

# F Series Miniature ROTA-SLIDE® Rotary Switches

## Features/Benefits

- Multi-pole and multi-position
- Panel and PCB mounting
- Positive detent
- Value added capability
- RoHS Compliant

## Typical Applications

- Small appliances
- Testing fixtures
- Safety equipment



Models Available

## Specifications

CONTACT RATING: Q contact material: 4 AMPS @ 125 V AC or 28 V DC; 2 AMPS @ 250 V AC (UL/CSA). See page K-24 for additional ratings.

ELECTRICAL LIFE: 10,000 make-and-break cycles at full load.

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

INSULATION RESISTANCE: 10<sup>9</sup>  $\Omega$  min.

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

INDEXING: 45° or 90° -one contact models; two contact models, 4 pos. max. Models with common terminal -90°, 4 pos. max.

OPERATING & STORAGE TEMPERATURE: -30°C to 65°C

## Materials

HOUSING & BUSHING: 6/6 Nylon (UL 94V-2).

ACTUATOR: 6/6 nylon (UL 94V-2).

CONTACTS: Q contact material: Copper, silver plated. See page K-24 for additional contact materials.

TERMINALS: Q contact material: Copper, silver plated. See page K-24 for additional contact materials.

CONTACT SPRING: Music wire or stainless steel.

MOUNTING NUT: Brass, nickel plated.

TERMINAL SEAL: Epoxy.

**NOTE:** Any models supplied with Q or B 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 K-22 thru K-24. For additional options not shown in catalog, consult Customer Service Center.

|                                            |                                            |                                    |                        |                         |                     |
|--------------------------------------------|--------------------------------------------|------------------------------------|------------------------|-------------------------|---------------------|
| <b>Switch Function</b>                     | <b>Actuator</b>                            | <b>Mounting Style</b>              | <b>Terminations</b>    | <b>Contact Material</b> | <b>Seal</b>         |
| <b>FA05</b> SP, 90° Index, 3 pos.          | <b>15</b> Screwdriver slot without bushing | <b>RN</b> PC                       | <b>02</b> PC Thru-hole | <b>Q</b> Silver         | <b>NONE</b> No seal |
| <b>F103</b> SP, 45° Index, 3 pos.          | <b>08</b> .585" high with .156" flat       | <b>RS</b> 5/16-32 threaded bushing | <b>WC</b> Wire lead    | <b>B</b> Gold           | <b>E</b> Epoxy seal |
| <b>F203</b> DP, 45° Index, 3 pos.          |                                            |                                    |                        |                         |                     |
| <b>FA01</b> SPDT, 90° Index                |                                            |                                    |                        |                         |                     |
| <b>FC03</b> SP, W/Common 90° Index, 3 pos. |                                            |                                    |                        |                         |                     |



K

Rotary

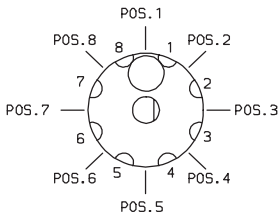
# F Series

## Miniature ROTA-SLIDE® Rotary Switches

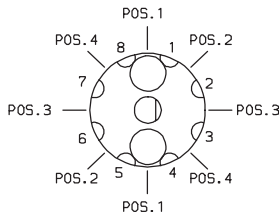
### SWITCH FUNCTION

| 45° INDEXING |           |                 |               |
|--------------|-----------|-----------------|---------------|
| NO. POLES    | MODEL NO. | SWITCH FUNCTION | TERMINALS     |
| SP           | F103      | 3 Position      | 8-1-2-3*      |
| DP           | F203      | 3 Position      | All Terminals |

### 45° INDEXING SCHEMATICS



F1XX MODELS



F2XX MODELS

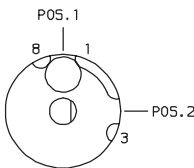
Break-before-make contacts. Terminal numbers are molded on bottom of housing. Actuators are shown in position 1.

**NOTE:** \*Switches with '02' PC terminations have additional terminal no. 5 as switch support only. This terminal is not connected electrically inside switch.

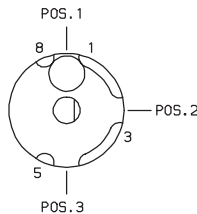
F1XX, F2XX models: No common terminal is present. Switching function is provided by movable contacts shorting adjacent pairs of stationary contacts.

| 90° INDEXING   |           |                 |             |
|----------------|-----------|-----------------|-------------|
| NO. POLES      | MODEL NO. | SWITCH FUNCTION | TERMINALS   |
| SP             | FA01      | SPDT            | 8-1-3       |
|                | FA05      | 3 Position      | 8-1-3-5     |
| SP WITH COMMON | FC03      | 3 Position      | C-1,C-2,C-3 |

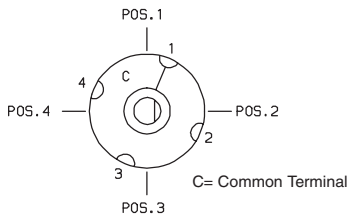
### 90° INDEXING SCHEMATICS



FA01 MODEL



FA05 MODEL



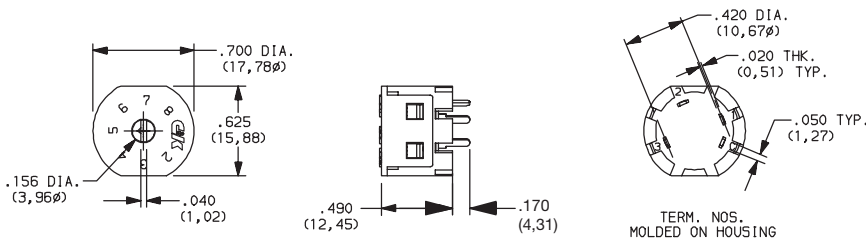
FCXX MODEL

Break-before-make contacts. Terminal numbers are molded on bottom of housing. Actuators are shown in position 1.

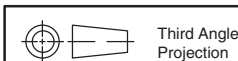
FCXX models: Common terminal is present.

FAXX models: No common terminal is present. Switching function is provided by movable contacts shorting adjacent pairs of stationary contacts.

**NOTE:** \*Switches with '02' PC terminations have additional terminal no. 5 as switch support only. This terminal is not connected electrically inside switch.



Part number show: FC0315RN02Q



Third Angle Projection

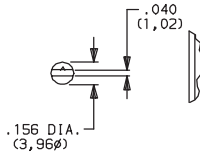
Dimensions are shown: Inch (mm)  
Specifications and dimensions subject to change



# F Series Miniature ROTA-SLIDE® Rotary Switches

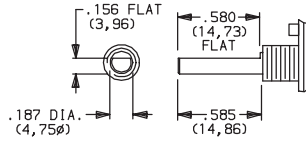
## ACTUATOR

**15** SCREWDRIVER SLOT WITHOUT BUSHING



Shown with 'RN' mounting style; not available with 'RS' mounting style or FCXX models.

**08** .585" HIGH WITH .156" FLA



Must be ordered with 'RS' mounting style.

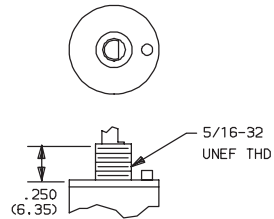
## MOUNTING STYLE

**RN** PC



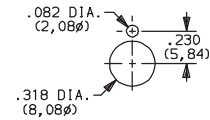
PC mount, no bushing, position numbers molded standard. Shown with '15' actuator; not available with '08' actuator or FCXX models.

**RS** 5/16-32 THREADED BUSHING



Panel mount, with 5/16 in.-32 threaded bushing. Mounting nut (P/N 175020201) included. Must be ordered with '08' actuator option.

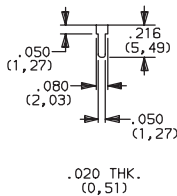
PANEL MOUNTING



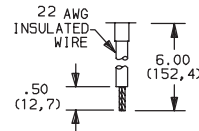
5/16 IN. BUSHING

## TERMINATIONS

**02** PC THRU-HOLE



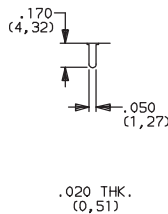
**WC** WIRE LEAD



Black wire standard, other colors and lengths available, consult Customer Service Center. UL style 1015.

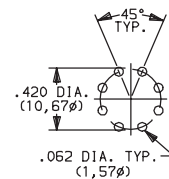
### F1XX, F2XX & FAXX Models

**02** PC THRU-HOLE



### FCXX Models

PC MOUNTING



Third Angle  
Projection

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



K

Rotary

# F Series

## Miniature ROTA-SLIDE® Rotary Switches

### CONTACT MATERIAL

| OPTION CODE | CONTACT AND TERMINAL MATERIAL | RATING                |                                                           |
|-------------|-------------------------------|-----------------------|-----------------------------------------------------------|
| Q           | SILVER <sup>2</sup>           | POWER                 | 4 AMPS @ 125 V AC or 28 V DC; 2 AMPS @ 250 V AC (UL/CSA). |
| B           | GOLD <sup>1</sup>             | LOW LEVEL/DRY CIRCUIT | 0.4 VA MAX. @ 20 V AC or DC MAX.                          |

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

<sup>1</sup> CONTACTS & TERMINALS: Copper, with gold plate over nickel plate.  
<sup>2</sup> CONTACTS & TERMINALS: Copper, silver plated (standard with all termination options).

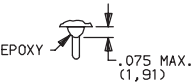
**NOTE:** Any models supplied with Q or B contact material are RoHS compliant.

All models  with all options when ordered with 'Q' contact material.

### SEAL

**NONE** NO SEAL

**E** EPOXY SEAL



Not available on FCXX models.



K

Rotary



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