General Specifications

Electrical Capacity (Resistive Load)

Maximum Level: 500mA @ 12V DC

Minimum Level: 1.0mA maximum @ 10mV AC/DC maximum

Other Ratings

Contact Resistance: 30 milliohms maximum

Insulation Resistance: 100 megohms minimum @ 500V DC **Dielectric Strength:** 500V AC for 1 minute minimum **Mechanical Life:** 1,000 operations minimum Electrical Life: 1,000 operations minimum

Nominal Operating Force: 2.0N

> **Contact Timing:** Nonshorting (Break-before-make)

Total Travel: .063" (1.6mm)

Materials & Finishes

Actuator: Glass fiber reinforced polyester (UL94V-0) Case: Glass fiber reinforced polyamide (UL94V-0) Lower Case: Glass fiber reinforced polyester (UL94V-0) Brass with gold plating over nickel **Movable Contacts:** Brass with gold plating over nickel **Stationary Contacts** Terminals: Brass with gold plating over nickel

Environmental Data

Operating Temp Range: -40°C through +85°C (-40°F through +185°F)

Humidity: 90-95% humidity for 96 hours @ 40°C (104°F)

10 ~ 55Hz with peak-to-peak amplitude of 1.5mm traversing the frequency range & returning Vibration:

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 B in Supplement section.

These devices are not process sealed. Hand clean locally using alcohol based solution. Cleaning:

Standards & Certifications

Flammability Standards: Actuator and lower case of glass fiber reinforced polyester and case of glass fiber reinforced

polyamide UL94V-0

The SM series devices have not been tested for UL recognition and CSA certification.

These switches are designed for use in a low-voltage, low-current circuit.

When used as intended in a low-voltage, low-current circuit, the results do not produce

hazardous energy.



H43

Distinctive Characteristics

Very compact dimensions allow for high density, side-by-side or end-to-end mounting within tight dimensional applications.

Detent mechanism provides positive actuation to indicate circuit status.

Visible indication of position by spot on top of red actuator and through window on side.

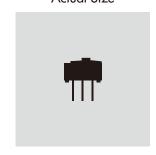
Twin sliding contact mechanism with self-cleaning action provides smooth actuation and produces high contact reliability.

.100" x .100" (2.54mm x .2.54mm) center-to-center inch terminal spacing allows standard PC board mounting in side-by-side or end-to-end arrangements.

Insert molded terminals lock out flux, solvents, and other contaminants.



Actual Size

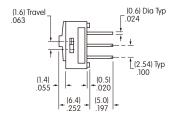


| POLES & CIRCUITS | | | | | | | |
|------------------|----------------|--------|------|---------------------|--------|------|---|
| | Slide Position | | | Connected Terminals | | | Throw & Schematics |
| Model | Right | Center | Left | Right | Center | Left | Note: Terminal numbers are on the switch. |
| SM0320102 | ON | NONE | ON | 1-3 | OPEN | 1-2 | SPDT 3 • 1 (COM) |

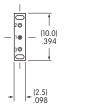
TYPICAL SWITCH DIMENSIONS

Single Pole • Straight PC





Actuator shown in RIGHT position







SM0320102



www.nkk.com