

# General Specifications

## Electrical Capacity (Resistive Load)

**Logic Level:** 0.4VA maximum @ 28V AC/DC maximum  
(Applicable Range 0.1mA ~ 0.1A @ 20mV ~ 28V)  
See Supplement section to find explanation of operating range

## Other Ratings

**Contact Resistance:** 80 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:** 10,000 cycles minimum  
**Nominal Operating Torque:** .026Nm (.234 lb•in) for momentary action models  
.020Nm (.182 lb•in) for maintained action models  
**Contact Timing:** Break-before-make  
**Angle of Throw:** 90° for 2-position & 45° for 3-position

## Materials & Finishes

**Boot:** Polyvinyl chloride  
**Key:** Brass alloy with bright nickel plating;  
brass alloy with bright nickel plating & ABS resin handle  
**Tumbler Barrel:** Polyacetal  
**Bushing:** Zinc alloy with nickel plating  
**Bracket:** Steel with tin plating  
**Base:** Glass fiber reinforced polyamide  
**Movable Contactor:** Beryllium copper with gold plating  
**Stationary Contacts:** Copper with gold plating  
**Terminals:** Brass 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/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 B in Supplement section.  
Manual Soldering: See Profile B in Supplement section.  
**Cleaning:** Automated cleaning. Boot must be on switch during processing.  
See Cleaning specifications in Supplement section.

## Standards & Certifications

These 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

Sealed body construction plus disposable boot protect contacts and allow automated processing.

Molded-in terminals seal out flux, solvents, and other contaminants.

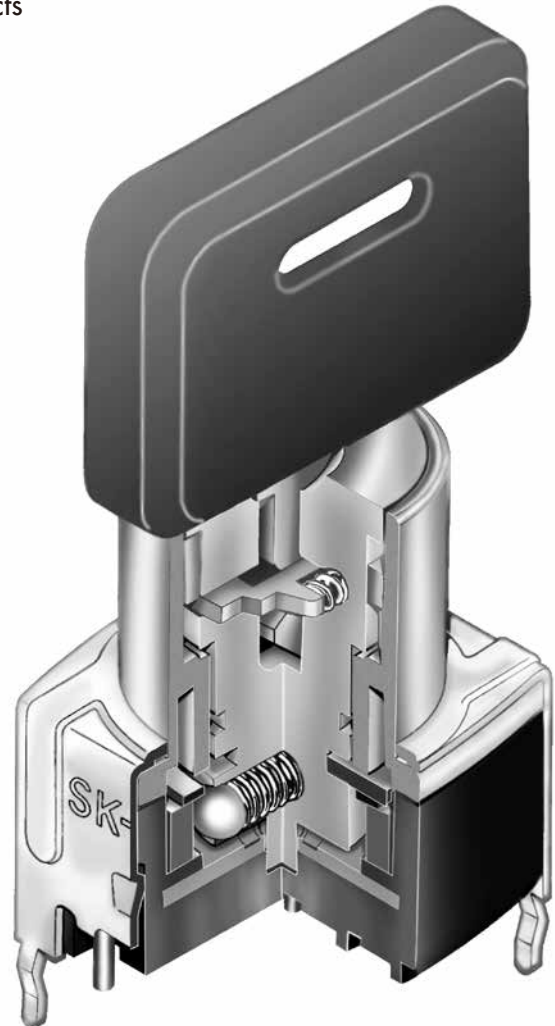
Short body size for space-saving, behind panel dimensions.

Detent mechanism, with its spring-operated steel ball, gives crisp, positive action for accurate switch setting.

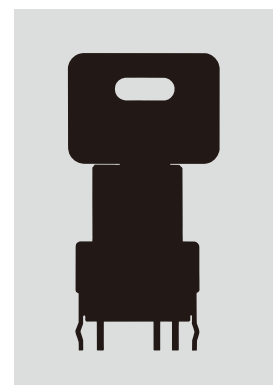
Bifurcated, self-wiping contact mechanism provides unequalled logic-level reliability and smoother, positive detent actuation.

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

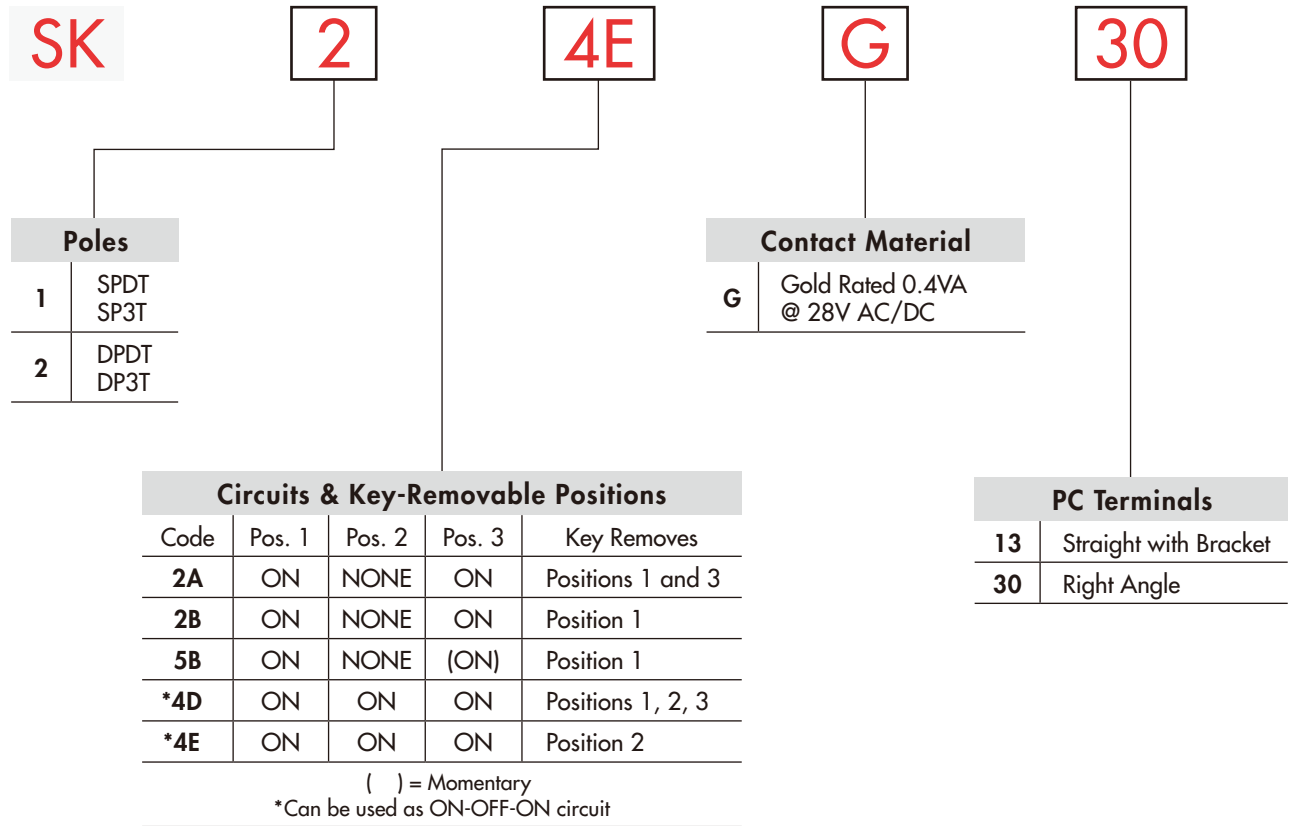
.100" x .100" (2.54mm x 2.54mm) terminal spacing conforms to standard PC board grid spacing.



Actual Size



TYPICAL SWITCH ORDERING EXAMPLE



DESCRIPTION FOR TYPICAL ORDERING EXAMPLE

SK24EG30



Toggle  
Rockers  
Pushbuttons  
Illuminated PB  
Programmable  
Keylocks  
Rotaries  
Slides  
Tactiles  
Tilt  
Touch  
Indicators  
Accessories  
Supplement

### POLES, CIRCUITS & KEY-REMOVABLE POSITIONS

Pole & Throw	Model	Key Positions			Connected Terminals (Terminal numbers are not on switch)			Schematic	◎ = Key Removable ● = Not Removable ✓ = Maximum Arc
		Pos 1	Pos 2	Pos 3	Pos 1	Pos 2	Pos 3		
SPDT	SK12A	ON	NONE	ON	C1-1	—	C1-2		
SPDT SPDT	SK12B SK15B	ON ON	NONE NONE	ON (ON)	C1-1	—	C1-2		
DPDT	SK22A	ON	NONE	ON	C1-1 C2-4	—	C1-2 C2-5		
DPDT DPDT	SK22B SK25B	ON ON	NONE NONE	ON (ON)	C1-1 C2-4	—	C1-2 C2-5		
SP3T	SK14D	ON	ON	ON	C1-1	C1-2	C1-3		
SP3T	SK14E	ON	ON	ON	C1-1	C1-2	C1-3		
DP3T	SK24D	ON	ON	ON	C1-1 C2-4	C1-2 C2-5	C1-3 C2-6		
DP3T	SK24E	ON	ON	ON	C1-1 C2-4	C1-2 C2-5	C1-3 C2-6		

### KEY REMOVABLE

**A** Positions 1 & 3  
90° Angular Throw

**B** Position 1  
90° Angular Throw

**D** Positions 1, 2 & 3  
45° Angular Throw

**E** Position 2  
45° Angular Throw

### CONTACT MATERIAL & RATING

**G** Gold over Copper

Logic Level

0.4VA maximum @ 28V AC/DC maximum

### TERMINALS

**13** Straight PC Terminals with Bracket

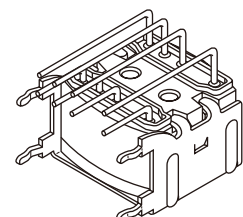
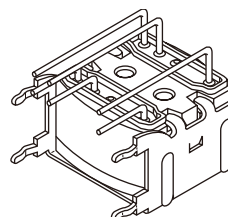
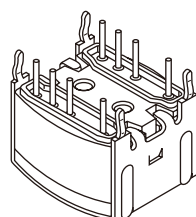
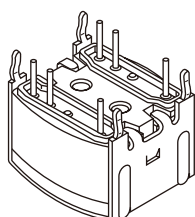
**30** Right Angle PC Terminals

Double Throw Model

Three Throw Model

Double Throw Model

Three Throw Model

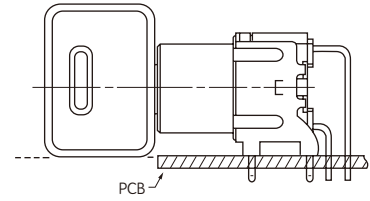
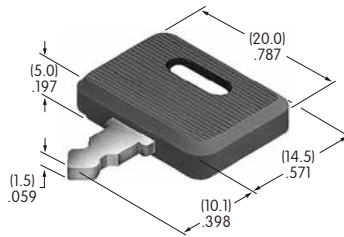


## KEYS

### AT4080 Standard Antistatic Plastic Handle

Brass Alloy with Bright Nickel Plating & ABS Resin Handle

2 keys supplied with each switch

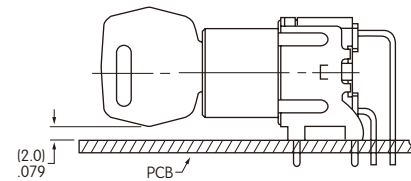
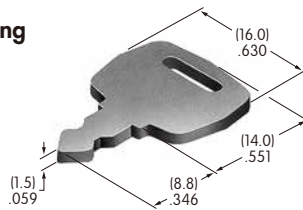


Suitable for all Straight PCB mount and for Right Angle PCB mount where clearance for key is obtainable.

### AT4079 for Right Angle Mid-board Mounting (Optional) All Metal

Brass Alloy with Bright Nickel Plating

Contact factory if metal keys needed



### Disposable Boot



Each switch is supplied with a boot that provides protection from automated soldering and the cleaning process. Attach the boot without the key installed in the switch.

The boot is not reusable; discard after the washing procedure.

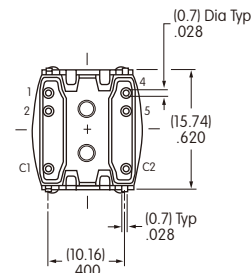
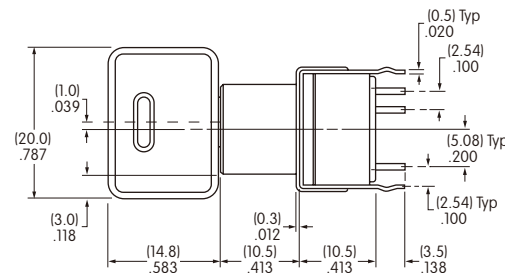
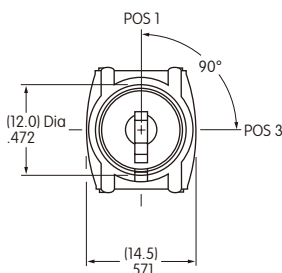
Polyvinyl Chloride



## TYPICAL SWITCH DIMENSIONS

### Single & Double Pole

### Straight PC with Bracket • Double Throw

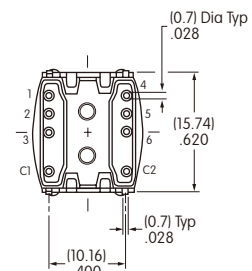
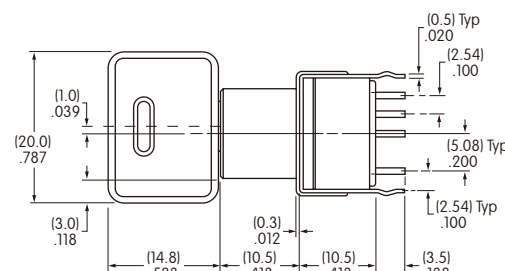
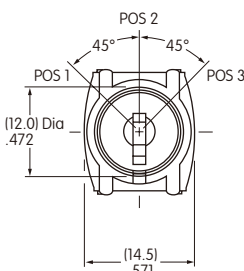


**SK12AG13**

Single Pole models have only terminals 1, 2 & C1

### Single & Double Pole

### Straight PC with Bracket • Three Throw

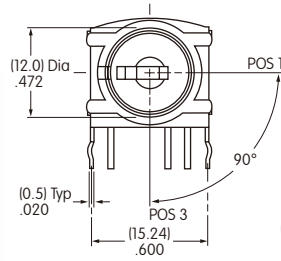


**SK24DG13**

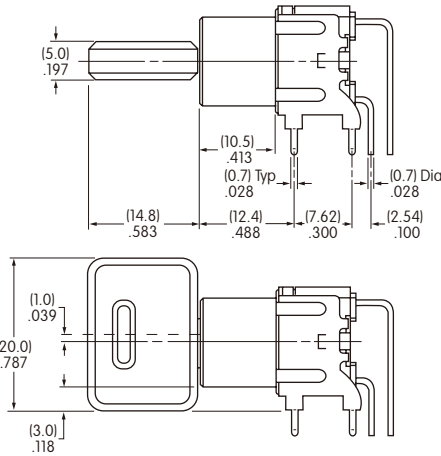
Single Pole models have only terminals 1, 2, 3 & C1

## TYPICAL SWITCH DIMENSIONS

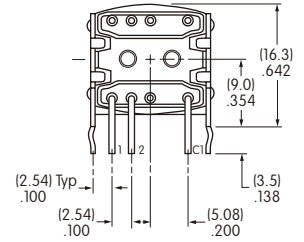
### Right Angle PC Terminals Double Throw



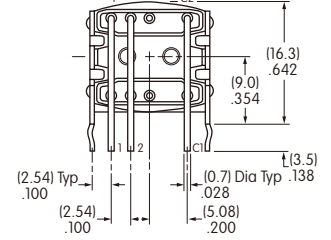
### Key in Position 1



### Single Pole

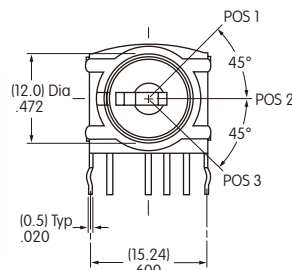


### Double Pole

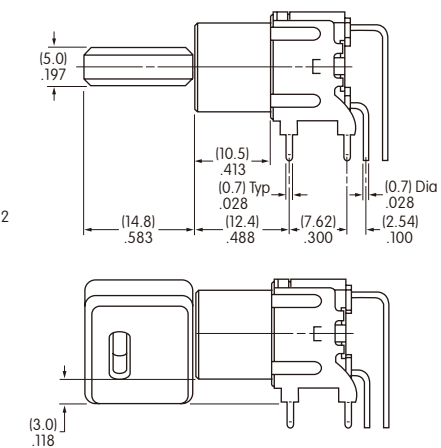


SK15BG30

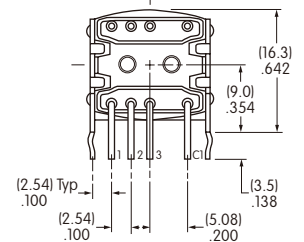
### Right Angle PC Terminals Three Throw



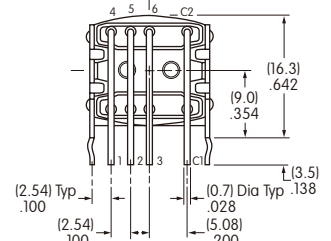
### Key in Position 2



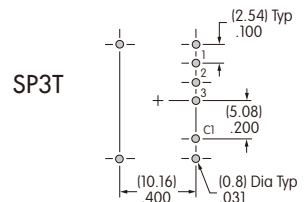
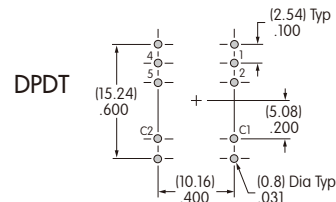
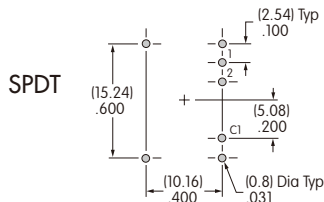
### Single Pole



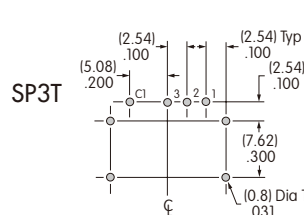
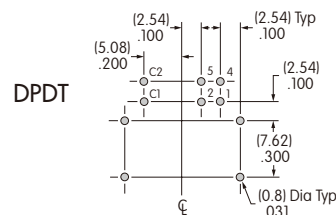
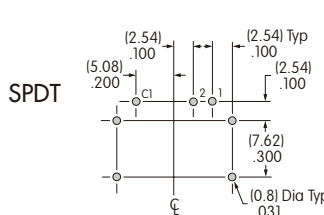
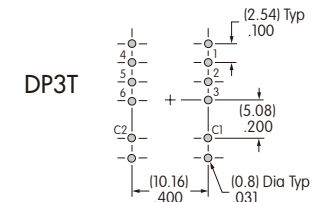
### Double Pole



SK24EG30



### Straight PC Footprints



### Right Angle PC Footprints

