GP01 Series

Ultra-Miniature Size
Ideal for High Density Mounting

Right Angle SMT Pushbuttons
Series GP01
Ultra-Miniature 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: 0.043” (1.1mm)

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” (0.1mm).
TYPICAL SWITCH ORDERING EXAMPLE

```
GP01 1 5 A C C G30
```

**Pole**
- SPST

**Contacts**
- A: Normally Open

**Caps**
- No Code: Plunger With No Cap
  - A: Black
  - B: White
  - C: Red

**Packaging**
- No Code
  - Partitioned Tray
  - Any Quantity
  - Tape-Reel
    - 500 Pieces/Reel

**Circuit**
- 5 OFF (ON)
  - ( ) = Momentary

**Actuators**
- A: Plunger (No Cap)
- C: Plunger & Cap

**Terminals**
- G30: Right Angle J Bend

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

DESCRIPTION FOR TYPICAL ORDERING EXAMPLE

GP0115ACCG30

Packaged in Partitioned Tray or Tape-Reel

![Switch Image]

SPST
OFF-(ON) Circuit
J Bend Terminals

POLE & CIRCUIT

<table>
<thead>
<tr>
<th>Pole</th>
<th>Model</th>
<th>Normal</th>
<th>Down</th>
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</tr>
</thead>
<tbody>
<tr>
<td>SP</td>
<td>GP0115AA</td>
<td>OFF</td>
<td>(ON)</td>
<td>OFF</td>
<td>1-2</td>
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Note: Terminal numbers are not actually on the switch.

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ACTUATORS

- **A**: Plunger with No Cap
  - Plunger cannot be combined with cap

- **C**: Plunger & Cap
  - Plunger may be combined with cap codes A, B or C
Series GP01

Ultra-Miniature Right Angle SMT Pushbuttons

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.

R

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

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