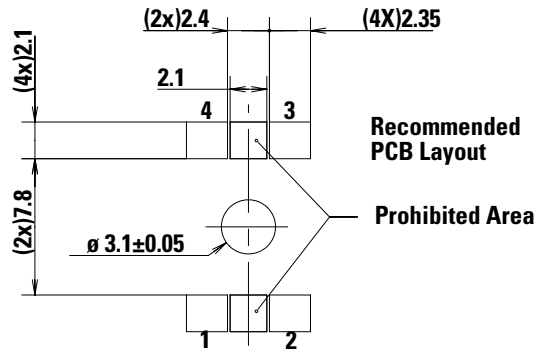
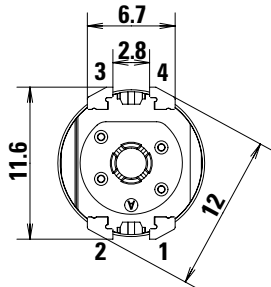
With Peg

K12S Series

High Performance SMT Keyswitches

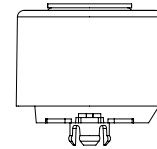
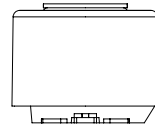


K12SB / K12SD IP67 with peg / IP67 without peg



K12SD version

K12SB version



Without Peg

With Peg

Option

S SPST Version

L LED Version

D DPST Version

Single NO

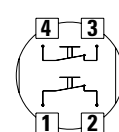
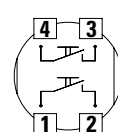
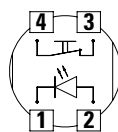
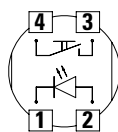
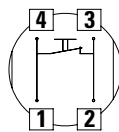
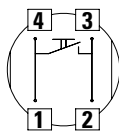
Single NC

Single NO + LED

Single NC + LED

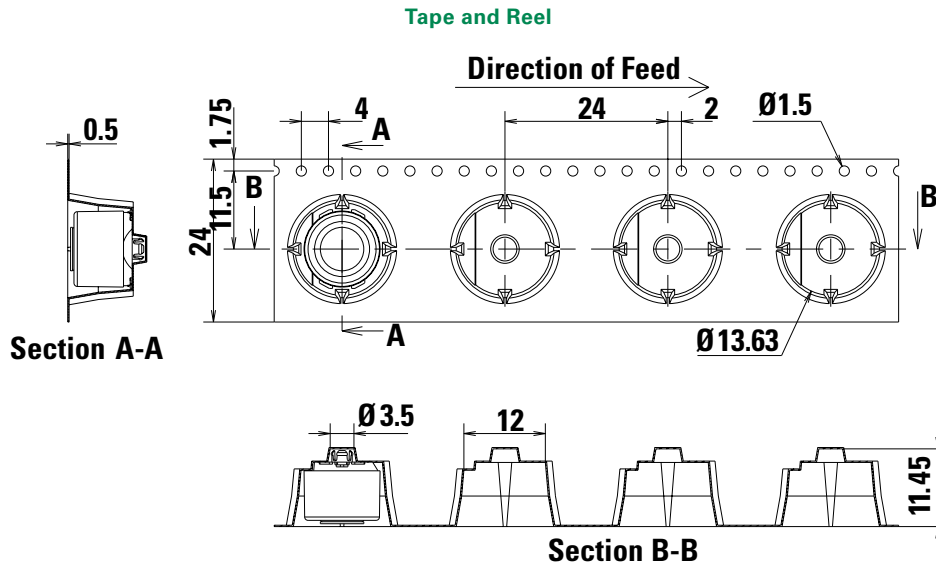
Double NO

Double NC



K12S Series

High Performance SMT Keyswitches



Disclaimer Notice - Information furnished is believed to be accurate and reliable. However, users should independently evaluate the suitability of and test each product selected for their own applications. Littelfuse products are not designed for, and may not be used in, all applications. Read complete Disclaimer Notice at <http://www.littelfuse.com/disclaimer-electronics>.

K12S Series

High Performance SMT Keystwitches (Cold White)



Description

The K12S "Cold White" High Performance SMT is an illuminated keystwitch that provides an excellent tactile feel for the user. It can be IP40 or IP67 sealed, making it ready for use in any industrial, automotive, or medical environment – and it complies with all RoHS requirements. The K12S is known for its reliability, is available in DPST or detect versions, and is compatible with an SMT lead-free soldering process.

Features & Benefits

- Harsh environment applications - IP67 sealed
- Excellent tactile feel
- Compatible with SMT lead free soldering process
- High reliability / long life
- High Illumination
- SPST, DPST, Double Stroke and Detect versions available
- RoHS compliant

Specifications

Function	Momentary
Contact Arrangement	SPST (DPST on request)
Contact Type	NO or NC (NO/NC on request)
Terminals	SMT
Total Travel	1.5 mm
Operating Force	3N Detect; 5N; 6N; 9N or 12N
Sealing	IP67 ¹
Packaging	Reels of 900 pieces (diameter 550 mm) Reels of 300 pieces (diameter 360 mm)

Note:

1. High sealing grade (IP67): Only after customer coating operation

Applications

- Motorcycles
- Off-road transportation
- Joysticks and Armrests
- Remote controls
- Automotive
- Industrial
- Medical

Electrical & Environmental Characteristics

Switching Power Min./Max.	0.02 W / 3W
Switching Voltage Min./Max.	2 V / 30 V DC
Switching Current Min./Max.	10 mA / 100 mA
Dielectric Strength	> 300 V RMS
Operating Life	> 10 ⁶ operations (detect version) / 2x10 ⁵ operations (versions with tactile effect)
Contact Resistance	Initial < 100mΩ - After test < 250 mΩ
Insulation Resistance	>10 ⁹ Ω
Bounce Time	< 10 ms
Operating Temperature	-40°C to 85°C
Storage Temperature	-40°C to 95°C
Solderability	Lead free soldering compatible

Note:

RoHS compliant and Halogen free

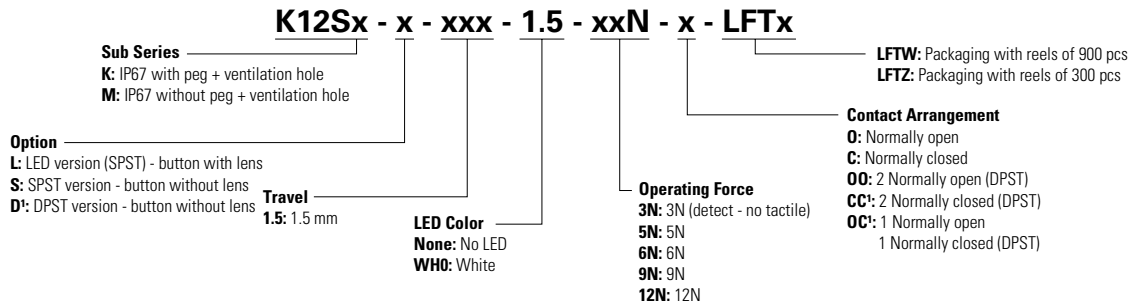
K12S Series

High Performance SMT Keyswitches (Cold White)



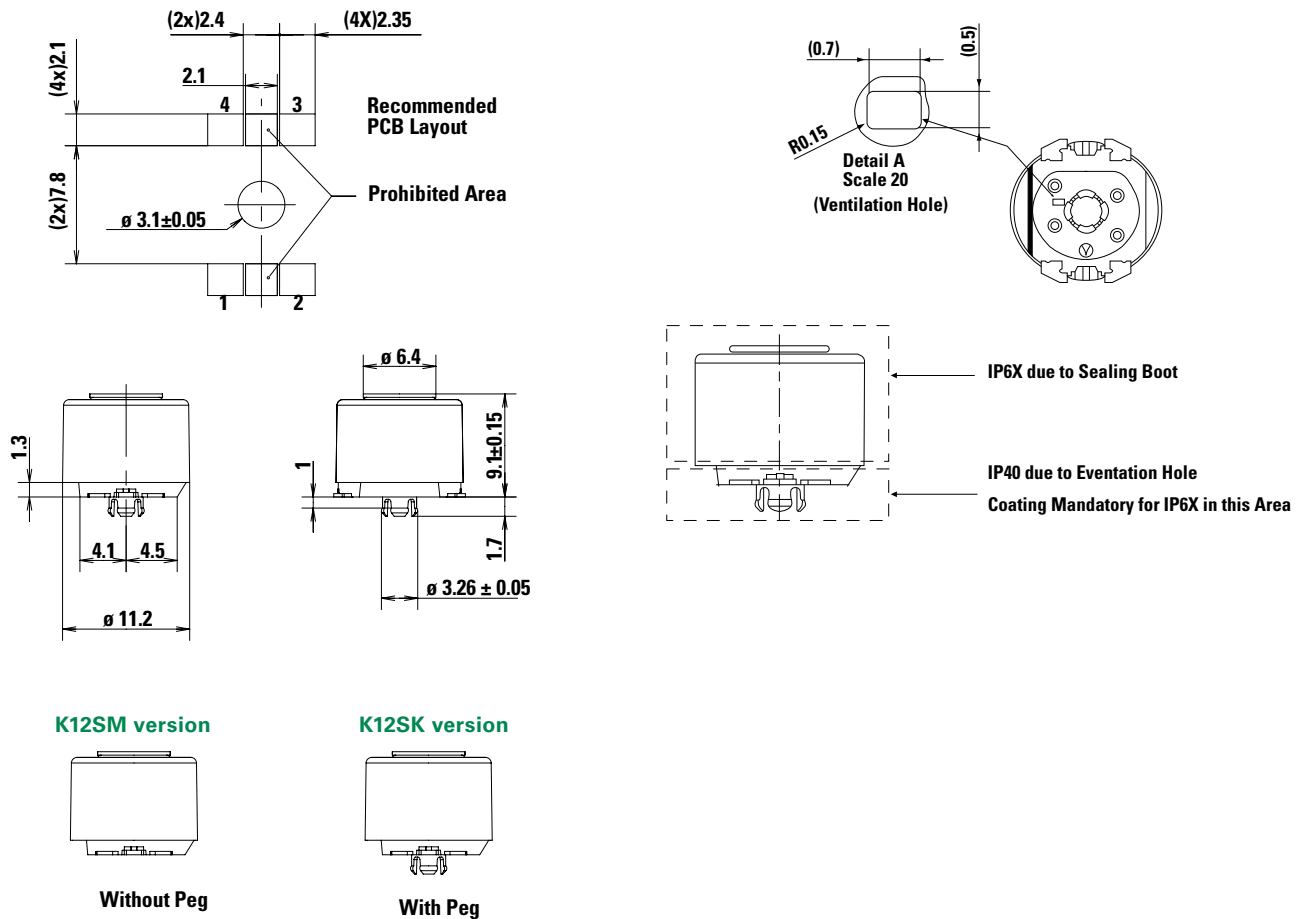
Ordering Number

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.



Note:
1. Contact Technical support for this configuration

K12SK / K12SM IP67 with Peg / IP67 without Peg

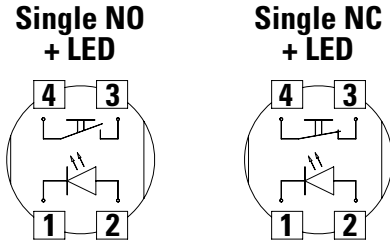


K12S Series

High Performance SMT Keyswitches (Cold White)



Option
L LED Version



Travel
1.5 1.5 mm

LED Color

Option Code	LED Color
WHO	White

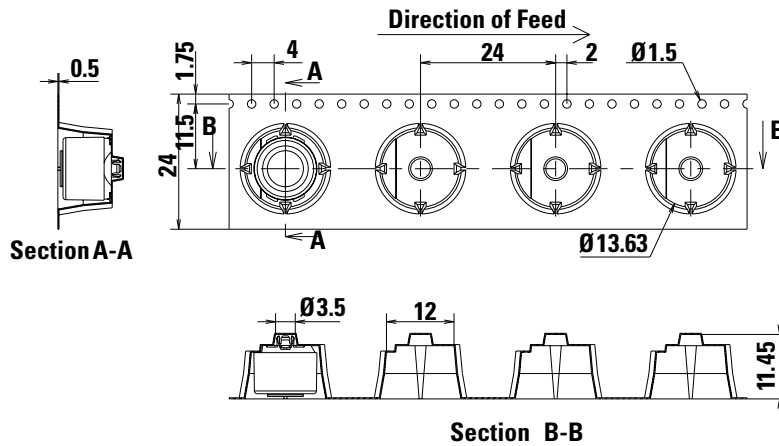
Operating Force

Option Code	Operating Force
3N	3N (detect - no tactile)
5N	5N
6N	6N
9N	9N
12N	12N

Contact Arrangement

- O Normally Open (SPST and LED Versions)
- C Normally Closed (SPST and LED Versions)

Tape and Reel



Disclaimer Notice - Information furnished is believed to be accurate and reliable. However, users should independently evaluate the suitability of and test each product selected for their own applications. Littelfuse products are not designed for, and may not be used in, all applications. Read complete Disclaimer Notice at <http://www.littelfuse.com/disclaimer-electronics>.