# 1000 Series
# Miniature Slide Switches

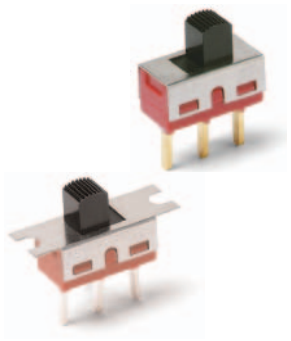
## *Features/Benefits*

- ***Variety of actuators and terminations***
- ***Panel mount tabs available***
- ***Epoxy terminal seal—compatible with bottom-wash cleaning***
- ***RoHS compliant***

Models Available

## *Typical Applications*

- ***Test & measurement equipment***
- ***Telecommunications***
- ***Computer & peripherals***





## Specifications

CONTACT RATING: B contact material: 0.4 VA max. @ 20 V AC or DC max. Q contact material: 6 AMPS @ 120 V AC or 28 V DC, 3 AMPS @ 250 V AC. See page I-15 for additional ratings.

ELECTRICAL LIFE: 100,000 make-and-break cycles at full load on models with B, K or P contact material; 40,000 cycles on models with G, Q, L, M, S or R contact material.

CONTACT RESISTANCE: Below 10 m Ω typ. initial @ 2-4 V DC, 100 mA, for both silver and gold plated contacts.

INSULATION RESISTANCE: $10^9$ Ω min.

DIELECTRIC STRENGTH: 1,000 Vrms min. @ sea level.

OPERATING TEMPERATURE: –30°C to 65°C

SOLDERABILITY: Per MIL-STD-202F method 208D, or EIA RS-186E method 9 (1 hour steam aging).

## Materials

CASE: diallyl phthalate (DAP), (UL 94V-0).

ACTUATOR: Nylon, black, standard.

HOUSING: Stainless steel.

SWITCH SUPPORT: Brass or steel, matte-tin plated.

END CONTACTS: B contact material: Copper alloy, with gold plate over nickel plate. Q contact material: Coin silver, silver plated. See page I-16 for additional contact materials.

CENTER CONTACT & ALL TERMINALS: B contact material: Copper alloy, with gold plate over nickel plate. Q contact material: Copper alloy, silver plated. See page I-16 for additional contact materials.

TERMINAL SEAL: Epoxy. Refer to Soldering and Cleaning in Technical Data chapter

**NOTE:** Any models supplied with Q, B, G, P, S or R contact material are RoHS compliant.

**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 I–12 through I–16. For additional options not shown in catalog, consult Customer Service Center. All models have epoxy terminal seal and are compatible with all "bottom-wash" PCB cleaning methods.

**Switch Function**
- **1101** SP On-None-On
- **1103** SP On-Off-On
- **1108** SP Mom-None-On
- **1201** DP On-None-On
- **1203** DP On-Off-On

**Mounting Style**
- **M2** PC mount without tabs
- **M1** Panel mount with tabs

**Actuator**
- **S3** .200" high
- **S1** .040" high
- **S2** .140" high
- **S4** .285" high
- **S5** .370" high
- **S6** .485" high
- **T3** .200" high

**Terminations**
- **A** Right angle, PC thru-hole
- **C** PC Thru-hole
- **AV2** Vertical right angle, PC thru-hole
- **Z** Solder lug
- **V3** V-bracket
- **V4** V-bracket
- **W** .750" long, wire wrap
- **Z3** Quick connect

**Contact Material**
- **B** Gold
- **Q** Silver
- **G** Gold over silver
- **P** Gold, matte-tin
- **S** Silver, matte-tin
- **R** Gold over silver, matte-tin

**Seal**
- **E** Epoxy
- **D** No epoxy seal
- **I** Epoxy potted base

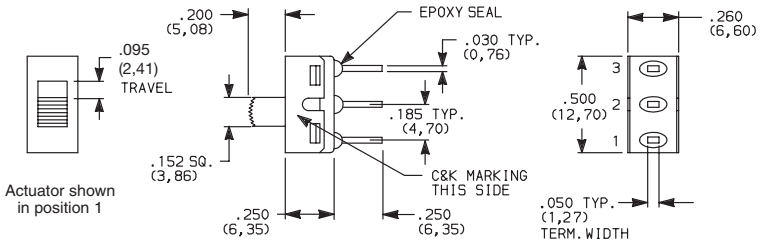
**Actuator Color**
- **2** Black
- **1** White
- **3** Red

# 1000 Series
# Miniature Slide Switches

## SWITCH FUNCTION

| NO. POLES | MODEL NO. | SWITCH FUNCTION POS. 1 | SWITCH FUNCTION POS. 2 | SWITCH FUNCTION POS. 3 | CONNECTED TERMINALS POS. 1 | CONNECTED TERMINALS POS. 2 | CONNECTED TERMINALS POS. 3 | SCHEMATIC |
|---|---|---|---|---|---|---|---|---|
| SP | 1101 | ON | NONE | ON | 1-2 | N/A | 2-3 | SPDT |
| | 1103 | ON | OFF | ON | | OPEN | | |
| | 1108 | MOM. | NONE | ON | | N/A | | |

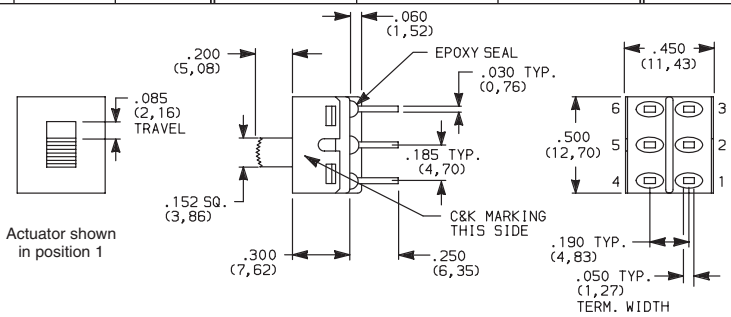
**SPDT**




Part number shown: 1101M2S3CQE2

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| DP | 1201 | ON | NONE | ON | 2-1,5-4 | OPEN | 2-3,5-6 | DPDT |
| | 1203 | ON | OFF | ON | | | | |

**DPDT**



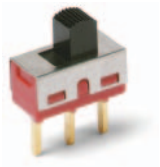

Part number shown: 1201M2S3CQE2

MOM. = Momentary

All models cULus with all options when ordered with G, Q, S or R contact material.

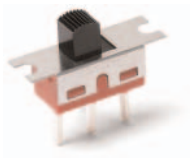
## MOUNTING STYLE

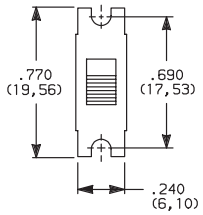
**M2** PC MOUNTING WITHOUT TABS



**NOTE:** Available with A, AV2, C, V3, V4, W terminations only.

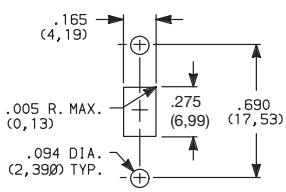
**M1** PANEL MOUNTING WITH TABS



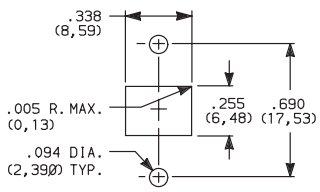



**NOTE:** Available with C, W, Z, Z3 terminations only.
No mounting hardware supplied.

**PANEL MOUNTING**




All actuators except T3.
Single pole




For T3 actuator only.
Double pole

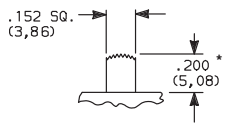
Third Angle Projection

*Dimensions are shown: Inch (mm)*
*Specifications and dimensions subject to change*

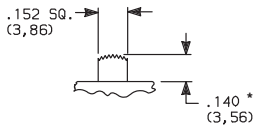
## ACTUATOR

ACTUATOR COLOR
ACTUATOR

### S3 .200" HIGH

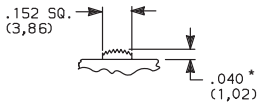



### S2 .140" HIGH



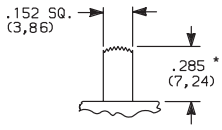

110X models only.

### S1 .040" HIGH

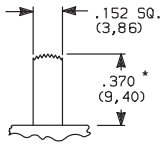



120X models only.

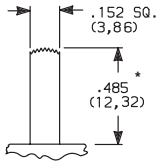
### S4 .285" HIGH



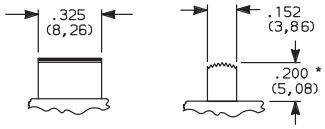

### S5 .370" HIGH




### S6 .485" HIGH




### T3 .200" HIGH




120X models only.

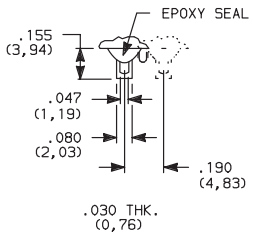
| OPTION CODE | ACTUATOR COLOR |
|---|---|
| 2 | BLACK |
| 1 | WHITE |
| 3 | RED |
| 7 | BLUE |
| 9 | GRAY |

Other colors available,
consult Customer Service Center.

* Subtract .014 (0,36) from actuator height, all models with A, AV2 - 2 pole, V3, V4 terminations.

## TERMINATIONS

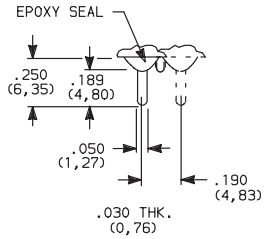
### Z SOLDER LUG



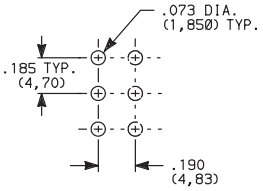

Not available with P, S or R contact materials.

**SPDT & DPDT**

### C PC THRU-HOLE

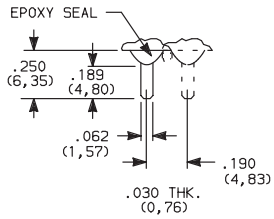



**PC MOUNTING**




**SPDT & DPDT**

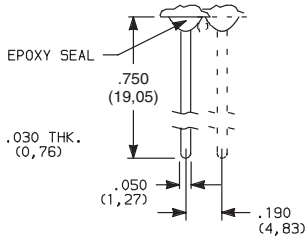
### Z3 QUICK CONNECT




Not available with P, S or R contact materials. Mating quick connector available; order part number 530100000, page I-16.

**SPDT & DPDT**

### W WIRE WRAP




**SPDT & DPDT**

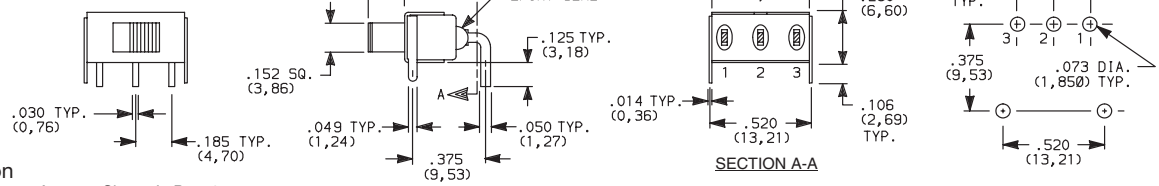
Third Angle Projection

*Dimensions are shown: Inches (mm)*
*Specifications and dimensions subject to change*

## TERMINATIONS

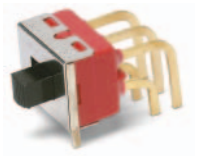
### A RIGHT ANGLE, PC THRU-HOLE

1101M2S3ABE2
Horizontal Actuation
**SPDT**

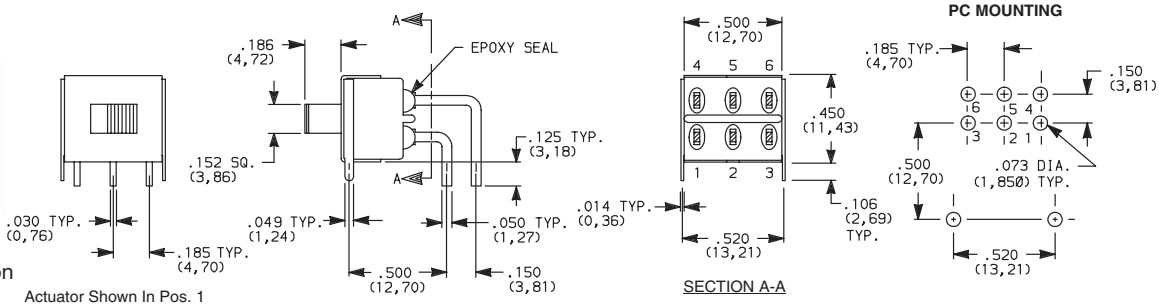



Not available with M1 mounting style, I seal option.
Terminal bend radii and lead-in manufacturing option.

### A RIGHT ANGLE, PC THRU-HOLE

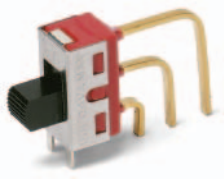


1201M2S3ABE2
Horizontal Actuation
**DPDT**

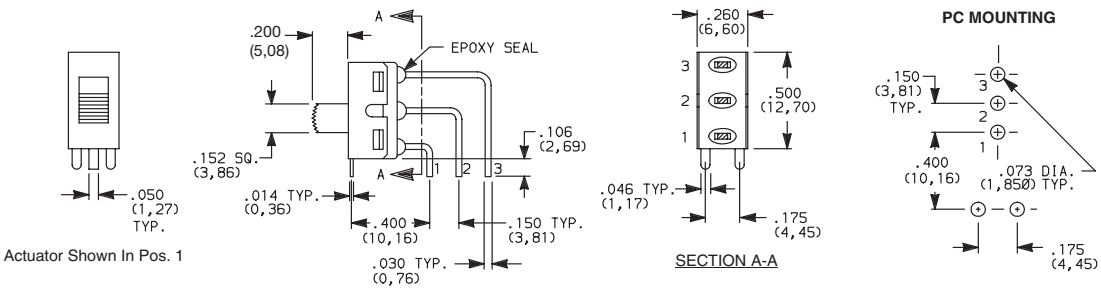



Not available with M1 mounting style, I seal option.
Terminal bend radii and lead-in manufacturing option.

### AV2 VERTICAL RIGHT ANGLE, PC THRU-HOLE, .150" PITCH



1101M2S3AV2BE2
Vertical Actuation
**SPDT**



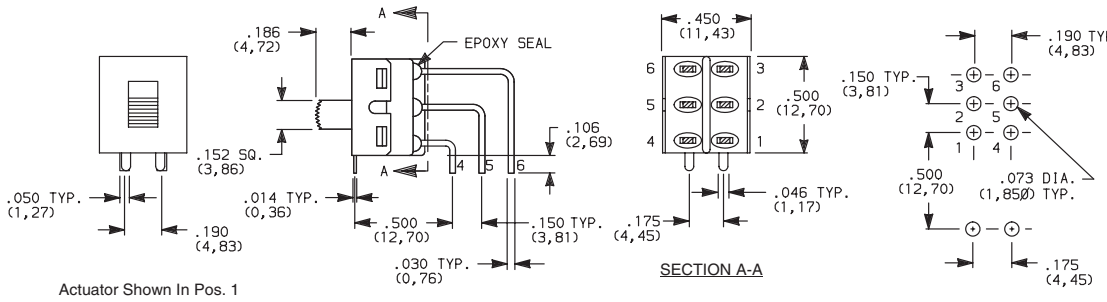

Not available with M1 mounting style, I seal option.
Terminal bend radii and lead-in manufacturing option.

Third Angle Projection

*Dimensions are shown: Inch (mm)*
*Specifications and dimensions subject to change*

## TERMINATIONS

### AV2 VERTICAL RIGHT ANGLE, PC THRU-HOLE, .150" PITCH



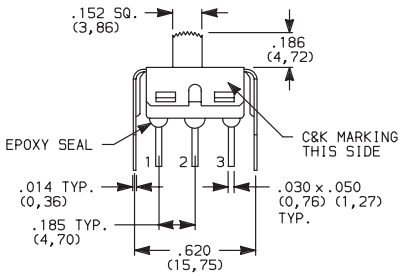

Actuator Shown In Pos. 1

1201M2S3AV2BE2
Vertical Actuation
**DPDT**

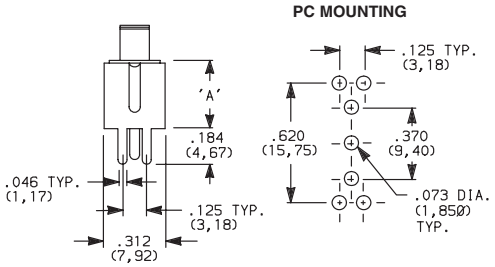
Not available with M1 mounting style, I seal option.
Terminal bend radii and lead-in manufacturing option.

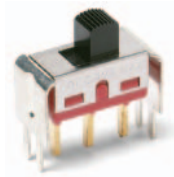
### V3, V4 VERTICAL MOUNT, V-BRACKET

| OPTION CODE | DIM 'A' |
|---|---|
| V3 | .350 (8,89) |
| V4 | .525 (13,34) |




Actuator Shown In Pos. 1



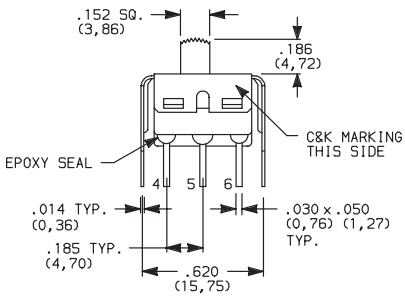



1101M2S3__BE2
**SPDT**

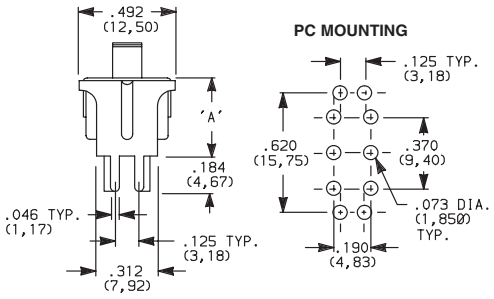
Not available with
M1 mounting style and I seal.

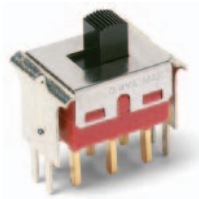
### V3, V4 VERTICAL MOUNT, V-BRACKET

| OPTION CODE | DIM 'A' |
|---|---|
| V3 | .400 (10,16) |
| V4 | .575 (14,61) |




Actuator Shown In Pos. 1



1201M2S3__BE2
**DPDT**

Not available with
M1 mounting style and I seal.



Third Angle Projection

*Dimensions are shown: Inches (mm)*
*Specifications and dimensions subject to change*

# 1000 Series
# Miniature Slide Switches

## CONTACT MATERIAL

| OPTION CODE | CONTACT MATERIAL | TERMINAL PLATING | RATINGS | |
|---|---|---|---|---|
| B | GOLD [1] | GOLD [3] | LOW LEVEL/ DRY CIRCUIT | 0.4 VA MAX. @ 20 V AC OR DC MAX. |
| P | | MATTE-TIN [6] | | |
| Q | SILVER [4,5] | GOLD [3] | POWER | 6 AMPS @ 120 V AC OR 28 V DC; 3 AMPS @ 250 V AC. |
| S | | MATTE-TIN [6] | | |
| G | GOLD OVER SILVER [2,3] | GOLD [3] | LOW LEVEL/DRY CIRCUIT OR POWER | 0 4 VA MAX @ 20 V AC OR DC MAX OR 6 AMPS @ 120 V AC OR 0.4 MAX. 28 V DC; 3 AMPS @ 250 V AC. |
| R | | MATTE-TIN [6] | | |

* Note: See Technical Data section of this catalog for RoHS compliant and compatible definitions and specifications.

[1] CONTACTS & TERMINALS: Copper alloy, with gold plate over nickel plate.

[2] END CONTACTS: Coin silver, with gold plate over nickel plate.

[3] CENTER CONTACTS & ALL TERMINALS: Copper alloy, with gold plate over nickel plate.

[4] END CONTACTS: Coin silver, silver plated.

[5] CENTER CONTACT & ALL TERMINALS: Copper alloy, silver plated.

[6] TERMINALS: Copper alloy, with matte-tin over nickel plate.

All models c UL us with all options when ordered with G, Q, S or R contact material.

B contact material standard with all terminations except C, Z, Z3..

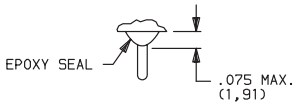
Q contact material standard with C, Z, Z3 terminations.

P, S or R contact materials not available with Z, Z3 terminations.

**NOTE:** Any models supplied with Q, B, G, P, S or R contact material are RoHS compliant.

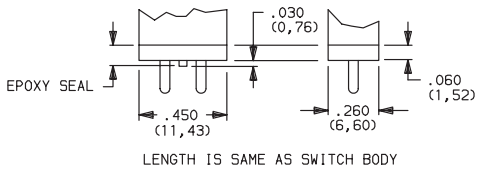
## SEAL

**E** EPOXY SEAL




**D** NO EPOXY SEAL

**I** EPOXY POTTED BASE




**NOTE:** Available with C, W, W3, Z, Z3 terminations only.

## AVAILABLE HARDWARE

**Fits Z3 Termination female connector**

**PART NO.**

530100000

Available in loose pieces.

Third Angle Projection

*Dimensions are shown: Inch (mm)*
*Specifications and dimensions subject to change*