## PA Series <br> Sub-Miniature Pushbutton Switches

For PAS6 \& PAS7 Series

## Specifications

Max. Current/Voltage Rating with Resistive Load

Initial Contact Resistance
Insulation Resistance
Dielectric Strength
Electrical Life at Full Load
Operating Temperature
Panel Thickness

Total Travel
: 400 mA 32 V AC-100mA 50 V DC-125mA 125 V AC
500 mA 48 V AC -200 mA 50 V DC - 200 mA 250 V AC for metal material
: $50 \mathrm{~m} \Omega$ Max.
: 1G $\Omega$ min. @ 500 V DC
: 1,000 VAC rms.
1,500 VAC rms. for metal material
: 500,000 cycles
: $-30^{\circ} \mathrm{C}$ to $85^{\circ} \mathrm{C}$
: B1 series : $0.8 \mathrm{~mm}\left(0.031^{\prime \prime}\right)$ min. $\sim 1.8 \mathrm{~mm}$ ( $0.071^{\prime \prime}$ ) max.
B2 series : $1.5 \mathrm{~mm}\left(0.059\right.$ ") min. $\sim 4 \mathrm{~mm}$ ( $0.157^{\prime \prime}$ ) max.
B3 series : $3 \pm 0.25 \mathrm{~mm}$ ( $0.118^{\prime \prime}$ )
Operating Force
: 1.5 mm (0.059")
: $2 \mathrm{~N} \sim 5 \mathrm{~N}$
$: 10 \mathrm{~ms}$
Contact Bounce
: 1,000,000 cycles
Mechanical Life
Torque
: 0.5 Nm max. applied to nut,
1.5 Nm max. for metal material

Soldering
: $350^{\circ} \mathrm{C}$ max. for 5 seconds
Lead Free
Materials
Case : Diallyl phthalate (DAP) (UL94V-0)
Cap
: Polyamide 6/6
Bushing
: Polyamide 6/6

## Switch Function

| No. Poles | Model No. | Switch Function |  | Connected Terminals |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Pos. 1 | Pos. 2 | Pos. 1 | Pos. 2 | Schematic |
|  |  | 1 | $\pm$ | 1 | 1 |  |
| SP | PAS6 | OFF | MOM | Open | 1-3 | $\stackrel{\downarrow}{\circ}$ |
| SP | PAS7 | ON | OFF(MOM) | 1-3 | Open | $\stackrel{\downarrow}{+}$ |

MOM = Momentary

## Bushing Type

B1


B2 / D2


D1 / B6


Dimensions : Inches (Millimetres)

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## PA Series

Sub-Miniature Pushbutton Switches

## Bushing Plating



Chromium


Stain-chromium


Stain-nickel

## Termination Options

M1 Solder lug

M4 PC Thru-hole
M3 Solder lug


* Only for PAS6 model type, Non-LED

* Only for PAS6 model type, Non-LED


## Cap Options

## FLAT STD



ROUND Non-LED


* Only for $\mathrm{B} 1, \mathrm{~B} 2, \mathrm{~B} 3, \mathrm{D} 2$ bushing type

HIGH Non-LED


* Only for B2,D2 bushing and PAS6 model type


## Dimensions

B1

SPST



B1




B2


SPST

${ }^{9.689}$
Part No. Shown : PAS6xXxxxxxx-x


SPST


SPST


PANEL MOUNTING



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multicomp pro

## PA Series

Sub-Miniature Pushbutton Switches
multicomppro


SPST



Part No. Shown : PAS6xxxxxxxx-x

D1


SPST

D2


SPST


Part No. Shown : PAS6xxxxxxxX-x
panel mounting


D2


SPST
B3

SPST


SPST
B2

Part No. Shown : PAS6xxxxxxxx-xxx


Part No. Shown : PAS6xxxxxxxx-x


PANEL MOUNTING

B2
PANEL MOUNTING

(197)


Part No. Shown : PAS6xxxxxxxxx-X


Hardware


Dimensions : Inches (Millimetres)

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## PA Series

Sub-Miniature Pushbutton Switches

## Wire

L1 Wire length: 500 mm
Multi-wire lead AWG20, section 0.6mm², UL approved. (Black / Green / Red)


L2 Wire length: 90mm
Multi-wire lead AWG20, section 0.6mm², UL approved. (Black / Green / Red)


L3 Wire length: 100mm
Multi-wire lead AWG20, section 0.6mm², UL approved. (Black / Green / Red)


## Rubber - Hood



Dimensions : Inches (Millimetres)

## Soldering Processes

Manual Soldering
Wave Soldering
Recommended Soldering
Temperature
Duration of Solder Immersion
: Use soldering iron of 30 watt, controlled at $350^{\circ} \mathrm{C}$ approximately 5 seconds while applying solder.
: $260 \pm 5^{\circ} \mathrm{C}$
: Max 5 sec.
(PCB is 1.6 mm in thickness)

IP 67 for the whole series:
Protected against the effects of immersion up to 1 m water $(30 \mathrm{mn})$


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## For PAL6 Series



## Specifications

Max. Current/Voltage Rating with Resistive Load
: 100mA 24V DC-life expectancy 200,000 cycles
2 A 125 V AC life expectancy 10,000 cycles
Initial Contact Resistance
Insulation Resistance
: $50 \mathrm{~m} \Omega$ Max.

Dielectric Strength
: 1G $\Omega$ min. @ 500V DC
Electrical Life at Full Load
Operating Temperature
: 1,000 V ACrms

Panel Thickness
: 200,000 cycles
: $-30^{\circ} \mathrm{C}$ to $85^{\circ} \mathrm{C}$

Total Travel
: 1.5 mm (0.059") min. $\sim 4 \mathrm{~mm}$ ( $0.157^{\prime \prime}$ ) max.
Operating Force
: $2.5 \mathrm{~mm}(0.098$ ")
: $2 \mathrm{~N} \sim 5 \mathrm{~N}$
Contact Bounce
$: 10 \mathrm{~ms}$
Mechanical Life
Torque
: 1,000,000 cycles

Soldering
: 0.5 Nm max. applied to nut

Lead Free
: $350^{\circ} \mathrm{C}$ max. for 5 seconds

## Switch Function

| Model <br> No. | Switch Function |  |
| :---: | :---: | :---: |
|  | Pos. 1 | Pos. 2 |
|  | $\boldsymbol{1}$ | $\Delta$ |
| PAL6 | OFF | ON |
| Term. <br> COMM. | OPEN | $1-3$ |
| Schematic |  | $\frac{\downarrow}{\circ} \circ$ |

## Dimensions



## Additional Hardware

1. M12 $\times 0.75$ Nuts
2. Locking Washer
3. O-Ring

## Wire

Multi-wire lead AWG20, section 0.6mm², UL approved. (Black / Green / Red)
$L=$ Wire length
Code: L1 $=500 \mathrm{~mm}$
Code: L2 $=90 \mathrm{~mm}$
Code: $\mathrm{L} 3=100 \mathrm{~mm}$


Dimensions : Inches (Millimetres)

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