

# FP Series Sealed Ultra Miniature Pushbutton Switches



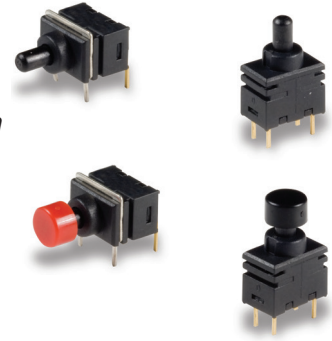
A  
Pushbutton

## Features/Benefits

- Ultra-miniature pushbutton
- Multiple poles and throws
- Long life 100,000 cycles
- Vertical and right angle mount
- Sealed against soldering and cleaning processes
- Optional caps
- RoHS compliant

## Typical Applications

- Networking equipment
- High-end consumer
- Professional instrumentation
- Computer, Server, Modem & Data storage



## Specifications

CONTACT RATING: Max. 0.4 VA (28 V DC or V AC)  
 ELECTRICAL LIFE: 50,000 cycles (FP11 & FP21)  
 10,000 cycles (FP12 & FP22)  
 CONTACT RESISTANCE: (10mA @ 2 V DC) 80 mΩ max. initial  
 INSULATION RESISTANCE: 500MΩ min. @ 500 V DC - 1 minute  
 OPERATING TEMPERATURE: -20°C to 80°C  
 SOLDERABILITY: Per MIL-STD-202F method 208D, or  
 EIA RS-186E method 9  
 PACKAGING:  
 Tray pack - 25 pcs per tray (A1 type terminal)  
 - 100 pcs per tray (C1 type terminal)  
 Caps (optional) - Bulk bag; 100 caps per bag.

## Materials

MOVABLE CONTACTS:  
 Base metal: Phosphor bronze  
 Plating: Gold over nickel plate  
 FIXED CONTACTS:  
 Base metal: Brass  
 Plating: Gold over nickel plate  
 COVER: PA66 - Black  
 ACTUATOR: PPS - Black  
 BASE: PPS - Black  
 SUPPORT BRACKET: Steel with tin plate  
 (A1 type terminal only)

**NOTE:** Specifications and materials listed above are for switches with standard options.  
 For information on specific and custom switches, consult Customer Service Center.

## Build-A-Switch

To order, simply select desired option from each category and place in the appropriate box. Available options are shown and described on pages A-106 thru A-107. For additional options not shown in catalog, consult Customer Service Center.

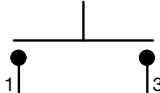
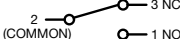
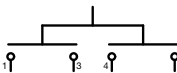
|                        |                         |          |  |          |          |  |          |          |          |          |  |
|------------------------|-------------------------|----------|--|----------|----------|--|----------|----------|----------|----------|--|
|                        | <b>F</b>                | <b>P</b> |  | <b>S</b> | <b>P</b> |  | <b>B</b> | <b>1</b> | <b>T</b> | <b>P</b> |  |
| <b>Designation</b>     |                         |          |  |          |          |  |          |          |          |          |  |
| <b>FP11</b>            | SPST N.O.               |          |  |          |          |  |          |          |          |          |  |
| <b>FP12</b>            | SPDT N.O.               |          |  |          |          |  |          |          |          |          |  |
| <b>FP21</b>            | DPST N.O.               |          |  |          |          |  |          |          |          |          |  |
| <b>FP22</b>            | DPDT N.O.               |          |  |          |          |  |          |          |          |          |  |
| <b>Actuator Length</b> |                         |          |  |          |          |  |          |          |          |          |  |
| <b>SP</b>              | Standard plunger 3.3mm  |          |  |          |          |  |          |          |          |          |  |
| <b>Terminal Style</b>  |                         |          |  |          |          |  |          |          |          |          |  |
| <b>C1</b>              | Vertical                |          |  |          |          |  |          |          |          |          |  |
| <b>A1</b>              | Right Angle             |          |  |          |          |  |          |          |          |          |  |
| <b>Contact Plating</b> |                         |          |  |          |          |  |          |          |          |          |  |
| <b>B1</b>              | Gold over nickel plate  |          |  |          |          |  |          |          |          |          |  |
| <b>Packaging</b>       |                         |          |  |          |          |  |          |          |          |          |  |
| <b>TP</b>              | Tray packaging          |          |  |          |          |  |          |          |          |          |  |
| <b>Cap</b>             |                         |          |  |          |          |  |          |          |          |          |  |
| <b>00</b>              | No cap                  |          |  |          |          |  |          |          |          |          |  |
| <b>01</b>              | White cap - bulk bagged |          |  |          |          |  |          |          |          |          |  |
| <b>02</b>              | Black cap - bulk bagged |          |  |          |          |  |          |          |          |          |  |
| <b>03</b>              | Red cap - bulk bagged   |          |  |          |          |  |          |          |          |          |  |



# FP Series Sealed Ultra Miniature Pushbutton Switches

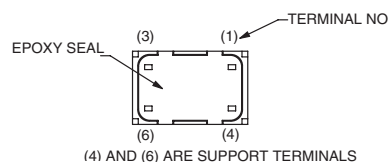
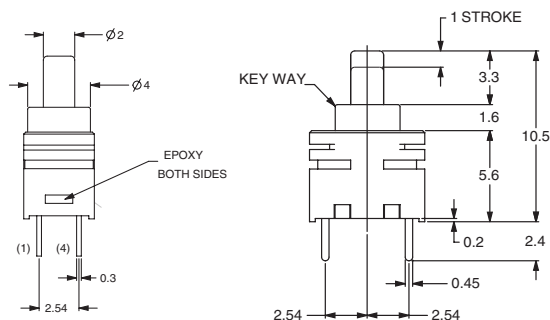
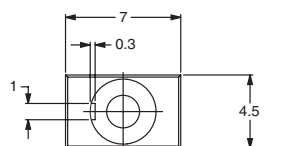
Pushbutton  
A

## SWITCH CIRCUIT

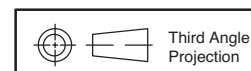
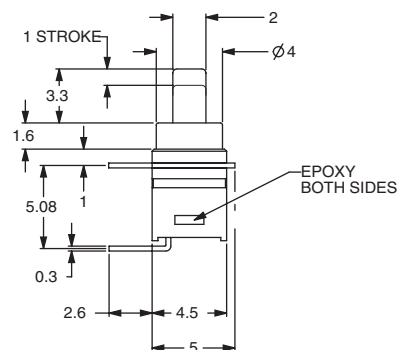
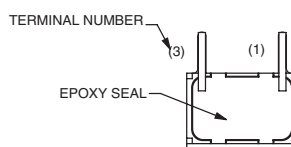
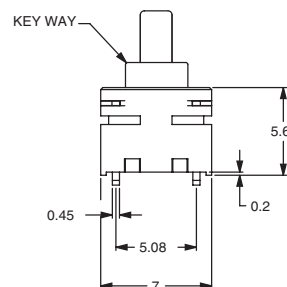
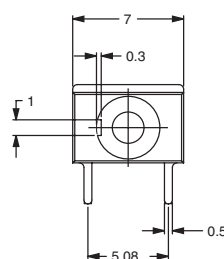
| CIRCUIT | MODEL NO. | SWITCH FUNCTION                                                                   |                                                                                   | SCHEMATIC                                                                          |
|---------|-----------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|------------------------------------------------------------------------------------|
|         |           | POS. 1                                                                            | POS. 2                                                                            |                                                                                    |
|         |           |  |  |                                                                                    |
| SPST    | FP11      | OFF                                                                               | MOM                                                                               |  |
|         |           | CONNECTED TERMINALS                                                               |                                                                                   |                                                                                    |
|         |           | OPEN                                                                              | 1-3                                                                               |                                                                                    |
| SPDT    | FP12      | ON                                                                                | MOM                                                                               |  |
|         |           | CONNECTED TERMINALS                                                               |                                                                                   |                                                                                    |
|         |           | 2-3                                                                               | 2-1                                                                               |                                                                                    |
| DPST    | FP21      | OFF                                                                               | MOM                                                                               |  |
|         |           | CONNECTED TERMINALS                                                               |                                                                                   |                                                                                    |
|         |           | OPEN                                                                              | 1-3,4-6                                                                           |                                                                                    |
| DPDT    | FP22      | ON                                                                                | MOM                                                                               |  |
|         |           | CONNECTED TERMINALS                                                               |                                                                                   |                                                                                    |
|         |           | 2-3,5-6                                                                           | 2-1,5-4                                                                           |                                                                                    |

## TERMINAL STYLE

**C1** VERTICAL



**A1** RIGHT ANGLE



# FP Series Sealed Ultra Miniature Pushbutton Switches

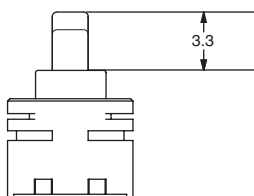


A

Pushbutton

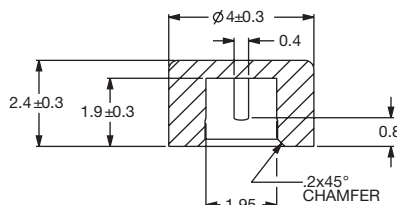
## ACTUATOR LENGTH

**SP** STANDARD PLUNGER 3.3MM



## CAPS

| OPTION CODE | DESCRIPTION            |
|-------------|------------------------|
| <b>00</b>   | NO CAP                 |
| <b>01</b>   | WHITE CAP, BULK BAGGED |
| <b>02</b>   | BLACK CAP, BULK BAGGED |
| <b>03</b>   | RED CAP, BULK BAGGED   |



To purchase Caps separately without switch, please use these part numbers

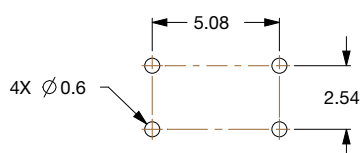
| PART #    | COLOR |
|-----------|-------|
| 798D01000 | WHITE |
| 798D02000 | BLACK |
| 798D03000 | RED   |

## MOUNTING HOLE

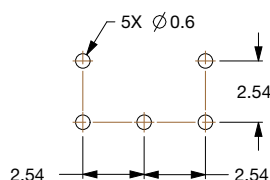
**C1** VERTICAL



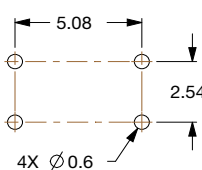
**FP11**



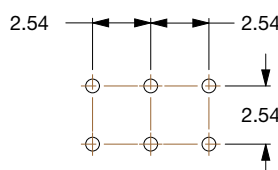
**FP12**



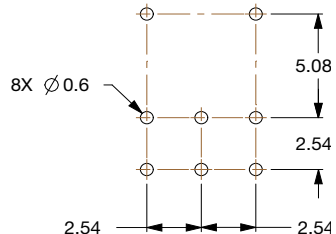
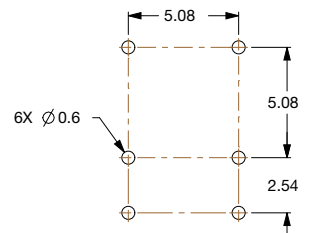
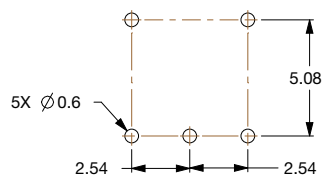
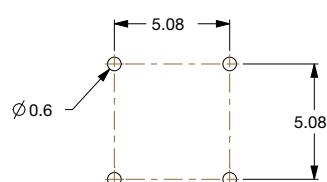
**FP21**



**FP22**



**A1** RIGHT ANGLE



Dimensions are shown: mm  
Specifications and dimensions subject to change

**C&K**

13 Mar 20



Компания «ЭлектроПласт» предлагает заключение долгосрочных отношений при поставках импортных электронных компонентов на взаимовыгодных условиях!

Наши преимущества:

- Оперативные поставки широкого спектра электронных компонентов отечественного и импортного производства напрямую от производителей и с крупнейших мировых складов;
- Поставка более 17-ти миллионов наименований электронных компонентов;
- Поставка сложных, дефицитных, либо снятых с производства позиций;
- Оперативные сроки поставки под заказ (от 5 рабочих дней);
- Экспресс доставка в любую точку России;
- Техническая поддержка проекта, помощь в подборе аналогов, поставка прототипов;
- Система менеджмента качества сертифицирована по Международному стандарту ISO 9001;
- Лицензия ФСБ на осуществление работ с использованием сведений, составляющих государственную тайну;
- Поставка специализированных компонентов (Xilinx, Altera, Analog Devices, Intersil, Interpoint, Microsemi, Aeroflex, Peregrine, Syfer, Eurofarad, Texas Instrument, Miteq, Cobham, E2V, MA-COM, Hittite, Mini-Circuits, General Dynamics и др.);

Помимо этого, одним из направлений компании «ЭлектроПласт» является направление «Источники питания». Мы предлагаем Вам помощь Конструкторского отдела:

- Подбор оптимального решения, техническое обоснование при выборе компонента;
- Подбор аналогов;
- Консультации по применению компонента;
- Поставка образцов и прототипов;
- Техническая поддержка проекта;
- Защита от снятия компонента с производства.



#### Как с нами связаться

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**Факс:** 8 (812) 320-02-42

**Электронная почта:** [org@eplast1.ru](mailto:org@eplast1.ru)

**Адрес:** 198099, г. Санкт-Петербург, ул. Калинина, дом 2, корпус 4, литера А.