**New Product** 

#### **GP01 Series**

# Ultra-Miniature Size Ideal for High Density Mounting



Right Angle SMT Pushbuttons



## General Specifications

#### **Electrical Capacity (Resistive Load)**

Logic Level: 0.4VA maximum @ 28V AC/DC maximum

(Applicable Range 0.1mA ~ 0.1A @ 20mV ~ 28V)

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: 40,000 operations minimum Electrical Life: 40,000 operations minimum

**Total Travel:** .043" (1.1 mm)

**Materials & Finishes** 

Actuator/Plunger: Glass fiber reinforced polyamide

Case: Glass fiber reinforced polyamide

Moveable Contacts: Beryllium copper

Base: Glass fiber reinforced polyamide

Terminals: Brass with gold plating

**Environmental Data** 

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

**Processing** 

Soldering: Manual Soldering: 390°C maximum for 4 seconds maximum

Reflow Soldering: Preheat temperature: 180°C ~ 200°C; Preheat time: 120 seconds; Heating

temperature: 230°C; Heating time: 60 seconds; Peak temperature (surface): 250°C.

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

Note: After soldering, use caution to prevent mechanical stress on the terminal area and to

avoid warpage of the circuit board.

### Distinctive Characteristics

Ultra-miniature size allows high density mounting and utilizes reduced space for surface mounting.

Greaseless condition contributes to resistance of harsh conditions, including wider operating temperatures.

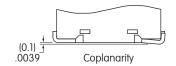
Cap and plunger are one unit, simplifying soldering and cleaning processes and eliminating need to remove and replace the cap. Plunger without cap is an alternate option.

Heat resistant resin used for housing, base and plunger allows vapor phase and infrared convection reflow soldering.

Highly reliable gold plated contacts provide stable contact performance throughout long term use.

J bend terminals lend to easy surface mounting and mechanical stability during soldering and simplified solder joint inspection.

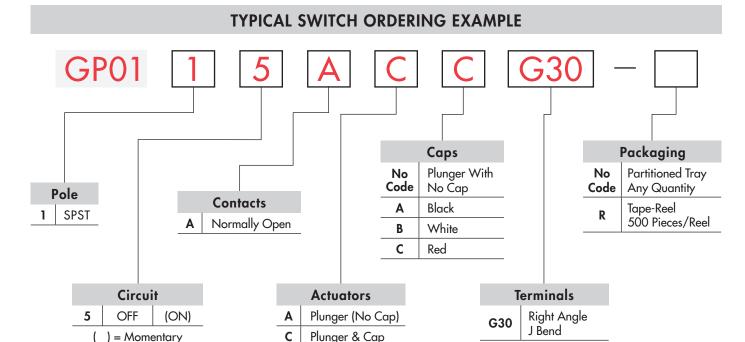
Remarkably precise coplanarity: all considered surfaces lying between two parallel planes are a maximum distance apart of .0039" (0.1 mm).











Note: Plunger Actuator (Code A) cannot be combined with Cap.

Plunger & Cap

#### **DESCRIPTION FOR TYPICAL ORDERING EXAMPLE**

#### **GP0115ACCG30**



POLE & CIRCUIT						
		Plunger Position ( ) = Momentary		Connected Terminals		Throw & Switch Schematic
Pole	Model	Normal	Down	Normal	Down	Note: Terminal numbers are not actually on the switch.
SP	GP0115AA	OFF	(ON)	OFF	1-2	SPST 1 (COM)
Pole	Model	Normal	Down	Normal	Down	Note: Terminal numbers are not actually on the switch.
SP	GP0115AC	OFF	(ON)	OFF	1-2	SPST 1 (COM)

#### **ACTUATORS**



#### Plunger with No Cap

( ) = Momentary

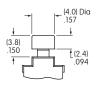
Plunger cannot be combined with cap





#### Plunger & Cap

Plunger may be combined with cap codes A, B or C





#### TYPICAL SWITCH DIMENSIONS

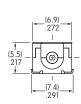
#### **Right Angle Mounting**

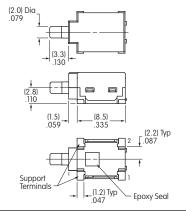
#### Plunger & No Cap

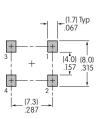
#### **Pad Layout**











#### GP0115AAG30

#### **Right Angle Mounting**

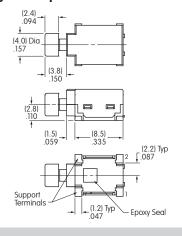
Plunger & Cap

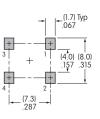
**Pad Layout** 











#### **GP0115ACCG30**

#### **PACKAGING**

**Tape-Reel Packaging** 

#### No Code

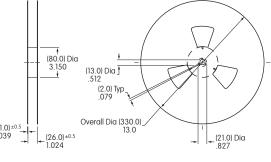
#### **Partitioned Tray**

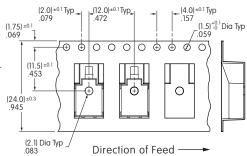
Any quantity, no code required.



#### Tape-Reel

Tape-reel contains 500 switches. Min. Leader Length: 15.748" (400mm) Min. Trailer Length: 6.299" (160mm)





Reel Dimensions

Tape Dimensions

Effective Date May 2017



http://www.nkkswitches.com • 1.877.2BUYNKK (228.9655)

7850 East Gelding Drive • Scottsdale, AZ 85260 • Telephone 480.991.0942 • Fax 480.998.1435

