## Switch Selection

## Ratings

All voltage, current and power ratings quoted are for switching resistive loads unless otherwise stated or bracketed.
ie. $16(4) \mathrm{A} @ 250 \mathrm{~V}$ ac $=16 \mathrm{~A}$ resistive, 4 A inductive at 250 V ac.


Single Pole Single Throw
Also known as single pole on-off Single Pole Double Throw Also known as single pole changeover (SPCO) or single pole on-on.
Double Pole Single Throw Also known as double pole on-off

Double Pole Double Throw
Also known as double pole changeover (DPCO) or double pole on-on
$\begin{array}{ll}\text { 3P, 4P } & \text { Multi-pole switches, } 3 \text { pole, } 4 \text { pole etc. } \\ \text { NO, NC } & \text { 'Normally Open' contacts are operated to 'make' (turn on). } \\ & \text { 'Normally Closed' contacts are operated to 'break' (turn off) }\end{array}$
Charcteristics
Momentary Action The state of the switch will change only whilst the operating force is applied. When released the switch will return to its
$\begin{array}{ll} & \text { Original state. } \\ \text { Latching Action } \quad \text { The state of the switch changes when an operating force is }\end{array}$ applied. It will change back to its original state when an additional
force is applied. Also known as maintained action.

Examples of Alternative Descriptions

| SPDT | Single pole on-on | (2 position) |
| :--- | :--- | :--- |
| SPDT - centre off | Single pole on-off-on | (2 position) |
| SPDT - biased | Single pole on-mom | (2 position) |
| SPDT - centre off, two ways bias | Single pole mom-off-mom | (3 position) |
| SPDT - centre off, one way bias | Single pole on-off-mom | (3 position) | 213136

## Subminiature Toggle Switches

Sealed PCB Mounting
$50 \mathrm{~mA} @ 48 \mathrm{Vac} / \mathrm{dc}$


Body $\mathrm{H}=8, \mathrm{~W}=9.5, \mathrm{D}=5$
Minimum load $\quad 1$ A 20 mV
Contact resistance $<50 \mathrm{mR}$
Insulation resistance $\quad 10000 \mathrm{MR} @ 250 \mathrm{~V}$ dc
$\begin{array}{ll}\text { Proof Voltage } & 500 \mathrm{~V}, 1 \text { minute } \\ \text { Mechanical life } & 60000 \text { ops }\end{array}$
Operating temperature $-20^{\circ} \mathrm{C}$ to $+80^{\circ} \mathrm{C}$


PCB Drilling Plan (Straight
PCB Driling Plan (Straight
terminal, double pole models)
Mftrs List No.
ATE1D $=992-2601 \quad$ ATE 1D-RA $=119-0432$ $\begin{array}{ll}\text { ATE2D } & =119-0429 \quad \text { ATE 2D-RA }=119-0433\end{array}$

| 237888/405374 |  |  |  |  |
| :--- | :---: | :---: | :---: | :---: |
| Switch Function | Order Code | $1+$ | Price Each <br> $25+$ | $100+$ |
| Straight Terminals |  |  |  |  |
| SPDT on-on | $\mathbf{9 9 2 - 2 6 0 1 0}$ | 228.00 | 185.00 | 173.00 |
| DPDT on-on | $119-04290$ | 304.00 | 262.00 | -- |
| Right Angled Terminals |  |  |  |  |
| SPDT on-on | $119-04320$ | 314.00 | -- | -- |
| DPDT on-on | $\mathbf{1 1 9 - 0 4 3 0}$ | 438.00 | -- | -- |

PCB Mounting
$0.4 \mathrm{VA} @ 20 \mathrm{Vac} / \mathrm{dc}$


| Vertical | Horizontal | Vertical Threaded Bush |
| :---: | :---: | :---: |
| Body $H=8.64$ | Body $H=5$ (SPDT), 9.1 (DPDT) | Body $H=8.64$ |
| $W=5$ (SPDT), 9.1 (DPDT) | $\mathrm{W}=8.1, \mathrm{D}=9.1$ (SPDT), 11.6 (DPDT) | $\mathrm{W}=5$ (SPDT), 9.1 (DPDT) |
| $\mathrm{D}=8.13$ | $\mathrm{D}=8.13$ |  |




Right angle

*This row needed only for double pole switches
Gold plated contacts allow low level switching
Epoxy sealed terminations
Threaded bush types for panel mounting

## Operating temperature Contact resistance

 Mftrs List No.$$
\begin{aligned}
& \text { T101MH9CBE }=957-5634 \\
& \text { T201MH9CBE }=957-5669 \\
& \text { T101MHABE }=957-5685 \\
& \text { T201MHAABE }=957-5707
\end{aligned}
$$

Vertical

600002 position, 30,0003 position $30^{\circ} \mathrm{C}$ to $+85^{\circ} \mathrm{C}$

$$
\text { T103STDCBE }=957-572
$$

|  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Order Code | 1+ | 25+ | Price Each 100+ | 250+ | + |
| Vertical Mountin |  |  |  |  |  |  |
| SPDT on-on | 957-5634 | 206.00 | 196.00 | 187.00 | 167.00 | - - |
| SPDT on-off-on | 957-56420 | 236.00 | 195.00 | 178.00 | 152.00 |  |
| SPDT on-mom | 957-56500 | 260.00 | 224.00 | 206.00 | 170.00 |  |
| DPDT on-on | 957-5669 | 310.00 | 256.00 | 236.00 | 200.00 |  |
| DPDT centre off | 957-5677 | 276.00 | 236.00 | 223.00 | 200.00 | - - |
| Horizontal Moun |  |  |  |  |  |  |
| SPDT on-on | 957-5685 | 157.00 | 148.00 | 141.00 | 126.00 | - - |
| SPDT on-off-on | 957-5693 | 264.00 | 218.00 | 203.00 | 170.00 |  |
| DPDT on-on | 957-5707 | 544.00 | 450.00 | 418.00 | 334.00 | -- |
| Vertical Mountin | ded Bush |  |  |  |  |  |
| SPDT on-on | 957-5715 | 241.00 | 224.00 | 216.00 | 197.00 |  |
| SPDT on-off-on | 957-5723 | 302.00 | 260.00 | 241.00 | 199.00 |  |
| SPDT on-mom | 957-57310 | 334.00 | 285.00 | 265.00 | 221.00 |  |
| DPDT on-on | 957-5740 | 304.00 | 280.00 | 269.00 | 245.00 |  |
| DPDT centre off | 957-5758 | 469.00 | 402.00 | 370.00 | 308.00 | - - |

Washable PCB Mounting
0.4VA @ 20V ac/dc


PCB drilling plans


SPDT
$H=5.08, W=8.13, D=10.2$


SPDT $W=6.22, D=14.3$
Type 2 Hype 2

