## Subminiature Precision Snap-acting Switches



## Features/Benefits

- Low level and power switching
- Long electrical and mechanical life
- Increased overtravel
- Reliable snap-acting mechanism


## Typical Applications

- Limited space constraints
- Miniaturized military devices
- Communication devices


## Specifications

CONTACT RATING: From low level* to 7 AMPS @ 250 V AC.
ELECTRICAL LIFE: 100,000 cycles at full rated load.
INSULATION RESISTANCE: 1,000 ohm min.
DIELECTRIC STRENGTH: 1,000 V RMS min. @ sea level.
OPERATING TEMPERATURE: -67 F to $275 \mathrm{~F}(-55 \mathrm{C}$ to 135 C$)$.
OPERATING FORCE: 5 oz. ( 142 grams) max. at actuator button. MOUNTING: 2-56 screws, torque 2 in/lbs max.
*Low Level=conditions where no arcing occurs during switching, i.e., 0.4 VA max. @ 20 V AC or DC max

NOTE: Specifications and materials listed above are for switches with standard options. For information on specific and custom switches, consult Customer Service center.

## Materials

SWITCH HOUSING: Heat resistant phenolic (UL 94V-0). ACTUATOR BUTTON: Heat resistant phenolic (UL 94V-0). SPRING: Beryllium copper CDA alloy C17200. PIVOT: Brass CDA alloy 260.
MOVABLE CONTACTS: Fine silver for ratings greater than 1 AMP @ 125 V AC. 24 K gold for 1 AMP @ 125 V AC or less.
STATIONARY CONTACTS: Fine silver inlay on copper CDA alloy C10200 for ratings greater than 1 AMP @ 125 V AC. 24 K gold on copper CDA alloy C10200 for 1 AMP @ 125 V AC or less. TERMINALS: Copper CDA alloy C18700.

## Build-A-Switch

To order, simply select desired option from each category and place in the appropriate box. Available options are shown and described on pages K-31 through K-32. For additional options not shown in catalog, consult Customer Service Center.


## MM Series <br> Subminiature Precision Snap-acting Switches

## SWITCH WITH STANDARD OPTIONS





## 

OPERATING FORCE $\because]^{-\pi}$

| OPTION <br> CODE | BASIC SWITCH <br> OPERATING FORCE |
| :---: | :---: |
| GG | 5 oz. (142 grams) maximum for basic switch <br> with pin plunger actuator ('PO' actuator option). |

NOTE: Operating force varies with actuator option, see ACTUATOR option section.

## 

| OPTION CODE | RoHS COMPLIANT* | RoHS COMPATIBLE* | CONTACT MATERIAL |  | ELECTRICAL RATING |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | MOVABLE CONTACT | STATIONARY CONTACT |  |
| D1 | Yes | Yes | Fine silver. | Fine silver inlay on copper alloy. | 7 AMPS @ 250 V AC. |
| F5 | Yes | Yes | 24K Gold. | 24K Gold on copper alloy. | From low level* to 1 AMP @ 125 V AC, 30 V DC. |

Note: See Technical Data section of this catalog for RoHS compliant and compatible definition and specifications.
All models (1) ${ }^{\text {with }}$ all options.
Consult Customer Service Center for availability and delivery of nonstandard ratings.

* Low Level=conditions where no arcing occurs during switching,
i.e., 0.4 VA max. @ 20 VAC or DC max.


## ACTUATOR $\because \square \square \square \square$





| OPTION CODE | FIG. | DIM. A | DIM. B | DIM. C |
| :---: | :---: | :---: | :---: | :---: |
| P0 | 1 | .19 <br> $(4,8)$ | $.320 \pm .015$ <br> $(8,13 \pm 0,38)$ | - |
| D0 | 3 | .19 <br> $(4,8)$ | $.475 \pm .031$ <br> $(12,07 \pm 0,79)$ | - |
| L0 2 | .34 <br> $(8,6)$ | $.330 \pm .015$ <br> $(8,38 \pm 0,38)$ | - |  |
| L2 | 5 | .53 <br> $(13,5)$ | $.330 \pm .015$ <br> $(8,38 \pm 0,38)$ | - |
| W0 | 4 | .27 <br> $(6,9)$ | $.532 \pm .025$ <br> $(13,51 \pm 0,64)$ | .188 dia. <br> $(4,780)$ |
| W2 | 6 | .46 <br> $(11,7)$ | $.532 \pm .025$ <br> $(13,51 \pm 0,64)$ | .188 dia. <br> $(4,78)$ |

FIG. 6
Leaf Roller

## Subminiature Precision Snap-acting Switches

## ACTUATOR $\quad+\square \square \square \square$

SWITCH CHARACTERISTICS

| OPTION CODE | MAXIMUM OPERATING FORCE (OZ./GRAMS) | MINIMUM RELEASE FORCE (OZ./GRAMS) | MAXIMUM DIFFERENTIAL TRAVEL | MAXIMUM PRETRAVEL | MINIMUM OVERTRAVEL |
| :---: | :---: | :---: | :---: | :---: | :---: |
| D0 | $\begin{gathered} 5 \\ 142 \end{gathered}$ | $\begin{gathered} .7 \\ 20 \end{gathered}$ | $\begin{gathered} .004 \\ (0,10) \end{gathered}$ | $\begin{gathered} .030 \\ (0,76) \end{gathered}$ | $\begin{gathered} .040 \\ (1,02) \end{gathered}$ |
| LO | $\begin{gathered} 4 \\ 115 \end{gathered}$ | $\begin{aligned} & .7 \\ & 20 \end{aligned}$ | $\begin{gathered} .025 \\ (0,64) \end{gathered}$ | $\begin{gathered} .090 \\ (2,29) \end{gathered}$ | $\begin{gathered} .045 \\ (1,14) \end{gathered}$ |
| L2 | $\begin{gathered} \hline 6 \\ 170 \end{gathered}$ | $\begin{gathered} .7 \\ 20 \end{gathered}$ | $\begin{gathered} .012 \\ (0,30) \end{gathered}$ | $\begin{gathered} .075 \\ (1,90) \end{gathered}$ | $\begin{gathered} .015 \\ (0,38) \end{gathered}$ |
| P0 | $\begin{gathered} 5 \\ 142 \end{gathered}$ | $\begin{gathered} 1 \\ 28 \end{gathered}$ | $\begin{gathered} .002 \\ (0,05) \end{gathered}$ | $\begin{gathered} .020 \\ (0,51) \end{gathered}$ | $\begin{gathered} .004 \\ (0,10) \end{gathered}$ |
| W0 | $\begin{gathered} 4 \\ 115 \end{gathered}$ | $\begin{gathered} .7 \\ 20 \end{gathered}$ | $\begin{gathered} .025 \\ (0,64) \end{gathered}$ | $\begin{gathered} .090 \\ (2,29) \end{gathered}$ | $\begin{gathered} .045 \\ (1,14) \end{gathered}$ |
| W2 | $\begin{gathered} 6 \\ 170 \end{gathered}$ | $\begin{gathered} .7 \\ 20 \end{gathered}$ | $\begin{gathered} .012 \\ (0,30) \end{gathered}$ | $\begin{gathered} .075 \\ (1,90) \\ \hline \end{gathered}$ | $\begin{gathered} .015 \\ (0,38) \end{gathered}$ |

NOTE: For basic switch operating forces, see page K-26

## TERMINATIONS $\quad \square$

C single turret solder


T PC THRU-HOLE, . $035^{\prime \prime}$


L Left formed pc thru-hole


R RIGHT FORMED PC THRU-HOLE


