

# K12S D

## High Performance SMT Detect Switches



### Description

K12S D high performance SMT detect switch is an illuminated detect product. Either IP40 or IP67 sealed, the switch is ready for use in any industrial, automotive or medical environment – and it complies with all RoHS requirements and permanent actuation. K12S D detect is known for its reliability. The switch is available in DPST, normally close version and is compatible with an SMT lead-free soldering process.

### Features & Benefits

- Harsh environment applications - IP67
- Compatible with SMT lead free soldering process
- Illuminated
- Permanent actuation possible
- High reliability / long life
- DPST version available
- RoHS compliant and Halogen free

### Applications

- Automotive
- Joysticks
- Off-road transportation
- Motorcycles
- Industrial
- Medical

### Specifications

Function	Momentary
Contact Arrangement	SPST or DPST
Contact Type	NO or NC
Terminals	SMT

### Mechanical Characteristics

Total Travel	1.5 mm
Operating Force	3N
Sealing	IP40 or IP67

### Electrical Characteristics

Switching Power Min./Max.	0.02mW / 3 W DC
Switching Voltage Min./Max.	2 V / 30 V DC
Switching Current Min./Max.	10 mA / 100 mA DC
Dielectric Strength	> 300 RMS
Operating Life	> 10 <sup>6</sup> operations (detect version)
Contact Resistance	Initial < 100 mΩ - After test < 250 mΩ
Insulation Resistance	> 10 <sup>9</sup> Ω
Bounce Time	< 10 ms

### Environmental Characteristics

Operating Temperature	-40°C to 85°C
Storage Temperature	-40°C to 95°C

### Process

Soldering	Lead free soldering compatible
Packaging	Reels of 900 pieces

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### Ordering Number

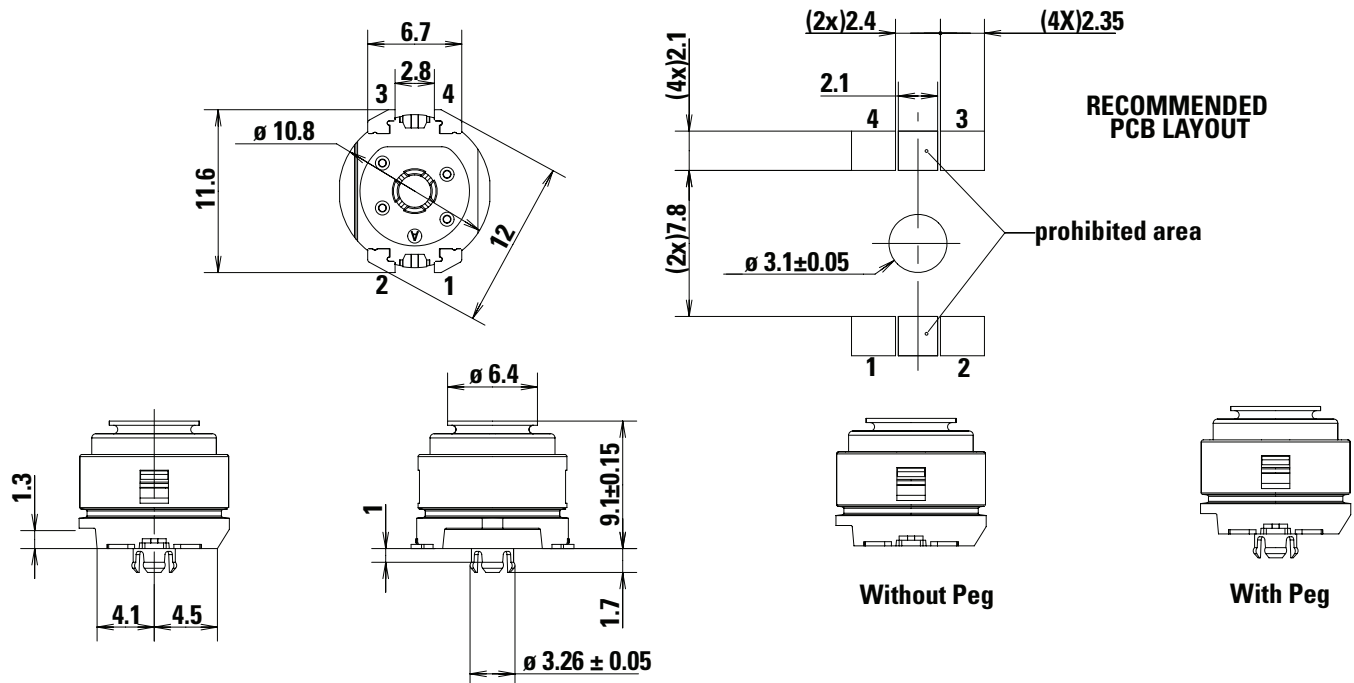
To order, simply select desired option from each category and place in the appropriate box. Available options are shown and described on the next page. For additional options not shown in catalog, consult Customer Service Center.

### K12Sx - x - xxx - 1.5 - 3N - xx - LFTX

<p><b>Sub Series</b></p> <p><b>A:</b> IP40 with peg</p> <p><b>B:</b> IP67 with peg</p> <p><b>C:</b> IP40 without peg</p> <p><b>D:</b> IP67 without peg</p> <p><b>Option</b></p> <p><b>S:</b> SPST version</p> <p><b>L:</b> LED version (SPST)</p> <p><b>D:</b> DPST version</p> <p><b>LED Color</b></p> <p><b>NONE:</b> No LED</p> <p><b>GNO:</b> Green</p> <p><b>YE0:</b> Yellow</p> <p><b>ORO:</b> Orange</p> <p><b>RD0:</b> Red</p> <p><b>WHO:</b> White</p> <p><b>AMO:</b> Amber</p>	<p><b>Travel</b></p> <p><b>1.5:</b> 1.5 mm</p>	<p><b>Operating Force</b></p> <p><b>3N:</b> 3N (detect - no tactile)</p>	<p><b>LFTX:</b> Lead free, RoHS terminals tin plated Translucent button</p> <p><b>Contact Arrangement</b></p> <p><b>O:</b> Normally open (SPST)</p> <p><b>C:</b> Normally closed (SPST)</p> <p><b>OO:</b> 2 Normally open (DPST)</p> <p><b>CC:</b> 2 Normally closed (DPST)</p> <p><b>OC:</b> 1 Normally open 1: Normally closed (DPST)</p>
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**Notes:**  
1. Please contact technical support for this configuration

### K12SA/K12SC IP40 with peg / IP40 without peg Dimensions (mm)

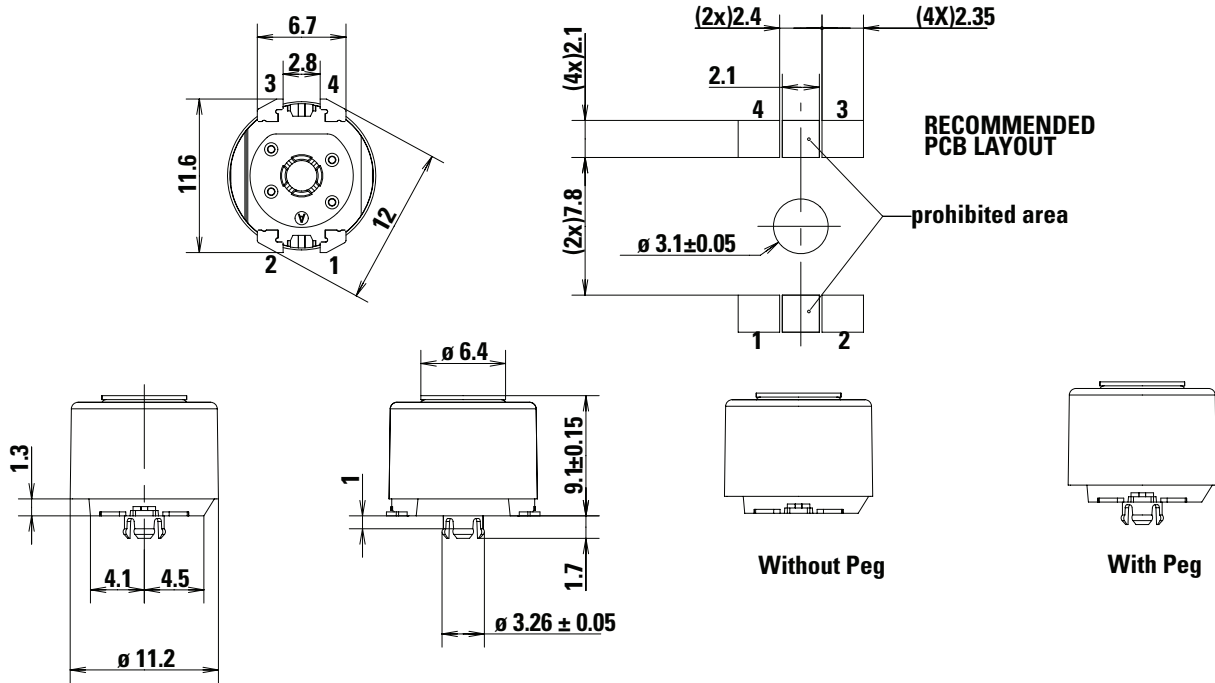


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## High Performance SMT Detect Switches



K12SB/K12SD IP67 with peg / IP67 without peg Dimensions (mm)

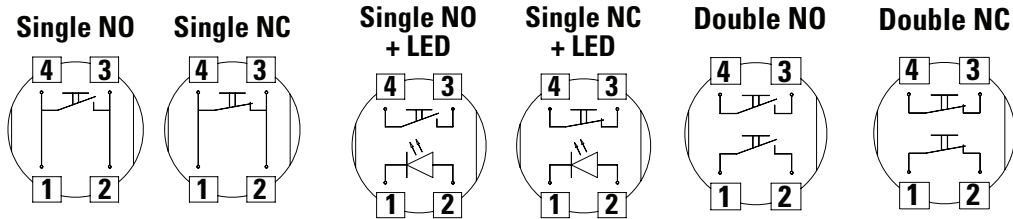


Option

S SPST Version

L LED Option

D DPST Version



LED Color

Travel

1.5 - 1.5 mm

Option Code	LED Color
-	No LED
YE0	Yellow
RD0	Red
GN0	Green
OR0	Orange
WH0	White
AM0	Amber

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## High Performance SMT Detect Switches



### Operating Force

Option Code	Operating Force
3N	3N (detect - no tactile)

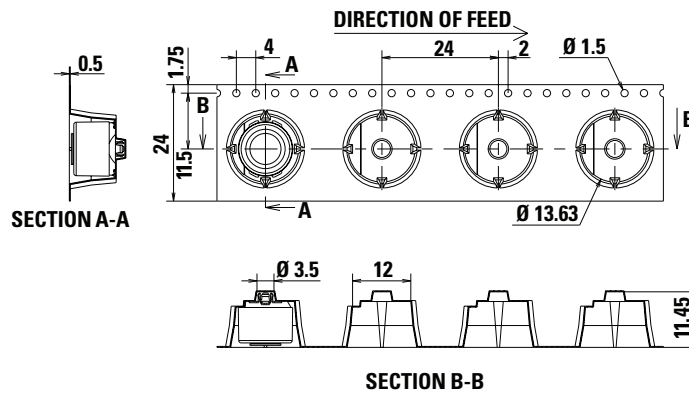
### Option Code & Contact Arrangement

O	Normally Open (SPST and LED versions)
C	Normally Closed (SPST and LED versions)
OO	2 Normally Open (DPST version)
CC <sup>1</sup>	2 Normally Closed (DPST version)
OC <sup>1</sup>	1 Normally open / 1 Normally Closed (DPST)

**Notes:**

1. Please contact technical support for this configuration

### Tape & Reel Dimensions (mm)



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