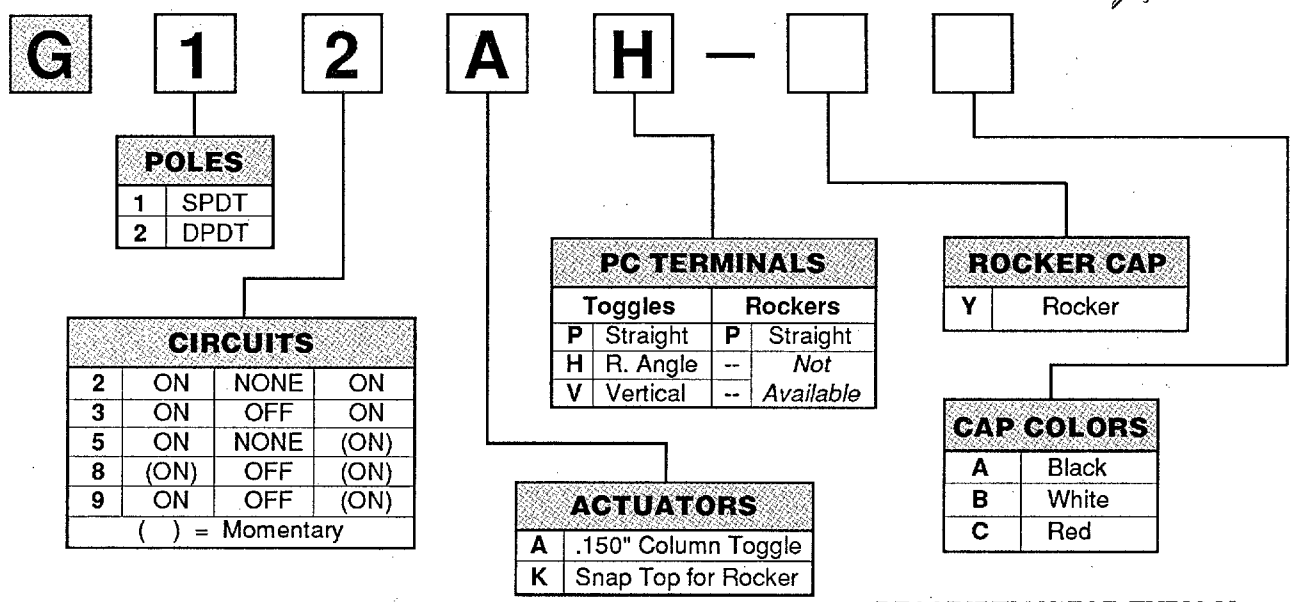


NKK® SERIES G TOGGLES & ROCKERS

MICRO-SUBMINIATURE/PCB/ANTISTATIC/WASHABLE

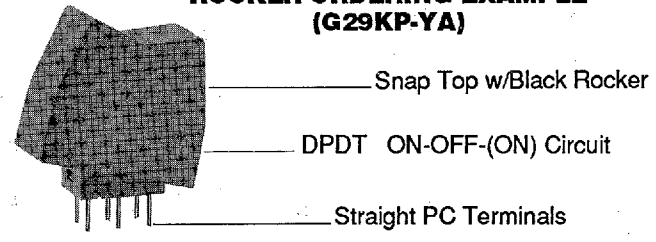
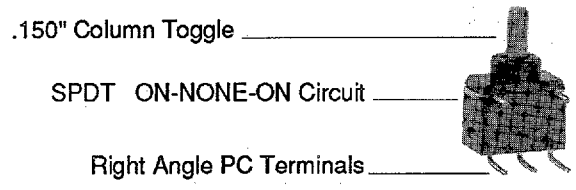
TYPICAL SWITCH ORDERING EXAMPLE

A-25-13
A-25-13



DESCRIPTION FOR TYPICAL TOGGLE ORDERING EXAMPLE (G12AH)

DESCRIPTION FOR TYPICAL ROCKER ORDERING EXAMPLE (G29KP-YA)



POLES AND CIRCUITS		ACTUATOR POSITION & TERMINAL NUMBER		
POLE & THROW	MODEL	(Momentary)		
		Up	Center	Down
SPDT	G12	ON	NONE	ON
	G13	ON	OFF	ON
	G15	ON	NONE	(ON)
	G18	(ON)	OFF	(ON)
	G19	ON	OFF	(ON)
CONNECTED TERMINALS		2-3	OPEN	2-1
SCHEMATIC				
DPDT	G22	ON	NONE	ON
	G23	ON	OFF	ON
	G25	ON	NONE	(ON)
	G28	(ON)	OFF	(ON)
	G29	ON	OFF	(ON)
CONNECTED TERMINALS		2-3 5-6	OPEN	2-1 5-4
SCHEMATIC				

Terminal numbers are not actually on the switch.

ACTUATORS AND CAP

A .150" Column Toggle

K Snap Top

Y AT4062 Rocker

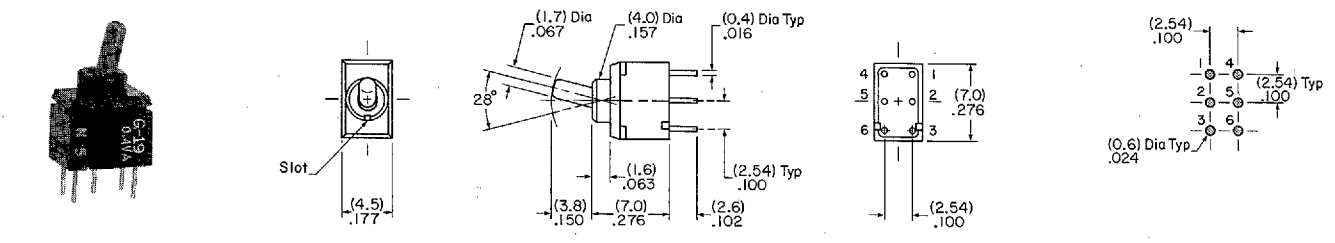
Colors:
A Black
B White
C Red

NKK® SERIES G TOGGLES & ROCKERS

Toggles
Rockers

MICRO-SUBMINIATURE/PCB/ANTISTATIC/WASHABLE

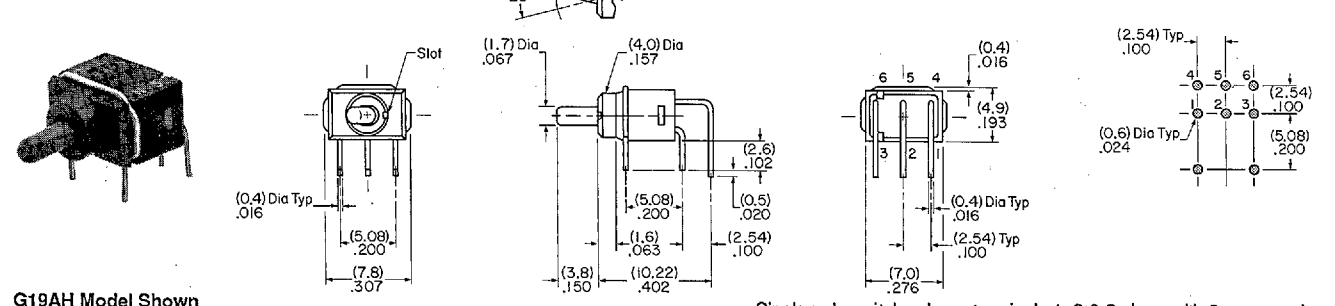
P Straight PC Terminals/Single & Double Pole



G19AP Model Shown

Single pole switches have terminals 1, 2 & 3 with support pins at positions 4 & 6.

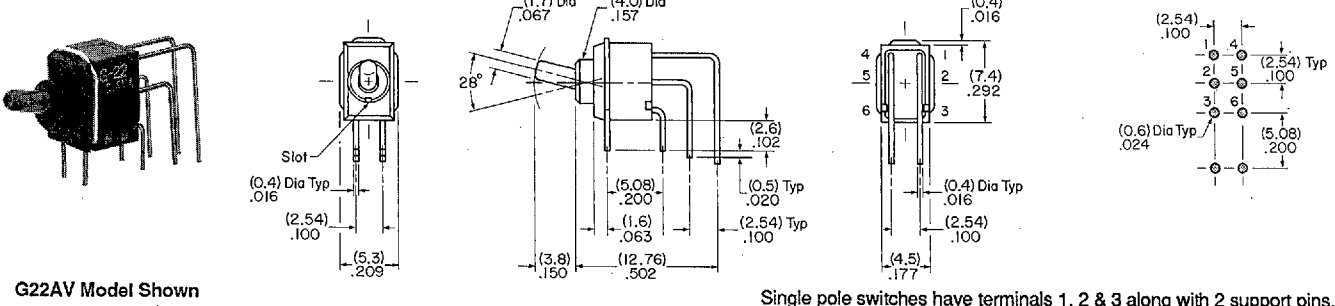
H Right Angle PC Terminals/Single & Double Pole



G19AH Model Shown

Single pole switches have terminals 1, 2 & 3 along with 2 support pins.

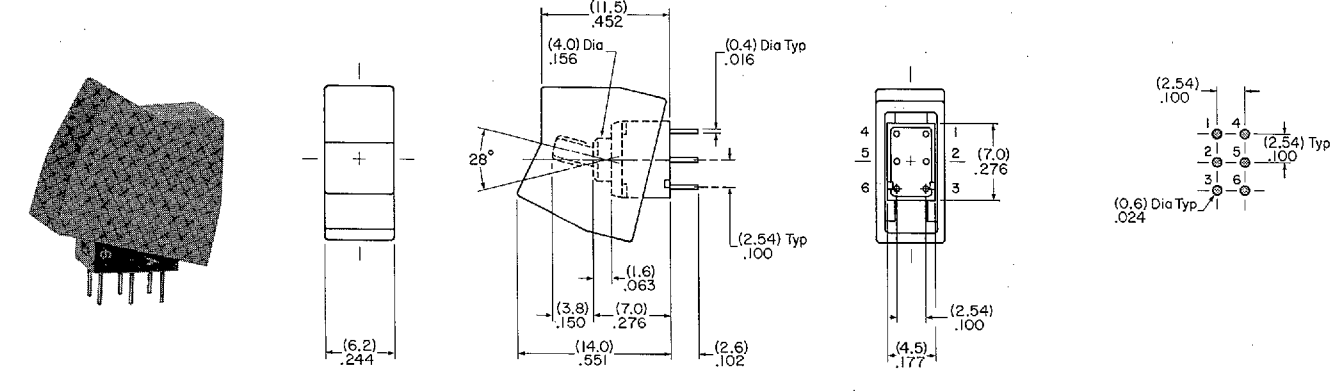
V Vertical PC Terminals/Single & Double Pole



G22AV Model Shown

Single pole switches have terminals 1, 2 & 3 along with 2 support pins.

P Straight PC Terminals with Rocker/Single & Double Pole



G23KP-YA Model Shown

Single pole switches have terminals 1, 2 & 3 with support pins at positions 4 & 6.



Toggles
Rockers
Pushbuttons

NKK® SERIES G

MICRO-SUBMINIATURE/PCB/ANTISTATIC/WASHABLE

A-25-13

DISTINCTIVE FEATURES



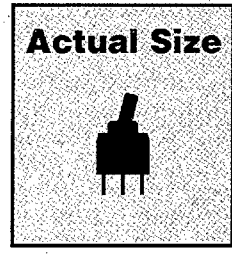
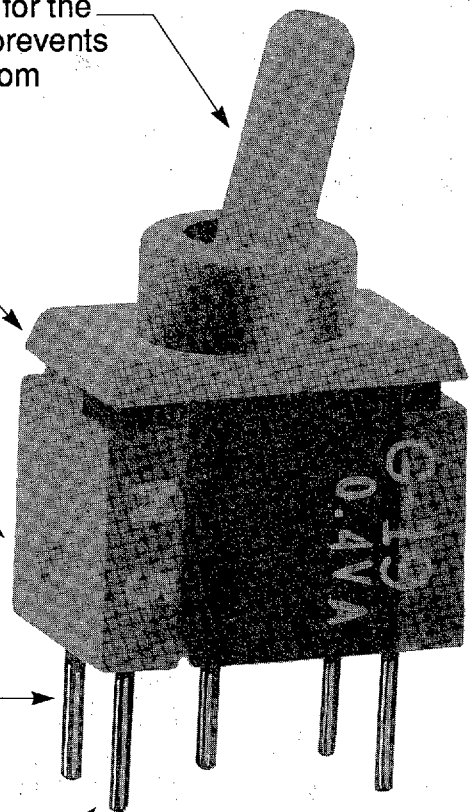
Micro-subminiature size (1/3 the volume of super-subminiatures) allows for high density mounting, and extremely light weight of 0.25 grams makes this device suited for use in handheld equipment.

The use of antistatic resin for the housing, base, and lever prevents static electricity charges from reaching the contacts.

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

Patented Sliding Twin Crossbar (STC) contact mechanism provides unequalled logic-level reliability and smoother 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. Round terminals facilitate easier mounting on PC boards.

NKK® SERIES G SWITCHES

MICRO-SUBMINIATURE/PCB/ANTISTATIC/WASHABLE

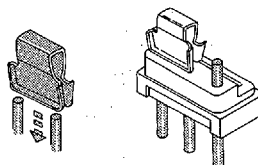
GENERAL SPECIFICATIONS

Electrical Capacity: (Resistive Load)	0.4VA maximum @ 28V AC/DC maximum (Applicable Range 0.1mA ~ 0.1A @ 20mV ~ 28V)
Contact Resistance:	80 milliohms maximum
Insulation Resistance:	500 megohms minimum @ 500V DC
Dielectric Strength:	500V AC minimum
Mechanical Life:	100,000 operations minimum for ON-NONE-ON & ON-OFF-ON 50,000 operations minimum for other circuits
Electrical Life:	100,000 operations minimum for ON-NONE-ON & ON-OFF-ON 50,000 operations minimum for other circuits
Ambient Temp Range:	-25°C through +70°C (-13°F through +158°F)
Toggle Angle of Throw:	28°
Pushbutton Travel:	Pretravel 0.9mm (.035") Overtravel 0.2mm (.008") Total 1.1mm (.043")
Contact Bounce:	1 millisecond
Nominal Operating Force:	Toggles: 95g (momentary); 122g (maintained) Rockers: 83g (momentary); 108g (maintained) Pushbuttons: 200g
Soldering Limits:	3 seconds @ 350°C or 5 seconds @ 270°C

MATERIALS & FINISHES

Actuator	Glass fiber reinforced polyamide for toggles & rockers; polyacetal for pushbuttons
Case	Glass fiber reinforced polyamide
Sealing Rings	Nitrile butadiene rubber
Movable Contact	Phosphor bronze with gold plating over nickel
Stationary Contacts	Phosphor bronze with gold plating over nickel
Base	Glass fiber reinforced polyamide
Terminals	Phosphor bronze with gold plating over nickel

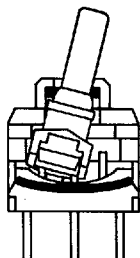
STC CONTACT MECHANISM



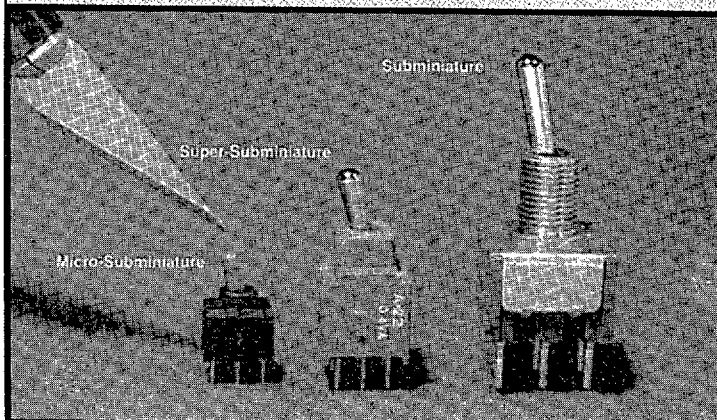
NKK's patented, award-winning Sliding Twin Crossbar (STC) contact mechanism offers benefits unavailable in conventional mechanisms. For example, movable twin contact surfaces pinch the stationary contacts to provide increased contact stability and unparallelled logic-level reliability. Continued reliability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

WASHABILITY

A combination of design features makes the G Series switches totally sealed: 1) The bushing and housing are one molded piece. 2) Rubber rings surround the actuator and the base where it fits into the housing. 3) Terminals are molded into the base and epoxy sealed. These features allow time- and money-saving automated soldering techniques and safe washing with alcohol base cleaning solvents.



RELATIVE SIZE COMPARISON



Toggles

Rockers

Pushbuttons