

# General Specifications

## Electrical Capacity (Resistive Load)

**Power Level (silver):** 3A @ 125V AC for low & medium security; 1A @ 250V AC for low security

## Other Ratings

**Contact Resistance:** 10 milliohms maximum  
**Insulation Resistance:** 1,000 megohms minimum @ 500V DC  
**Dielectric Strength:** 1,000V AC minimum between contacts for 1 minute minimum;  
 1,500V AC minimum between contacts & case for 1 minute minimum  
**Mechanical Life:** 30,000 cycles minimum  
**Electrical Life:** 10,000 cycles minimum  
**Nominal Operating Torque:** .026Nm (.234 lb•in) for low & medium security  
**Contact Timing:** Break-before-make  
**Angle of Throw:** 90° for 2-position & 45° for 3-position

## Materials & Finishes

**Key:** Zinc alloy with chrome plating (matte) for low security models;  
 brass with nickel plating (shiny) for medium security models  
**Tumbler Barrel:** Zinc alloy with chrome plating (matte) for low security models;  
 zinc alloy with chrome plating (shiny) for medium security models  
**Housing/Bushing:** Zinc alloy with chrome plating (matte) for low security models;  
 zinc alloy with chrome plating (shiny) for medium security models  
**Base:** Phenolic resin (thermoset)  
**Movable Contactor:** Silver  
**Stationary Contacts:** Silver capped copper with silver plating  
**Terminals:** Copper or brass with silver plating

## Environmental Data

**Operating Temperature Range:** -25°C through +70°C (-13°F through +158°F)  
**Humidity:** 90 ~ 95% humidity for 96 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)

## Installation

**Mounting Torque:** 1.5Nm (13.28 lb•in) maximum  
**Soldering Time & Temperature:** Manual Soldering: See Profile A in Supplement section.

## Standards & Certifications

**UL:** **File No. E44145 - Recognized only when ordered with marking on switch.**  
 Add "/U" or "/CUL" to end of part number to order UL recognized switch.  
 All low security models recognized at 3A @ 125V AC or 1A @ 250V AC  
 & all medium security models recognized at 3A @ 125V AC  
**CSA:** **File No. 023535\_0\_000 - Certified only when ordered with marking on switch.**  
 Add "/C" to end of part number to order CSA certified switch.  
 All low security models certified at 3A @ 125V AC or 1A @ 250V AC

Toggles

Rockers

Pushbuttons

Illuminated PB

Programmable

**F**  
Keylocks

Rotaries

Slides

Tactiles

Tilt

Touch

Indicators

Accessories

Supplement

# Distinctive Characteristics

12mm diameter bushing for easy panel cutout preparation and high density mounting.

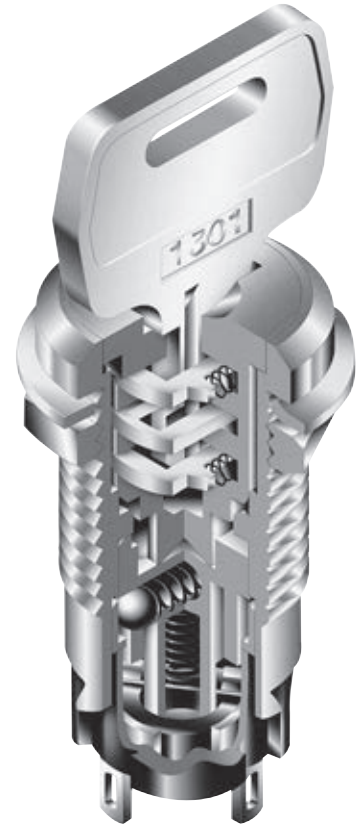
Epoxy sealed terminals prevent entry of flux and other contaminants.

Short behind panel dimension - only 1.063" (27.0mm).

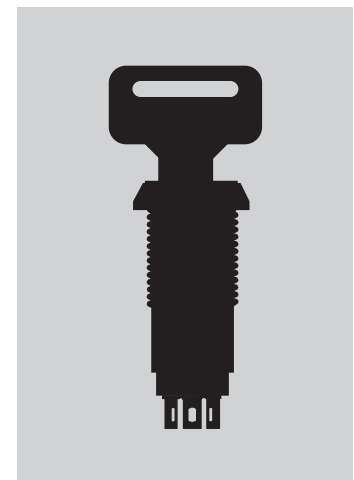
High dielectric strength of 1,500 volts between contacts and case.

Detent mechanism gives crisp, positive action for accurate switch setting.

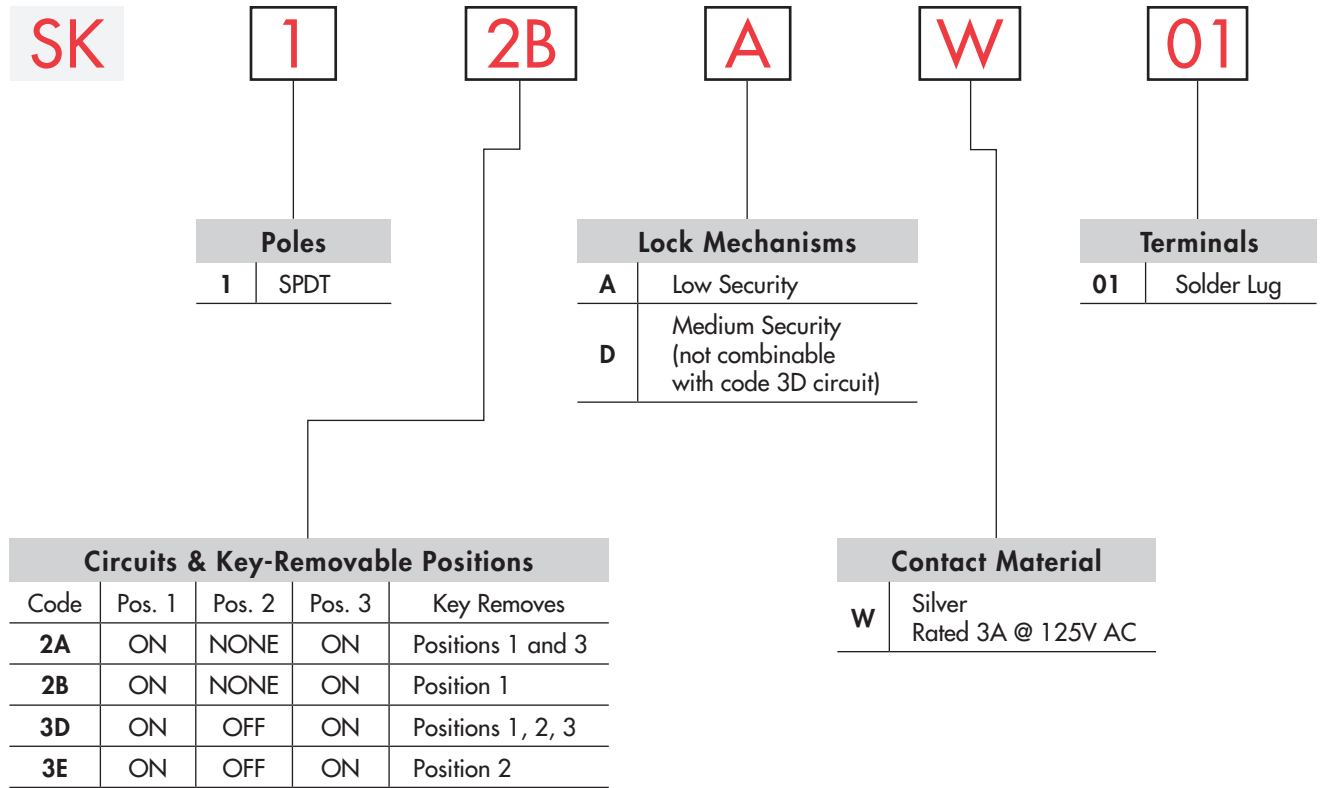
Dust resistant interior construction protects contacts.



Actual Size



TYPICAL SWITCH ORDERING EXAMPLE



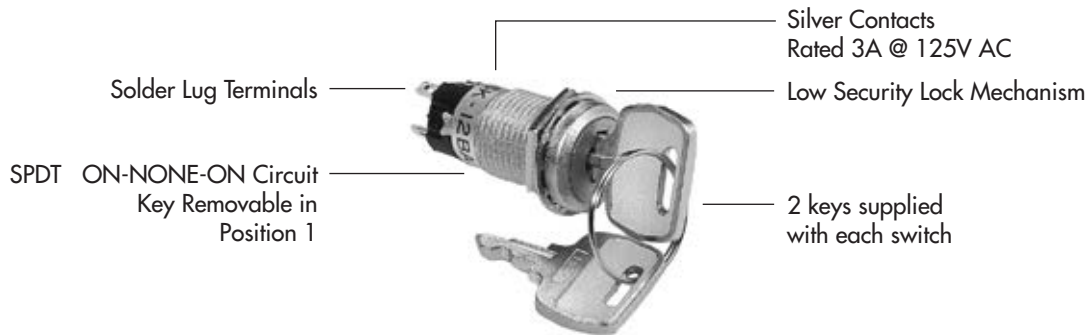
**IMPORTANT:**



Switches are supplied without UL, cULus & CSA marking unless specified. **UL, cULus & CSA recognized only when ordered with marking on the switch.** Specific models, ratings, & ordering instructions are noted on the General Specifications page.

DESCRIPTION FOR TYPICAL ORDERING EXAMPLE

**SK12BAW01**



### POLES, CIRCUITS & KEY-REMOVABLE POSITIONS

Pole & Throw	Model	Key Positions			Connected Terminals (Terminal numbers are 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	COM-1	—	COM-2		
SPDT	SK12B	ON	NONE	ON	COM-1	—	COM-2		
SPDT	*SK13D	ON	OFF	ON	COM-1	OPEN	COM-2		
SPDT	SK13E	ON	OFF	ON	COM-1	OPEN	COM-2		

\* Available with low security only

### 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

### LOCK MECHANISMS & KEYS

**A** Low Security Mechanism

Zinc Alloy with Chrome Plating (matte finish)

Two keys provided with each switch  
(no master key available)

For ordering additional keys:  
AT4081 for SK12A and SK12B, marked "1201"  
AT4082 for SK13D and SK13E, marked "1301"

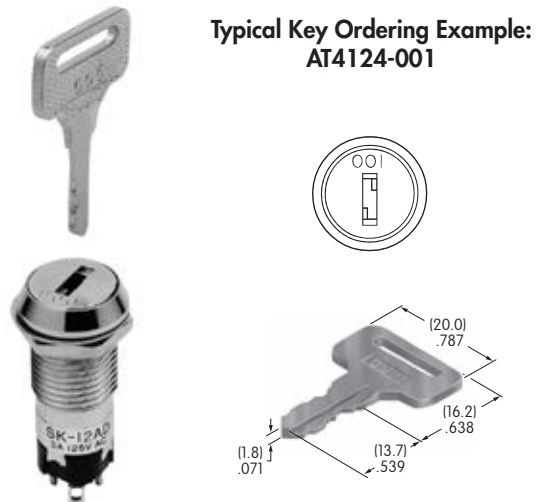
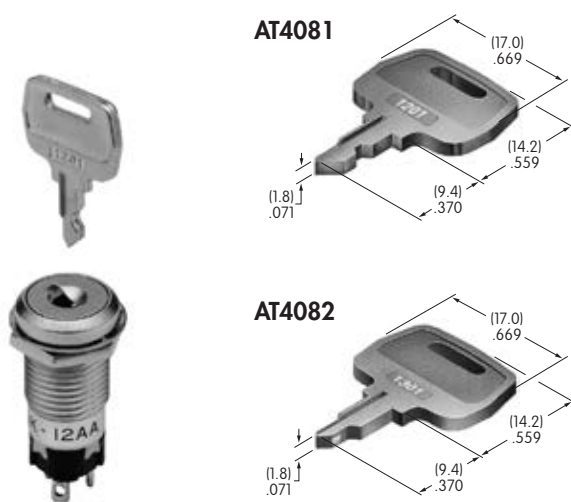
**D** Medium Security Mechanism

Brass with Nickel Plating (shiny finish)

One key provided with each switch  
(no master key available)

For ordering additional keys, indicate the same key number that is engraved on the face of your switch.

Key numbers (001 through 010) randomly assigned.



## CONTACT MATERIALS, RATINGS, & TERMINALS

**W**

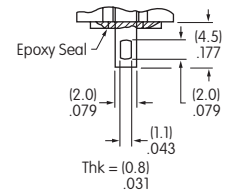
Silver over Silver

Power Level

3A @ 125V AC

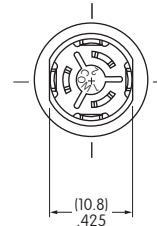
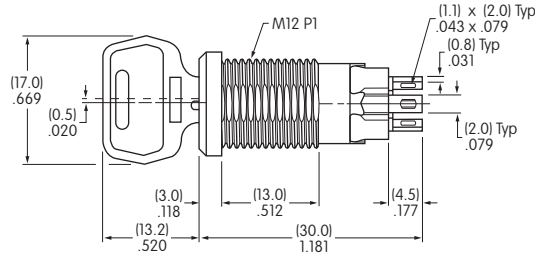
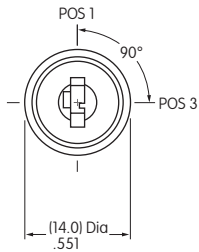
**01**

Solder Lug Terminals



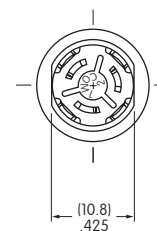
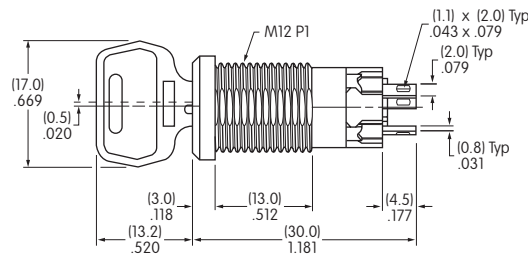
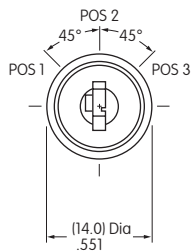
## TYPICAL SWITCH DIMENSIONS

### Low Security • 90° Angular Throw



SK12BAW01

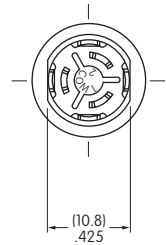
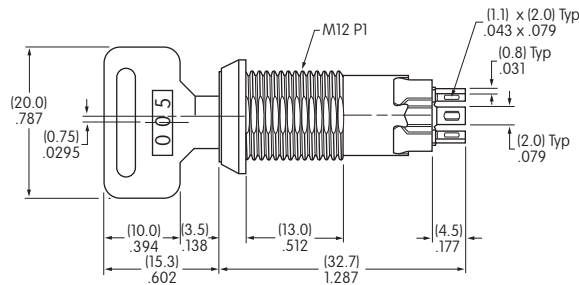
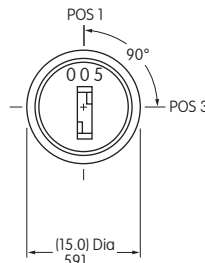
### Low Security • 45° Angular Throw



SK13EAW01

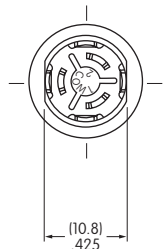
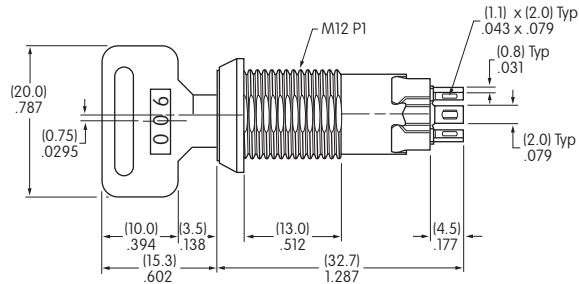
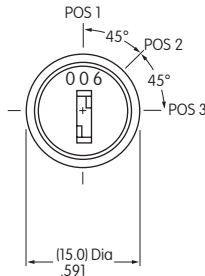
## TYPICAL SWITCH DIMENSIONS

### Medium Security • 90° Angular Throw



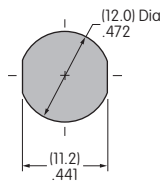
SK12ADW01

### Medium Security • 45° Angular Throw



SK13EDW01

## PANEL CUTOUT & THICKNESS

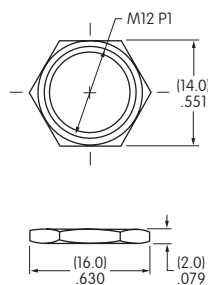


The 12mm bushing is .512" (13.0mm) long. It allows mounting these devices in a maximum effective panel thickness of .315" (8.0mm).

## STANDARD HARDWARE

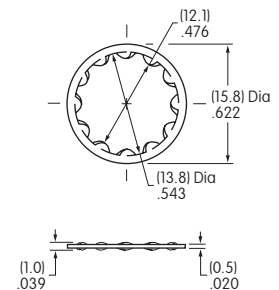
### AT527M Hex Mounting Nut

1 included with each switch  
Steel with nickel plating



### AT508 Internal Tooth Lockwasher

1 included with each switch  
Steel with zinc/chromate plating



# Mouser Electronics

Authorized Distributor

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## [NKK Switches:](#)

[SK12ADW01](#) [SK12BAW01](#) [SK13EDW01-005](#) [SK13EDW01](#) [SK12BDW01](#) [SK13DAW01](#) [SK12ADW01-007/UL](#)  
[SK12ADW01-007](#) [SK12AAW01](#) [SK12BAW01/C-UL](#) [SK13EAW01](#) [SK12BDW01-007](#)