

## General Specifications

## FB Series

## SB Series

## Electrical Capacity (Resistive Load)

**Power Level:** 500mA @ 125V AC for silver  
**Logic Level:** 0.4VA max. @ 28V AC/DC max. for gold  
 (Applicable Range 0.1mA ~ 0.1A @ 20mV ~ 28V)  
 Note: Find additional explanation in Supplement section.

3A @ 125V AC or 2A @ 250V AC or  
 2A @ 30V DC for silver  
 0.4VA max. @ 28V AC/DC max. for gold  
 (Applicable Range 0.1mA ~ 0.1A @ 20mV ~ 28V)  
 Note: Find explanation of operating range in Supplement section.

## Other Ratings

**Contact Resistance:** 30 milliohms maximum for silver;  
 30 milliohms maximum for gold  
**Insulation Resistance:** 100 megohms minimum @ 500V DC  
**Dielectric Strength:** 1,000V AC minimum between contacts &  
 between contacts & case for 1 minute minimum  
**Mechanical Life:** 50,000 operations minimum  
**Electrical Life:** 50,000 operations minimum  
**Nominal Operating Force:** 2.16N  
**Travel:** Pretravel .043" (1.1mm)  
 Overtravel .022" (0.57mm)  
 Total Travel .065" (1.67mm)

10 milliohms maximum for silver;  
 20 milliohms maximum for gold  
 200 megohms minimum @ 500V DC  
 1,000V AC minimum between contacts  
 & between contacts & case for 1 minute minimum  
 30,000 operations minimum  
 10,000 operations minimum  
 4.90N  
 Normally Open  
 Total Travel .088" (2.24mm)  
 Normally Closed  
 Total Travel .088" (2.24mm)

## Materials &amp; Finishes

**Plunger:** Polyacetal  
**Bushing:** Brass with nickel plating  
**Case:** Phenolic resin  
**Movable Contact:** Copper with silver or gold plating  
**Stationary Contacts:** Phosphor bronze with silver or gold plating  
**Terminals:** Phosphor bronze with silver or gold plating

Phenolic resin  
 Brass with nickel plating  
 Phenolic resin  
 Copper with silver or gold plating  
 Copper with silver or gold plating  
 Copper with silver or gold plating

## Environmental &amp; Installation Data

**Operating Temp Range:** -10°C through +70°C (+14°F through +158°F)  
**Soldering Time & Temperature:** Manual Soldering:  
 See Profile A in Supplement section.

-10°C through +70°C (+14°F through +158°F)  
 Manual Soldering:  
 See Profile A in Supplement section.

## Standards &amp; Certifications

**UL:** File No. E44145 - Recognized only when ordered with marking on switch.  
 Add "/U" or "/CUL" before dash in part number to order UL recognized switch.  
 Models rated 0.5A @ 125V AC Single pole;  
 Momentary action circuit with solder lug terminations.

**File No. E44145 - Recognized only when ordered with marking on switch.**  
 Add "/U" or "/CUL" before dash in part number to order UL recognized switch.  
 Models rated 3A @ 125V AC & 2A @ 250V AC.  
 Single pole: Momentary action circuit with solder lug terminations.

**CSA:**

**File No. 023535\_0\_000 - Certified only when ordered with marking on switch.**  
 Add "/C" before dash in part number to order CSA certified switch.  
 SB series rated 3A @ 125V AC & 2A @ 250V AC.  
 Single pole: Momentary action circuit with solder lug terminations.

## Distinctive Characteristics

Optional caps in different colors to vary appearance as needed.

Low operating force for ease of actuation.

Rear panel bushing mount with compact behind panel dimension.

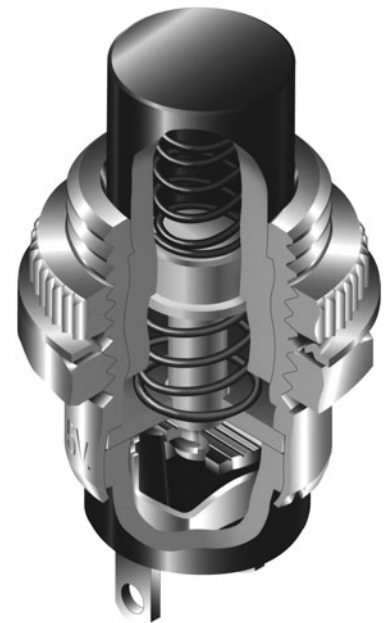
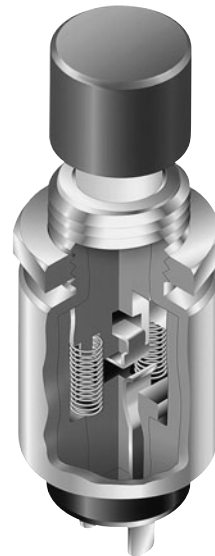
Internal antijamming feature to protect the contacts from damage due to excessive force on the plunger.

Self-cleaning contacts make FB models highly reliable.

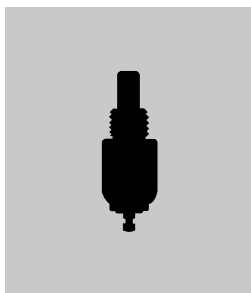
Low cost device of rugged one-piece bushing and housing construction.

Reliability of construction with an internal guide to maintain contact alignment.

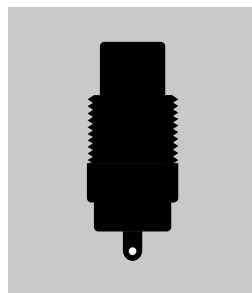
Epoxy sealed terminals.



Actual Size FB



Actual Size SB



FB Bushing Mount

Page C40



SB Bushing Mount

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TYPICAL SWITCH ORDERING EXAMPLE

FB

15AN

EP

2

F

A

| Pole & Circuit  |      |     |      |
|-----------------|------|-----|------|
| 15AN            | SPST | OFF | (ON) |
| ( ) = Momentary |      |     |      |

| Contact Materials & Ratings |                                              |
|-----------------------------|----------------------------------------------|
| 2                           | Silver Contacts<br>500mA @ 125V AC           |
| 4                           | Gold Contacts<br>0.4VA max. @ 28V AC/DC max. |

| Cap Colors |       |
|------------|-------|
| A          | Black |
| B          | White |
| C          | Red   |

| Terminals |                        |
|-----------|------------------------|
| EP        | Epoxy Sealed PC/Turret |
| P         | No Epoxy PC/Turret     |

**IMPORTANT:**

Switches are supplied without UL & cULus marking unless specified.  
**UL & cULus recognized only when ordered with marking on the switch.**  
Specific models, ratings, & ordering instructions are noted on General Specifications page.

| Caps |                    |
|------|--------------------|
| F    | .201" (5.1mm) Dia. |
| H    | .295" (7.5mm) Dia. |

DESCRIPTION FOR TYPICAL ORDERING EXAMPLE

FB15ANEP2-FA

.201" (5.1mm) Diameter  
Black Cap

Silver Contacts &  
500-Milliamp Rating



SPST  
OFF-(ON) Circuit

Epoxy Sealed  
PC/Turret Terminals

POLE & CIRCUIT

|      |        | Plunger Position<br>( ) = Momentary |      | Connected Terminals |      | Throw & Switch Schematics                                                                                                                       |
|------|--------|-------------------------------------|------|---------------------|------|-------------------------------------------------------------------------------------------------------------------------------------------------|
| Pole | Model  | Normal                              | Down | Normal              | Down | Note: Terminal numbers are not actually on the switch.<br> |
| SP   | FB15AN | OFF                                 | (ON) | OPEN                | 1-2  |                                                                                                                                                 |

## TERMINALS

**EP** Epoxy Sealed  
PC/Turret Terminals

**P** No Epoxy  
PC/Turret Terminals

## CONTACT MATERIALS & RATINGS

**2** Silver Contacts

Power Level

500mA @ 125V AC

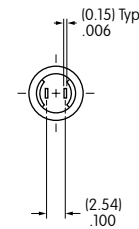
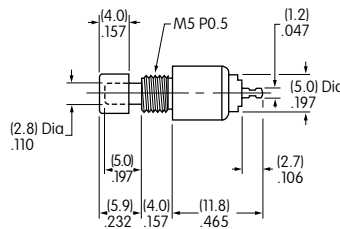
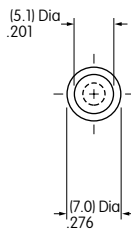
**4** Gold Contacts

Logic Level

0.4VA maximum @ 28V AC/DC maximum

Complete explanation of operating range in Supplement section.

## TYPICAL SWITCH DIMENSIONS



PC/Turret



Plunger is white polyacetal.

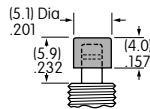
**FB15ANEP2-FA**

## SLIP-ON CAPS & COLORS

**F** AT475  
.201" (5.1mm) Diameter

Material: Polyamide

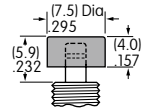
Finish: Glossy



**H** AT496  
.295" (7.5mm) Diameter

Material: Polyamide

Finish: Glossy



Colors Available:

**A** Black

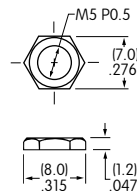
**B** White

**C** Red

## STANDARD HARDWARE & PANEL CUTOUT

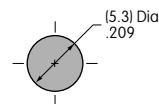
**AT536 Hex Nut**

Material:  
Brass with nickel plating

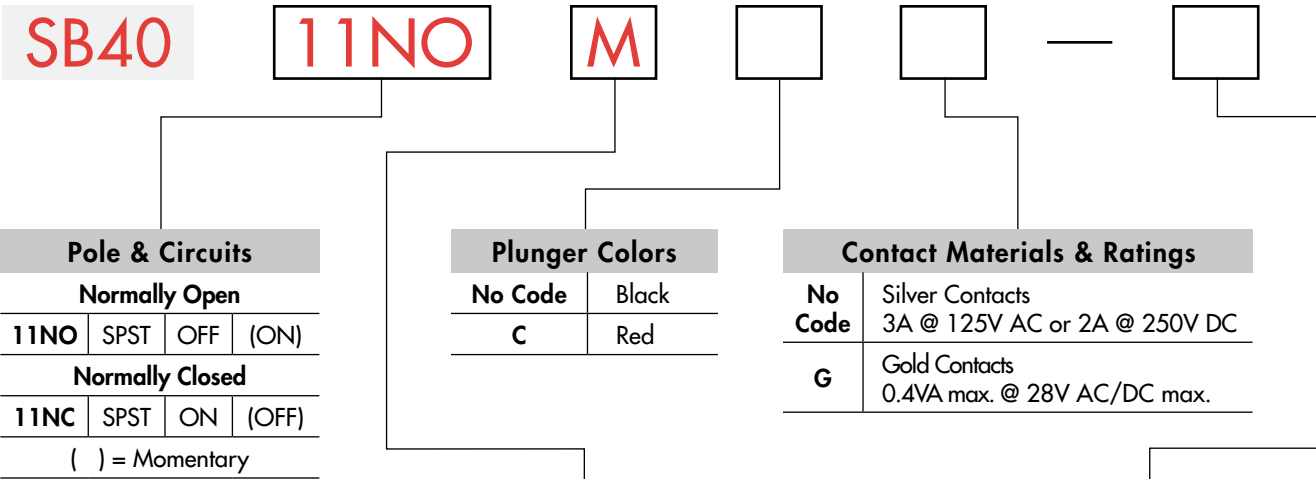


Panel Thickness:

.110" (2.8mm) maximum



TYPICAL SWITCH ORDERING EXAMPLE



| Bushings |                           |
|----------|---------------------------|
| M        | Metric Threaded M12 P1    |
| H        | Inch Threaded 15/32-32 NS |

| Slip-On Cap & Colors |             |
|----------------------|-------------|
| No Code              | Without Cap |
| 2A                   | Black       |
| 2B                   | White       |
| 2C                   | Red         |
| 2E                   | Yellow      |
| 2F                   | Green       |
| 2G                   | Blue        |

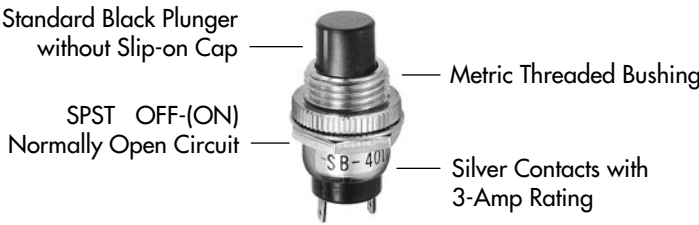
IMPORTANT:



Switches are supplied without UL, cULus & CSA marking unless specified.  
**UL, cULus & CSA recognized only when ordered with marking on the switch.**  
Specific models, ratings, & ordering instructions are noted on General Specifications page.

DESCRIPTION FOR TYPICAL ORDERING EXAMPLE

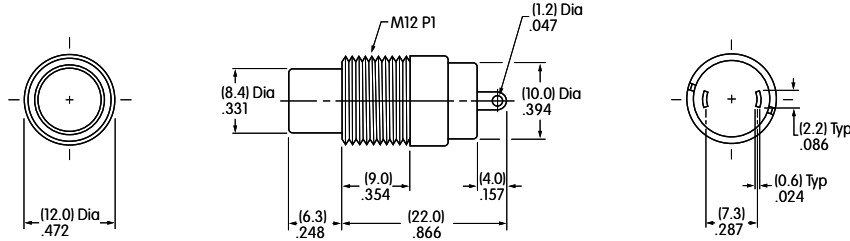
SB4011NOM



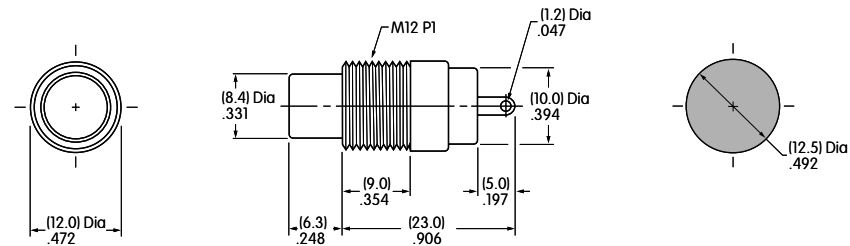
POLE & CIRCUITS

|      |          | Plunger Position<br>( ) = Momentary |       | Connected Terminals |      | Throw & Switch Schematics                              |
|------|----------|-------------------------------------|-------|---------------------|------|--------------------------------------------------------|
| Pole | Model    | Normal                              | Down  | Normal              | Down | Note: Terminal numbers are not actually on the switch. |
|      |          |                                     |       |                     |      |                                                        |
| SP   | SB4011NO | OFF                                 | (ON)  | OPEN                | 1-2  |                                                        |
|      | SB4011NC | ON                                  | (OFF) | 1-2                 | OPEN |                                                        |

## TYPICAL SWITCH DIMENSIONS



**SB4011NOM**



**SB4011NCM**

Panel Thickness:  
.157" (4.0mm)

Hardware provided:  
1 AT504 Knurled Face Nut  
1 AT508 Lockwasher  
1 AT527M Hex Mounting Nut

Details in Hardware &  
Accessories section.

### Metric Bushing



**SB4011NOM**

### Inch Bushing



**SB4011NCH**

Hardware provided:  
2 AT503H Hex Mounting Nuts  
1 AT508 Lockwasher

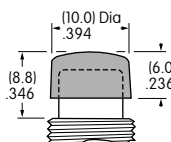
Details in Hardware &  
Accessories section.

Panel Thickness:  
.157" (4.0mm)

## SLIP-ON CAP & COLORS

**AT422**  
.394" (10.0mm) Diameter Cap

Material: Polyethylene  
Finish: Matte



**2A**

Black

**2C**

Red

**2F**

Green

**2B**

White

**2E**

Yellow

**2G**

Blue

Компания «Life Electronics» занимается поставками электронных компонентов импортного и отечественного производства от производителей и со складов крупных дистрибьюторов Европы, Америки и Азии.

С конца 2013 года компания активно расширяет линейку поставок компонентов по направлению коаксиальный кабель, кварцевые генераторы и конденсаторы (керамические, пленочные, электролитические), за счёт заключения дистрибьюторских договоров

Мы предлагаем:

- Конкурентоспособные цены и скидки постоянным клиентам.
- Специальные условия для постоянных клиентов.
- Подбор аналогов.
- Поставку компонентов в любых объемах, удовлетворяющих вашим потребностям.
- Приемлемые сроки поставки, возможна ускоренная поставка.
- Доставку товара в любую точку России и стран СНГ.
- Комплексную поставку.
- Работу по проектам и поставку образцов.
- Формирование склада под заказчика.
- Сертификаты соответствия на поставляемую продукцию (по желанию клиента).
- Тестирование поставляемой продукции.
- Поставку компонентов, требующих военную и космическую приемку.
- Входной контроль качества.
- Наличие сертификата ISO.

В составе нашей компании организован Конструкторский отдел, призванный помогать разработчикам, и инженерам.

Конструкторский отдел помогает осуществить:

- Регистрацию проекта у производителя компонентов.
- Техническую поддержку проекта.
- Защиту от снятия компонента с производства.
- Оценку стоимости проекта по компонентам.
- Изготовление тестовой платы монтаж и пусконаладочные работы.



Тел: +7 (812) 336 43 04 (многоканальный)

Email: [org@lifeelectronics.ru](mailto:org@lifeelectronics.ru)

[www.lifeelectronics.ru](http://www.lifeelectronics.ru)