

# K12S Series

## High Performance SMT Keyswitches



### 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

### Specifications

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

### Applications

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

### Electrical & Environmental Characteristics

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

**Note:**  
RoHS compliant and Halogen free

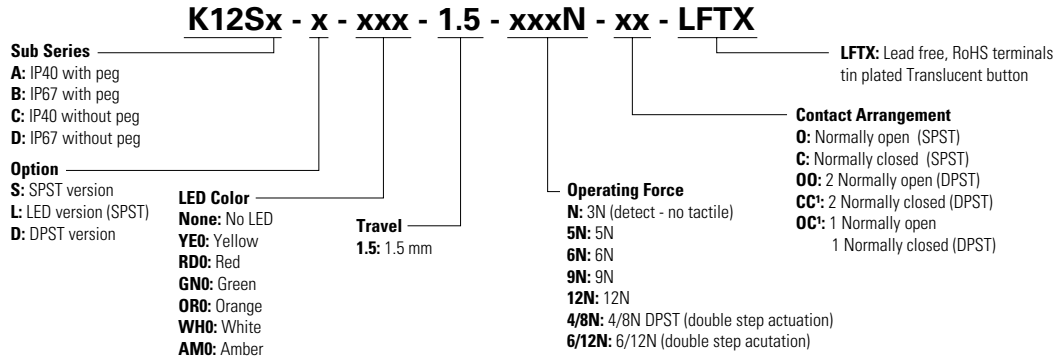
# K12S Series

## High Performance SMT Keyswitches



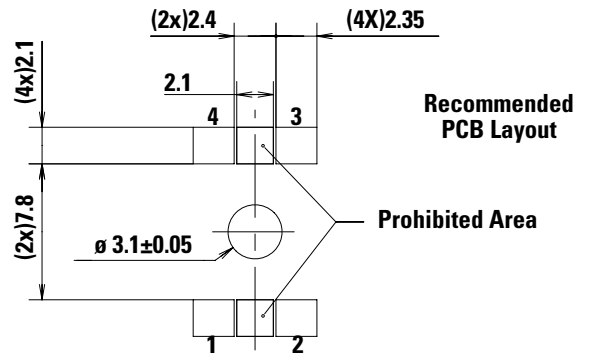
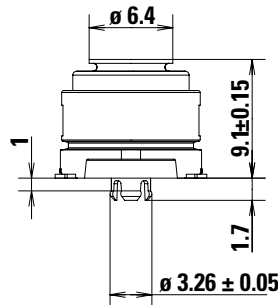
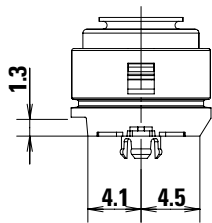
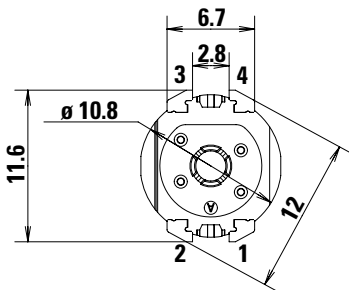
### Ordering Number

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.

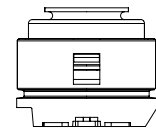


**Notes:**  
1. Contact technical support for this configuration

### K12SA / K12SC IP40 with peg / IP40 without peg

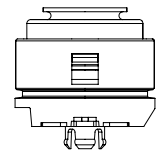


K12SC version



Without Peg

K12SA version



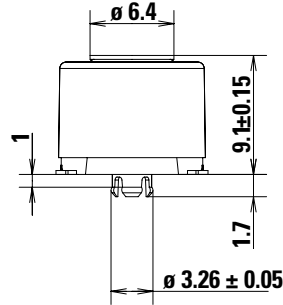
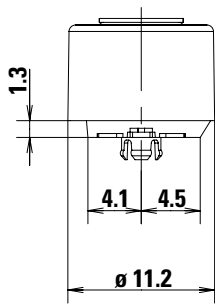
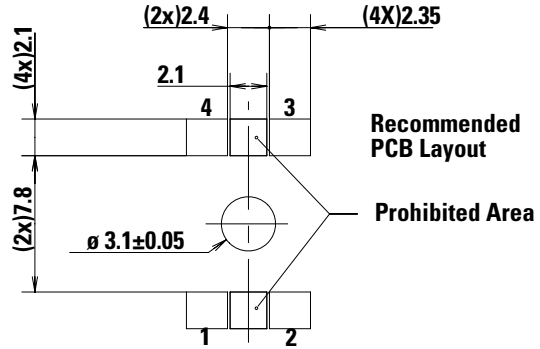
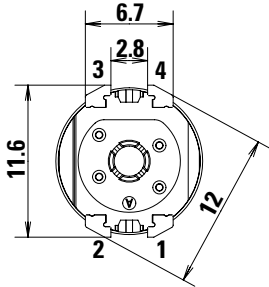
With Peg

# K12S Series

## High Performance SMT Keyswitches

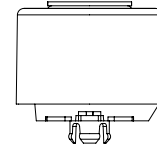
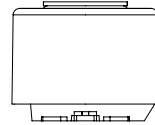


K12SB / K12SD IP67 with peg / IP67 without peg



K12SD version

K12SB version



Without Peg

With Peg

Option

S SPST Version

L LED Version

D DPST Version

Single NO

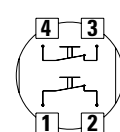
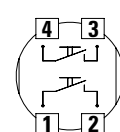
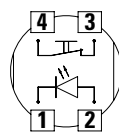
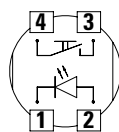
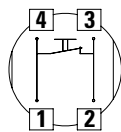
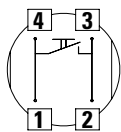
Single NC

Single NO + LED

Single NC + LED

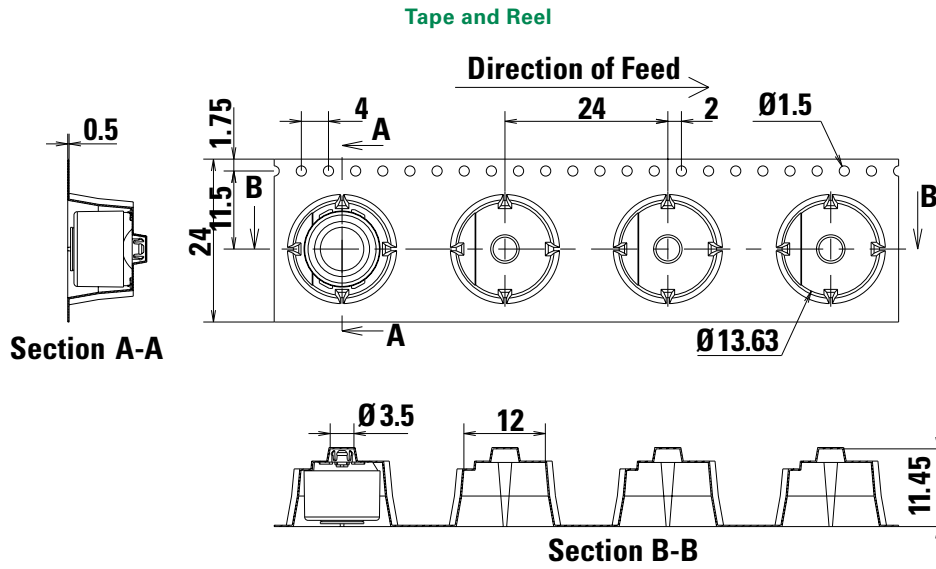
Double NO

Double NC



# K12S Series

## High Performance SMT Keyswitches



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

### Specifications

<b>Function</b>	Momentary
<b>Contact Arrangement</b>	SPST (DPST on request)
<b>Contact Type</b>	NO or NC (NO/NC on request)
<b>Terminals</b>	SMT
<b>Total Travel</b>	1.5 mm
<b>Operating Force</b>	3N Detect; 5N; 6N; 9N or 12N
<b>Sealing</b>	IP67 <sup>1</sup>
<b>Packaging</b>	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

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

**Note:**

RoHS compliant and Halogen free

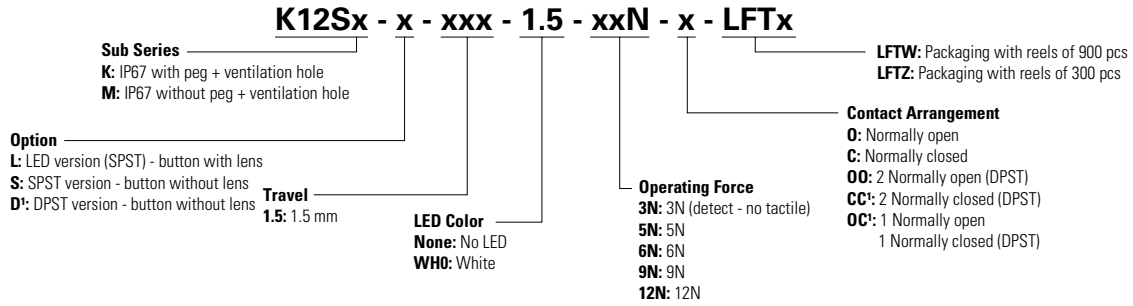
# K12S Series

## High Performance SMT Keyswitches (Cold White)



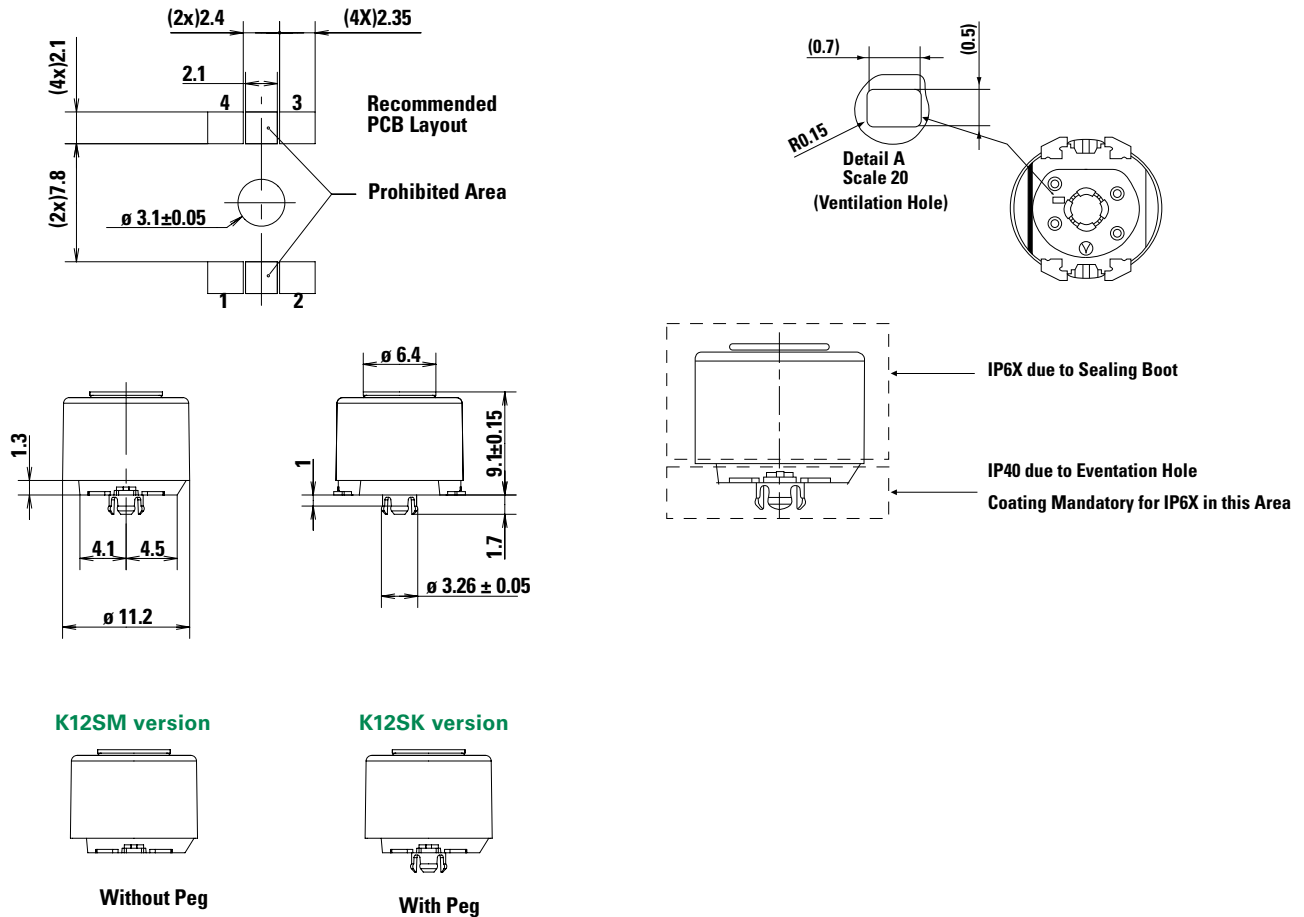
### Ordering Number

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

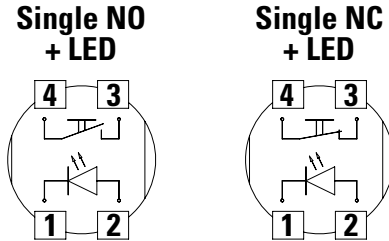


# K12S Series

## High Performance SMT Keyswitches (Cold White)



**Option**  
L LED Version



**Travel**  
1.5 1.5 mm

**LED Color**

Option Code	LED Color
WHO	White

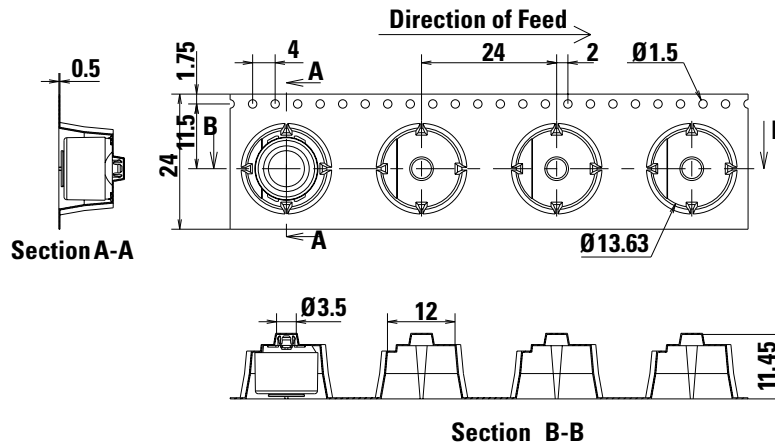
**Operating Force**

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**



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