Keylocks

NKK's distinctive line of keylock switches is offered in high, medium and low security levels. There are various bushing sizes and types of terminals, plus PC board, panel mount or snap-in options. Antistatic and process sealed models are available, with logic level to power ratings and sizes in standard, miniature or subminiature. Versatile flat or tubular key styles are included, and reorder of keys for any of the series is simplified with AT accessory part numbers. UL and CSA certifications are available.

NKK's keylock switches are designed to perform dependably in a variety of diverse applications that include automation control, audio video, broadcasting, industrial and medical equipment.

HIGH SECURITY KEYLOCKS

Characteristics & Specifications

CK Series 16mm & 19mm Standard Size Keylocks

- High insulating material for CKM 16mm model withstands 15+ kilovolts of electrostatic discharge, contributing antistatic feature
- Rugged, die cast housing for CKL 19mm model designed for higher security requirements
- Flat and tubular key styles. Flat key is reversible for easier setting; tubular key must be pressed inward to actuate. One key of either model provided with each switch. Additional keys available.

- 16mm and 19mm diameter threaded bushing sizes
- Vertically rotating switching mechanism combines with self-cleaning sliding contacts for high reliability and long operating life
- Interior construction provides seal for contact area
- High dielectric strength of 1,500 volts between contacts and case
- Epoxy sealed solder lug terminals prevent entry of flux and other contaminants

Power Level: 3A @ 250V AC
Contact Resistance: 20 milliohms max
Insulation Resistance: 1,000 megohms min @ 500V DC
Dielectric Strength: 1,000V AC min between contacts for 1 minute min; 1,500V AC min between contacts & case for 1 minute min
Mechanical Life: 30,000 cycles min
Electrical Life: 10,000 cycles min
Static Capability: Withstands 15 kilovolts min ESD min (CKM models)
Nominal Operating Torque: CKM & Flat Key: 0.04Nm (5.67 oz•in) CKM & Tubular Key: 0.08Nm (11.33 oz•in) CKL & Flat Key: 0.05Nm (7.08 oz•in) CKL & Tubular Key: 0.07Nm (9.91 oz•in)
Contact Timing: Break-before-make
Angle of Throw: 90° for 2-position, 45° for 3-position
Operating Temperature Range: –25°C ~ +70°C (–13°F ~ +158°F)

LOW & MEDIUM SECURITY KEYLOCKS

Characteristics & Specifications

SK Series 12mm Miniature Keylocks

- 12mm diameter threaded bushing facilitates simple panel cutout preparation and high density mounting
- Short behind panel dimension of only 1.063" (27.0mm)
- Two keys provided with each low security switch; one for each medium security model. Additional keys available.

- 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
- Epoxy sealed solder lug terminals prevent entry of flux and other contaminants

Power Level: 3A @ 125V AC
Contact Resistance: 10 milliohms max
Insulation Resistance: 1,000 megohms min @ 500V DC
Dielectric Strength: 1,000V AC min between contacts for 1 minute min; 1,500V AC min between contacts & case for 1 minute min
Mechanical Life: 30,000 cycles min
Electrical Life: 10,000 cycles min
Nominal Operating Torque: 0.026Nm (0.234 lb•in)
Contact Timing: Break-before-make
Angle of Throw: 90° for 2-position, 45° for 3-position
Operating Temperature Range: –25°C ~ +70°C (–13°F ~ +158°F)

ANTISTATIC PROCESS SEALED KEYLOCKS

Characteristics & Specifications

SK Series Subminiature Keylocks

- Totally sealed construction with internal o-ring, gasket between base and housing, and insert-molded terminals, contribute protection for automated processing techniques
- Bifurcated, self-wiping contact mechanism furnishes unequaled logic-level reliability and smoother, positive detent actuation
- High insulating material for housing and bushing withstands 15k+ of electrostatic discharge, providing antistatic protection
- Detent mechanism, with its spring-operated steel ball, delivers distinct feel and crisp actuation for accurate switch setting

- Two polyacetal tubular keys supplied with each switch. Additional keys available.
- Smaller size beneficial for high density mounting
- Molded-in right angle or straight PC terminals prevent entry of flux or contaminants
- Crimped bracket legs ensure secure PCB mounting, prevent dislodging during automated wave soldering
- .100" x .100" (2.54mm x 2.54mm) terminal spacing conforms to standard PC board grid

Logic Level: 0.4VA max @ 28V AC/DC max (Applicable Range 0.1mA ~ 0.1A @ 20mV ~ 28V)
Contact Resistance: 100 milliohms max
Insulation Resistance: 100 megohms min @ 500V DC
Dielectric Strength: 500V AC min for 1 minute min
Mechanical Life: 30,000 cycles min
Electrical Life: 20,000 cycles min
Static Capability: Withstands 15 kilovolts ESD
Nominal Operating Torque: 0.0002Nm (.0017 lb•in)
Contact Timing: Break-before-make
Angle of Throw: 45° for 3-position & 5-position
Operating Temperature Range: –25°C ~ +70°C (–13°F ~ +158°F)

PROCESS SEALED KEYLOCKS

Characteristics & Specifications

SK Series Subminiature Keylocks

- Sealed body construction and disposable boot supplied with switch protect contacts and enable automated processing
- Space-conserving behind panel dimensions due to short body
- Two antistatic ABS resin handle keys provided for each switch. Additional keys available.
- Optional metal key available for right angle mid-board mounting
- Crisp, positive action for accurate switch setting implemented by detent mechanism and its spring-operated steel ball
- Bifurcated, self-wiping contact mechanism gives unequaled logic-level reliability along with smoother, positive detent actuation
- Available with PC terminals: straight with bracket or right angle
- Crimped bracket legs ensure secure PCB mounting, prevent dislodging during automated wave soldering

- Molded-in, .100" x .100" (2.54mm x 2.54mm) spaced terminals conform to standard PC board grid, sealing out flux, solvents and other contaminants

Logic Level: 0.4VA max @ 28V AC/DC max (Applicable Range 0.1mA ~ 0.1A @ 20mV ~ 28V)
Contact Resistance: 80 milliohms max
Insulation Resistance: 100 megohms min @ 500V DC
Dielectric Strength: 500V AC min for 1 minute min
Mechanical Life: 30,000 cycles min
Electrical Life: 10,000 cycles min
Nominal Operating Torque: 0.026Nm (0.234 lb•in) for momentary action; 0.020Nm (0.182 lb•in) for maintained action
Contact Timing: Break-before-make
Angle of Throw: 90° for 2-position & 45° for 3-position
Operating Temperature Range: –25°C ~ +70°C (–13°F ~ +158°F)

ANTISTATIC SNAP-IN KEYLOCK

Characteristics & Specifications

SK Series Miniature Keylock

- One part number available: SK14DGMG01
- High insulating material withstands 15 kilovolts of electrostatic discharge, thus providing antistatic protection
- Quick and convenient snap-in panel mounting

- Two flat keys, with antistatic ABS resin handles, are supplied with each switch. Additional keys available.
- Key is removable in any one of three positions
- Detent mechanism delivers crisp, positive action for accurate switch setting
- Compact behind panel dimension of only .894" (22.7mm)
- Gold plated solder lug terminals

Logic Level: 0.4VA max @ 28V AC/DC max (Applicable Range 0.1mA ~ 0.1A @ 20mV ~ 28V)
Contact Resistance: 100 milliohms max
Insulation Resistance: 100 megohms min @ 500V DC
Dielectric Strength: 500V AC min between contacts for 1 minute min
Mechanical Life: 30,000 operations min
Electrical Life: 10,000 operations min
Static Capability: Withstands 15 kilovolts ESD
Nominal Operating Torque: 0.020Nm (0.18 lb•in)
Contact Timing: Break-before-make
Angle of throw: 45°
Operating Temperature Range: –40°C ~ +85°C (–40°F ~ +185°F)