

# General Specifications

## Electrical Capacity (Resistive Load)

**Logic Level:** 0.4VA maximum @ 28V AC/DC maximum  
(Applicable Range 0.1mA ~ 0.1A @ 20mV ~ 28V)  
Note: Find additional explanation of operating range in Supplement section.

## Other Ratings

**Contact Resistance:** 50 milliohms maximum  
**Insulation Resistance:** 500 megohms minimum @ 500V DC  
**Dielectric Strength:** 500V AC minimum for 1 minute minimum  
**Mechanical Life:** 50,000 operations minimum  
**Electrical Life:** 50,000 operations minimum  
**Nominal Operating Force:** 2.55N  
**Contact Timing:** Nonshorting (break-before-make)  
**Travel:** Pretravel: .082" (2.1mm); Overtravel: .016" (0.4mm); Total Travel: .098" (2.5mm)

## Materials & Finishes

**Actuator:** Glass fiber reinforced polyamide  
**Upper Case Housing:** Carbon blended polyacetal (antistatic)  
**Lower Case Housing:** Glass fiber reinforced polyamide  
**Support Bracket:** Tin plated phosphor bronze  
**Movable Contact:** Phosphor bronze with gold plating  
**Stationary Contacts:** Brass with gold plating  
**Terminals:** Brass with gold plating

## Environmental Data

**Operating Temperature Range:** -30°C through +85°C (-22°F through +185°F)  
**Humidity:** 90 ~ 95% humidity for 192 hours @ 40°C (104°F)  
**Vibration:** 10 ~ 60Hz with peak-to-peak amplitude of 1.5mm traversing the frequency range & returning in 5 minutes; 3 right angled directions for 30 minutes  
**Shock:** 50G (490m/s<sup>2</sup>) acceleration (tested in 6 right angled directions, with 5 shocks in each direction)

## PCB Processing

**Soldering:** Wave Soldering Recommended. See Profile A in Supplement section.  
Manual Soldering: for single pole see Profile B in Supplement section; for double pole see Profile A.  
**Cleaning:** These devices are not process sealed. Hand clean locally using alcohol based solution.

## Standards & Certifications

The A Series slides have not been tested for UL recognition or CSA certification. These switches are designed for use in a low-voltage, low-current, logic-level circuit. When used as intended in a logic-level circuit, the results do not produce hazardous energy.

# Distinctive Characteristics

Subminiature size (1/3 size of Series M switches) saves space on PC boards.

Specifically developed for logic-level applications.

Award-winning STC contact mechanism with benefits unavailable in conventional mechanisms: smoother, positive detent actuation, increased contact stability and unparalleled logic-level reliability. (Additional STC details in Terms & Acronyms; see Supplement section.)

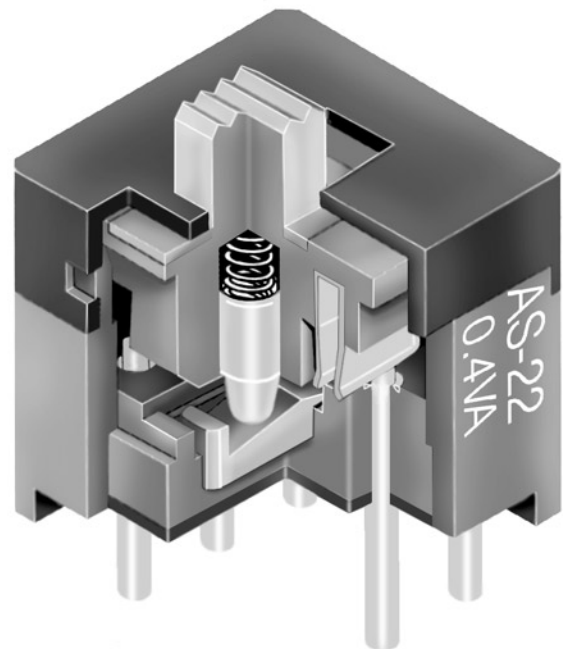
Available in various actuator lengths.

Antistatic superstructure of carbon blended polyacetal prevents static discharge to the contacts.

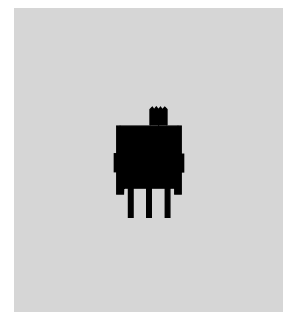
Molded-in, epoxy sealed or ultrasonically welded terminals lock out flux, solvents, and other contaminants.

.100" x .100" (2.54mm x 2.54mm) terminal spacing conforms to standard PC board grid spacing.

Matching indicators available.



Actual Size



## TYPICAL SWITCH ORDERING EXAMPLE

**AS**      **2**      **2**      **A**      **H**

| Poles |              | Circuits |    |      |     | Actuators |                    | PC Terminals |                          |
|-------|--------------|----------|----|------|-----|-----------|--------------------|--------------|--------------------------|
| 1     | SPST<br>SPDT | 1        | ON | NONE | OFF | A         | .098" (2.5mm) Long | P            | Straight                 |
| 2     | DPDT<br>SP3T | 2        | ON | NONE | ON  | B         | Flush              | *B           | Straight with Bracket    |
|       |              | 3        | ON | OFF  | ON  | C         | .150" (3.8mm) Long | *H           | Right Angle with Bracket |
|       |              | 4        | ON | ON   | ON  |           |                    | *V           | Vertical with Bracket    |

\*Bracketed models are ESD protected

### DESCRIPTION FOR TYPICAL ORDERING EXAMPLE

**AS22AH**

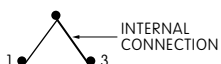

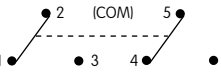
DPDT  
ON-NONE-ON Circuit

.098" (2.5mm) Long  
Actuator



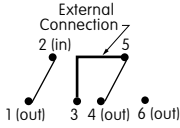
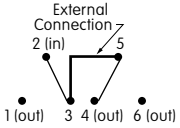
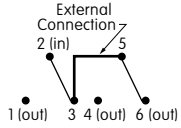
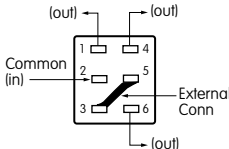
Right Angle PC Terminals

## POLES & CIRCUITS

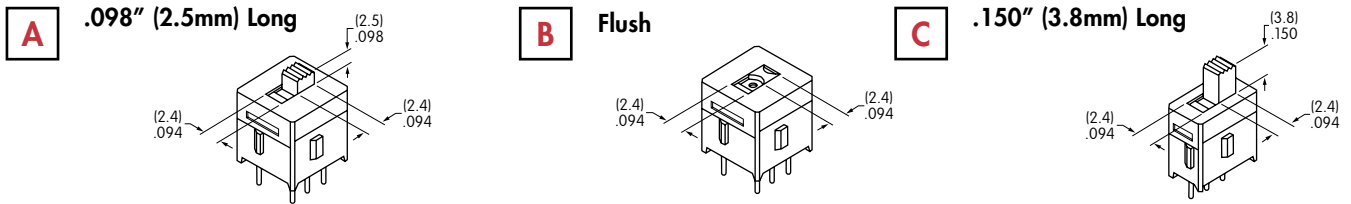
| Pole | Model        | Slide Position |             |          | Connected Terminals |              |                    | Throw & Schematics   |
|------|--------------|----------------|-------------|----------|---------------------|--------------|--------------------|--|
|      |              | Left           | Center      | Right    | Left                | Center       | Right              |  |
| SP   | AS11         | ON             | NONE        | OFF      | 3-1                 | OPEN         | OPEN               | SPST  |
| SP   | AS12<br>AS13 | ON<br>ON       | NONE<br>OFF | ON<br>ON | 2-1<br>2-1          | OPEN<br>OPEN | 2-3<br>2-3         | SPDT  |
| DP   | AS22<br>AS23 | ON<br>ON       | NONE<br>OFF | ON<br>ON | 2-1 5-4<br>2-1 5-4  | OPEN<br>OPEN | 2-3 5-6<br>2-3 5-6 | DPDT  |

Note: Terminal numbers are not actually on the switch.

### For 3 Throw (3-On)

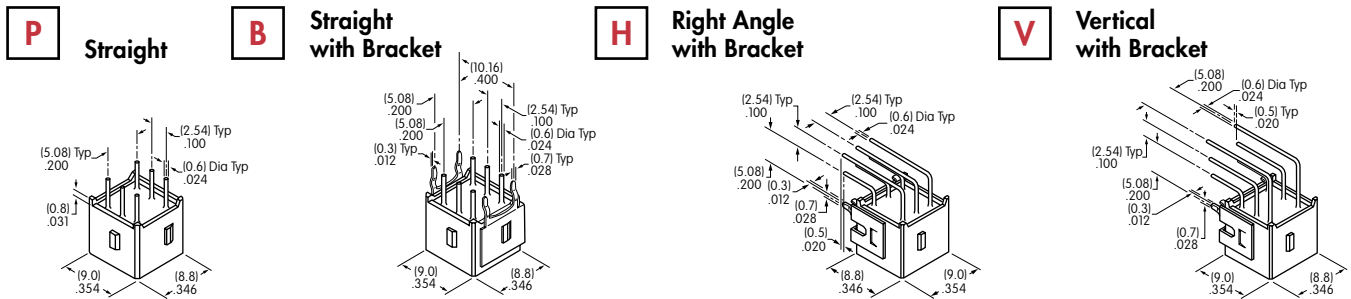
| Pole | Model | Connected Terminals & Schematics   |  |   | External Connection   |
|------|-------|--|--|---|---|
|      |       | Left   | Center   | Right   |   |
| SP   | AS24  | ON<br><br>2-1 5-4 | ON<br><br>2-3 5-4 | ON<br><br>2-3 5-6 | The SP3T model utilizes a double pole base.<br><br>External connections must be made during field installation.  |

## ACTUATORS



Actuator Color: Gray standard; contact factory for other colors.

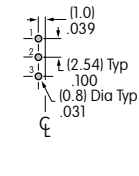
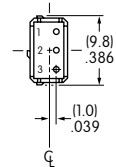
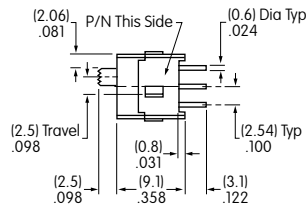
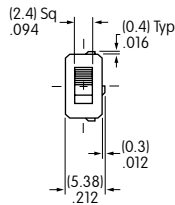
## PC TERMINALS



Use of a support bracket is recommended to increase PCB mounting strength and stability.

## TYPICAL SWITCH DIMENSIONS

### Single Pole



Actuator shown in LEFT position

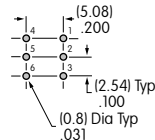
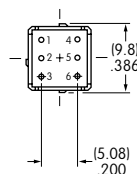
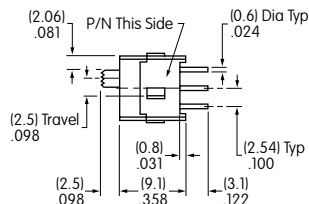
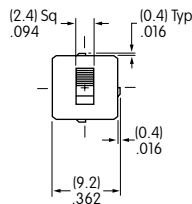
Single throw models do not have terminal 2.

### Straight PC



AS12AP

### Double Pole



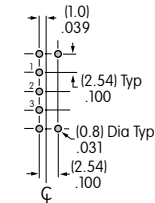
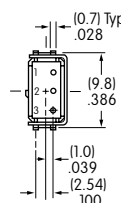
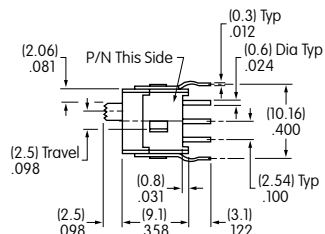
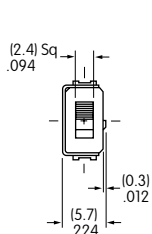
Actuator shown in LEFT position

### Straight PC



AS22AP

### Single Pole



Actuator shown in LEFT position

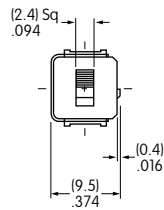
### Straight PC • Bracket



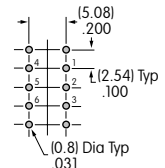
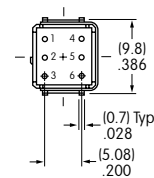
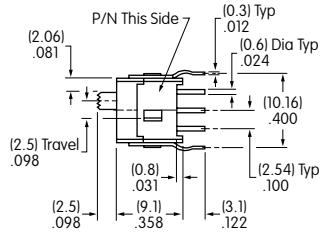
AS12AB

## TYPICAL SWITCH DIMENSIONS

### Straight PC • Bracket



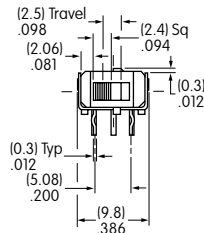
### Double Pole



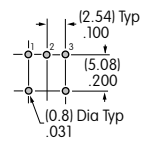
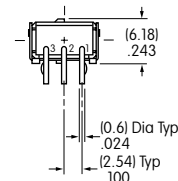
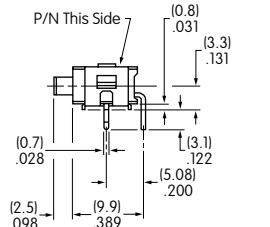
AS22AB

Actuator shown in LEFT position

### Right Angle PC



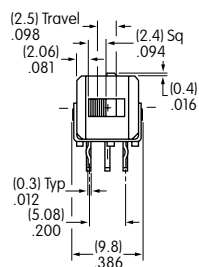
### Single Pole



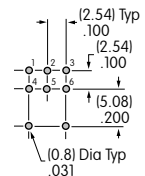
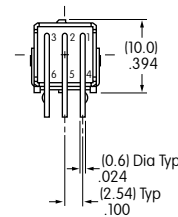
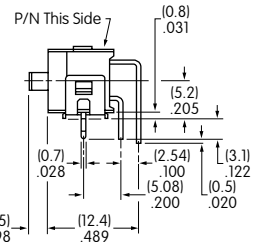
AS12AH

Actuator shown in LEFT position

### Right Angle PC



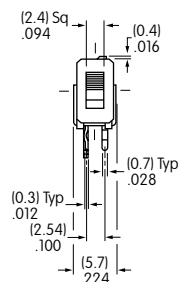
### Double Pole



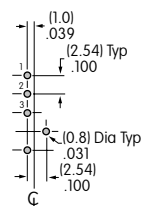
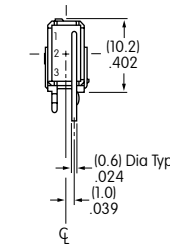
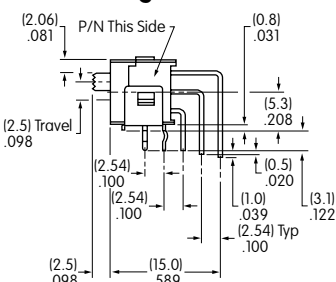
AS22AH

Actuator shown in LEFT position

### Vertical PC



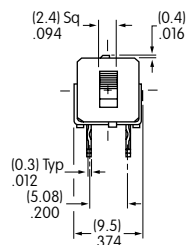
### Single Pole



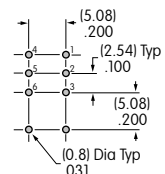
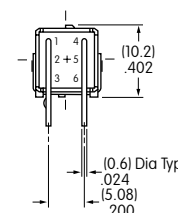
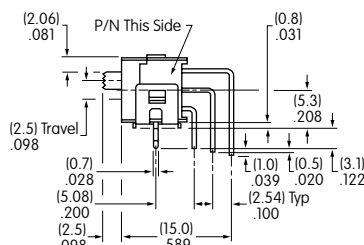
AS12AV

Actuator shown in LEFT position

### Vertical PC



### Double Pole



AS22AV

Actuator shown in LEFT position

## Данный компонент на территории Российской Федерации

### Вы можете приобрести в компании MosChip.

Для оперативного оформления запроса Вам необходимо перейти по данной ссылке:

<http://moschip.ru/get-element>

Вы можете разместить у нас заказ для любого Вашего проекта, будь то серийное производство или разработка единичного прибора.

В нашем ассортименте представлены ведущие мировые производители активных и пассивных электронных компонентов.

Нашей специализацией является поставка электронной компонентной базы двойного назначения, продукции таких производителей как XILINX, Intel (ex.ALTERA), Vicor, Microchip, Texas Instruments, Analog Devices, Mini-Circuits, Amphenol, Glenair.

Сотрудничество с глобальными дистрибьюторами электронных компонентов, предоставляет возможность заказывать и получать с международных складов практически любой перечень компонентов в оптимальные для Вас сроки.

На всех этапах разработки и производства наши партнеры могут получить квалифицированную поддержку опытных инженеров.

Система менеджмента качества компании отвечает требованиям в соответствии с ГОСТ Р ИСО 9001, ГОСТ РВ 0015-002 и ЭС РД 009

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