Distinctive Characteristics

Ultra-miniature size allows high density mounting, and extremely light weight of 0.25 gram makes these switches ideal for handheld equipment.

Totally sealed body construction prevents contact contamination and allows time- and money-saving automated soldering and cleaning.

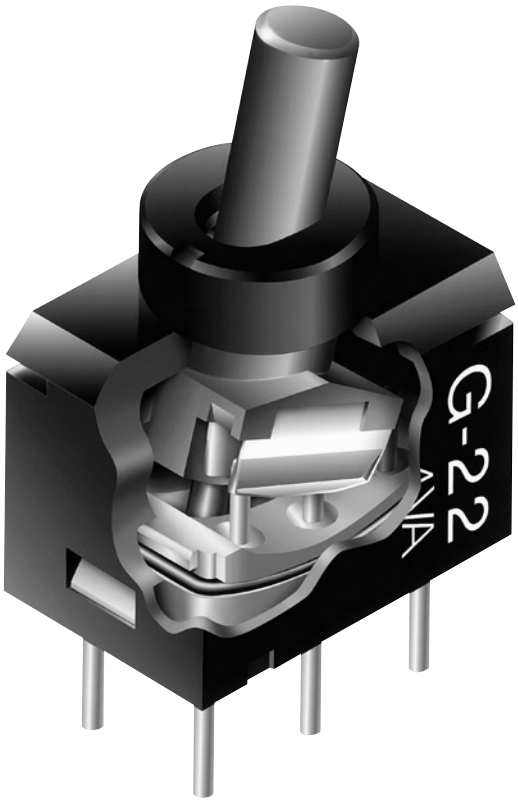
Molded-in, epoxy sealed terminals lock out flux, solvents, and other contaminants.

Award-winning STC contact mechanism with benefits unavailable in conventional mechanisms: smooth, positive detent actuation, increased contact stability, and unparalleled logic-level reliability. (Additional STC details in Terms & Acronyms; see Supplement section.)

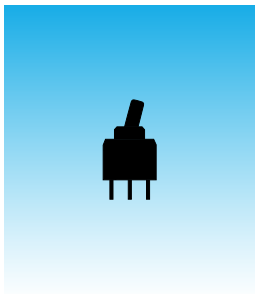
.100" x .100" (2.54mm x 2.54mm) terminal spacing conforms to standard PC board grid spacing. Round terminals facilitate easier through-hole mounting on PC boards.

Matching indicators available and shown at the end of Section M.

G Series illuminated toggles also appear in the Illuminated Other Section M.



Actual Size



General Specifications

Electrical Capacity (Resistive Load)

Logic Level: 0.4VA maximum @ 28V AC/DC maximum
(Applicable Range 0.1mA ~ 0.1A @ 20mV ~ 28V)
Note: Find additional explanation of operating range in Supplement section.

Other Ratings

Contact Resistance: 80 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
Electrical Life: 100,000 operations minimum for On-None-On & On-Off-On
50,000 operations minimum for other circuits
Nominal Operating Force: 0.93N for momentary & 1.20N for maintained
Angle of Throw: 28°

Materials & Finishes

Actuator: Glass fiber reinforced polyamide
Case: Glass fiber reinforced polyamide
Sealing Rings: Nitrile butadiene rubber
Movable Contacts: Phosphor bronze with gold plating
Stationary Contacts: Phosphor bronze with gold plating
Base: Glass fiber reinforced polyamide
Terminals: Phosphor bronze with gold plating
Support Bracket: Phosphor bronze with tin plating

Environmental Data

Operating Temperature Range: –25°C through +85°C (–13°F through +185°F)
Humidity: 90 ~ 95% humidity for 96 hours @ 40°C (104°F)
Vibration: 10 ~ 55Hz with peak-to-peak amplitude of 1.5mm traversing the frequency range
& returning in 1 minute; 3 right angled directions for 2 hours
Shock: 50G (490m/s^2) acceleration (tested in 6 right angled directions, with 5 shocks in each direction)

PCB Processing

Soldering: Wave Soldering Rcommended: See Profile A in Supplement section.
Manual Soldering: See Profile A in Supplement section.
Cleaning: Automated cleaning. See Cleaning specifications in Supplement section.

Standards & Certifications

UL Recognition or CSA Certification: The G Series toggles have not been tested for UL recognition or CSA certification.
These switches are designed for use in a low-voltage, low-current, logic-level circuit.
When used as intended in a logic-level circuit, the results do not produce hazardous energy.

TYPICAL SWITCH ORDERING EXAMPLE

G	1	3	A	H

POLES

1	SPDT
2	DPDT

CIRCUITS

2	ON	NONE	ON
3	ON	OFF	ON
5	ON	NONE	(ON)
8	(ON)	OFF	(ON)
9	ON	OFF	(ON)

( ) = Momentary

ACTUATOR

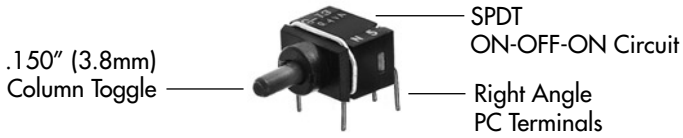
A	.150" (3.8mm) Column Toggle

PC TERMINALS

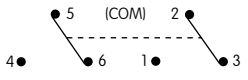
P	Straight
H	Right Angle
V	Vertical

DESCRIPTION FOR TYPICAL ORDERING EXAMPLE

G13AH

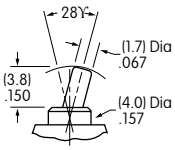


POLES & CIRCUITS

		Toggle Position ( ) = Momentary			Connected Terminals			Throw & Schematics
Pole	Model	Up (Slot)	Center	Down	Up (Slot)	Center	Down	Note: Terminal numbers are not actually on the switch.
SP	G12	ON	NONE	ON	5-6	OPEN	5-4	SPDT 
	G13	ON	OFF	ON				
	G15	ON	NONE	(ON)				
	G18	(ON)	OFF	(ON)				
	G19	ON	OFF	(ON)				
DP	G22	ON	NONE	ON	5-6 2-3	OPEN	5-4 2-1	DPDT 
	G23	ON	OFF	ON				
	G25	ON	NONE	(ON)				
	G28	(ON)	OFF	(ON)				
	G29	ON	OFF	(ON)				

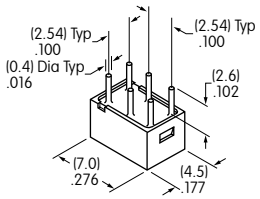
ACTUATOR

A **.150" (3.8mm) Column Toggle**

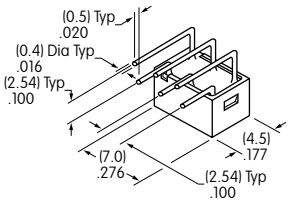


PC TERMINALS

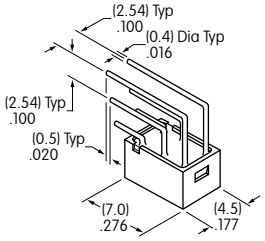
P Straight



H Right Angle



V Vertical

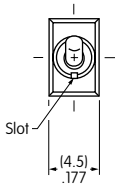


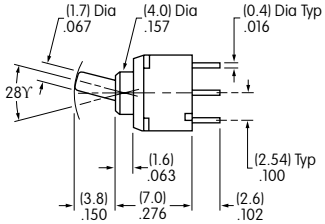
TYPICAL SWITCH DIMENSIONS

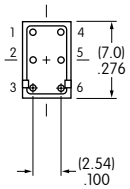
Straight PC

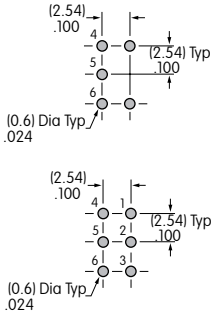
Single & Double Pole











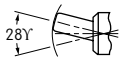
G19AP

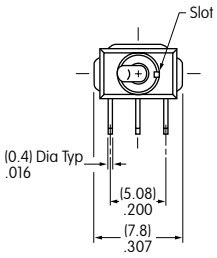
On single pole models, locations 1 & 3 are for support pins.

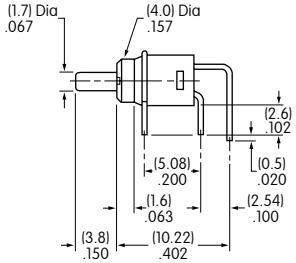
Right Angle PC

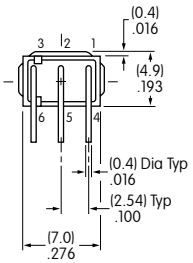
Single & Double Pole

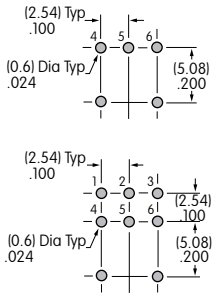










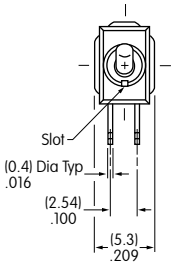


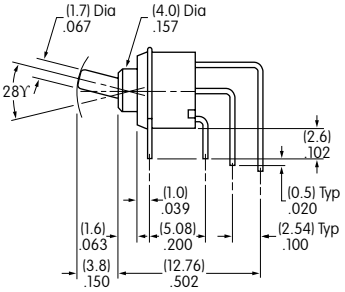
G19AH

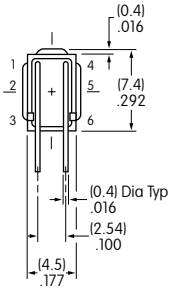
Vertical PC

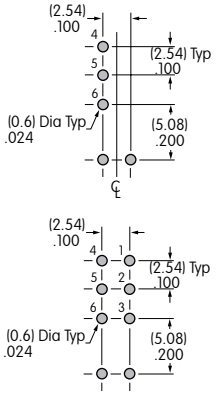
Single & Double Pole











G22AV