

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: 50,000 operations minimum
Electrical Life: 50,000 operations minimum
Nominal Operating Force: 1.70N
Travel: Pretravel .035" (0.9mm); Overtravel .008" (0.2mm); Total Travel .043" (1.1mm)

Materials & Finishes

Actuator: Polyacetal
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
Mounting Bracket: Phosphor bronze with tin plating
Terminals: Phosphor bronze with gold plating

Environmental Data

Operating Temp Range: -30°C through +85°C (-22°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/s²) acceleration (tested in 6 right angled directions, with 5 shocks in each direction)

Installation

Cap Installation Force: 39.1N (8.8 lbf) maximum downward force on actuator

PCB Processing

Soldering: Wave Soldering Recommended: 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

The GB Series pushbuttons 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.

Distinctive Characteristics

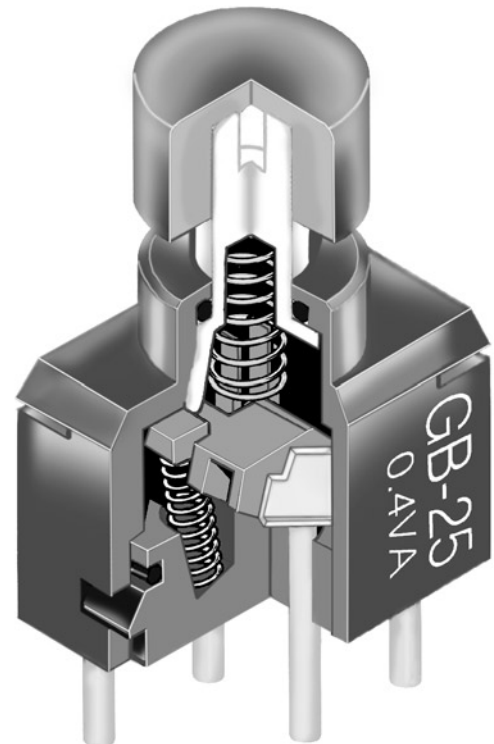
Ultra-miniature size allows high density mounting, and extremely light weight of 0.25 gram makes these switches ideal for handheld equipment.

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

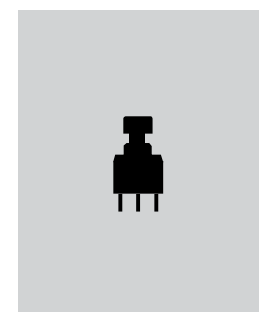
Award-winning STC contact mechanism with benefits unavailable in conventional mechanisms: smoother, positive detent actuation, increased contact stability and unparalleled logic-level reliability. (Additional STC details in Terms & Acronyms; see Supplement section.)

.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.



Actual Size



TYPICAL SWITCH ORDERING EXAMPLE

GB

1

5

A

H

X

C

Poles

1	SPDT
2	DPDT

Circuits

5	ON	(ON)
() = Momentary		

Plunger

A	.130" (3.3mm) Long
---	--------------------

PC Terminals

P	Straight
H	Right Angle
V	Vertical

Slip-on Cap

X	.157" (4.0mm) Diameter
---	------------------------

Cap Colors

A	Black
B	White
C	Red

DESCRIPTION FOR TYPICAL ORDERING EXAMPLE

GB15AH-XC

.130" (3.3mm) Long Plunger with

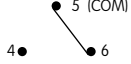
.157" (4.0mm) Diameter Red Cap



SPDT
ON-(ON) Circuit

Right Angle PC Terminals

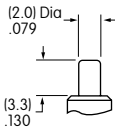
POLES & CIRCUITS

		Plunger Position () = Momentary		Connected Terminals		Throw & Schematics
Pole	Model	Normal 	Down 	Normal 	Down 	
SP	GB15	ON	(ON)	5-6	5-4	SPDT 
DP	GB25	ON	(ON)	5-6 2-3	5-4 2-1	DPDT 

PLUNGER

A

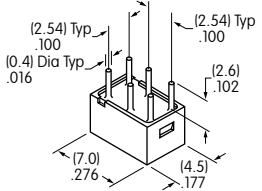
.130" (3.3mm) Long Plunger



PC TERMINALS

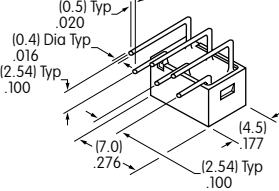
P

Straight



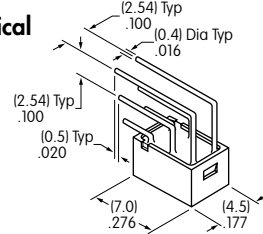
H

Right Angle



V

Vertical



SLIP-ON CAP & COLORS

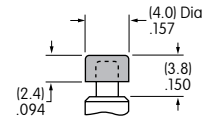
X **AT4063**
.157" (4.0mm) Diameter Slip-on Cap

Material: Polyamide

Finish: Glossy



Actual Size



Cap Colors Available:



Black



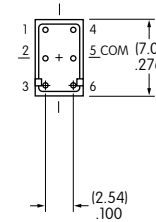
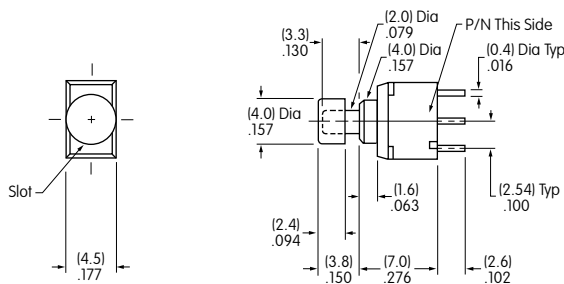
White



Red

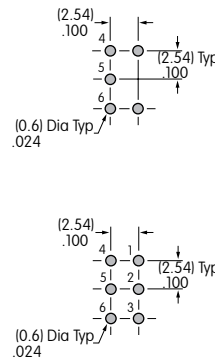
TYPICAL SWITCH DIMENSIONS

Single & Double Pole



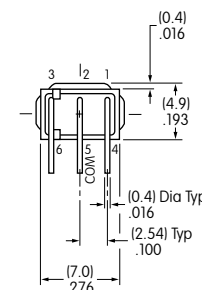
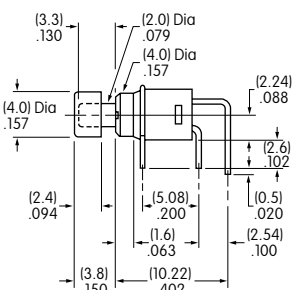
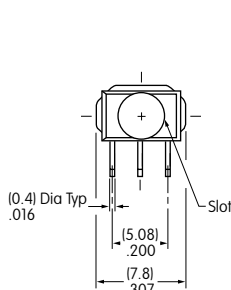
On single pole switches terminals 1 & 3 are support pins.

Straight PC

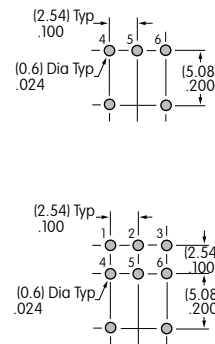


GB25AP-XC

Single & Double Pole

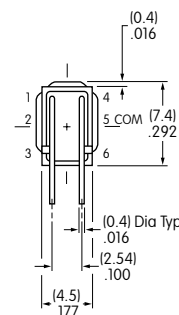
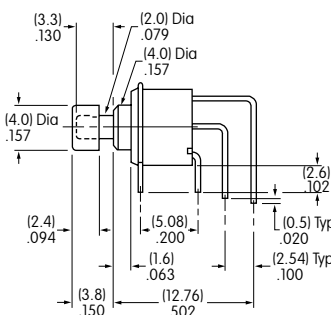
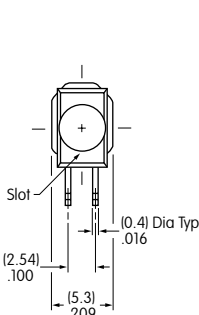


Right Angle PC

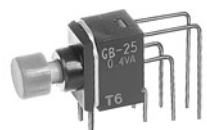
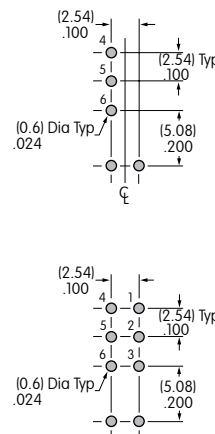


GB25AH-XC

Single & Double Pole



Vertical PC



GB25AV-XC

Mouser Electronics

Authorized Distributor

Click to View Pricing, Inventory, Delivery & Lifecycle Information:

NKK Switches:

[GB25AH-RO](#) [GB25AH-XA-RO](#) [GB25AH-XC-RO](#) [GB15AH-XC-RO](#) [GB15AP-RO](#) [GB15AH-RO](#) [GB25AH-XB-RO](#)
[GB15AH-XB-RO](#) [GB15AV-XA-RO](#) [GB25AV-RO](#) [GB15AH-XA-RO](#) [GB15AP-XC-RO](#) [GB15AV-RO](#) [GB15AV-XB-RO](#)
[GB15AV-XC-RO](#) [GB15AP-XB-RO](#) [GB25AV-XC-RO](#)