

# PA Series Sub-Miniature Pushbutton Switches



## For PAS6 & PAS7 Series



**RoHS  
Compliant**

## Specifications

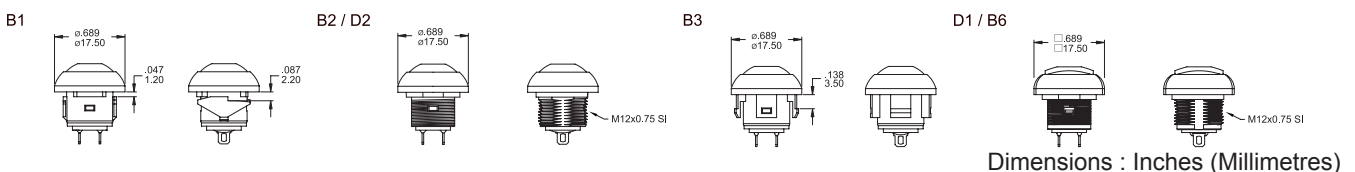
Max. Current/Voltage Rating with Resistive Load	: 400mA 32V AC-100mA 50V DC-125mA 125V AC 500mA 48V AC - 200mA 50V DC - 200mA 250V AC for metal material
Initial Contact Resistance	: 50mΩ Max.
Insulation Resistance	: 1GΩ min. @ 500V DC
Dielectric Strength	: 1,000 VAC rms. 1,500 VAC rms. for metal material
Electrical Life at Full Load	: 500,000 cycles
Operating Temperature	: -30°C to 85°C
Panel Thickness	: B1 series : 0.8mm (0.031") min. ~ 1.8mm (0.071") max. B2 series : 1.5mm (0.059") min. ~ 4mm (0.157") max. B3 series : 3 ±0.25mm (0.118")
Total Travel	: 1.5mm(0.059")
Operating Force	: 2N ~ 5N
Contact Bounce	: 10ms
Mechanical Life	: 1,000,000 cycles
Torque	: 0.5Nm max. applied to nut, 1.5Nm max. for metal material
Soldering	: 350°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		Schematic
		Pos. 1	Pos. 2	Pos. 1	Pos. 2	
SP	PAS6	OFF	MOM	Open	1-3	
SP	PAS7	ON	OFF(MOM)	1-3	Open	

MOM = Momentary

## Bushing Type



[www.element14.com](http://www.element14.com)  
[www.farnell.com](http://www.farnell.com)  
[www.newark.com](http://www.newark.com)



# PA Series Sub-Miniature Pushbutton Switches



## Bushing Plating



Chromium



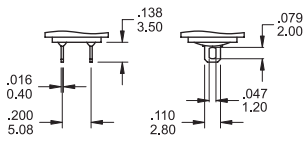
Stain-chromium



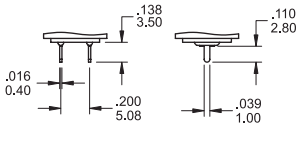
Stain-nickel

## Termination Options

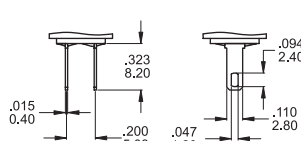
M1 Solder lug



M4 PC Thru-hole



M3 Solder lug

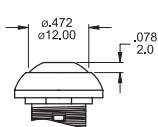


\* Only for PAS6 model type, Non-LED

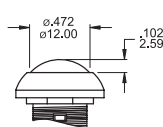
\* Only for PAS6 model type, Non-LED

## Cap Options

FLAT STD

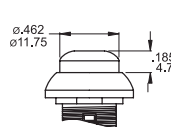


ROUND Non-LED



\* Only for B1,B2,B3,D2 bushing type

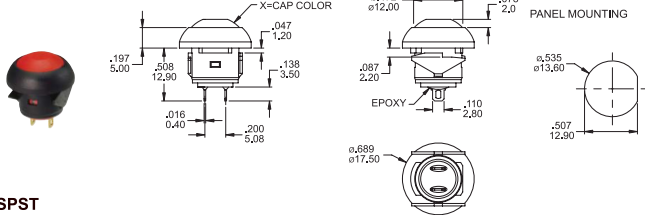
HIGH Non-LED



\* Only for B2,D2 bushing and PAS6 model type

## Dimensions

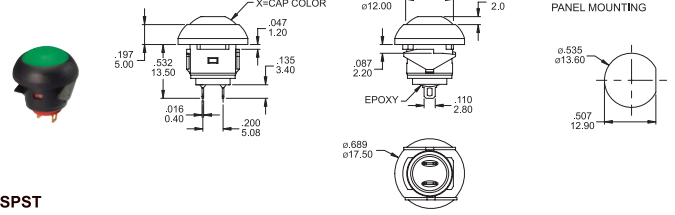
B1



SPST

Part No. Shown : PAS6XXXXXXXX-X

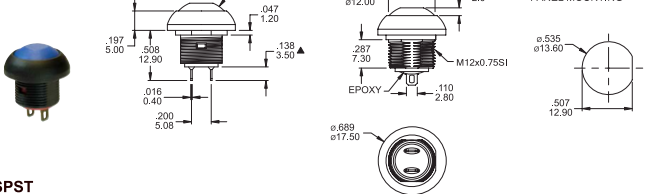
B1



SPST

Part No. Shown : PAS7XXXXXXXX-X

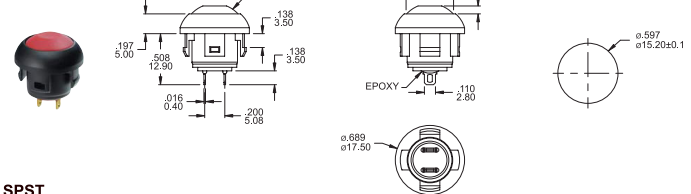
B2



SPST

Part No. Shown : PAS6XXXXXXXX-X

B3



SPST


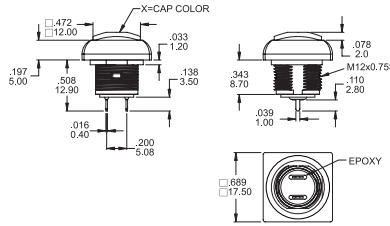

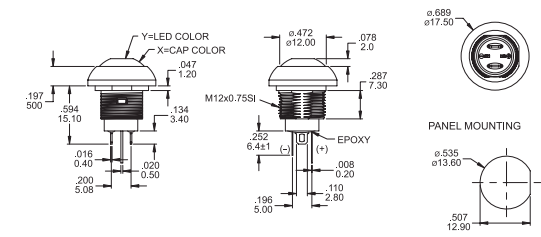

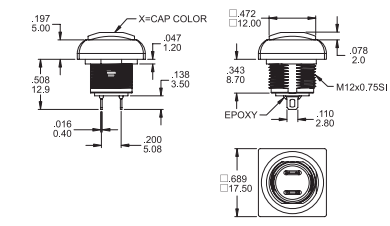

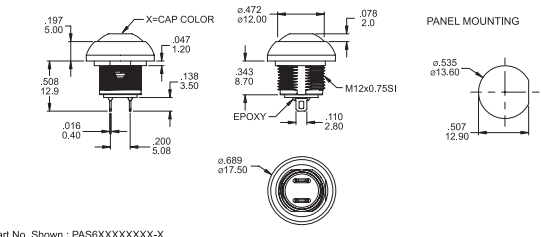

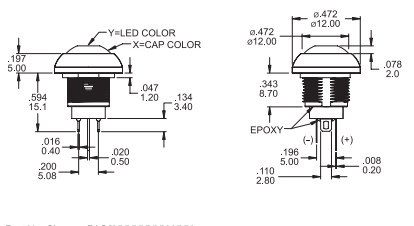

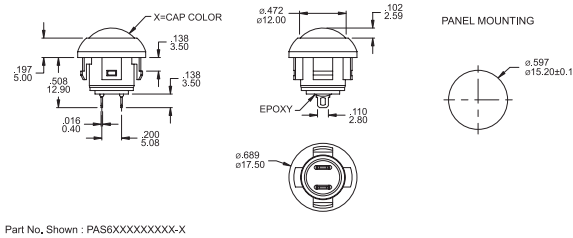

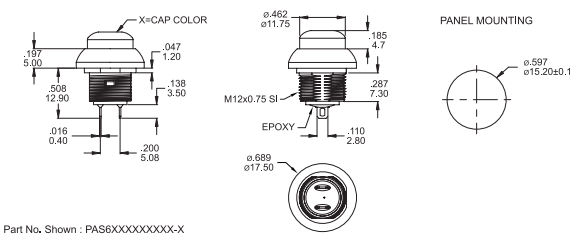
Part No. Shown : PAS6XXXXXXXX-X

Dimensions : Inches (Millimetres)

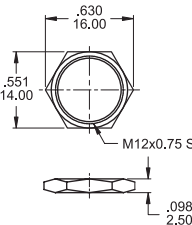
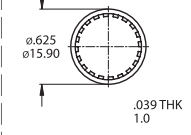
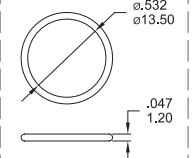
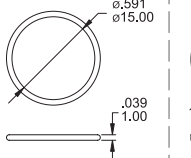
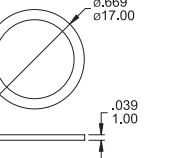


# PA Series Sub-Miniature Pushbutton Switches



<p><b>B6</b></p>  <p><b>SPST</b></p> <p>Part No. Shown : PAS6XXXXXXX-X</p>	 <p>PANEL MOUNTING</p> <p>EPOXY</p>	<p><b>B2</b></p>  <p><b>SPST</b></p> <p>Part No. Shown : PAS6XXXXXXX-XXX</p>	 <p>PANEL MOUNTING</p> <p>EPOXY</p>
<p><b>D1</b></p>  <p><b>SPST</b></p> <p>Part No. Shown : PAS6XXXXXXX-X</p>	 <p>PANEL MOUNTING</p> <p>EPOXY</p>	<p><b>D2</b></p>  <p><b>SPST</b></p> <p>Part No. Shown : PAS6XXXXXXX-X</p>	 <p>PANEL MOUNTING</p> <p>EPOXY</p>
<p><b>D2</b></p>  <p><b>SPST</b></p> <p>Part No. Shown : PAS6XXXXXXX-XXX</p>	 <p>PANEL MOUNTING</p> <p>EPOXY</p>	<p><b>B3</b></p>  <p><b>SPST</b></p> <p>Part No. Shown : PAS6XXXXXXX-X</p>	 <p>PANEL MOUNTING</p> <p>EPOXY</p>
<p><b>B2</b></p>  <p><b>SPST</b></p> <p>Part No. Shown : PAS6XXXXXXX-X</p>	 <p>PANEL MOUNTING</p> <p>EPOXY</p>		

## Hardware

<p><b>M12 NUT</b></p>  <p>M12x0.75 SI</p>	<p><b>LOCK WASHER</b></p>  <p>Supplied with B2 / D1 / D2 bushing</p>	<p><b>O-RING</b></p>  <p>Supplied with PAL6 and D1 / D2 options</p>	<p><b>O-RING</b></p>  <p>Supplied standard with B3 options</p>	<p><b>EVA WASHER</b></p>  <p>Supplied standard with B1 / B2 options</p>
--	---	--	---	---

Dimensions : Inches (Millimetres)

www.element14.com  
www.farnell.com  
www.newark.com



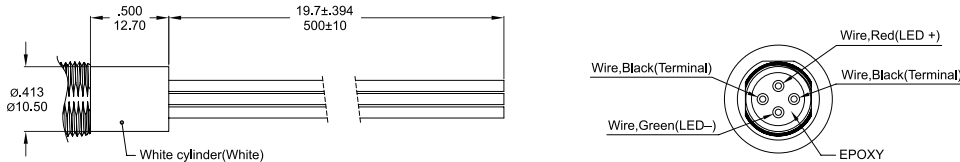
# PA Series Sub-Miniature Pushbutton Switches



## Wire

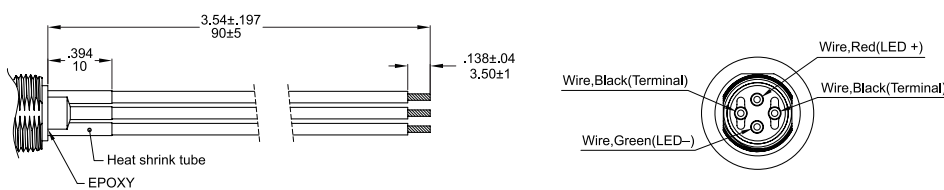
**L1 Wire length: 500mm**

**Multi-wire lead AWG20, section 0.6mm<sup>2</sup>, UL approved. (Black / Green / Red)**



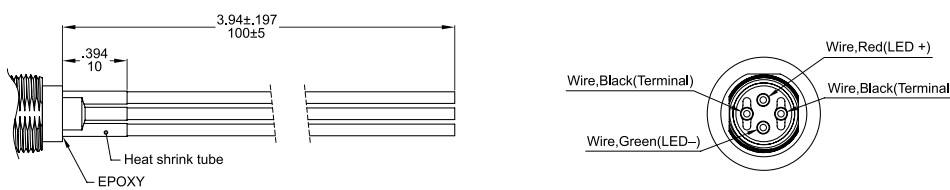
**L2 Wire length: 90mm**

**Multi-wire lead AWG20, section 0.6mm<sup>2</sup>, UL approved. (Black / Green / Red)**



**L3 Wire length: 100mm**

**Multi-wire lead AWG20, section 0.6mm<sup>2</sup>, UL approved. (Black / Green / Red)**



## Rubber - Hood

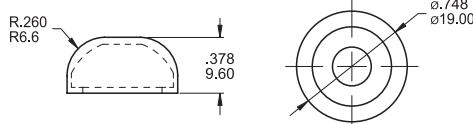
**Transparent cap**



**Black cap**



**Dimensions**



Dimensions : Inches (Millimetres)

## Soldering Processes

**Manual Soldering** : Use soldering iron of 30 watt, controlled at 350°C approximately 5 seconds while applying solder.

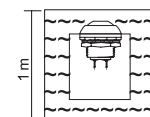
**Wave Soldering**

**Recommended Soldering**

**Temperature** : 260 ±5°C

**Duration of Solder Immersion** : Max 5 sec.  
(PCB is 1.6mm in thickness)

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



# PA Series

## Sub-Miniature Pushbutton Switches



### For PAL6 Series



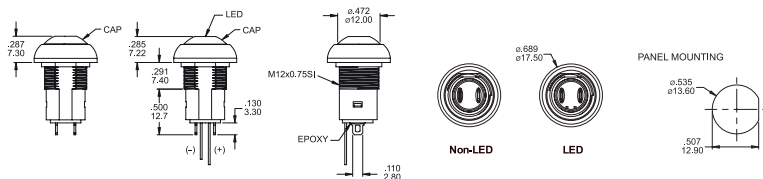
### Specifications

Max. Current/Voltage Rating with Resistive Load	: 100mA 24V DC-life expectancy 200,000 cycles 2A 125V AC life expectancy 10,000 cycles
Initial Contact Resistance	: 50mΩ Max.
Insulation Resistance	: 1GΩ min. @ 500V DC
Dielectric Strength	: 1,000 V ACrms
Electrical Life at Full Load	: 200,000 cycles
Operating Temperature	: -30°C to 85°C
Panel Thickness	: 1.5mm (0.059") min. ~ 4mm (0.157") max.
Total Travel	: 2.5mm(0.098")
Operating Force	: 2N ~ 5N
Contact Bounce	: 10ms
Mechanical Life	: 1,000,000 cycles
Torque	: 0.5Nm max. applied to nut
Soldering	: 350°C max. for 5 seconds
Lead Free	

### Switch Function

Model No.	Switch Function	
	Pos. 1	Pos. 2
PAL6	OFF	ON
Term. COMM.	OPEN	1-3
Schematic		

### Dimensions



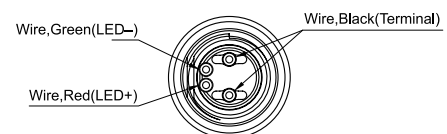
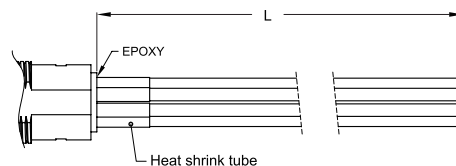
### Additional Hardware

1. M12 × 0.75 Nuts
2. Locking Washer
3. O-Ring

### Wire

Multi-wire lead AWG20, section 0.6mm<sup>2</sup>, UL approved. (Black / Green / Red)

- L = Wire length  
 Code: L1 = 500mm  
 Code: L2 = 90mm  
 Code: L3 = 100mm



Dimensions : Inches (Millimetres)

www.element14.com  
 www.farnell.com  
 www.newark.com



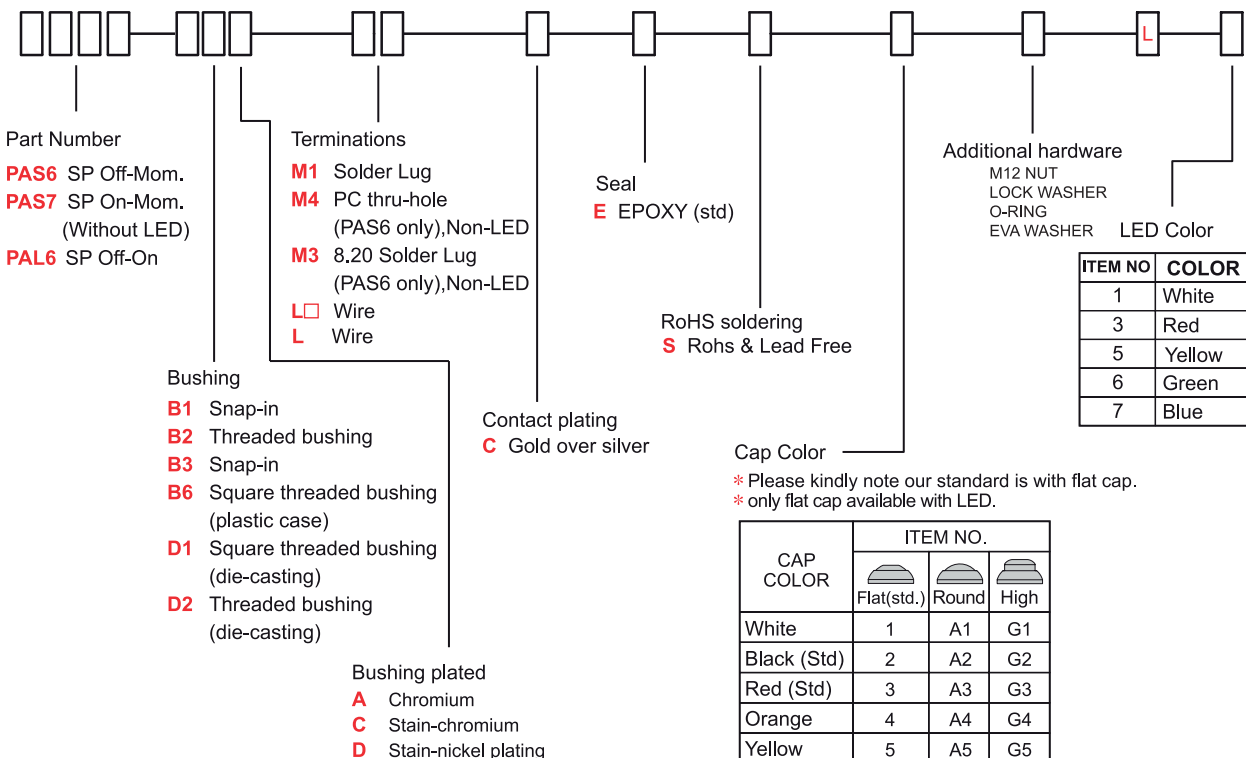
# PA Series

## Sub-Miniature Pushbutton Switches



### Part Number Explanation

SERIES NO. BUSHING TERMINATIONS CONTACT PLATING SEAL RoHS SOLDERING CAP COLOR ADDITIONAL HARDWARE LED LED COLOR



\* Please kindly note our standard is with flat cap.  
 \* only flat cap available with LED.

CAP COLOR	ITEM NO.		
	Flat(std.)	Round	High
White	1	A1	G1
Black (Std)	2	A2	G2
Red (Std)	3	A3	G3
Orange	4	A4	G4
Yellow	5	A5	G5
Green	6	A6	G6
Blue	7	A7	G7

\* Besides standard color, other colors need to check stocks available.

**Important Notice :** This data sheet and its contents (the "Information") belong to the members of the Premier Farnell group of companies (the "Group") or are licensed to it. No licence is granted for the use of it other than for information purposes in connection with the products to which it relates. No licence of any intellectual property rights is granted. The Information is subject to change without notice and replaces all data sheets previously supplied. The Information supplied is believed to be accurate but the Group assumes no responsibility for its accuracy or completeness, any error in or omission from it or for any use made of it. Users of this data sheet should check for themselves the Information and the suitability of the products for their purpose and not make any assumptions based on information included or omitted. Liability for loss or damage resulting from any reliance on the Information or use of it (including liability resulting from negligence or where the Group was aware of the possibility of such loss or damage arising) is excluded. This will not operate to limit or restrict the Group's liability for death or personal injury resulting from its negligence. Multicomp is the registered trademark of the Group. © Premier Farnell Limited 2016.

www.element14.com  
 www.farnell.com  
 www.newark.com

