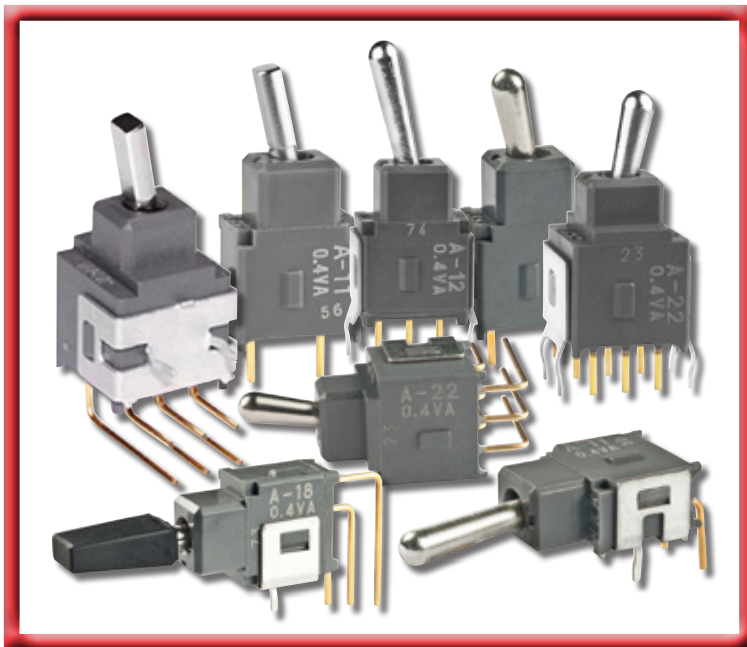


# TOGGLE UP!

When you choose NKK Switches' subminiature toggles, you combine reputable quality, reliability and support. The success of your design and application is determined with the selection of dependable resources, both the skill of the support team and the caliber of the products. So, toggle up with confidence!

## Process Sealed Subminiature Toggles



### Characteristics

Completely sealed body construction, an asset of the Series A toggles, impedes contamination and enables automated soldering and cleaning. Specifically developed for logic-level applications, the Series A Toggles' subminiature size conserves space on PC boards.

Series A Toggles' unique sliding twin contact (STC) mechanism offers benefits of smooth, positive detent actuation, increased contact stability and logic-level reliability. Gold-plated contacts are wiped clean with each actuation, ensuring uninterrupted dependability.

Models have molded-in, epoxy sealed or ultrasonically welded PC terminals that prohibit entry of flux, solvents and other contaminants. The terminals conform to standard PC board spacing of .100" x .100" (2.54mm x 2.54mm).

Various toggle shapes of bat, flatted or snap top for paddle levers are offered in multiple pole and circuit options. The model with the antistatic bat lever is recommended for dissipating electrostatic discharge. PC terminal choices include straight, straight with bracket, and right angle or vertical with bracket. Caps are available for the bat levers, and paddles for the snap top model.

### Specifications

**Electrical Capacity:** Logic Level - 0.4VA maximum @ 28V AC/DC maximum (Applicable range 0.1mA ~ 0.1A @ 20mV ~ 28V)

**Contact Resistance:** 50 milliohms maximum

**Insulation Resistance:** 500 megohms minimum @ 500V DC

**Dielectric Strength:** 500V AC minimum between contacts for 1 minute minimum; 500V AC minimum between contacts & case for 1 minute minimum

**Mechanical Life:** 100,000 operations minimum for On-None-On & On-Off-On; 50,000 operations minimum for other circuits

**Electrical Life:** 50,000 operations minimum

**Nominal Operating Force:** 1.47N (momentary); 1.18N (maintained) for .394" (10.0mm) toggles; 2.73N (momentary); 1.84N (maintained) for all others

**Contact Timing:** Nonshorting (break-before-make)

**Angle of Throw:** 26°

**Operating Temperature Range:** -30°C ~ +85°C (-22°F ~ +185°F)

### Applications

- Automation Devices/PLC
- Broadcast Cameras
- Communication Devices
- Audio/Broadcast Equipment
- Digital Transmitters
- Elevators
- Kitchen Equipment



Actual Size

# TOGGLE UP!

## Process Sealed Subminiature Antistatic Toggles



### Characteristics

The Series B Toggles are uniquely designed to prevent static discharge to the contacts due to their antistatic superstructure. This consists of the bushing, which is permeated with carbon, and the support bracket. Static electricity from the operator's touch travels from the actuator through the bushing and bracket to the PC board.

These subminiature toggles are explicitly developed for logic-level applications, and their compact size is a plus in conserving space for PC board configurations. The benefits of completely sealed body construction permits time- and money-saving soldering and cleaning while preventing contact contamination. Smooth, positive detent actuation, enhanced contact stability, and unsurpassed logic-level dependability are all credited to the sliding twin contact mechanism (STC). Epoxy sealed PC terminals block entry of flux and other contaminants. Terminal spacing of .100" x .100" (2.54mm x 2.54mm) conforms to standard PC board grid spacing.

In addition to bat and flatted actuators with smooth bushings, there is also a locking lever mechanism. Another bat lever model with a 6mm threaded bushing is front panel sealed and has an IP65 rating.

PC terminal options include straight, straight with bracket, and right angle or vertical with bracket. Bracketed models are ESD protected. Optional caps are available to accessorize the bat levers.

### Specifications

**Electrical Capacity:** Logic Level - 0.4VA maximum @ 28V AC/DC maximum (Applicable range 0.1mA ~ 0.1A @ 20mV ~ 28V)

**Contact Resistance:** 50 milliohms maximum

**Insulation Resistance:** 500 megohms minimum @ 500V DC

**Dielectric Strength:** 500V AC minimum for 1 minute minimum

**Mechanical Life:** 100,000 operations minimum for On-None-On & On-Off-On; 50,000 operations minimum for other circuits; 50,000 for locking lever models

**Electrical Life:** 50,000 operations minimum

**Nominal Operating Force:** Toggles A, A1 & E: 1.47N (momentary); 1.18N (maintained). Toggles J & H: 2.72N (momentary); 1.84N (maintained). Toggle L: 0.59N

**Contact Timing:** Nonshorting (break-before-make)

**Angle of Throw:** 26°

**Operating Temperature Range:** -30°C ~ +85°C (-22°F ~ +185°F)

### Applications

- Automation Devices/PLC
- Digital Wireless Systems
- Communication Devices
- Audio Equipment
- Headset Equipment
- Radio Remote Controllers
- Measurement Devices



Actual Size