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: Static Capability: Withstands 15 kilovolts ESD .0002Nm (.0017 lb•in) **Nominal Operating Torque: 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

Rotor & Stopper: Polyacetal **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

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

Shock: 50G (490m/s²) acceleration (tested in 6 right angled directions, with 5 shocks in each direction)

PCB Processing

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

Manual Soldering: See Profile A in Supplement section.

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

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.

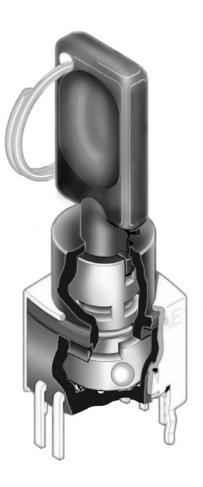
Molded-in terminals prevent entry of flux and other contaminants.

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

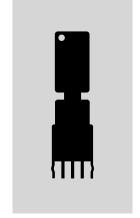
Bifurcated, self-wiping contact mechanism provides unequalled logic-level reliability and smoother, positive detent actuation.

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.





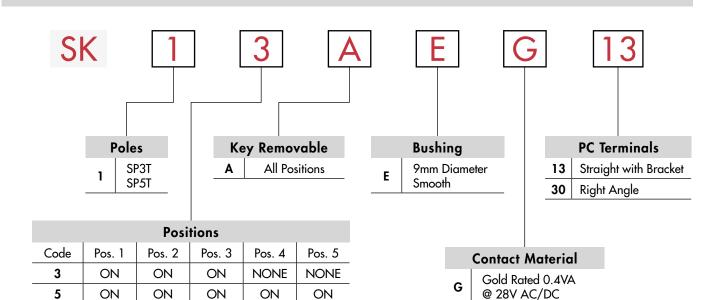




Ė

All Positions 45° Angular Throw

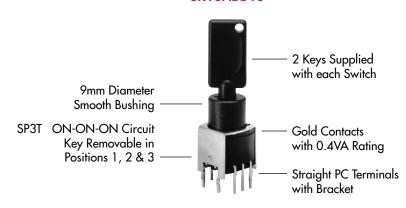
KEY REMOVABLE



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	 Exercise Removable Not Removable Maximum Arc
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

BUSHING



9mm Diameter Smooth



CONTACT MATERIAL & RATING

Gold over Bronze or Copper

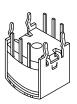
Logic Level

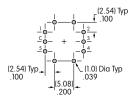
0.4VA @ 28V AC/DC maximum

TERMINALS

13

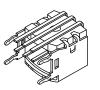
Straight PC with Bracket

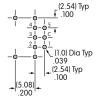




30

Right Angle PC

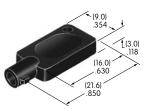




KEY

AT4094 **Tubular Key**

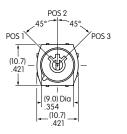
Material: Polyacetal

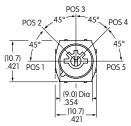


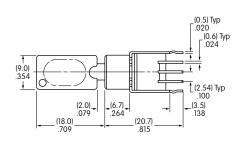
2 keys provided with each switch

TYPICAL SWITCH DIMENSIONS

Straight PC with Bracket







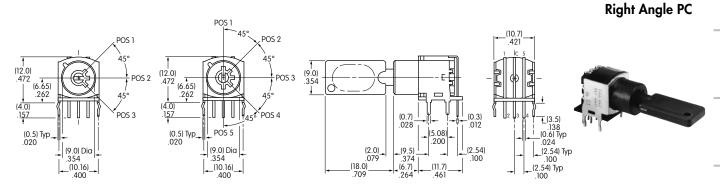


3 Position

5 Position

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

SK13AEG13



3 Position

5 Position

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

SK15AEG30



www.nkk.com F19