

General Specifications

Electrical Capacity (Resistive Load)

| | |
|------------------------------|---|
| Power Level (silver): | 3VA maximum @ 28V DC maximum (Applicable Range 10mA ~ 125mA @ 0.1V ~ 28V) |
| Logic Level (gold): | 0.4VA maximum @ 28V AC/DC maximum (Applicable Range 0.1mA ~ 0.1A @ 20mV ~ 28V) |
| | Note: See Supplement for further explanation of operating range. |

Other Ratings

| | |
|---------------------------------|---|
| Contact Resistance: | 100 milliohms maximum |
| Insulation Resistance: | 100 megohms minimum @ 100V DC |
| Dielectric Strength: | 250V AC minimum for 1 minute minimum between contacts & between contacts & case |
| Mechanical Life: | 500,000 operations minimum |
| Electrical Life: | 500,000 operations minimum |
| Nominal Operating Force: | 1.60N |
| Total Travel: | .008" (0.2mm) |

Materials & Finishes

| | |
|-----------------------------|---|
| Actuator: | Glass fiber reinforced polyamide (UL94V-0) |
| Case: | Stainless steel |
| Base: | Glass fiber reinforced polyamide (UL94V-0) |
| Movable Contacts: | Stainless steel with silver or gold plating |
| Stationary Contacts: | Brass with silver or gold plating |
| Terminals: | Brass with silver or gold plating |

Environmental Data

| | |
|-------------------------------------|--|
| Operating Temperature Range: | -20°C through +70°C (-4°F through +158°F) |
| Humidity: | 90 ~ 95% humidity for 240 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: | 100G (981m/s ²) acceleration (tested in 6 right angled directions, with 5 shocks in each direction) |

Processing

| | |
|-------------------|--|
| Soldering: | Reflow Soldering Recommended. See Profile A in Supplement section. Manual Soldering: See Profile A in Supplement section. |
| Cleaning: | These devices are not process sealed. Hand clean locally using alcohol based solution. |

Standards & Certifications

| | |
|--------------------------------|--|
| Flammability Standards: | UL94V-0 actuator and base These switches are designed for use in a low-voltage, low-current circuit. When used as intended, the results do not produce hazardous energy. |
|--------------------------------|--|

Distinctive Characteristics

.244" (6.2mm) square body allows compact mounting.

Heat resistant resin body meets lead-free solder processing requirements and UL flammability rating of 94V-0.

Stick-tube and tape-reel packaging allow rapid automated placement of devices.

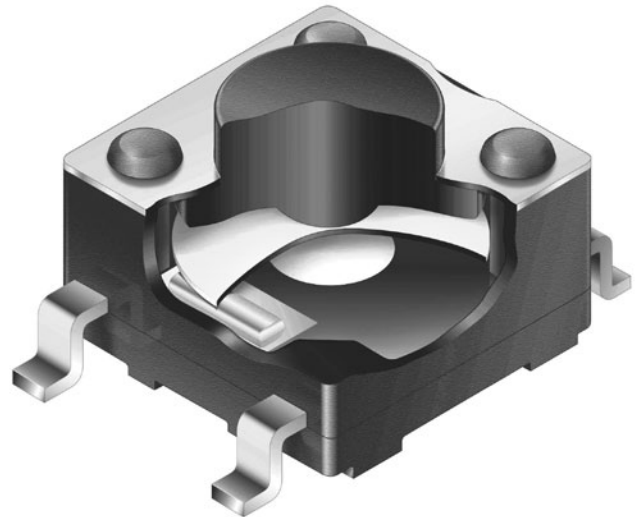
Gold plated contacts available for very low voltage/current applications offer advantages of little or no oxidization or sulfurization and stable contact resistance.

Gull-winged terminals ensure mechanical stability during soldering and simplified solder joint inspection.

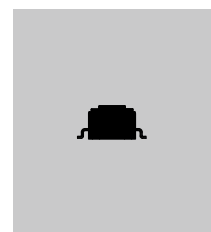
Insert molded terminals lock out flux, solvents, and other contaminants and allow automated soldering.

Tape-reel packaging meets EIA-481-D Standard.

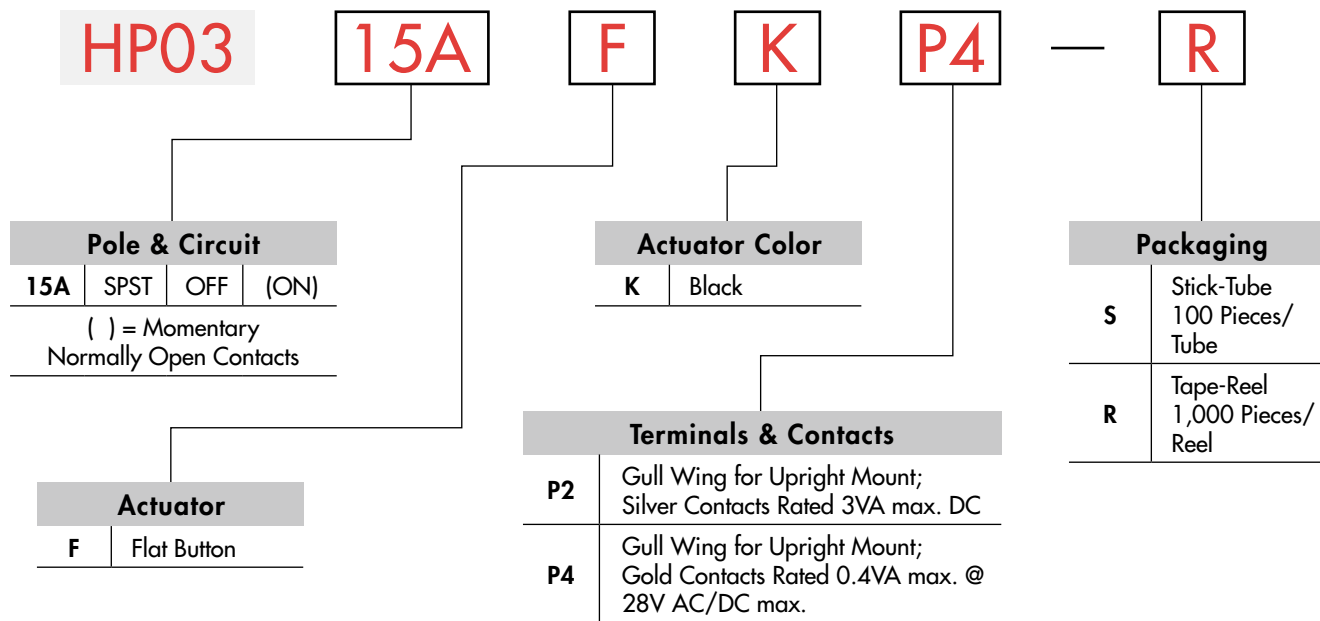
Coplanarity: all considered surfaces must lie between two parallel planes that are a maximum distance apart of .0039" (0.10mm). (Additional coplanarity details in Terms and Acronyms in the Supplement section.)



Actual Size



TYPICAL SWITCH ORDERING EXAMPLE



DESCRIPTION FOR TYPICAL ORDERING EXAMPLE

HP0315AFKP4-R



POLE & CIRCUIT

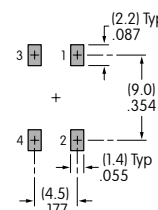
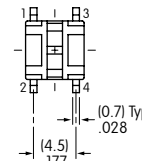
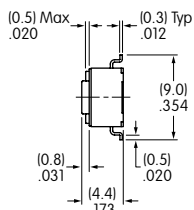
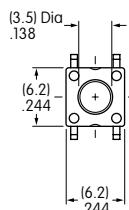
| Pole | Model | Actuator Position () = Momentary | | Switch Throw & Schematic | Note: Terminal numbers are not actually on the switch. |
|------|---------|--------------------------------------|------|--------------------------|--|
| | | Normal | Down | | |
| SP | HP0315A | OFF | (ON) | SPST | |

TYPICAL SWITCH DIMENSIONS

Gull-winged



HP0315AFKP4



PACKAGING

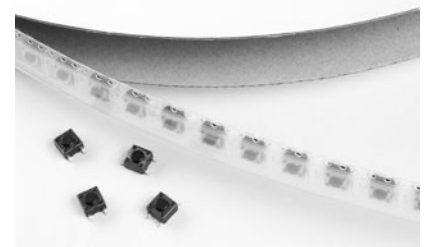
S Stick-Tube

Switches must be ordered in 100-piece increments when stick-tube packaging is selected.



R Tape-Reel

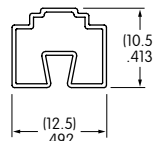
Switches must be ordered in 1,000-piece increments when tape-reel packaging is selected.



Packaging meets EIA-481-D Standard.

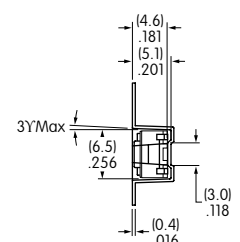
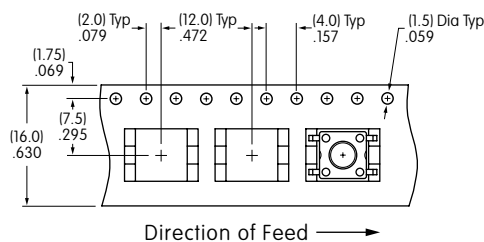
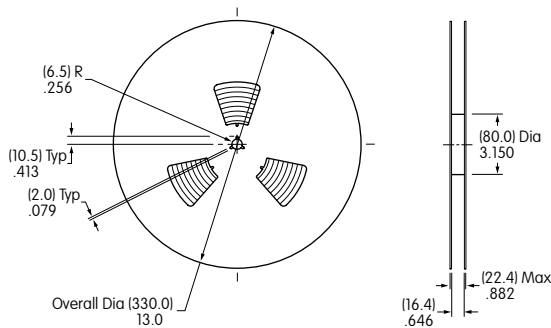
Stick-Tube Dimensions

Each stick-tube contains 100 switches



Tape-Reel Dimensions

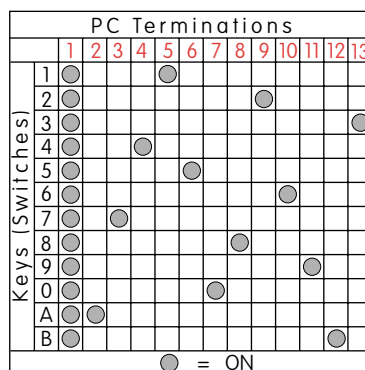
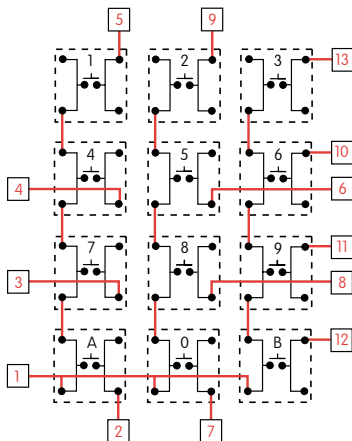
Each tape-reel of 1,100 pockets contains 1,000 switches.
Minimum Leader Length: 15.748" (400mm). Minimum Trailer Length: 6.299" (160mm).



KEYBOARD MATRIX

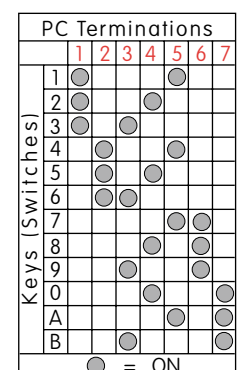
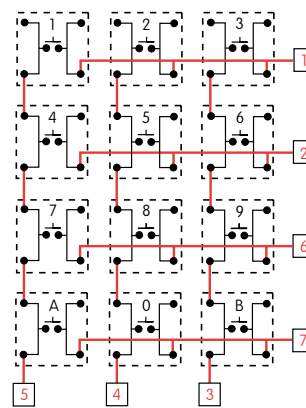
Common Bus Matrix

These single pole, single throw switches can be used in a keyboard matrix and, using strapped terminals, achieve a common bus electrical configuration on a single-sided PC board.



X-Y Matrix

These single pole, single throw switches can be arranged on a single-sided PC board matrix with strapped terminals to achieve an X-Y type electrical interconnection.



Red = PCB Trace Black = Switch Circuit

Toggles
Rockers
Pushbuttons
Illuminated PB
Programmable
Keylocks
Rotaries
Slides
Tactiles
Tilt
Touch
Indicators
Accessories
Supplement