

PA Series

Sub-Miniature Pushbutton Switches



SPECIFICATION:

MAX. CURRENT/VOLTAGE RATING WITH RESISTIVE LOAD:

400mA 32VAC-100mA 50VDC-125mA 125VAC
500mA 48VAC - 200 mA 50VDC - 200mA 250VAC for metal material.

INITIAL CONTACT RESISTANCE: 50mΩ max.

INSULATION RESISTANCE: 1GΩ min.at 500VDC.

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 : 0.8 mm (.031) min. -1.8 mm (.071) max.
B2 series : 1.5 mm (.059) min. -4 mm (.157) max.
B3 series : 2.85 +0.05/-0.10 mm (.112)

TOTAL TRAVEL: 1.5 mm(.059)

OPERATING FORCE: 2N-5N

CONTACT BOUNCE: 10 ms.

MECHANICAL LIFE: 1,000,000 cycles.

TORQUE: 0.5 Nm max.applied to nut,
1.5 Nm max. for metal material.

SOLDERING: 350°C max.for 5 seconds.

MATERIALS

CASE: Diallyl phthalate (DAP)(UL94v-0).

CAP: Polyamide 6/6.

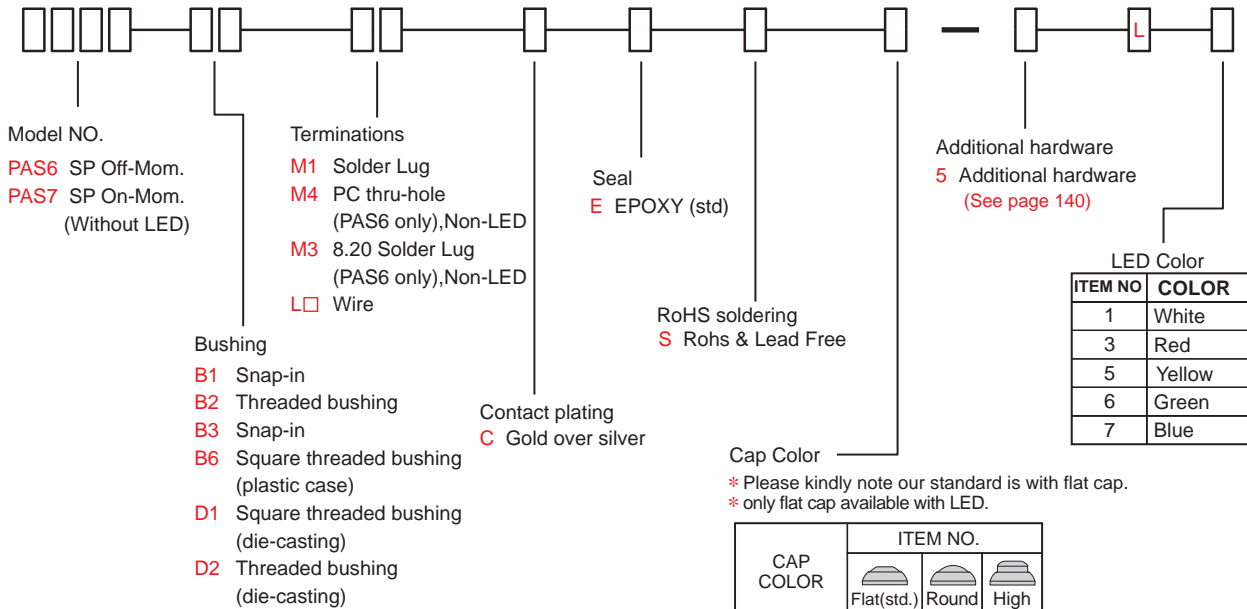
BUSHING: Polyamide 6/6.

IP 67
ACCORDING TO
EN 60529:1991+A1:2001
IEC 60529:2001



HOW TO ORDER

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



Bushing plated
A chromium
C Stain-chromium
D Stain-nickel plating
*If you need bushing plated see page 137.

Cap 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.

EXAMPLE:
PAS6B2M1CES□-5(Without LED)
CAP color
PAS6BM1CES□-5L□ LED Color
CAP color

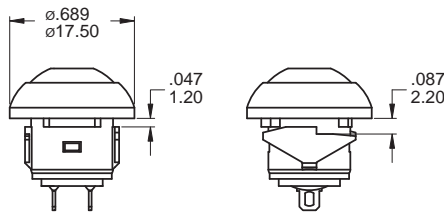
SWITCH FUNCTION

NO. POLES	MODEL NO.	SWITCH FUNCTION		CONNECTED TERMINALS		
		POS.1	POS.2	POS.1	POS.2	SCHEMATIC
SP	PAS6	OFF	MOM	OPEN	1-3	
SP	PAS7	ON	OFF(MOM)	1-3	OPEN	

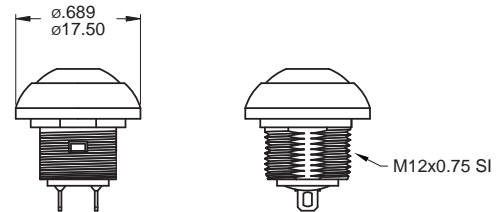
MOM=MOMENTARY

BUSHING TYPE

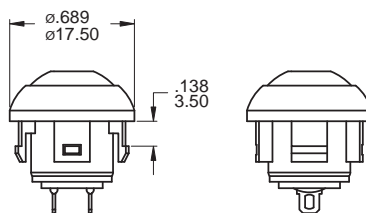
B1



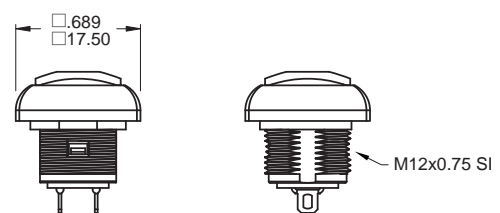
B2 / D2



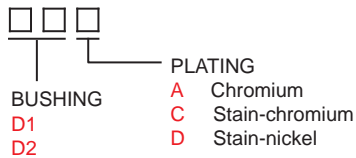
B3



D1 / B6



BUSHING PLATING



Chromium



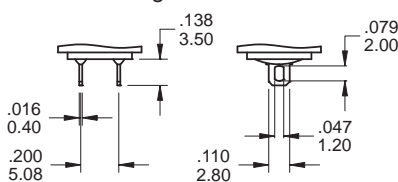
Stain-chromium



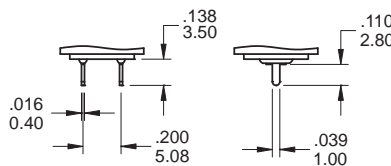
Stain-nickel

TERMINATION OPTIONS

M1 Solder lug

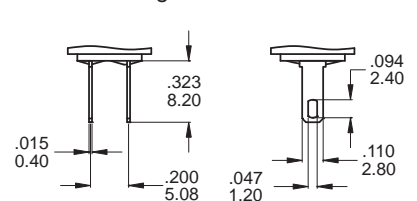


M4 PC Thru-hole



* Only for PAS6 model type, Non-LED

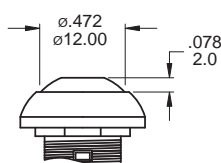
M3 Solder lug



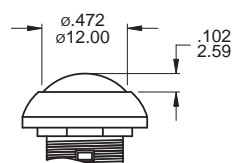
* Only for PAS6 model type, Non-LED

CAP OPTIONS

FLAT STD

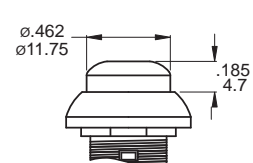


ROUND Non-LED



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

HIGH Non-LED



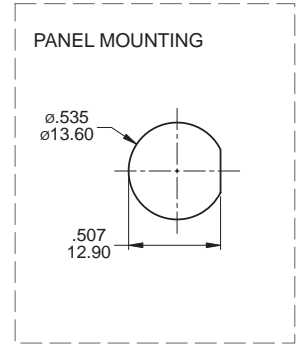
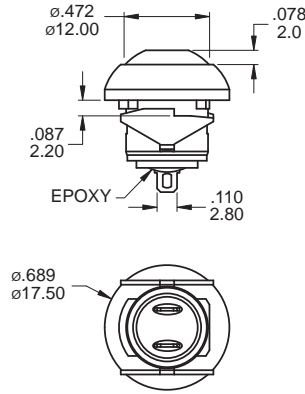
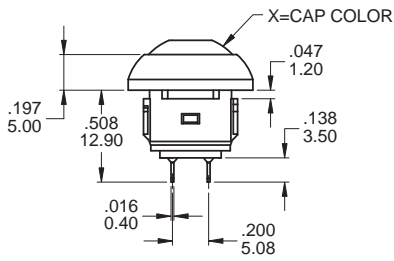
* Only for B2,D2 bushing and PAS6 model type



PA Series

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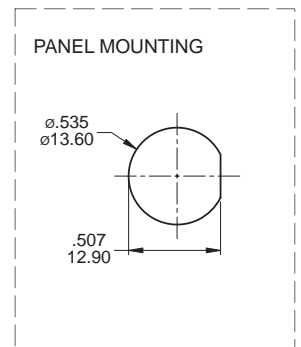
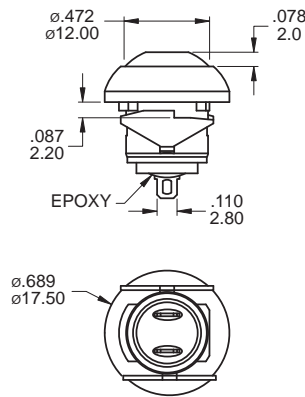
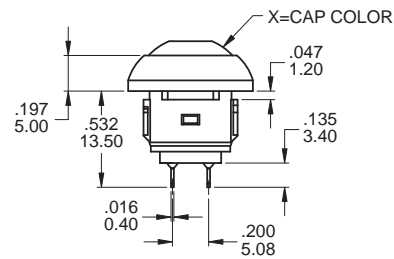
B1



SPST

Part No. Shown : PAS6B1M1CESX-5

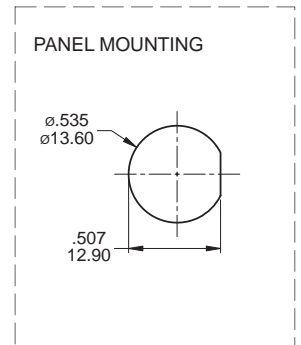
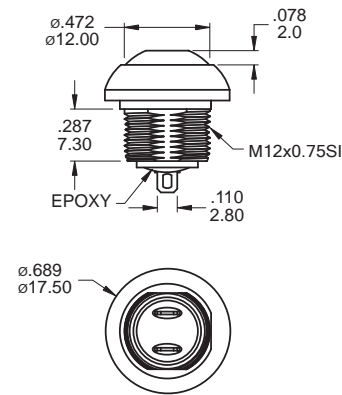
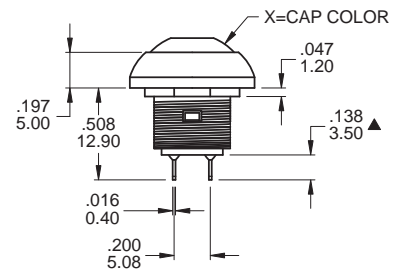
B1



SPST

Part No. Shown : PAS7B1M1CESX-5

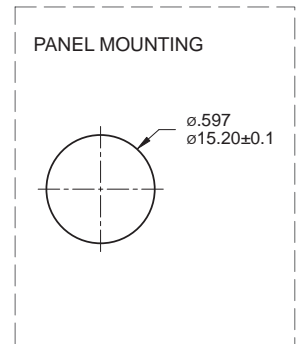
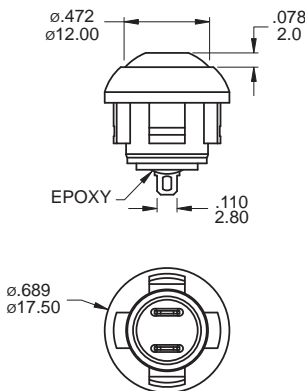
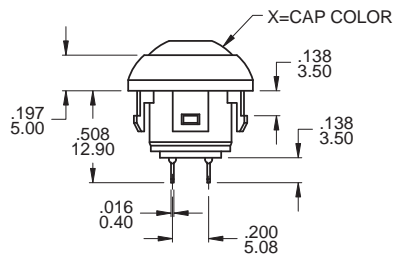
B2



SPST

Part No. Shown : PAS6B2M1CESX-5

B3



SPST

Part No. Shown : PAS6B3M1CESX-5

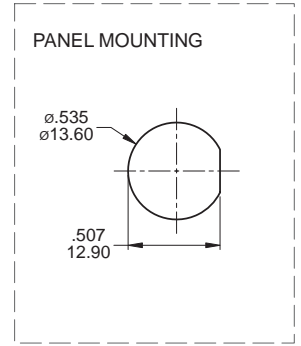
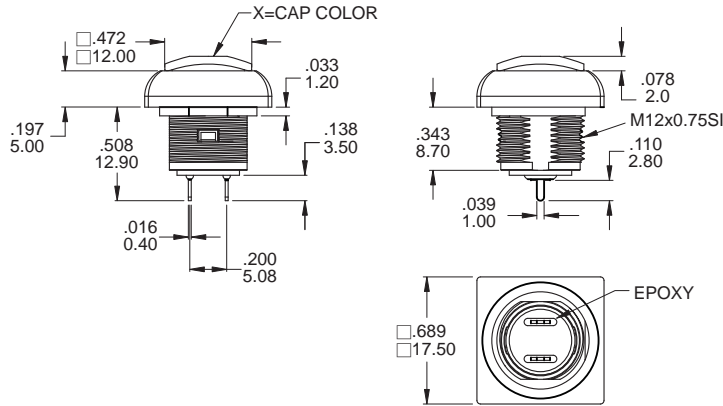


PA
Pushbutton Switches

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Sub-Miniature Pushbutton Switches

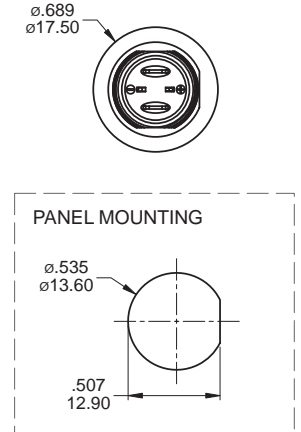
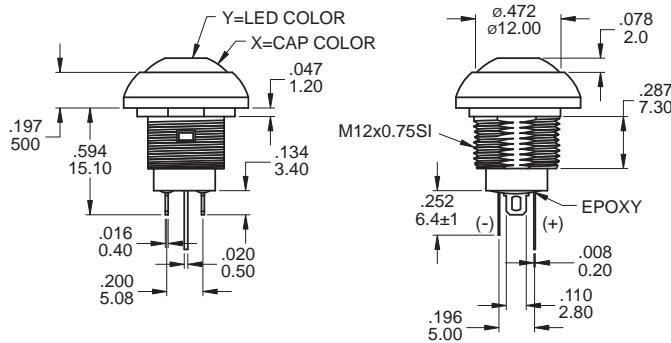
B6



SPST

Part No. Shown : PAS6B6M4CESX-5

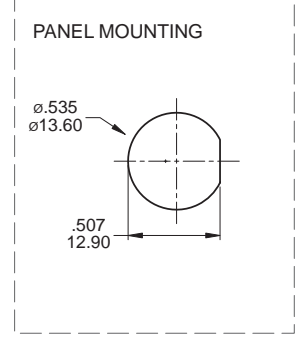
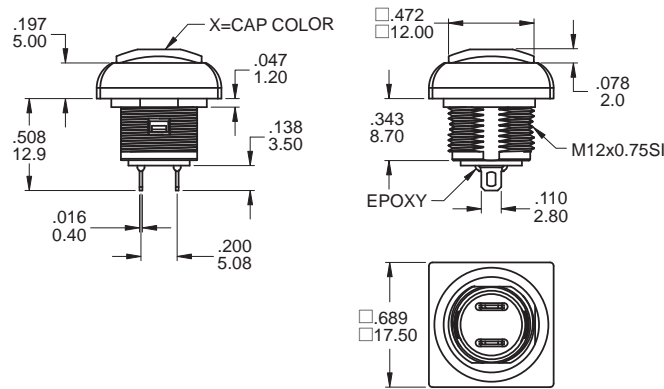
B2



SPST

Part No. Shown : PAS6B2M1CESX-5LY

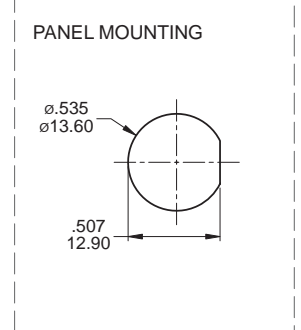
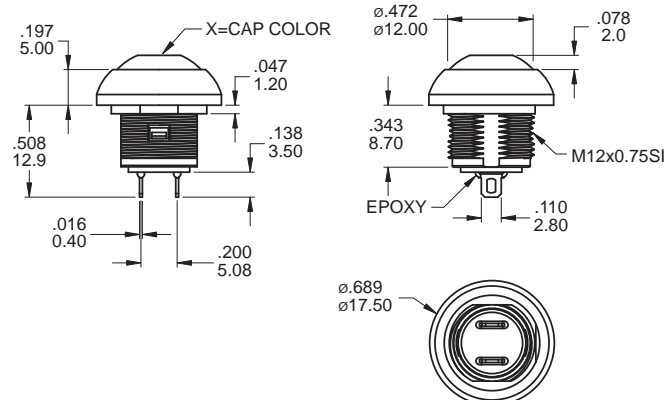
D1



SPST

Part No. Shown : PAS6D1M1CESX-5

D2



SPST

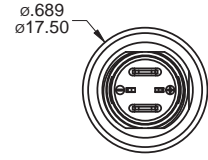
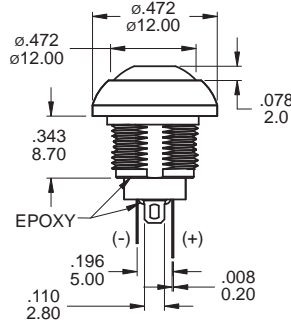
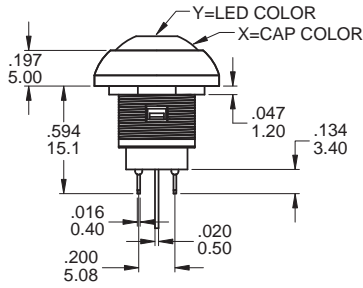
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PA Pushbutton Switches

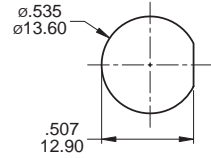
PA Series

Sub-Miniature Pushbutton Switches

D2



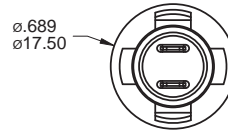
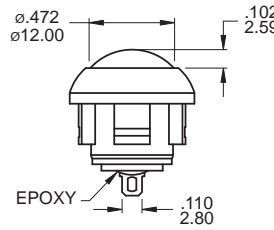
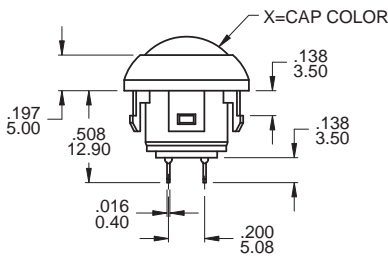
PANEL MOUNTING



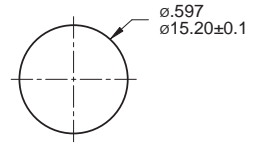
Part No. Shown : PAS6D2M1CESX-5LY

SPST

B3



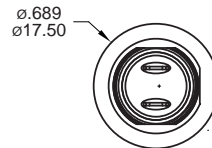
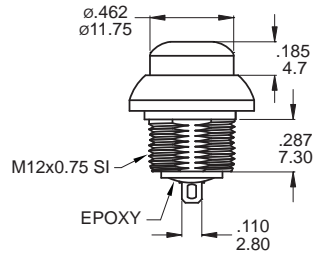
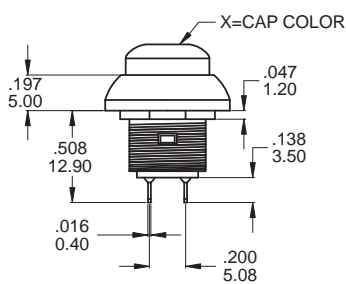
PANEL MOUNTING



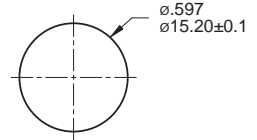
Part No. Shown : PAS6B3M1CESAX-5

SPST

B2



PANEL MOUNTING

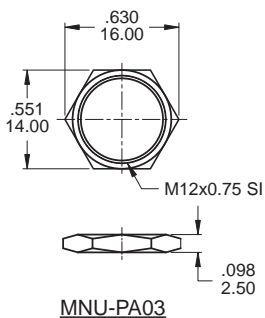


Part No. Shown : PAS6B2M1CESGX-5

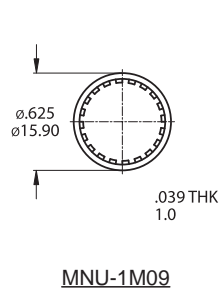
SPST

HARDWARE

M12 NUT

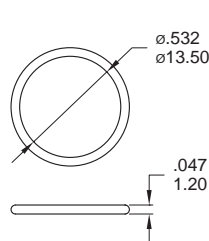


LOCK WASHER



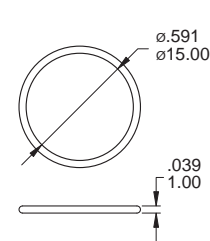
Supplied with B2 / D1 / D2 bushing

O-RING



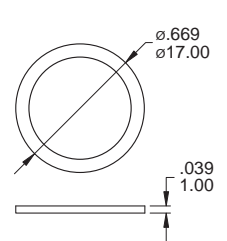
Supplied with PAL6 and D1 / D2 options

O-RING



Supplied standard with B3 options

EVA WASHER



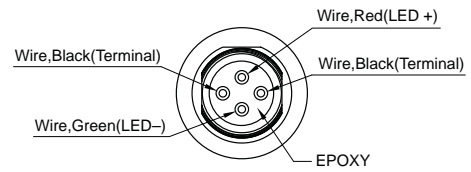
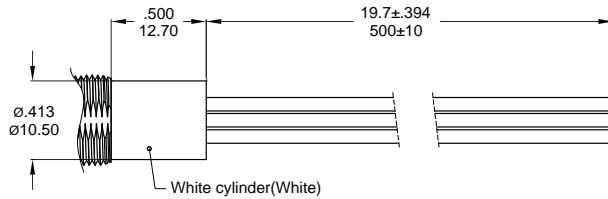
Supplied standard with B1 / B2 options

WIRE

Note: When the switches with the wire assembly, we only test the electric conduction and will not test the contact resistance on the wire.

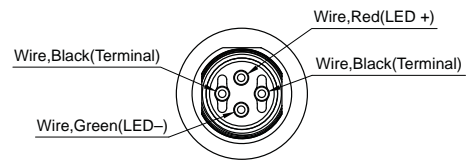
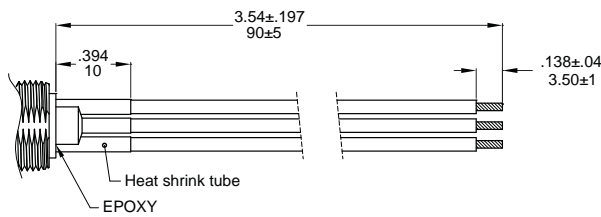
L1 Wire length: 500mm

※ Multi-wire lead AWG20, section 0.6mm², UL approved. (Black / Green / Red)



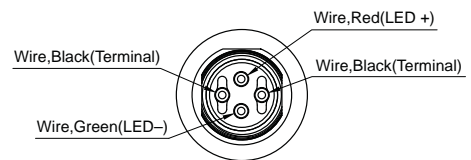
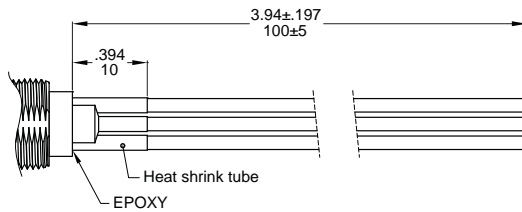
L2 Wire length: 90mm

※ 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)

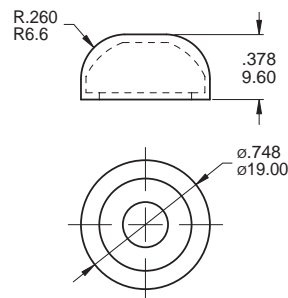


RUBBER - HOOD

FCP-P003
(Transparent cap)



FCP-P003-2
(Black cap)



SOLDERING PROCESSES

MANUAL SOLDERING: Use soldering iron of 30 watts, controlled at 350°C approximately 5 seconds while applying solder.

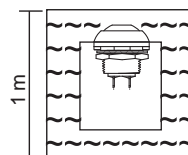
WAVE SOLDERING:

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(30min)



PA(LOCK) Series

Sub-Miniature Pushbutton Switches



IP 67
ACCORDING TO
EN 60529:1997+A1:2001
IEC 60529:2001



SPECIFICATION:

MAX. CURRENT/VOLTAGE RATING WITH RESISTIVE LOAD:

100mA 24VDC-life expectancy 200,000 cycles
2A 125VAC-life expectancy 10,000 cycles

INITIAL CONTACT RESISTANCE: 50mΩ max.

INSULATION RESISTANCE: 1GΩ min.at 500VDC.

DIELECTRIC STRENGTH: 1,000 VAC rms.

ELECTRICAL LIFE AT FULL LOAD: 200,000 cycles.

OPERATING TEMPERATURE: -30°C to 85°C.

PANEL THICKNESS: 1.5 mm (.059) min. -4 mm (.157) max.

TOTAL TRAVEL: 2.5 mm(.098)

OPERATING FORCE: 2N~5N

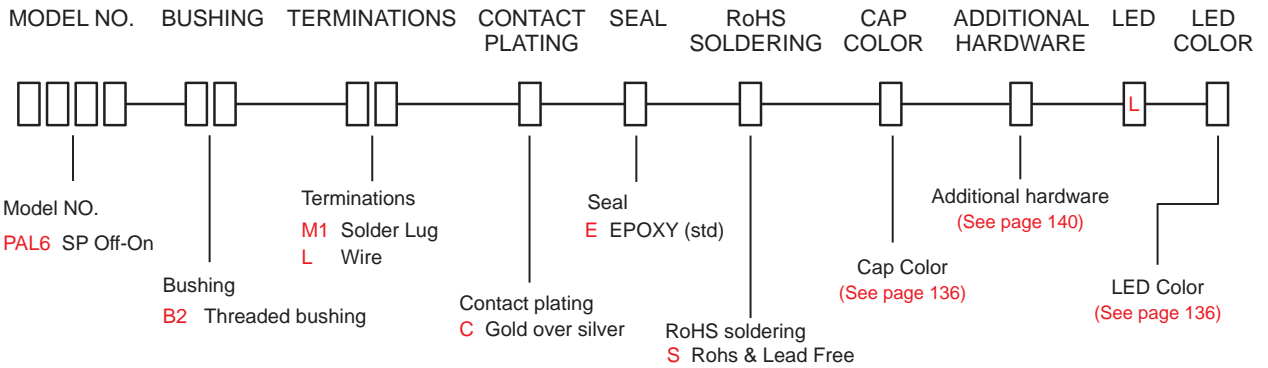
CONTACT BOUNCE: 10 ms.

MECHANICAL LIFE: 1,000,000 cycles.

TORQUE: 0.5 Nm max.applied to nut

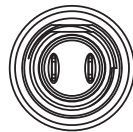
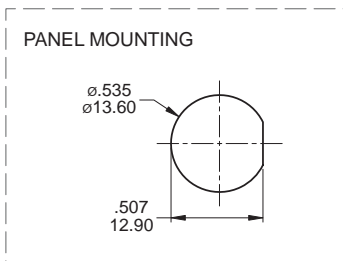
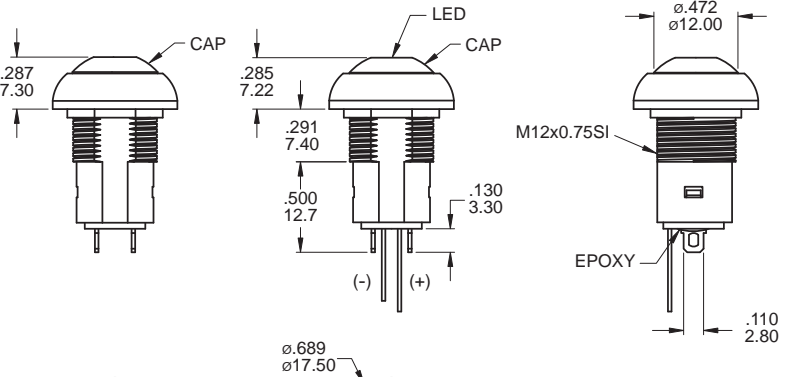
SOLDERING: 350°C max.for 5 seconds.

HOW TO ORDER

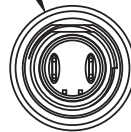


SWITCH FUNCTION

MODEL NO.	POS.1	POS.2
PAL6	OFF	ON
TERM. COMM.	OPEN	1-3
SCHMATIC		



Non-LED



LED

ADDITIONAL HARDWARE

- 1.M12 X 0.75 NUTS (MNU- PA03)
- 2.LOCKING WASHER (MNU-1M09)
- 3.O-RING (FCP-A253)

Wire

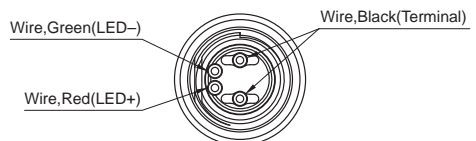
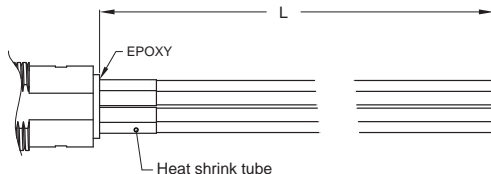
※ Multi-wire lead AWG20,section 0.6mm²,UL approved,(Black / Green / Red)

L=Wire length

Code:L1=500mm

Code:L2=90mm

Code:L3=100mm



PA(LOCK) Pushbutton Switches