

# PF Series

Sub-Miniature Pushbutton Switches



PF Pushbutton Switches



## MATERIALS

- CAP:** Polyamide 6/6.
- PLUNGER:** PAS6:PC / PAS7:Polyamide 6/6.
- RUBBER:** Silicone.
- BUSHING:** Polyamide 6/6.
- CASE:** Diallyl phthalate (DAP)(UL94v-0).
- TERMINAL/CONTACTS:** Gold over silver plated.

## SPECIFICATION

- MAX. CURRENT/VOLTAGE RATING WITH RESISTIVE LOAD :**  
400mA 32VAC - 200 mA 50VDC - 125 mA 125VAC.
- INITIAL CONTACT RESISTANCE :** 50mΩmax.
- INSULATION RESISTANCE :** 1GΩmin.at 500VDC.
- DIELECTRIC STRENGTH :** 1,500 VAC rms.
- ELECTRICAL LIFE AT FULL LOAD :** 500,000 cycles.
- OPERATING TEMPERATURE :** -30°C to 85°C.
- PANEL THICKNESS :** 1.5 mm (.059) min. -4 mm (.157) max.
- TOTAL TRAVEL :** 1.5 mm(.059)
- OPERATING FORCE :** 3N~6N
- CONTACT BOUNCE :** 10 ms.
- MECHANICAL LIFE :** 1,000,000 cycles.
- TORQUE :** 0.5 Nm max.applied to nut
- EGREE OF PROTECITON:** IP68
- MANUAL SOLDERING:**

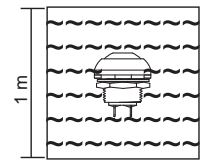
Use soldering iron of 30 watts, controlled at 350°C approximately 5 seconds while applying solder.

## WAVE SOLDERING:

- Recommended Soldering Temperature: 260 ± 5°C
- ※ Ambient temperature of the soldered surface of PC board.110°C Max.
- Duration of Solder Immersion: Max 5 sec.(PCB is 1.6mm in thickness)

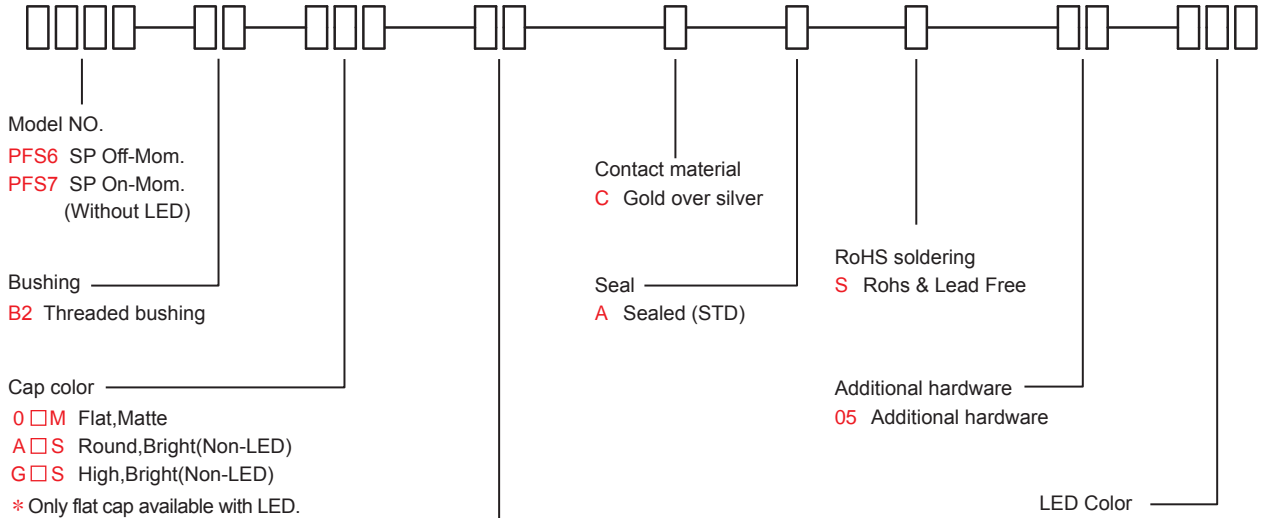
### IP 68 for the whole series:

Protected against the effects of immersion up to 1 m water(60min)



## HOW TO ORDER

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



CAP COLOR	ITEM NO.		
	Matte	Bright	Bright
White	01M	A1S	G1S
Black (Std)	02M	A2S	G2S
Red (Std)	03M	A3S	G3S
Yellow	05M	A5S	G5S
Green	06M	A6S	G6S
Blue	07M	A7S	G7S

### Terminations

- M1** 3.50 high,Solder lug(PAS6 only,Non-LED)  
3.40 high,Solder lug(with LED and PAS7 Non-LED)
- M2** 5.50 high,Solder lug(PAS6 only,Non-LED)
- M3** 8.20 high,Solder lug(PAS6 only,Non-LED)
- M4** 3.50 high,PC thru-hole(PAS6 only,Non-LED)

ITEM NO	COLOR
L00	Without LED
L01	White
L03	Red
L05	Yellow
L06	Green
L07	Blue

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

### EXAMPLE:

PAS6B2A2SM1CAS05L00(Without LED)

PAS6B20MM1CAS05L

└─ CAP color ─┘ └─ LED Color ─┘

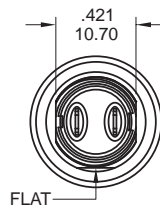
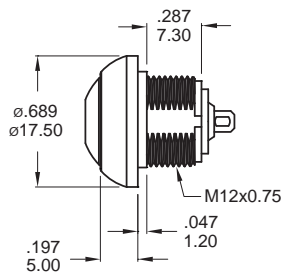
## SWITCH FUNCTION

NO. POLES	MODEL NO.	SWITCH FUNCTION		CONNECTED TERMINALS / SCHEMATIC	
		POS.1	POS.2	POS.1	POS.2
SP	PFS6	OFF	MOM(ON)	OPEN	CLOSE
SP	PFS7	ON	MOM(OFF)	CLOSE	OPEN

MOM=MOMENTARY

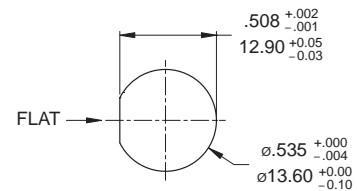
## BUSHING TYPE

B2



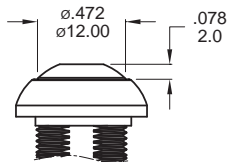
### PANEL CUT-OUT

THICKNESS: 1.5 mm ~ 4.0 mm

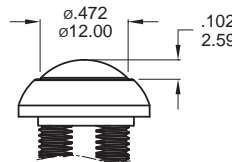


## CAP OPTIONS

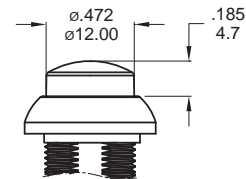
FLAT



ROUND Non-LED

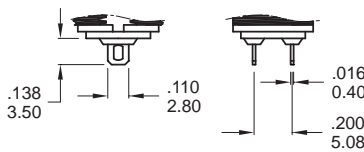


HIGH Non-LED

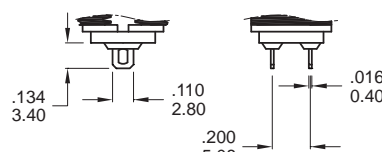


## TERMINATION OPTIONS

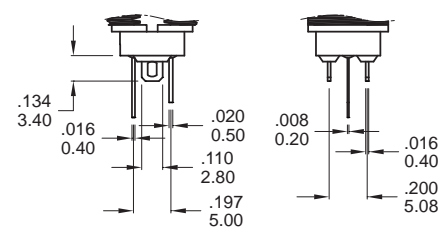
M1 Solder lug



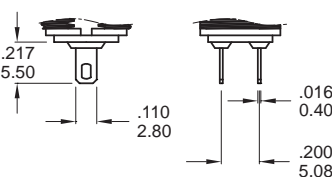
M1 Solder lug (PAS7)



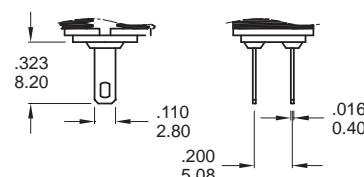
M1 Solder lug (PAS6, With LED)



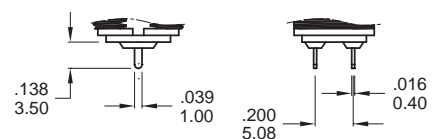
M2 Solder lug



M3 Solder lug

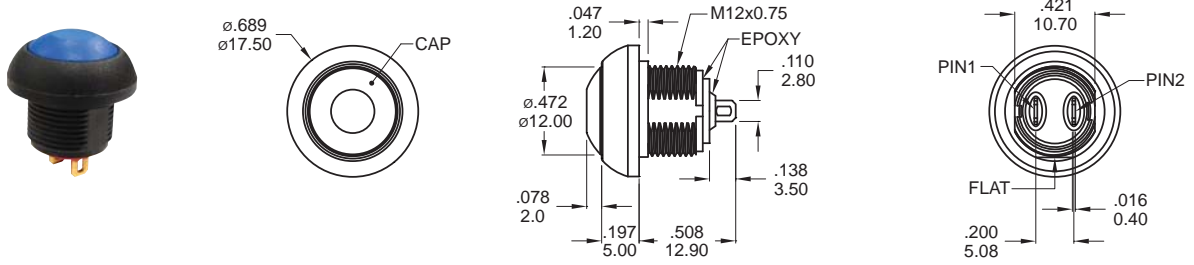


M4 PC Thru-hole



# PF Series

Sub-Miniature Pushbutton Switches

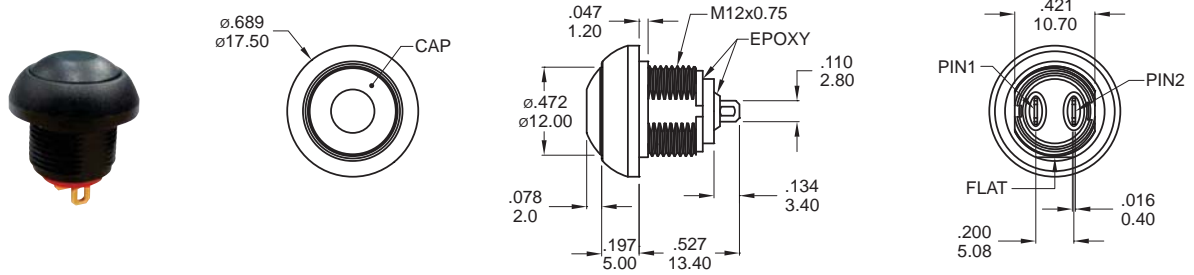


SPST

Part No. Shown : PFS6B207MM1CAS05L00

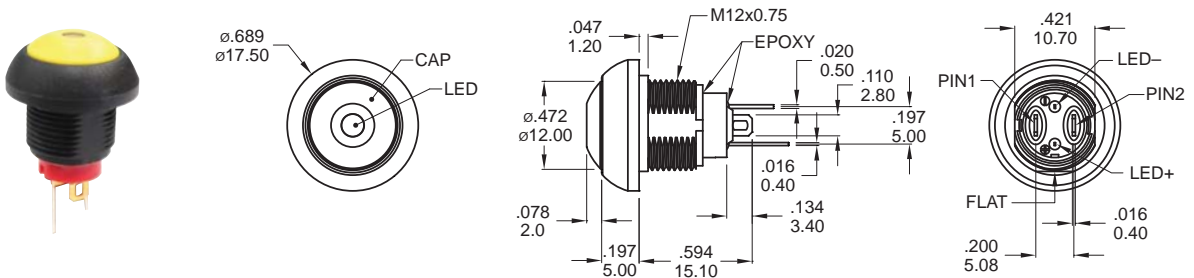


PF  
Pushbutton Switches



SPST

Part No. Shown : PFS7B202M1CAS05L00

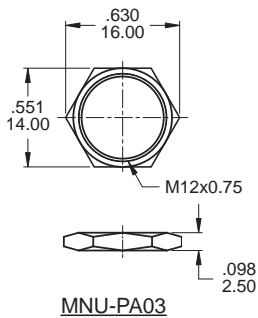


SPST

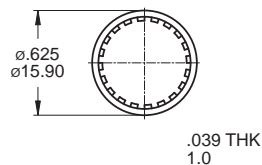
Part No. Shown : PFS6B205M1CAS05L01

## HARDWARE

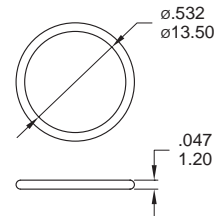
M12 NUT



LOCK WASHER



O-RING



MNU-PA03

MNU-1M09

FCP-A253

# PF Wire Series

Sub-Miniature Pushbutton Switches With Wire



## MATERIALS

- CAP:** Polyamide 6/6.
- PLUNGER:** PAS6:PC / PAS7:Polyamide 6/6.
- RUBBER:** Silicone.
- BUSHING:** Polyamide 6/6.
- CASE:** Diallyl phthalate (DAP)(UL94v-0).
- TERMINAL/CONTACTS:** Gold over silver plated.
- Multi-wire lead AWG20, section 0.6mm<sup>2</sup>, UL approved**

## SPECIFICATION

### MAX. CURRENT/VOLTAGE RATING WITH RESISTIVE LOAD :

400mA 32VAC - 200 mA 50VDC - 125 mA 125VAC.

### INITIAL CONTACT RESISTANCE : 100mΩmax.

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

### INSULATION RESISTANCE : 1GΩmin.at 500VDC.

### DIELECTRIC STRENGTH : 1,500 VAC rms.

### ELECTRICAL LIFE AT FULL LOAD : 500,000 cycles.

### OPERATING TEMPERATURE : -30°C to 85°C.

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

### TOTAL TRAVEL : 1.5 mm(.059)

### OPERATING FORCE : 3N~6N

### CONTACT BOUNCE : 10 ms.

### MECHANICAL LIFE : 1,000,000 cycles.

### TORQUE : 0.5 Nm max.applied to nut

### EGREE OF PROTECITON: IP68

### MANUAL SOLDERING:

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

### WAVE SOLDERING:

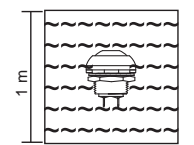
Recommended Soldering Temperature: 260 ± 5°C

※Ambient temperature of the soldered Surface of PC board.110°C Max.

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

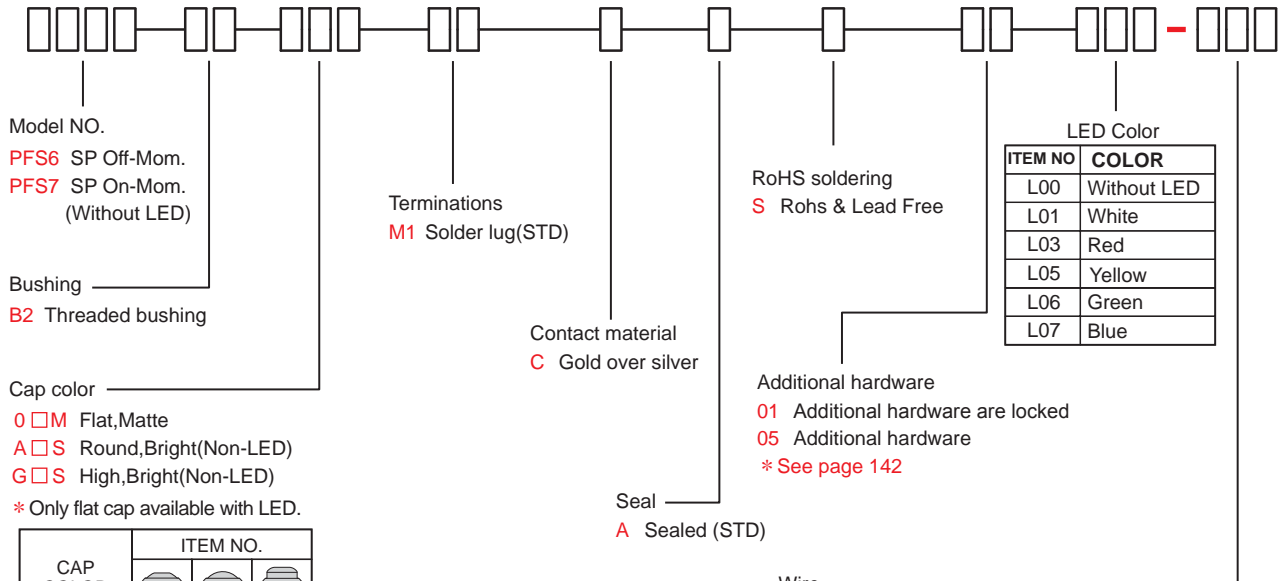
### IP 68 for the whole series:

Protected against the effects of immersion up to 1 m water(60min)



## HOW TO ORDER

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



Model NO.  
PFS6 SP Off-Mom.  
PFS7 SP On-Mom.  
(Without LED)

Bushing  
B2 Threaded bushing

Cap color  
0 □ M Flat, Matte  
A □ S Round, Bright(Non-LED)  
G □ S High, Bright(Non-LED)  
\* Only flat cap available with LED.

CAP COLOR	ITEM NO.		
	Matte	Bright	Bright
White	01M	A1S	G1S
Black (Std)	02M	A2S	G2S
Red (Std)	03M	A3S	G3S
Yellow	05M	A5S	G5S
Green	06M	A6S	G6S
Blue	07M	A7S	G7S

Terminations  
M1 Solder lug(STD)

Contact material  
C Gold over silver

Seal  
A Sealed (STD)

RoHS soldering  
S Rohs & Lead Free

Additional hardware  
01 Additional hardware are locked  
05 Additional hardware  
\* See page 142

LED Color	
ITEM NO	COLOR
L00	Without LED
L01	White
L03	Red
L05	Yellow
L06	Green
L07	Blue

Wire  
S001 500mm leads cylinder(PAS6 only)  
S002 90mm leads cylinder,stripping wire(PAS6 only)  
S003 100mm leads cylinder(PAS6 only)  
Y001 500mm leads heat shrink  
Y002 90mm leads heat shrink,stripping wire  
Y003 100mm leads heat shrink

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

EXAMPLE:  
PAS6B202MM1CAS05L03-S001

└ Wire code



PF Pushbutton Switches

# PF Wire Series

Sub-Miniature Pushbutton Switches With Wire

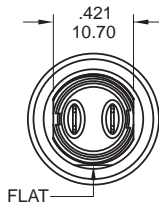
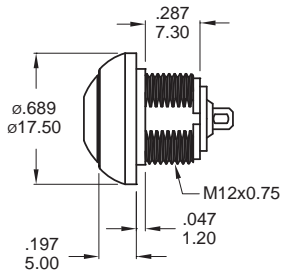
## SWITCH FUNCTION

NO. POLES	MODEL NO.	SWITCH FUNCTION		CONNECTED TERMINALS / SCHEMATIC	
		POS.1	POS.2	POS.1	POS.2
SP	PFS6	OFF	MOM(ON)	OPEN	CLOSE
SP	PFS7	ON	MOM(OFF)	CLOSE	OPEN

MOM=MOMENTARY

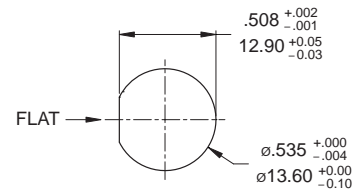
## BUSHING

B2



PANEL CUT-OUT

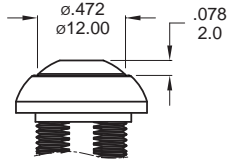
THICKNESS: 1.5 mm ~ 4.0 mm



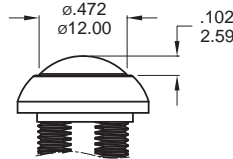
PF Pushbutton Switches

## CAP OPTIONS

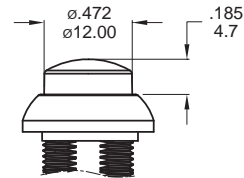
FLAT



ROUND Non-LED

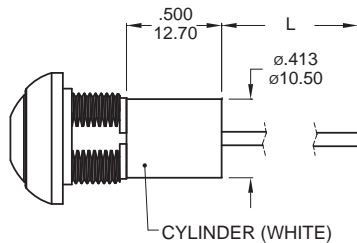


HIGH Non-LED



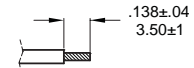
## WIRE OPTIONS

SXXX Only for model type PAS6



### WIRE LENGTH

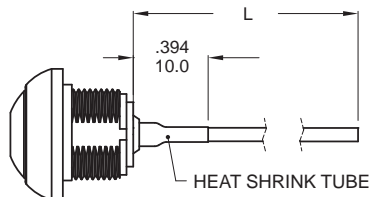
CODE	DIM "L"
S001	500±10(19.7±.394)
S002 *	90±5(3.54±.197)
S003	100±5(3.94±.197)
Y001	500±10(19.7±.394)
Y002 *	90±5(3.54±.197)
Y003	100±5(3.94±.197)



\* Stripping wire for code S002 and Y002.

※ Multi-wire lead AWG20, section 0.6mm<sup>2</sup>, UL approved.

YXXX



### Non-LED

DESCRIPTION	WIRE COLOR
TERMINAL 1	BLACK
TERMINAL 2	BLACK

### With LED

DESCRIPTION	WIRE COLOR
TERMINAL 1	BLACK
TERMINAL 2	BLACK
LED+	RED
LED-	GREEN