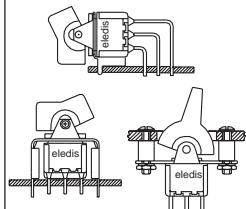




SERIES 3A

• Miniature Rocker & Paddle switches



AGENCY APPROVALS



CHARACTERISTICS

- The most comprehensive range of terminations, brackets, toggle sizes and bushings.
- Diallyl phthalate case and stainless steel housing.

SPECIFICATIONS

Contact Rating: **S** (silver) - 5A with resistive load @ 125 VAC or 28 VDC - 2A with resistive load @ 250 VAC - **A** (gold) or **K*** (gold/tin-lead) - 0.4 VA max @ 20 VAC or DC max
Electrical life: 50,000 cycles at full load
Contact Resistance: 10 mΩ max. initial @ 2-4 DVC; 100 mA for both coin silver and gold plated contacts
Insulation Resistance: 1000 MΩ min.
Dielectric Strength: 1500 VRMS @ sea level
Operating Temperature: -30°C to 85°C

MATERIALS

Case: diallyl phthalate (DAP)
Rockers: Nylon
Bushing: Brass, nickel plated
Terminal/Switch support: 3/4 brass electrotin plated
Contacts: Coin silver, silver plated
Center Contact & Terminals: Copper alloy, silver plated
Housing: Stainless steel

HOW TO ORDER



N° OF POLES

- | | |
|---|------|
| 1 | SPDT |
| 2 | DPDT |
| 3 | 3PDT |
| 4 | 4PDT |

ELECTRICAL FUNCTIONS

| 1 | on | none | on |
|---|------|------|------|
| 2 | on | none | (on) |
| 3 | on | off | on |
| 4 | (on) | off | (on) |
| 5 | on | off | (on) |
| 6 | on | on | on |

CONTACT MATERIAL

- | | |
|-------------|-----------------------|
| S | Silver (std) |
| A | Gold |
| G | Gold on silver |
| T(Δ) | Tinned silver |
| K(Δ) | Tinned gold |
| V(Δ) | Tinned gold on silver |

COLOUR CODE FOR ACTUATORS AND BEZELS

- | | |
|-------|-------------|
| 1 | White |
| 2 | Black (std) |
| 3 | Red |
| 4 (Δ) | Orange |
| 5 (Δ) | Yellow |
| 6 (Δ) | Green |
| 7 (Δ) | Blue |
| 8 (Δ) | Brown |
| 9 (Δ) | Gray |

ACTUATORS

| | | Snap-in mount | Frame | LED holder |
|-----------|--------------------|---------------|-------|------------|
| BF | Rocker | x | x | |
| PF | Paddle | x | x | |
| JX | w/o Actuator | x | | |
| BN | Rocker | x | | |
| PN | Paddle | x | | |
| BL | Rocker | x | x | x |
| PL | Paddle | x | x | x |
| B1 | Rocker | | | |
| B2 | Large rocker | | | |
| B4 | Extra small rocker | | | |
| P1 | Paddle | | | |
| P2 | Large paddle | | | |
| P4 | Extra small paddle | | | |

SEALING

- | | |
|----------|------|
| E | Seal |
|----------|------|

TERMINATIONS

- | | |
|------------|----------------------------|
| PC | PCB |
| W1 | Wire wrap 19.05mm |
| W2 | Wire wrap 24.48mm |
| W3 | Wire wrap 10.80mm |
| W4 | Wire wrap 26.97mm |
| ST | Solder tag |
| H9 | 90° horizontal |
| V9 | 90° vertical |
| U2 | U bracket 11.68 mm |
| U3 | U bracket 16.00 mm |
| U4 | U bracket 11.68 mm |
| U5 | U bracket 16.00 mm |
| U2S | U bracket snap-in 11.68 mm |
| U3S | U bracket snap-in 16.00 mm |
| U4S | U bracket snap-in 11.68 mm |
| U5S | U bracket snap-in 16.00 mm |
| QC | Quick connect |

(Δ) Min qty required
 (Δ) Please enquire

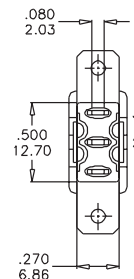
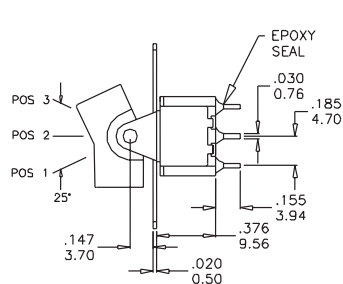
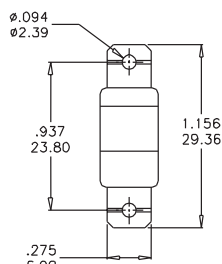
SERIES 3A

ELECTRICAL FUNCTIONS

DIMENSIONS

| SPDT | | | |
|------|------|------|------|
| 1 | on | none | on |
| 2 | on | none | (on) |
| 3 | on | off | on |
| 4 | (on) | off | (on) |
| 5 | on | off | (on) |
| | 2-3 | open | 2-1 |

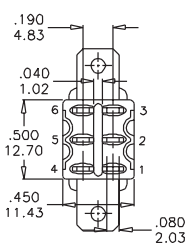
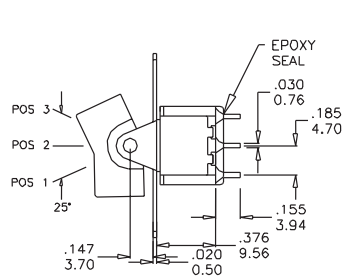
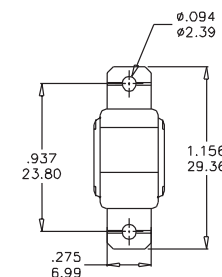
2 Comm.
1 3 •



Part N° shown: 3A11-B1STSE2

| DPDT | | | |
|------|---------|------|---------|
| 1 | on | none | on |
| 2 | on | none | (on) |
| 3 | on | off | (on) |
| 4 | (on) | off | (on) |
| 5 | on | off | (on) |
| 6 | on | on | on |
| | 2-3,5-6 | open | 2-1,5-4 |

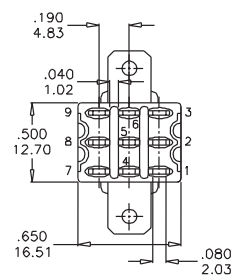
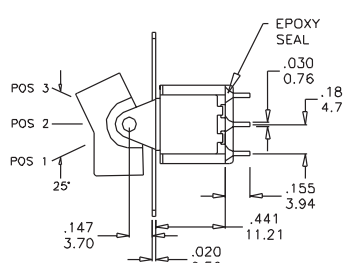
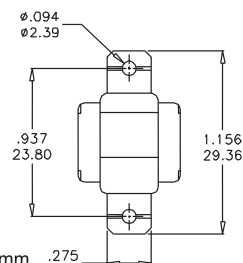
2 Comm. 5 Comm.
1 3 • - - 4 6 •



Part N° shown: 3A21-B1STSE2

| 3PDT | | | |
|------|---------|------|---------|
| 1 | on | none | on |
| 2 | on | none | (on) |
| 3 | on | off | on |
| 4 | (on) | off | (on) |
| 5 | on | off | (on) |
| | 2-3,5-6 | open | 2-1,5-4 |
| | 8-9 | | 8-7 |

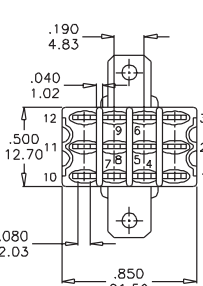
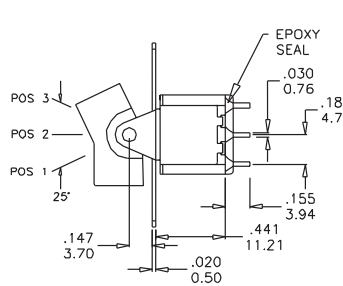
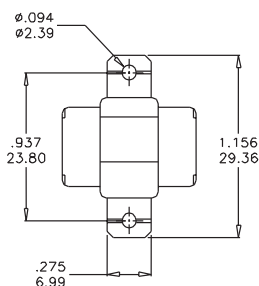
2 Comm. 5 Comm. 8 Comm.
1 3 • - - 4 6 • - - 7 9 •



Part N° shown: 3A31-B1STSE2

| 4PDT | | | |
|------|-----------|------|-----------|
| 1 | on | none | on |
| 2 | on | none | (on) |
| 3 | on | off | on |
| 4 | (on) | off | (on) |
| 5 | on | off | (on) |
| 6 | on | on | on |
| | 2-3,5-6 | open | 2-1,5-4 |
| | 8-9,11-12 | | 8-7,11-10 |

2 Comm. 5 Comm. 8 Comm. 11 Comm.
1 3 • - - 4 6 • - - 7 9 • - - 10 12 •



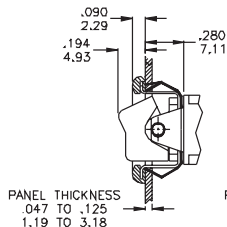
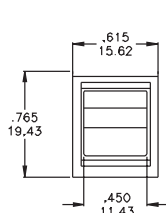
Part N° shown: 3A41-B1STSE2



SERIES 3A

ACTUATORS

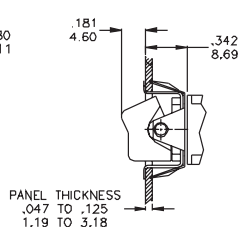
FRONT PANEL MOUNT SNAP-IN



PANEL THICKNESS
.047 TO .125
1.19 TO 3.18

BF

Rocker+
snap-in mount+Frame

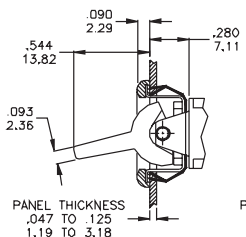
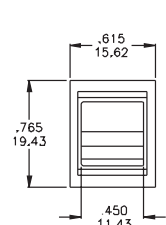
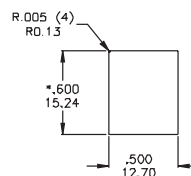


PANEL THICKNESS
.047 TO .125
1.19 TO 3.18

BN

Rocker+
Snap-in mount

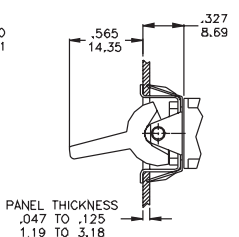
PANEL CUT OUT



PANEL THICKNESS
.047 TO .125
1.19 TO 3.18

PF

Paddle+
snap-in
mount+Frame

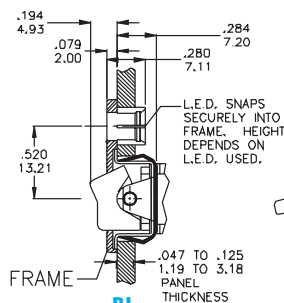
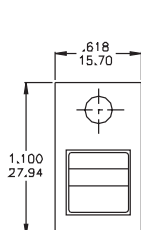
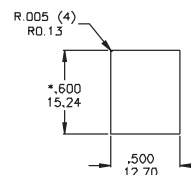


PANEL THICKNESS
.047 TO .125
1.19 TO 3.18

PN

Paddle+
Snap-in mount

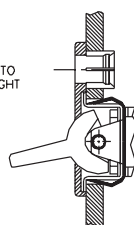
PANEL CUT OUT



FRAME
.047 TO .125
1.19 TO 3.18
PANEL THICKNESS

BL

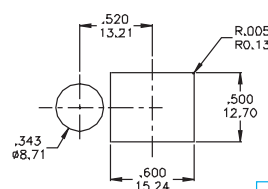
Rocker+
snap-in mount+Frame+
LED holder



PL

Paddle+
snap-in mount+Frame+
LED holder

PANEL CUT OUT



COLOUR CODE FOR ACTUATOR AND BEZEL

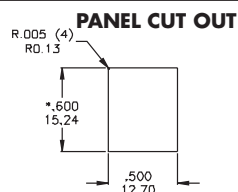
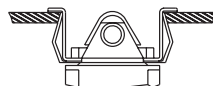
- 1 White
- 2 Black (std)
- 3 Red
- 4 (Δ) Orange
- 5 (Δ) Yellow
- 6 (Δ) Green
- 7 (Δ) Blue
- 8 (Δ) Brown
- 9 (Δ) Gray

JX

Part Numbers

Rocker+ Frame: **3ARF** - Colour

Paddle+ Frame: **3APF** - Colour



Note: **JX** indicates a switch ordered without rocker or paddle and frame.

For max flexibility of usage switches can be assembled in production. Rocker/paddle and frame must be ordered separately.

(Δ) Min qty required

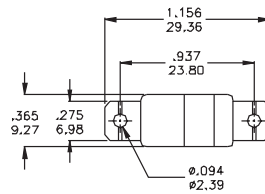
SERIES 3A

ACTUATORS

PANEL REAR MOUNT

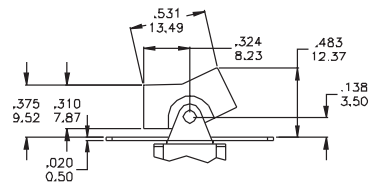
B1

ROCKER



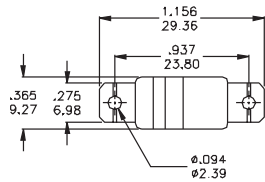
This option can be used for panel mount only

PANEL MOUNTING



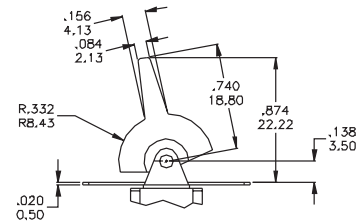
P1

PADDLE



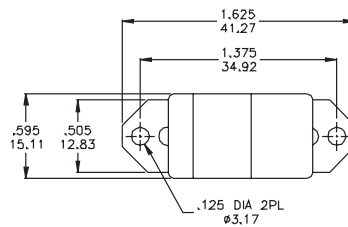
This option can be used for panel mount only

PANEL MOUNTING



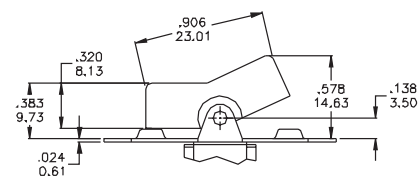
B2

LARGE ROCKER



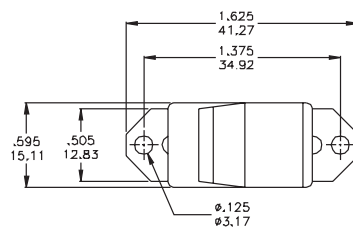
This option can be used for panel mount only

PANEL MOUNTING



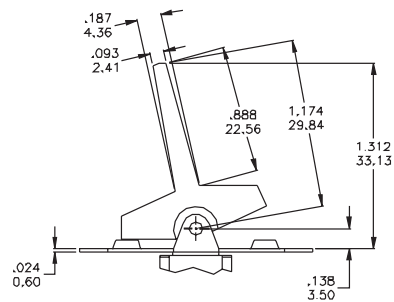
P2

LARGE PADDLE



This option is associated with U brackets only
U2, U3, U4, U5, U2S, U3S, U4S, U5S

PANEL MOUNTING



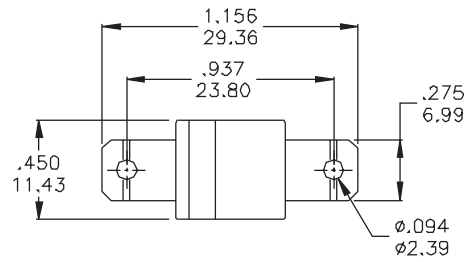


SERIES 3A

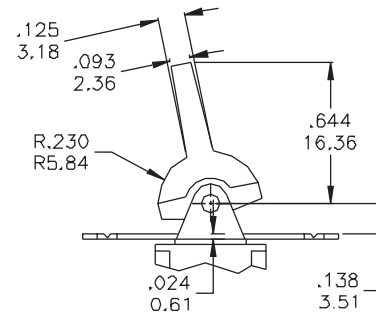
ACTUATORS

P4

EXTRA SMALL PADDLE



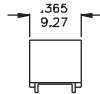
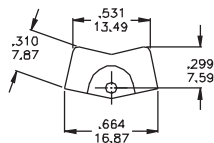
PANEL MOUNTING



P.C. MOUNT

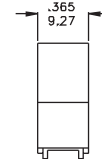
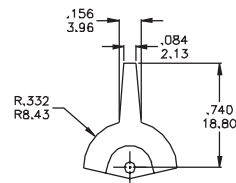
B1

ROCKER



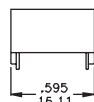
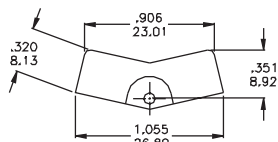
P1

PADDLE



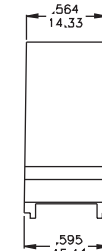
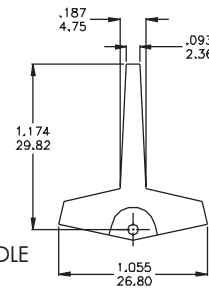
B2

LARGE ROCKER



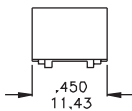
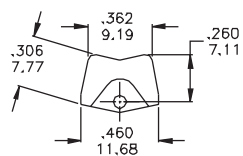
P2

LARGE PADDLE



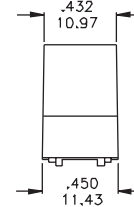
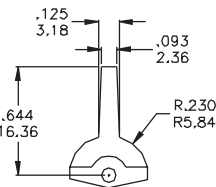
B4

EXTRA SMALL ROCKER



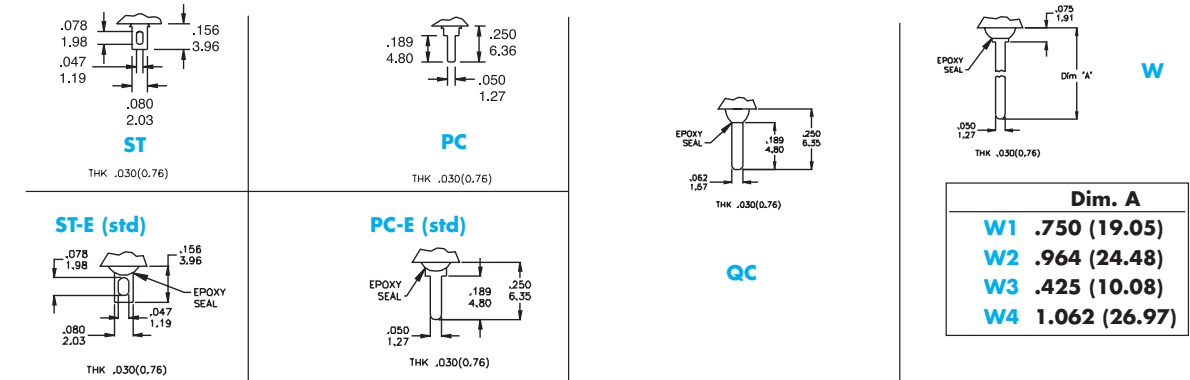
P4

EXTRA SMALL PADDLE

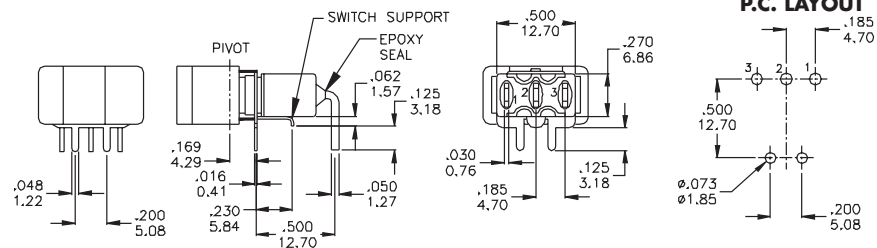


SERIES 3A

TERMINATIONS



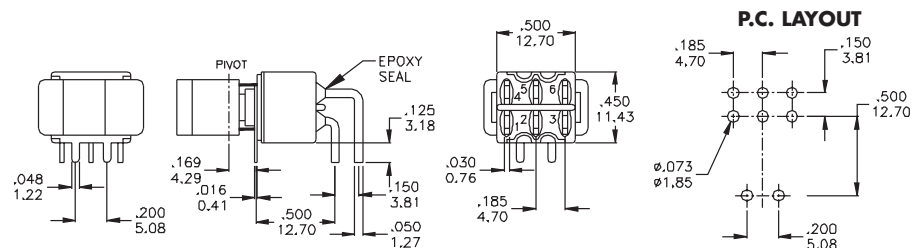
H9 SPDT



Available only with B1 Rocker

Part N° shown: 3A11-B1H9AE2

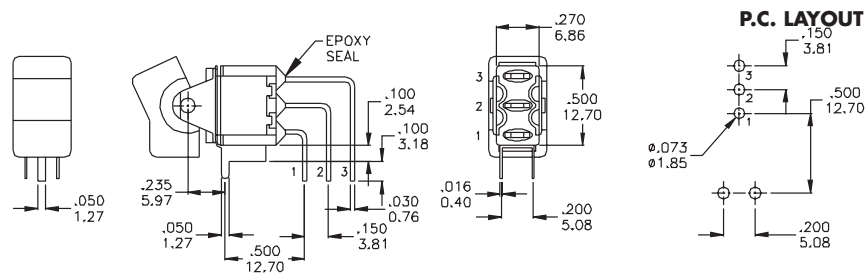
H9 DPDT



Available only with B1 Rocker or P1 Paddle

Part N° shown: 3A21-B1H9AE2

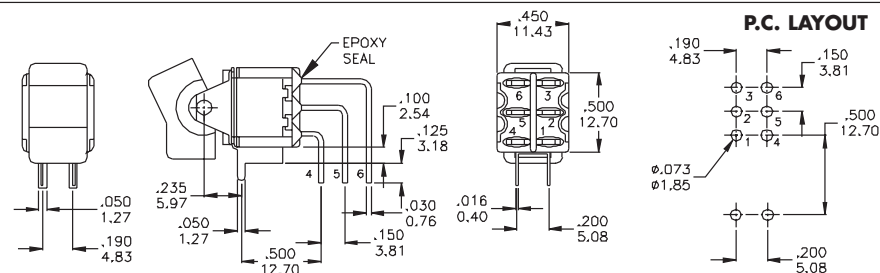
V9 SPDT



Available only with B1 Rocker or P1 Paddle

Part N° shown: 3A11-B1V9AE2

V9 DPDT



Available only with B1 Rocker or P1 Paddle

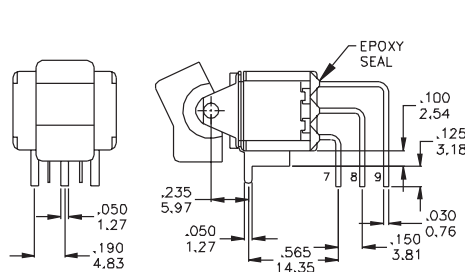
Part N° shown: 3A21-B1V9AE2



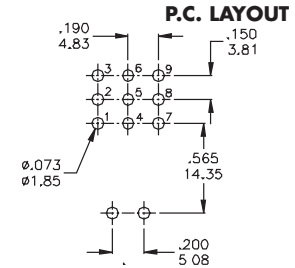
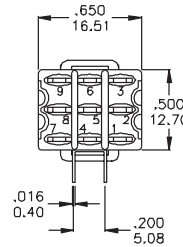
SERIES 3A

TERMINATIONS

V9 3PDT

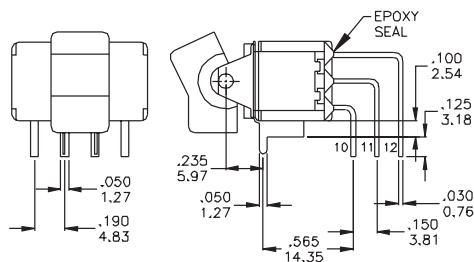


Available only with B1 Rocker or P1 Paddle

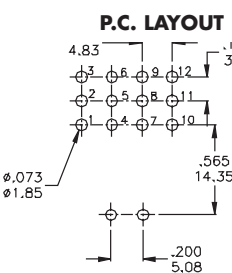
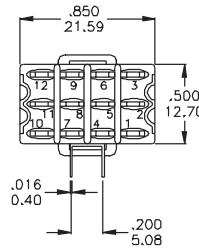


Part N° shown: 3A31-B1V9AE2

V9 4PDT

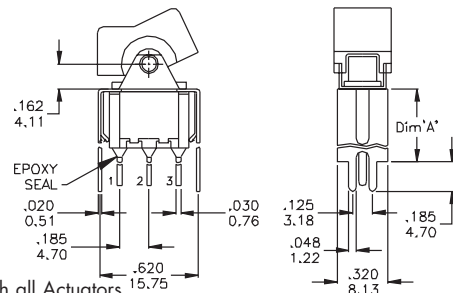


Available only with B1 Rocker or P1 Paddle



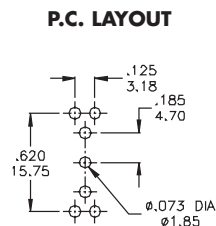
Part N° shown: 3A41-B1V9AE2

U2 U3 SPDT



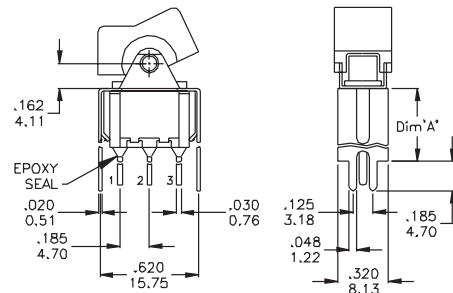
Available with all Actuators

| Dim. A | |
|--------|--------------|
| U2 | .460 (11.68) |
| U3 | .630 (16.00) |



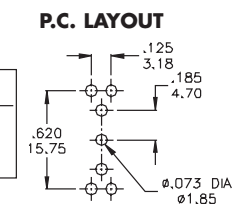
Part N° shown: 3A11-B1U_AE2

U2 U3 DPDT



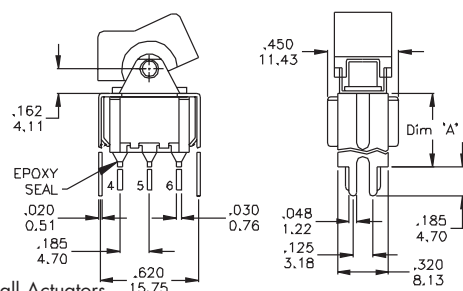
Available with all Actuators

| Dim. A | |
|--------|--------------|
| U2 | .460 (11.68) |
| U3 | .630 (16.00) |



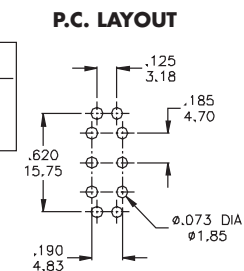
Part N° shown: 3A21-B1U_AE2

U4 U5 SPDT



Available with all Actuators

| Dim. A | |
|--------|--------------|
| U4 | .460 (11.68) |
| U5 | .630 (16.00) |

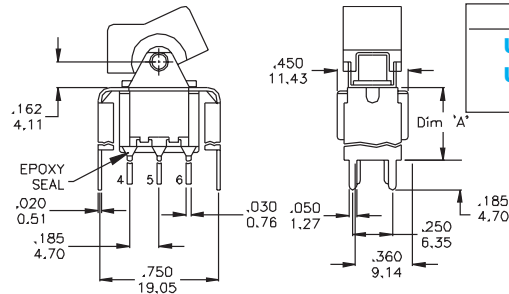


Part N° shown: 3A11-B1U_AE2

SERIES 3A

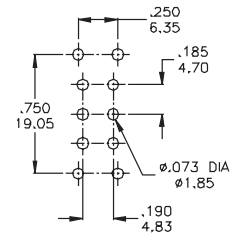
TERMINATIONS

**U4
U5
DPDT**



| Dim. A |
|------------------------|
| U4 .460 (11.68) |
| U5 .630 (16.00) |

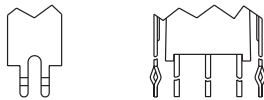
P.C. LAYOUT



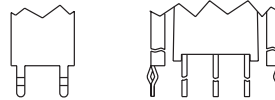
Available with all Actuators

Part N° shown: 3A21-B1U_AE2

**U2S
U3S**



**U4S
U5S**



Available with all Actuators. **U2S U3S U4S U5S** have the same P.C mounting but with snap-in bracket

CONTACT MATERIALS

CONTACT RATINGS

- S (std)** **Moving Contacts:** silver plated brass
Terminals: silver plated brass
Rating: 2 Amps with resistive load @ 250 VAC
 5 Amps with resistive load @ 125 VAC or 28 VDC
- A** **Moving Contacts:** gold plating over nickel plated brass
Terminals: gold plating over nickel plated brass
Rating: 0.4 Volts/Amps max @ 20 Volts max (AC or DC)
- G** **Moving Contacts:** gold plating over silver plated brass
Terminals: gold plating over silver plated brass
Note: **G** option used for either "high" (2 Amps @ 250 VAC) or "low" (0.4 Volts/Amps max) contact rating (one exclude the other)

PACKAGING

Transparent Trays 15x21x4 cm



Qty per tray: (ST, PC Terminals)
 Series 3A1x 200 pcs
 3A2x 100 pcs
 3A3x 100 pcs
 3A4x 50 pcs

MARKING (on products)

The switches are individually marked with the following information:

- Side 1** TRADE MARK
 SERIES AND MODEL
 DATE CODE
- Side 2** RATING
 CONTACTS

Note: Not all information may be available on some products.

LABELLING (on packaging)

The label on each tray gives full information on the products contained.

| | |
|----------------|--|
| P/N: | |
| EL.FNC.: | |
| Q.TY: | |
| DATE CODE: | |
| | |
| Made in Taiwan | |
| Remarks | |

A Bar code indicating Model, Quantity, Date Code enables easy traceability.