# General Specifications

# **Electrical Capacity (Resistive Load)**

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

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

> **Contact Timing:** Break-before-make

45° for 3-position & 5-position Angle of Throw:

#### Materials & Finishes

Key: **Polyacetal** 

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

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

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

**Mounting Bracket:** Steel with tin plating

#### **Environmental Data**

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

**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

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

# **PCB Processing**

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

Manual Solderina: 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.



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# 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.

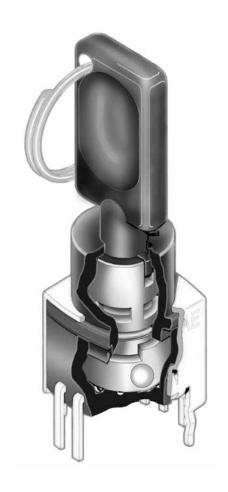
Molded-in terminals prevent entry of flux and other contaminants.

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

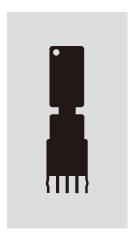
Bifurcated, self-wiping contact mechanism provides unequalled logic-level reliability and smoother, positive detent actuation.

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.



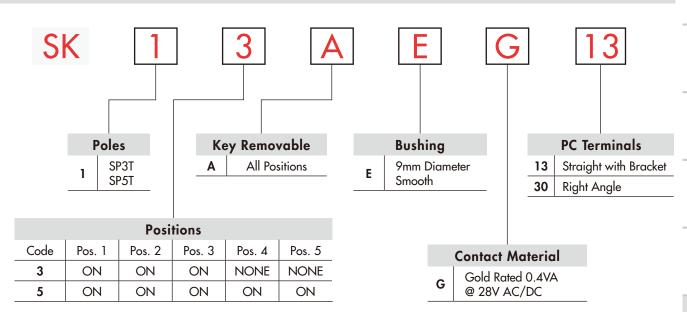
Actual Size





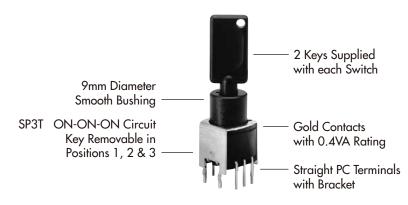
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# TYPICAL SWITCH ORDERING EXAMPLE



### **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>= Key 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**





9mm Diameter Smooth



# **CONTACT MATERIAL & RATING**

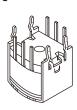
Gold over Bronze or Copper

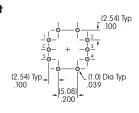
Logic Level

0.4VA @ 28V AC/DC maximum

# **TERMINALS**

Straight PC with Bracket

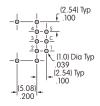




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Right Angle PC





# **KEY**

AT4094 **Tubular Key** 

Material: Polyacetal

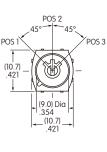


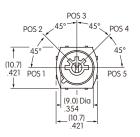
2 keys provided with each switch

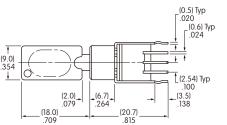
# TYPICAL SWITCH DIMENSIONS

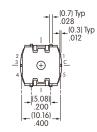
# Straight PC with Bracket











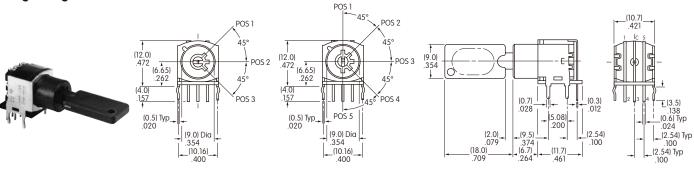
SK13AEG13

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.

