# General Specifications

#### **Electrical Capacity (Resistive Load)**

0.4VA maximum @ 28V AC/DC maximum Logic Level:

(Applicable Range 0.1mA ~ 0.1A @ 20mV ~ 28V)

Note: Find additional explanation of operating range in Supplement section

#### Other Ratings

Contact Resistance: 100 milliohms maximum

**Insulation Resistance:** 100 megohms minimum @ 500V DC **Dielectric Strength:** 500V AC minimum for 1 minute minimum

**Mechanical Life:** 30,000 cycles minimum 20,000 cycles minimum **Electrical Life:** Withstands 15 kilovolts ESD Static Capability: .0002Nm (.0017 lb•in) **Nominal Operating Torque:** 

> **Contact Timing:** Break-before-make Angle of Throw: 45° for 3-position & 5-position

#### **Materials & Finishes**

Key: **Polyacetal** 

Housing/Bushing: Glass fiber reinforced polyester (PBT) Base: Glass fiber reinforced polyamide

**Rotor & Stopper: Polyacetal Tumbler Plate: Brass** 

**Movable Contactor:** Beryllium copper with gold plating Phosphor bronze with gold plating **Stationary Contacts:** Terminals: Phosphor bronze with gold plating

**Mounting Bracket:** Steel with tin plating

#### **Environmental Data**

**Operating Temperature Range:** -25°C through +70°C (-13°F through +158°F)

**Humidity:** 90 ~ 95% humidity for 240 hours @ 40°C (104°F)

Vibration: 10 ~ 55Hz with peak-to-peak amplitude of 1.5mm traversing the frequency range & returning

in 1 minute; 3 right angled directions for 2 hours

50G (490m/s<sup>2</sup>) acceleration (tested in 6 right angled directions, with 5 shocks in each direction) Shock:

#### **PCB Processing**

Wave Soldering Recommended. See Profile A in Supplement section. **Soldering:** 

Manual Soldering: See Profile A in Supplement section.

Cleaning: Automated cleaning. See Cleaning specifications in Supplement section.

#### Standards & Certifications

The SK Series devices have not been tested for UL recognition or CSA certification. These switches are designed for use in a low-voltage, low-current, logic-level circuit. When used as intended in a logic-level circuit, the results do not produce hazardous energy.

## Distinctive Characteristics

Housing and bushing of high insulating material withstands over 15 kilovolts of electrostatic discharge, thus providing antistatic protection.

Totally sealed construction with internal o-ring, with gasket between base and housing, and with insert-molded terminals, gives protection for automated processing techniques.

Subminiature size allows high density mounting.

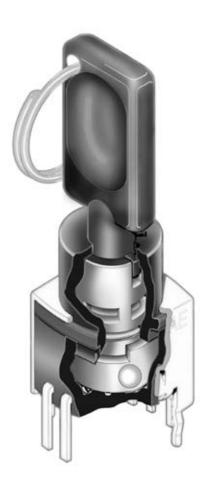
Molded-in terminals prevent entry of flux and other contaminants.

Crimped bracket legs ensure secure PCB mounting and prevent dislodging during automated wave soldering.

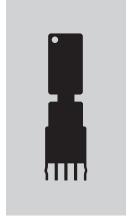
Bifurcated, self-wiping contact mechanism provides unequalled logic-level reliability and smoother, positive detent actuation.

Detent mechanism, with its spring-operated steel ball, gives distinct feel and crisp actuation for accurate switch setting.

.100" x .100" (2.54mm x 2.54mm) terminal spacing conforms to standard PC board grid spacing.



Actual Size

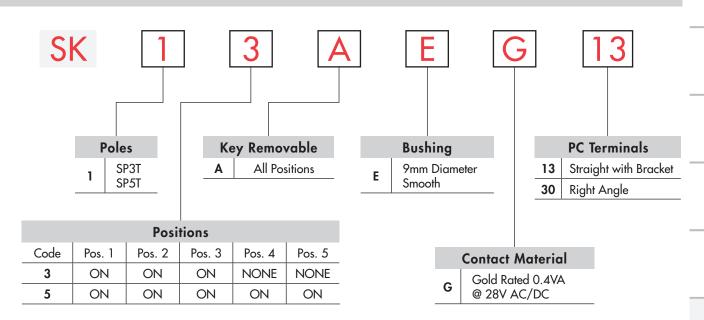




Toggles

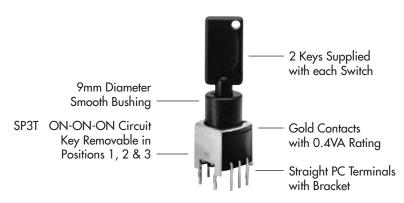
Rockers

Keylocks Programmable Illuminated PB Pushbuttons



#### **DESCRIPTION FOR TYPICAL ORDERING EXAMPLE**

#### SK13AEG13



POLES, CIRCUITS & KEY-REMOVABLE POSITIONS													
Pole & Throw	Model	Key Positions Pos 1 Pos 2 Pos 3 Pos 4 Pos 5					Connected Terminals (Terminal numbers are not on switch) Pos 1 Pos 2 Pos 3 Pos 4 Pos 5					Schematic	<ul> <li>Exercise Removable</li> <li>Not Removable</li> <li>Maximum Arc</li> </ul>
SP3T	SK13A	ON	ON	ON			C1-2	C1-3	C1-4			C1 2 3 4	POS1
SP5T	SK15A	ON	ON	ON	ON	ON	C1-1	C1-2	C1-3	C1-4	C1-5	C1 1 2 3 4 5	2

#### **KEY REMOVABLE**

**BUSHING** 





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Touch

Indicators

Rotaries

### **CONTACT MATERIAL & RATING**

**Gold over Bronze or Copper** 

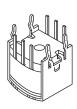
**Logic Level** 

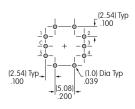
0.4VA @ 28V AC/DC maximum

#### **TERMINALS**

13

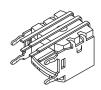
Straight PC with Bracket

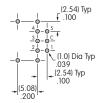




30

**Right Angle PC** 

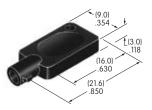




#### **KEY**

AT4094 **Tubular Key** 

Material: Polyacetal

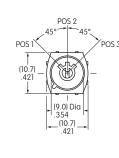


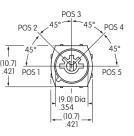
2 keys provided with each switch

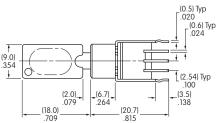
#### TYPICAL SWITCH DIMENSIONS

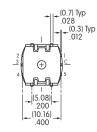
### Straight PC with Bracket











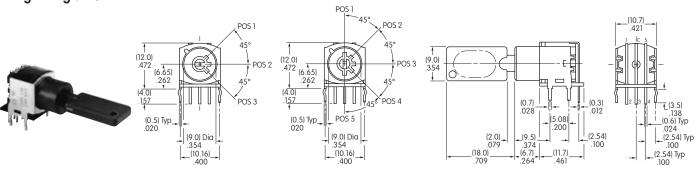
SK13AEG13

3 Position

5 Position

On 3-position models terminals 1 & 5 are support pins.

#### Right Angle PC



SK15AEG30

3 Position

5 Position

On 3-position models terminals 1 & 5 are support pins.

## **Mouser Electronics**

**Authorized Distributor** 

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## **NKK Switches:**

SK15AEG13 SK15AEG30 SK13AEG13 SK13AEG30