GP01 Series

## Ulira-Miniałure Size Ideal for High Density Mounting



Right Angle SMT Pushbuttons

# General Specifications 

Electrical Capacity (Resistive Load)<br>Logic Level: 0.4VA maximum @ 28 V AC/DC maximum<br>(Applicable Range $0.1 \mathrm{~mA} \sim 0.1 \mathrm{~A} @ 2 \mathrm{mV}$ ~ 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: . $043^{\prime \prime}$ ( 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 <br> Operating Temperature Range: $-40^{\circ} \mathrm{C}$ through $+85^{\circ} \mathrm{C}\left(-40^{\circ} \mathrm{F}\right.$ through $\left.+185^{\circ} \mathrm{F}\right)$

Processing
Soldering: Manual Soldering: $390^{\circ} \mathrm{C}$ maximum for 4 seconds maximum
Reflow Soldering: Preheat temperature: $180^{\circ} \mathrm{C} \sim 200^{\circ} \mathrm{C}$; Preheat time: 120 seconds; Heating temperature: $230^{\circ} \mathrm{C}$; Heating time: 60 seconds; Peak temperature (surface): $250^{\circ} \mathrm{C}$.
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
Actual Size 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 $.0039^{\prime \prime}(0.1 \mathrm{~mm})$.


## TYPICAL SWITCH ORDERING EXAMPLE



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

DESCRIPTION FOR TYPICAL ORDERING EXAMPLE
GP0115ACCG30


## POLE \& CIRCUIT

|  |  | Plunger Position ( ) = Momentary |  | Connected Terminals |  | Throw \& Switch Schematic |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Pole | Model | Normal | Down $\square$ | Normal $\square$ $\longleftarrow$ | Down $\square$ | Note | Terminal numbers are not actually on the switch. |
| SP | GP0115AA | OFF | (ON) | OFF | 1-2 | SPST | $\underbrace{1 \text { (COM) }} \begin{gathered} \\ \bullet 2 \end{gathered}$ |
| Pole | Model | Normal | Down | Normal | Down | Note | Terminal numbers are not actually on the switch. |
| SP | GP0115AC | OFF | (ON) | OFF | 1-2 | SPST | $\underbrace{1 \text { (COM) }}_{\bullet}$ |

## ACTUATORS



Plunger with No Cap
Plunger cannot be combined with cap

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


## TYPICAL SWITCH DIMENSIONS



Effective Date May 2017

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