

SUPER-SUBMINIATURE/PCB MOUNTING

GENERAL SPECIFICATIONS

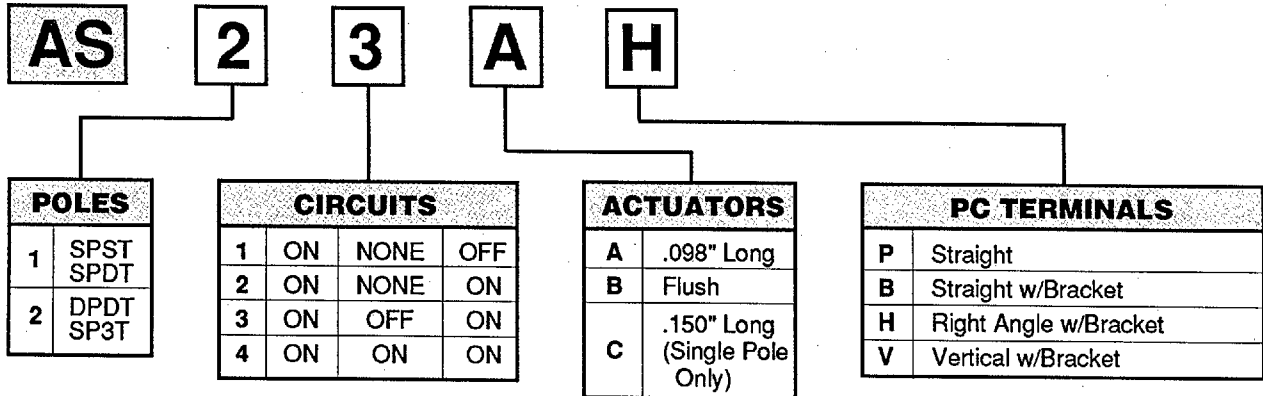
Electrical Capacity: (Resistive Load)	0.4VA maximum @ 28V AC/DC maximum (Applicable Range 0.1mA ~ 0.1A @ 20mV ~ 28V)
Contact Resistance:	50 milliohms maximum
Insulation Resistance:	500 megohms minimum @ 500V DC
Dielectric Strength:	500V AC minimum
Mechanical Life:	50,000 operations minimum
Electrical Life:	50,000 operations minimum
Ambient Temp Range:	-10°C through +85°C (+14°F through +185°F)
Total Travel:	2.5mm (.098")
Nominal Operating Force:	260 grams

MATERIALS & FINISHES

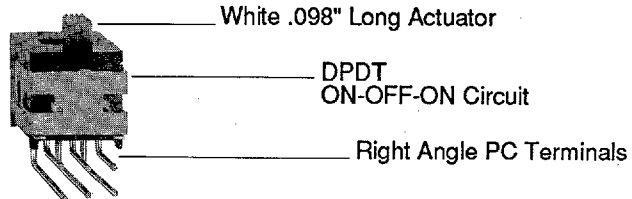
Actuator	Fiberglass reinforced polyamide
Upper Case Housing	Carbon composite polyacetal
Lower Case Housing	Fiberglass reinforced polyamide
Support Bracket	Tin plated phosphor bronze
Movable Contact	Phosphor bronze with gold plating over silver plating
Stationary Contacts	Brass with gold plating over nickel undercoating
Terminals	Brass with gold plating over nickel undercoating

Slides

TYPICAL SWITCH ORDERING EXAMPLE



**DESCRIPTION
FOR
TYPICAL ORDERING
EXAMPLE
(AS23AH):**




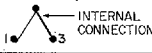
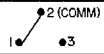
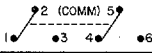
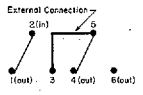
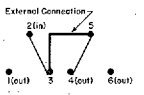
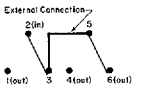


Note: The A Series slide switch is not washable.

NKK® SERIES A SLIDE SWITCHES

SUPER-SUBMINIATURE/PCB MOUNTING

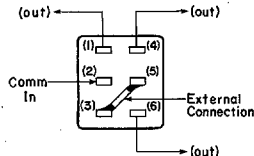
POLES AND CIRCUITS

POLE & THROW	MODEL	SLIDE POSITION & TERMINAL NUMBER () = Momentary		
		Up	Center	Down
				
SPST	AS11	ON	NONE	OFF
CONNECTED TERMINALS		3-1	OPEN	OPEN
SCHEMATIC				
SPDT	AS12 AS13	ON ON	NONE OFF	ON ON
CONNECTED TERMINALS		2-1	OPEN	2-3
SCHEMATIC				
DPDT	AS22 AS23	ON ON	NONE OFF	ON ON
CONNECTED TERMINALS		2-1 5-4	OPEN	2-3 5-6
SCHEMATIC				
SP3T	AS24	ON	ON	ON
CONNECTED TERMINALS W/O EXTRA CONNECTION		2-1 5-4	2-3 5-4	2-3 5-6
SCHEMATICS W/EXTERNAL CONNECTIONS				

Terminal numbers are not actually on the switch.

THREE-ON POSITIONS

In the manufacture of the AS24 model, a double pole double throw switch is converted to a single pole with 3 independent circuits. The extra connection shown in the diagram must be made during field installation. Note that terminal numbers are not actually indicated on the switch.



PCB MOUNTING AND SOLDERING

The use of a support bracket is recommended to increase PCB mounting stability.

Soldering time & temperature limits:

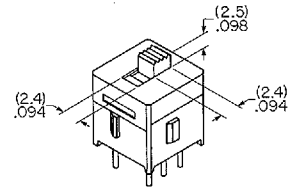
3 seconds at 350°C

5 seconds at 270°C

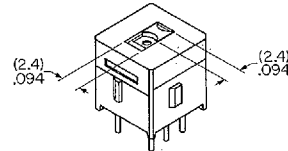
ACTUATORS

Actuator Color: White standard

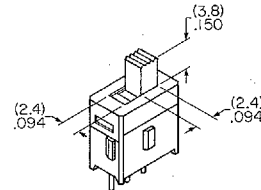
A .098" Long



B Flush



C .150" Long
(Single Pole Only)

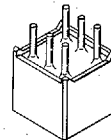


Note: To obtain information regarding other color options, contact the factory.

PC TERMINALS

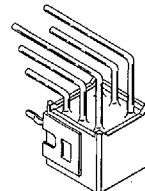
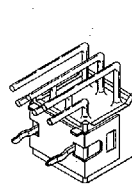
P Straight

B Straight w/Bracket



H Right Angle w/Bracket

V Vertical w/Bracket



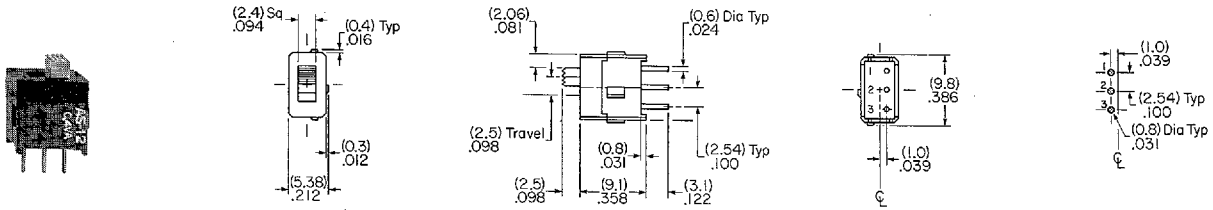
P, B, H & V terminal dimensions appear on the slide drawings which follow.

Dimensions for W, D, R, & T long length terminals appear in the toggle section.

NKK® SERIES A SLIDE SWITCHES

SUPER-SUBMINIATURE/PCB MOUNTING

P Straight PC Terminals without Bracket/Single Pole

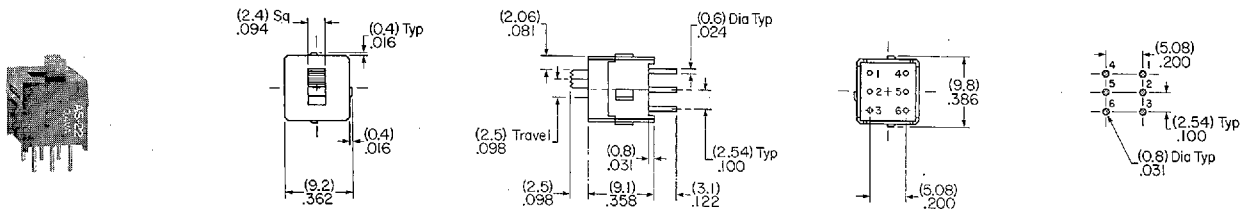


AS12AP Model Shown

(Actuator shown in UP position.)

Single throw models do not have terminal 2.

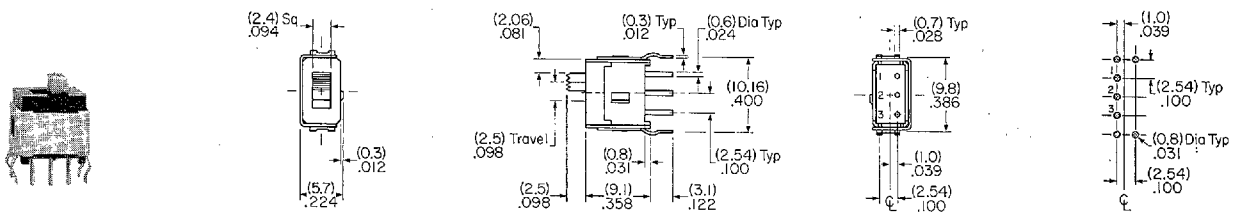
P Straight PC Terminals without Bracket/Double Pole



AS22AP Model Shown

(Actuator shown in UP position.)

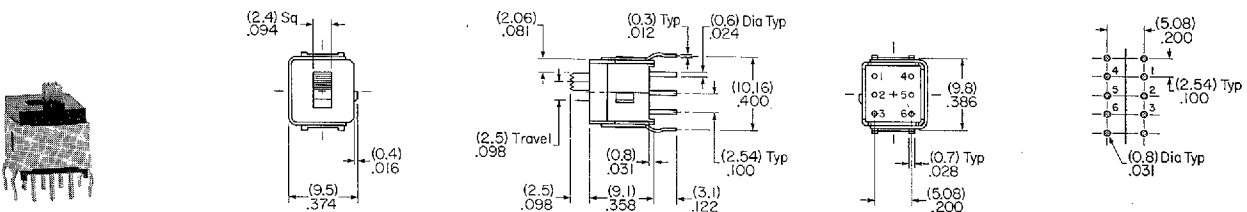
B Straight PC Terminals with Bracket/Single Pole



AS12AB Model Shown

(Actuator shown in UP position.)

B Straight PC Terminals with Bracket/Double Pole



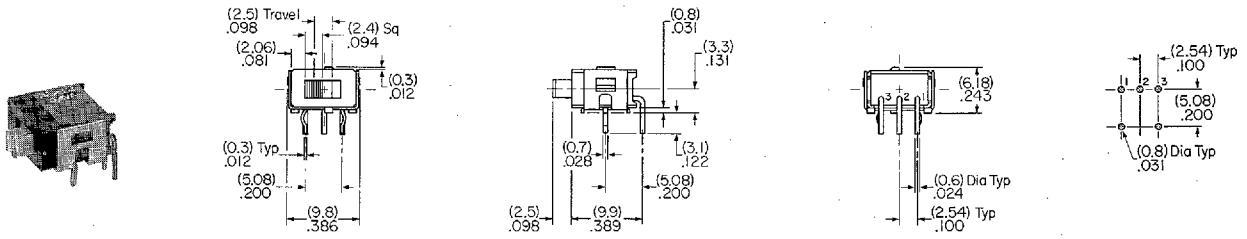
AS22AB Model Shown

(Actuator shown in UP position.)

NHK® SERIES A SLIDE SWITCHES

SUPER-SUBMINIATURE/PCB MOUNTING

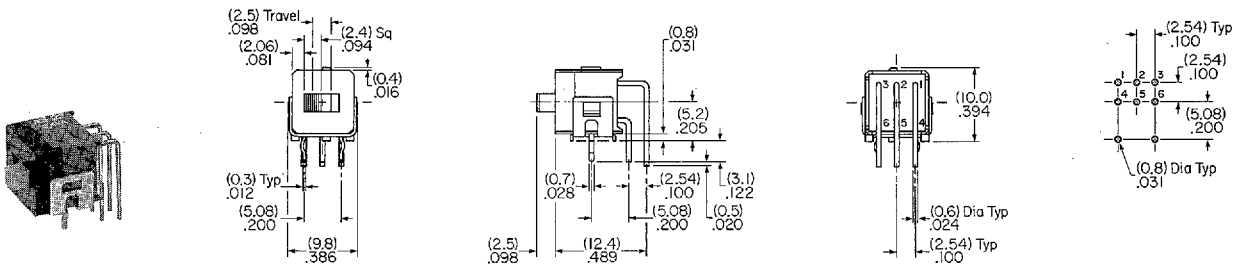
H Right Angle PC Terminals with Bracket/Single Pole



AS12AH Model Shown

(Actuator shown in UP position.)

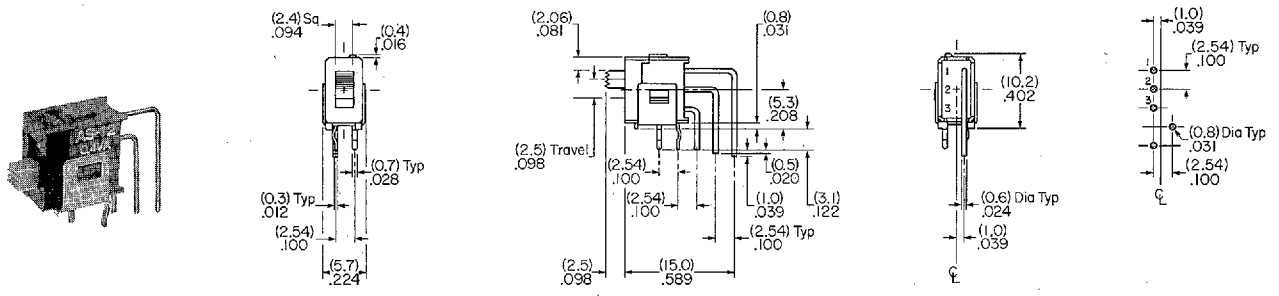
H Right Angle PC Terminals with Bracket/Double Pole



AS22AH Model Shown

(Actuator shown in UP position.)

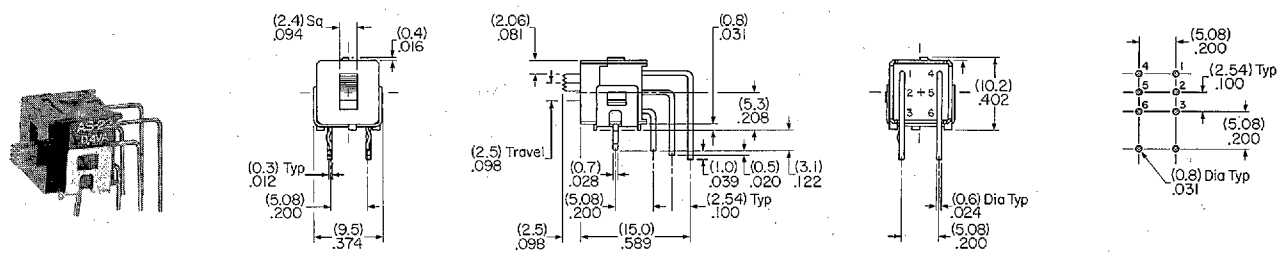
V Vertical PC Terminals with Bracket/Single Pole



AS12AV Model Shown

(Actuator shown in UP position.)

V Vertical PC Terminals with Bracket/Double Pole



AS22AV Model Shown

(Actuator shown in UP position.)

Slides

NKK[®]

SERIES A

SUPER-SUBMINIATURE/PCB MOUNTING/WASHABLE

A-25-13

DISTINCTIVE FEATURES

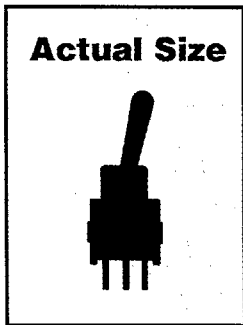
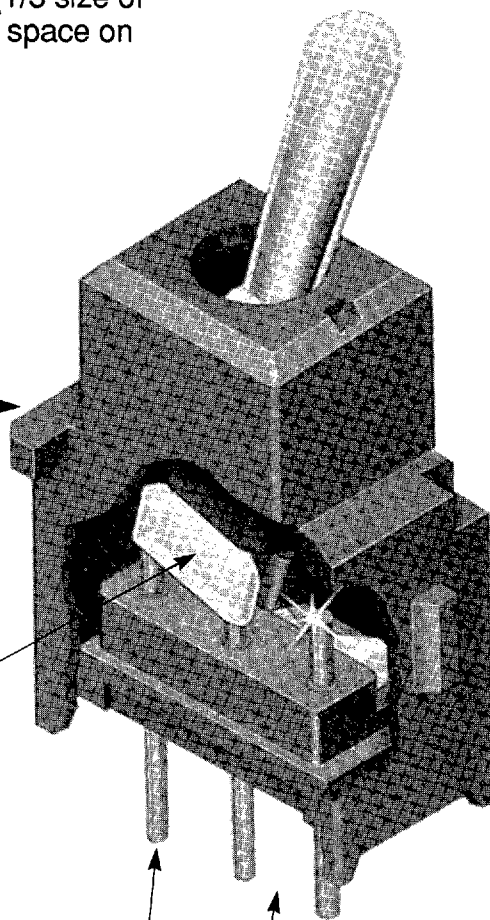


Super-subminiature size (1/3 size of Series M switches) saves space on PC boards.

Totally sealed body prevents contact contamination, allows time- and money-saving automated wave soldering and washing.

Patented Sliding Twin Crossbar (STC) mechanism provides unequalled logic-level reliability and smoother, positive detent actuation.

Molded-in, epoxy sealed terminals lock out flux, solvents, and other contaminants.



.100" x .100" terminal spacing conforms to standard PC board grid spacing.

NKK[®] SERIES A SWITCHES

SUPER-SUBMINIATURE/PCB MOUNTING/WASHABLE

GENERAL SPECIFICATIONS

Electrical Capacity: (Resistive Load)	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
Mechanical Life:	Toggles & Rockers: 100,000 operations minimum for ON-NONE-ON & ON-OFF-ON 50,000 operations minimum for other circuits Pushbuttons: 50,000 operations minimum
Electrical Life:	50,000 operations minimum
Ambient Temp Range:	-10°C through +85°C (+14°F through +185°F) Optional low temperature lubricant available
Toggle Angle of Throw:	26°
Rocker Angle of Throw:	26°
Pushbutton Travel:	Pretravel 0.7mm (.028") Overtravel 0.4mm (.016") Total 1.1mm (.043")
Nominal Operating Force:	Toggles A & E & K w/Long Paddle: 150g (momentary); 120g (maintained) Toggles J & H & K w/Short Paddle: 278g (momentary); 188g (maintained) Rockers w/Actuators K & K1: 253g (momentary); 206g (maintained) Pushbuttons: 260g

MATERIALS & FINISHES

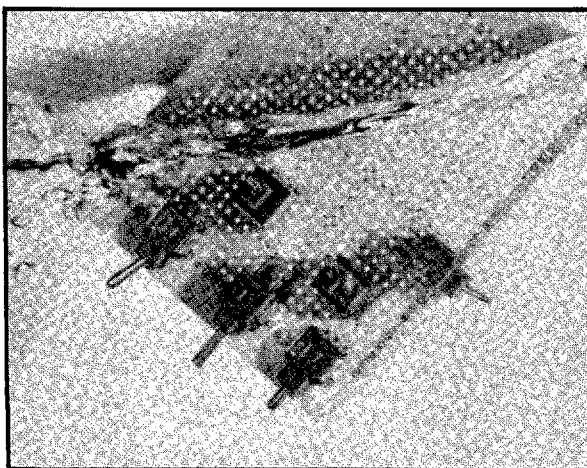
Toggle/Rocker Actuator	Nickel plated brass
Pushbutton Plunger	Polyacetal
Case Housing	Glass fiber reinforced polyamide
Support Bracket	Tin plated phosphor bronze
Movable Contact	Phosphor bronze with gold plating over silver plating
Stationary Contacts	Brass with gold plating over nickel undercoating

STC CONTACT MECHANISM

NKK's patented, award-winning STC contact mechanism offers benefits unavailable in conventional mechanisms. For example, movable twin contact surfaces pinch the stationary contacts to provide increased contact stability and unparalleled logic-level reliability.

Continued reliability is assured since the gold-plated contacts are wiped clean with each actuation. Furthermore, if one side of the twin contacts should fail to conduct, the other side functions as a backup, or fail-safe path for the current. The combination of rounded movable and stationary contacts provides smooth contact feel previously unavailable in sliding contact type mechanisms.

SEALED FOR WASHABILITY



Sealed body construction permits Series A switches to be subjected to time- and money-saving automated soldering techniques. As a result, they can be safely cleaned of flux without fear of compromising operating characteristics.

