

# Rotary Switches

## Product Selection Guide

Rotary											
Series	A	RTA	M	RBP12	RTBH	RTBV	R	F	H	P	
Switch Type	Multi-pole/ Multi-position	Multi-pole/ Multi-position	Half-inch	Multi-pole/ Multi-position	Right-angle Sealed	Right-angle Sealed	Rota-slide	Rota-slide	Power Rota-slide	Key Switch	
Miniature		•		•				•			
Low Profile				•				•		•	
Screwdriver Slot	•	•		•	•	•	•	•			
Illumination											
Power									•		
Maximum Current	2.5 Amps	150 mA	6 Amps	130 nA			5 Amps	4 Amps	12 Amps	4 Amps	
Momentary										•	
Poles	1-4	1-4	1 & 2	1-6			1 & 2	1 & 2	1 & 2	1 & 2	
Indexing	30°, 45°, 90°		30° & 36°		15, 22, 5, 36		36°	45° & 90°	45° & 90°	45° & 90°	
Splashproof	•		•		•	•					
Sealed					•	•					
Non-shorting/ Shorting Contacts	•		•	•							
Panel Mount Options											
Front Mount										•	
Rear Mount	•	•	•		•	•	•	•	•		
PCB Mount Options											
Vertical	•	•	•	•		•	•	•		•	
Terminations											
Solder Lug	•	•	•				•	•	•	•	
Wire Lead							•	•	•	•	
Quick Connect											
PC	•	•	•	•	•	•	•	•			
Page No.	L-3	L-8	L-13	L-18	L-22	L-28	L-34	L-37	L-41	L-44	



Rotary

**C&K**

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

# A Series 1-4 Pole Rotary Switches

## Features/Benefits

- Multi-pole and multi-position
- Positive detent
- Shorting & non-shorting contacts
- Panel and PCB mounting
- RoHS Compliant



Models Available

## Typical Applications

- Automotive
- Major and small appliances
- Industrial equipment



## Specifications

CONTACT RATING: Q contact material: Switch - 2.5 AMPS @ 125 V AC; 350 mA @ 125 V DC (UL/CSA). Carry - 5 AMPS continuous. See page L-6 for additional ratings.

ELECTRICAL LIFE: 15,000 make-and-break cycles at full load up to 300,000 detent operations.

CONTACT RESISTANCE: Below 20 m  $\Omega$  typ. initial @ 2-4 V DC, 100 mA, for both silver and gold plated contacts.

INSULATION RESISTANCE: 10  $9$   $\Omega$  min.

DIELECTRIC STRENGTH: 1,000 Vrms min. @ sea level. Operating and storage temp: -30° to 85°C

OPERATING & STORAGE TEMPERATURE: -30°C to 85°C

**NOTE:** Any models supplied with Q, B or G 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.

## Materials

HOUSING & BUSHING: Glass filled 6/6 nylon (UL 94V-0).

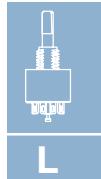
ACTUATOR: Glass filled 6/6 nylon (UL 94V-0).

MOVABLE CONTACTS: Q contact material: Coin silver, silver plated. See page L-6 for additional contact materials.

STATIONARY CONTACTS & TERMINALS: Q contact material: Brass, silver plated. See page L-6 for additional contact materials.

HARDWARE: Nut - zinc, nickel plated. Lockwasher - steel, bright zinc plated. Stop Ring - brass, nickel plated.

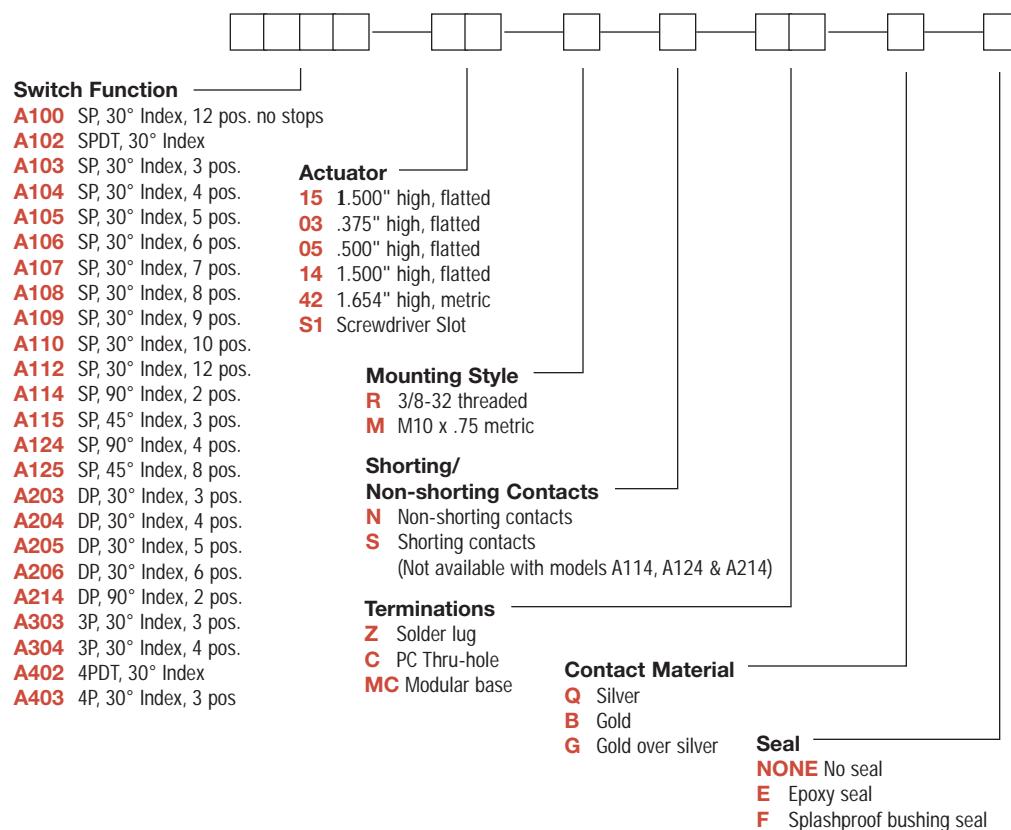
TERMINAL SEAL: Epoxy.



Rotary

## 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 L-4 through L-7. For additional options not shown in catalog, consult Customer Service Center.



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

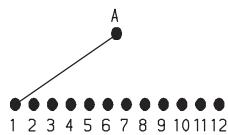
# A Series 1-4 Pole Rotary Switches

## SWITCH FUNCTION

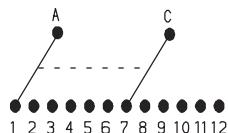


30° INDEXING			
NO. POLES	MODEL NO.	SWITCH FUNCTION	TERMINALS
SP	<b>A100</b>	12 Position No Stops	A,1-12
	<b>A102</b>	SPDT	A,1,2*
	<b>A103</b>	3 Position	A,1-3*
	<b>A104</b>	4 Position	A,1-4*
	<b>A105</b>	5 Position	A,1-5*
	<b>A106</b>	6 Position	A,1-6*
	<b>A107</b>	7 Position	A,1-7
	<b>A108</b>	8 Position	A,1-8
	<b>A109</b>	9 Position	A,1-9
	<b>A110</b>	10 Position	A,1-10
	<b>A112</b>	12 Position	A,1-12
	<b>A203</b>	3 Position	A,C,1-3,7-9
DP	<b>A204</b>	4 Position	A,C,1-4,7-10
	<b>A205</b>	5 Position	A,C,1-5,7-11
	<b>A206</b>	6 Position	A,C,1-12
	<b>A303</b>	3 Position	A,B,C,1-3,5-7 9-11
3P	<b>A304</b>	4 Position	A,B,C,1-12

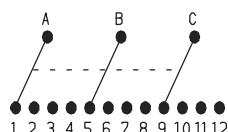
### SP MODELS SCHEMATIC



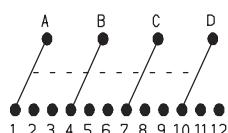
### DP MODELS SCHEMATIC



### 3P MODELS SCHEMATIC



### 4P MODELS SCHEMATIC



### 30° INDEXING

NO. POLES	MODEL NO.	SWITCH FUNCTION	TERMINALS
4P	<b>A402</b>	4PDT	A,B,C,D,1,2,4,5,7, 8,10,11
	<b>A403</b>	3 Position	All Terminals

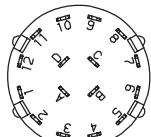
### 45° INDEXING

NO. POLES	MODEL NO.	SWITCH FUNCTION	TERMINALS
SP	<b>A115</b>	3 Position	A,1,2,4*
	<b>A125</b>	8 Position	A,1,2,4,5,7,8,10,11

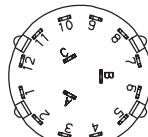
### 90° INDEXING

NO. POLES	MODEL NO.	SWITCH FUNCTION	TERMINALS
SP	<b>A114</b>	2 Position	A,1,4*
	<b>A124</b>	4 Position	A,1,4,7,10
DP	<b>A214</b>	2 Position	A,C,1,4,7,10

### TERMINAL NUMBERS

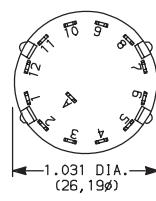
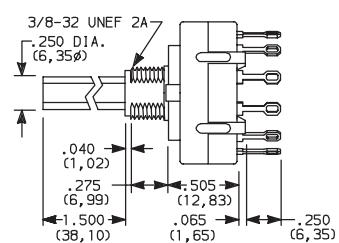
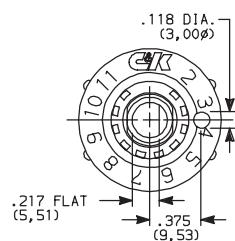


Terminal numbers  
molded on bottom  
of housing.



3P MODELS

4P MODELS  
SP MODELS (omit terminals B, C & D)  
DP MODELS (omit terminals B & D)



TERM. NOS.  
MOLDED ON HOUSING

Third Angle  
Projection

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

# A Series 1-4 Pole Rotary Switches

## ACTUATOR

**15** 1.500" HIGH

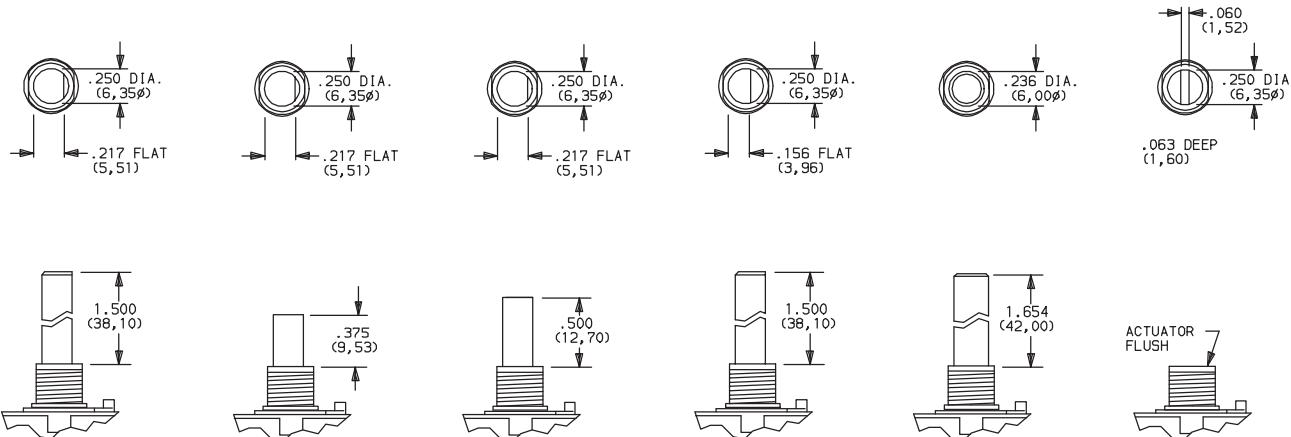
**03** .375" HIGH

**05** .500" HIGH

**14** 1.500" HIGH

**42** 1.654" METRIC

**S1** SCREWDRIVER SLOT

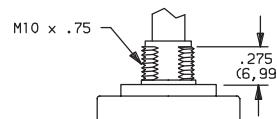
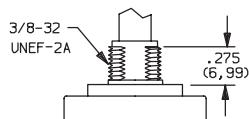


NOTE: Actuators shown in position 1, fully CCW.

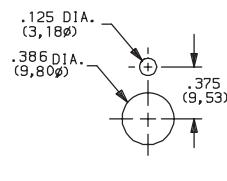
## MOUNTING STYLE

**R** 3/8-32 THREAD

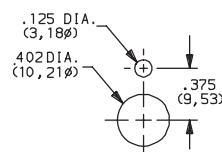
**M** M10 x .75 METRIC



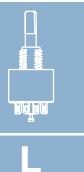
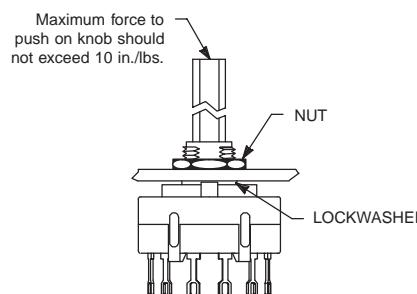
### PANEL MOUNTING



### PANEL MOUNTING



### TYPICAL INSTALLATION



Rotary

Install switch with stop ring (if used) and lockwasher in back of panel. Tighten hex nut from front of panel.

On PC mounted switches, use hex nut and lockwasher to hold stop ring in place.

Actuation torque: 8-16 oz./in.  
Maximum torque: 30 oz./in.

## SHORTING/NON-SHORTING CONTACTS

**N** NON-SHORTING CONTACTS (break-before-make)

**S** SHORTING CONTACTS (make-before-break)

NOTE: 'S' shorting contacts are not available with A114, A124 and A214 models.

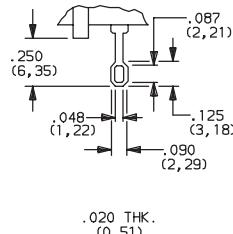


Dimensions are shown: Inch (mm)  
Specifications and dimensions subject to change

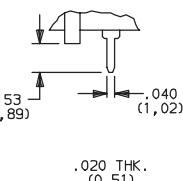
# A Series 1-4 Pole Rotary Switches

## TERMINATIONS

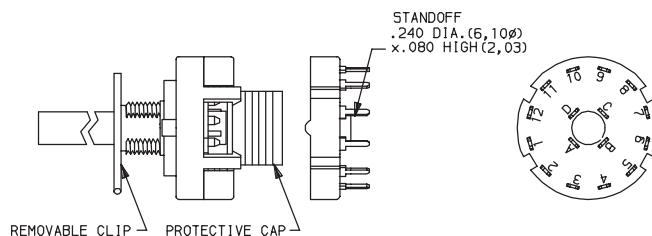
**Z** SOLDER LUG



**C** PC THRU-HOLE

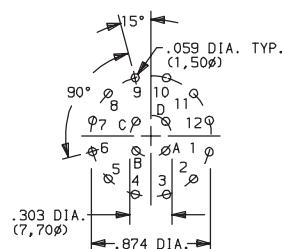


**MC** MODULAR BASE (for wave soldering)

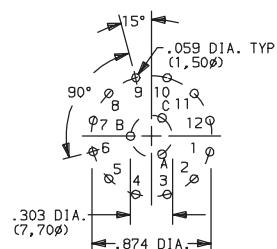


**NOTE:** Switches with 'C' or 'MC' terminations have additional terminal no. 9 as switch support only. This terminal is not connected electrically inside switch. Solder and clean switch base on PC board with other components, then snap on housing/actuator assembly. See page L-7 for installation instructions.

## PC MOUNTING



4P MODEL  
SP MODEL (omit terminals B, C & D)  
DP MODEL (omit terminals B & D)



3P MODEL

## CONTACT MATERIAL

OPTION CODE	CONTACT AND TERMINAL MATERIAL	RATING	
<b>Q</b>	SILVER <sup>2</sup>	POWER	SWITCH-2.5 AMPS @ 125 V AC; 350 mA @ 125V DC (UL/CSA). CARRY-5 AMPS CONTINUOUS.
<b>B</b>	GOLD <sup>1</sup>	LOW LEVEL/DRY CIRCUIT	0.4 VA MAX. @ 20 V AC or DC MAX
<b>G</b>	GOLD OVER SILVER <sup>3</sup>	LOW LEVEL/DRY CIRCUIT OR POWER	0.4 VA MAX. @ 20 V AC or DC MAX. or SWITCH-2.5 AMPS @ 125 V AC; 350 mA @ 125 V DC (UL/CSA). CARRY-5 AMPS CONTINUOUS.

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

<sup>1</sup> MOBILE CONTACTS: Copper alloy, with gold plate over nickel plate.  
STATIONARY CONTACTS & TERMINALS: Brass, with gold plate over nickel plate.

<sup>2</sup> MOBILE CONTACTS: Coin silver, silver plated.

STATIONARY CONTACTS & TERMINALS: Brass, silver plated (standard with all termination options).

<sup>3</sup> MOBILE CONTACTS: Coin silver, with gold plate over nickel plate over silver plate.  
STATIONARY CONTACTS & TERMINALS: Brass, with gold plate over nickel plate over silver plate.

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

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

**NOTE:** 'G' contact material is equivalent to both 'B' and 'Q' contact materials.



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

# A Series 1-4 Pole Rotary Switches

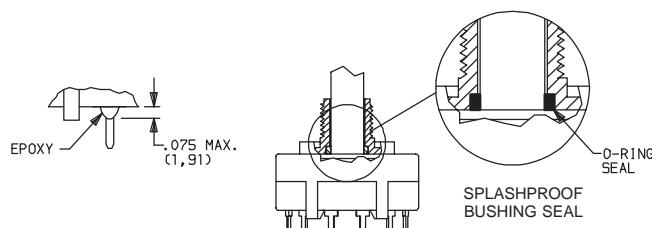
## FUNCTION

**NONE** NO SEAL

**E** EPOXY SEAL

**F** SPLASHPROOF BUSHING SEAL

**K** EPOXY & SPLASHPROOF BUSHING SEAL



### Setting Stops on A112 and A125 Models

The number of switch positions is adjustable on A112 and A125 models only by means of a stop ring provided with each switch. The number of positions is pre-set on all other models and the stop ring is factory installed.

To set stops: Turn shaft fully counter-clockwise and insert stop ring tab in desired hole. Install lockwasher and nut to retain stop ring for both PC and panel mounting. Switch without stop ring has 12 positions.

### Soldering, Cleaning and Assembly Instructions for 'MC' Termination Option

#### Soldering

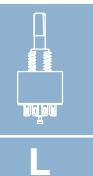
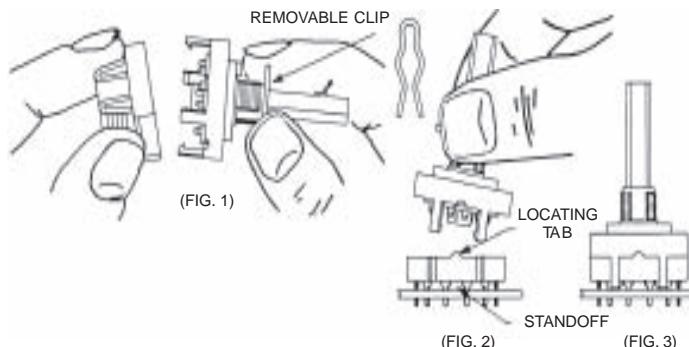
1. Insert switch base only into PC board.
2. Do not bend terminals.
3. Wave soldering recommended at 500F solder temperature.
4. Hand solder at 500F, 10 sec. max./terminal.

#### Switch Assembly

1. Hold housing/shaft assembly by housing. Remove protective cap by squeezing tabs and discard. (FIG. 1)
2. *Do not push on switch shaft. Detent mechanism will come apart.*
3. While holding switch housing, align locating tab on base with notch on housing and engage 4 housing latches in slots on base. (FIG. 2)
4. Push firmly on housing until latches snap in place.
5. Remove clip from shaft and discard. Assembly is complete. (FIG. 3)

#### Cleaning

1. Flux clean using vapor degreaser and forced rinse or triple bath method.
2. Do not allow switch base to 'trap' fluids.
3. Freon TMC, TF or Methylene Chloride give excellent results.



Rotary

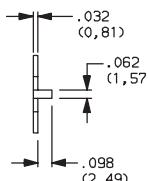
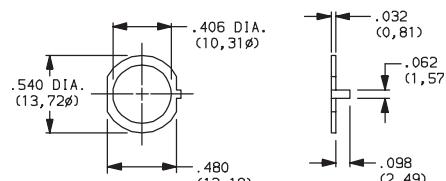
## AVAILABLE HARDWARE

Stop ring

PART NO.

**767B00201**

Material: Brass  
Finish: Nickel plated



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

**C&K**

# RTA Series

## 1-4 Poles Coded Rotary Switches



### Features/Benefits

- PCB or hand soldering versions
- Bushing mounting
- Multiple poles
- Decimal and hexadecimal codes
- Screwdriver slot or extended actuator
- RoHS Compliant

### Typical Applications

- Appliances
- Electronic alarm systems
- Medical
- Building automation
- HVAC air conditioning

### Electrical Data

	Silver	Gold
SWITCHING MODE:	BBM	BBM
MAX. SWITCHING POWER	5 VA	0.5 VA
MAX. SWITCHING CURRENT:	150 mA	20 mA
MAX. CARRYING CURRENT:	5 A	1 A
NOMINAL VOLTAGE AT 50 Hz	60 V	25 V
CONTACT RESISTANCE:	< 150 mΩ	< 150 mΩ
DIELECTRIC STRENGTH AT 50 Hz BETWEEN CONTACTS AND GROUND TERMINALS:	500 V r	500 V r
INSULATION RESISTANCE BETWEEN CONTACTS OR CONTACTS AND FRAME (500 V =):	10 <sup>9</sup> Ω	10 <sup>9</sup> Ω
NO. OF OPERATIONS:	10,000	10,000
BOUNCE:	< 5 ms	< 5 ms

### Mechanical Data

MAX. NO. OF BANKS:	1.
OPERATING TORQUE:	5 Ncm±20%.
END STOP TORQUE:	< 60 Ncm.
STOP:	With/without or adjustable

### Materials

BUSHING/HOUSING:	PETP Thermoplastic
STATIONARY CONTACTS & TERMINALS:	Nickel Plated Brass with additional plating of Gold or Silver.
ROTOR:	Gold or Silver plated Brass or PCB.
CODING PLATE:	PA thermoplastic
ACTUATOR:	Polysulfon thermoplastic
HARDWARE:	Stop pin: Aluminum. Ball & Spring: Stainless steel. Washer: PA. Nut: Brass.

### Environmental Data



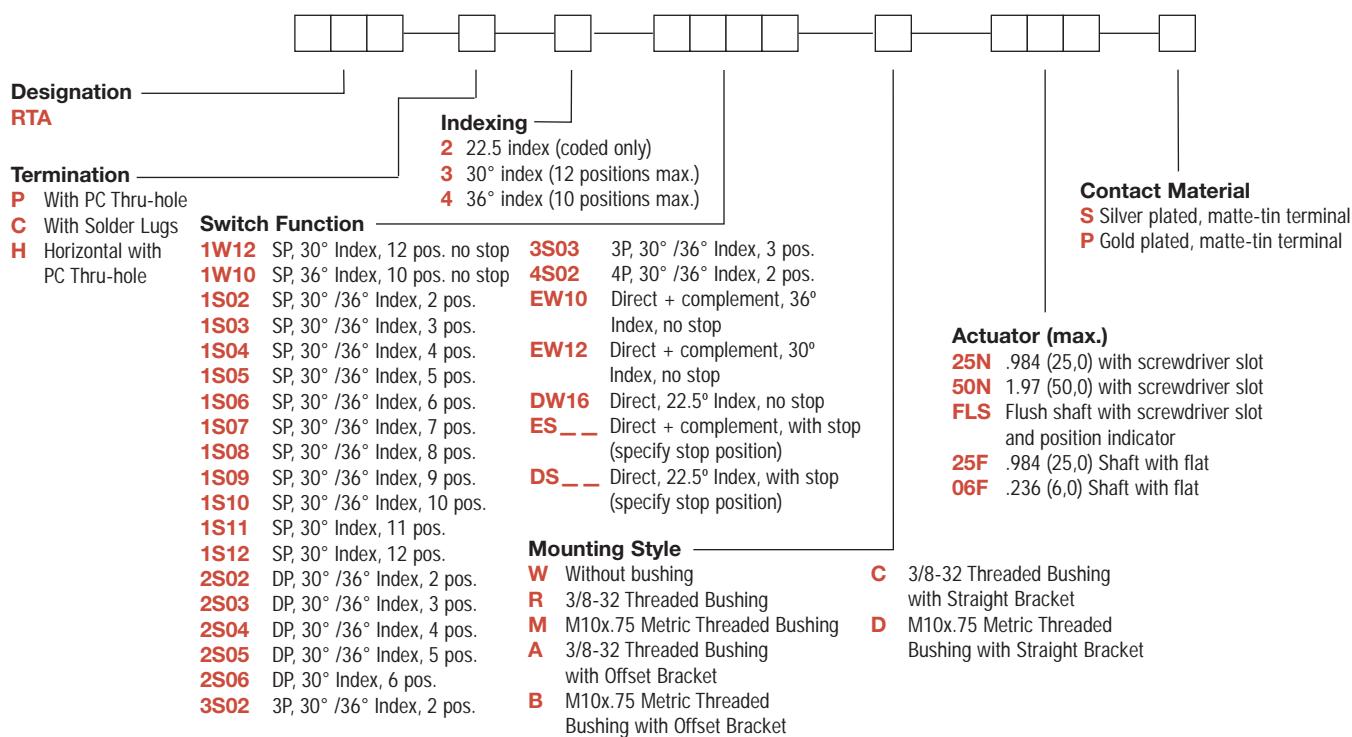
OPERATING TEMPERATURE: -20°C to + 70°C   -20°C to + 70°C

STORAGE TEMPERATURE: -40°C to + 85°C   -40°C to + 85°C

**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 L-9 thru L-12. For additional options not shown in catalog, consult Customer Service Center.



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

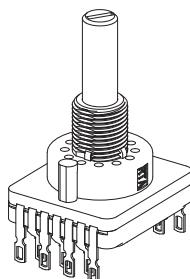
# RTA Series

## 1-4 Poles Coded Rotary Switches

### DESIGNATION



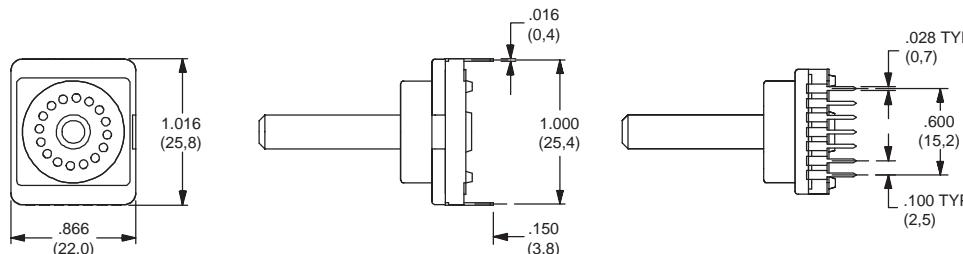
RTA



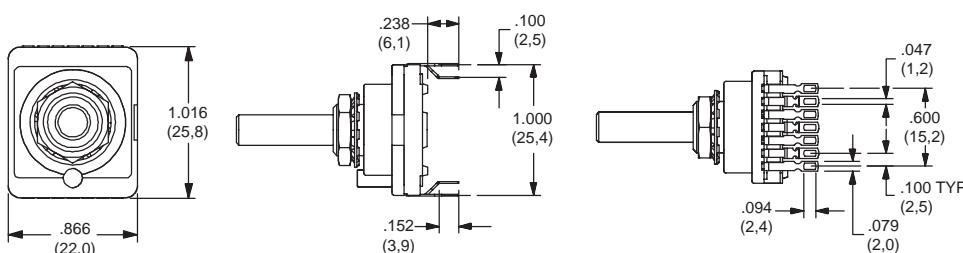
### TERMINATION



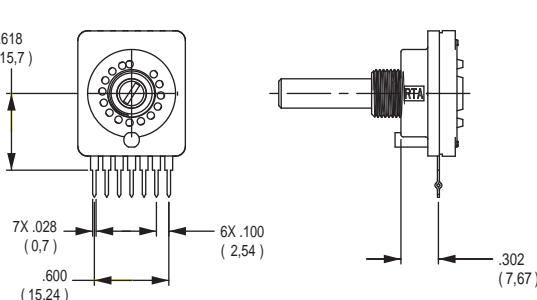
P WITH PC PINS



C WITH SOLDER LUGS



H Horizontal with PC Thru-hole



Note: "H" termination only available with the following options:  
 1. With A or B mounting styles  
 2. 36° degree indexing  
 3. Up to 5 positions max

### INDEXING



2 22.5 index, 16 positions max.

3 30 index, 12 positions max.

4 36 index, 10 positions max.

Both commons must be connected by user to ground.

**C&K**



Third Angle  
Projection

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

# RTA Series

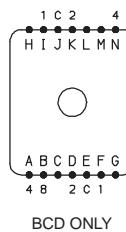
## 1-4 Poles Coded Rotary Switches

### SWITCH FUNCTION

NO. POLES	MODEL NO.	SWITCH FUNCTION	INDEX	SP MODELS SCHEMATIC	3P MODELS SCHEMATIC	NO. POLES	MODEL NO.	SWITCH FUNCTION	INDEX	
SP	1W12	12 Positions No Stop	30°			DP	2W05	5 Positions No Stop	30°/36°	
	1W10	10 Positions No Stop	36°				2W06	6 Positions No Stop	30°	
	1S02	2 Positions	30°/36°				2S02	2 Positions	30°/36°	
	1S03	3 Positions	30°/36°				2S03	3 Positions	30°/36°	
	1S05	5 Positions	30°/36°				2S04	4 Positions	30°/36°	
	1S06	6 Positions	30°/36°				2S05	5 Positions	30°/36°	
	1S08	8 Positions	30°/36°			3P	2S06	6 Positions	30°	
	1S09	9 Positions	30°/36°				3S02	2 Positions	30°/36°	
	1S10	10 Positions	30°/36°				3S03	3 Positions	30°/36°	
	1S11	11 Positions	30°				4S02	2 Positions	30°/36°	
	1S12	12 Positions	30°							

22.5°	30°	36°	Term.	Term.	Term.	Pos.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
E,J	M,N	L,N					•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
F,I	H	D	1					•		•		•		•		•		•				•
D,K	D	B	2						•	•				•	•			•	•			•
A,N	A	I	4								•	•	•	•						•	•	•
B	J	J	8														•	•	•	•	•	•
—	C	K	—1				•		•		•		•		•		•		•		•	•
—	K	H	—2				•	•				•	•			•		•		•	•	
—	B	A	—4				•	•	•	•	•					•	•	•	•	•	•	
—	I	C	—8				•	•	•	•	•	•	•	•	•	•						

### Indexing Option Code 2, 22.5 INDEXING ANGLE PCB LAYOUT

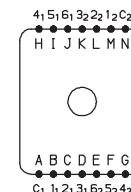


BCD ONLY

### Indexing Option Code 3, 30 INDEXING ANGLE PCB LAYOUT



1 POLE



2 POLES



3 POLES

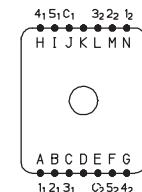


4 POLES BCD + COMPLEMENTS

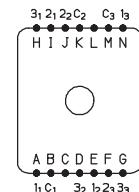
### Indexing Option Code 4, 36 INDEXING ANGLE PCB LAYOUT



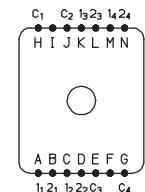
1 POLE



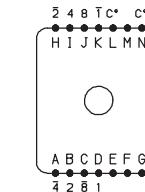
2 POLES



3 POLES



4 POLES



BCD + COMPLEMENTS

**NOTE:** Layout view from component side.

Common terminals that are in locations A-G are not connected to common terminals that are in locations H-N. For 7-12 position output customer must tie these commons together.



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

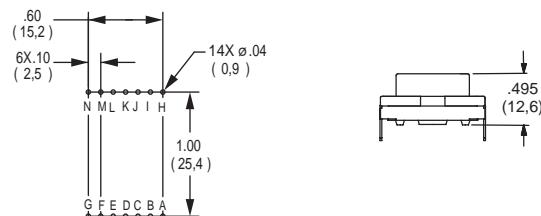
**C&K**

# RTA Series

## 1-4 Poles Coded Rotary Switches

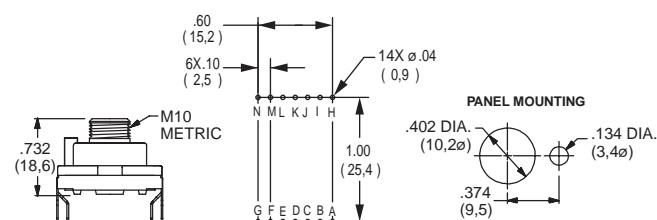
### MOUNTING STYLE

#### W WITHOUT BUSHING



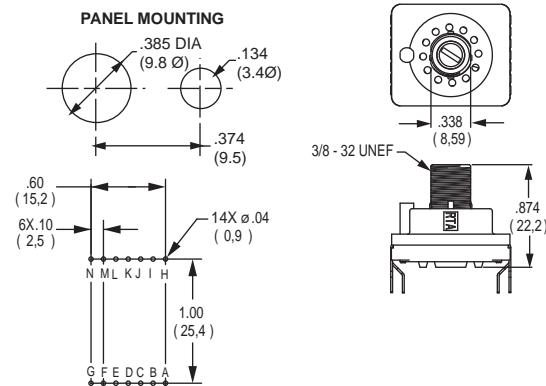
Note: W mounting style not available with H termination.

#### M M10 x .75 METRIC THREADED BUSHING



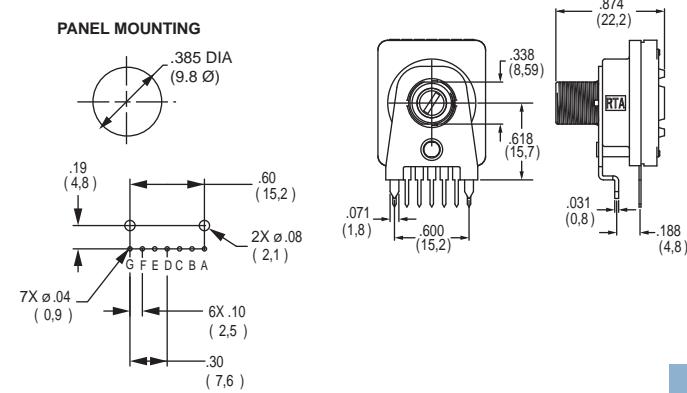
Note: M mounting style not available with H termination.

#### R 3/8-32 THREADED BUSHING



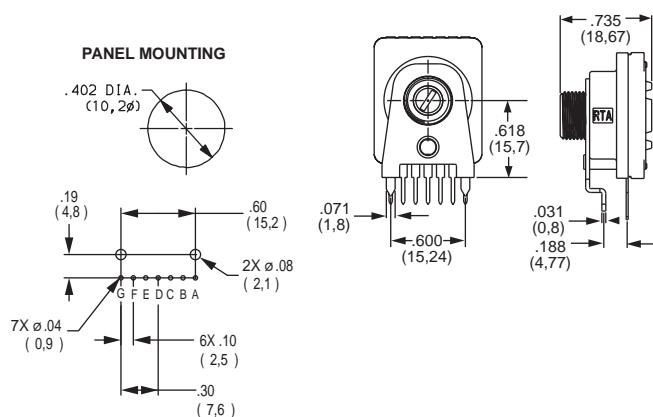
Note: R mounting style not available with H termination.

#### A 3/8-32 THREADED BUSHING WITH BRACKET



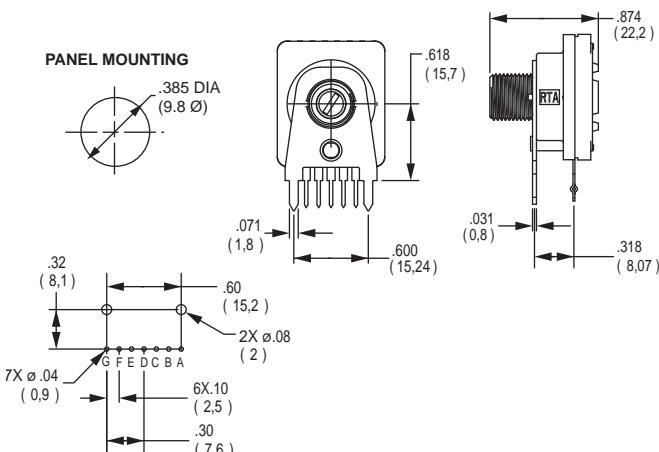
Note: A mounting style only available with H termination.

#### B M10 x .75 METRIC THREADED BUSHING WITH BRACKET

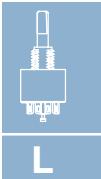
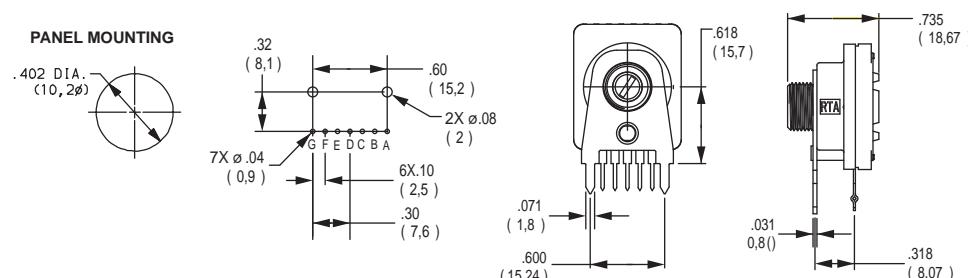


Note: B mounting style only available with H termination.

#### C 3/8-32 THREADED BUSHING WITH STRAIGHT BRACKET



#### D M10 x .75 METRIC THREADED BUSHING WITH STRAIGHT BRACKET



Rotary



Third Angle Projection

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

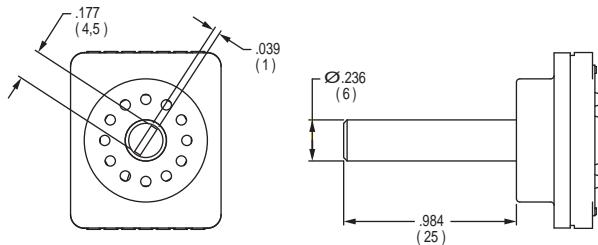
**C&K**

# RTA Series

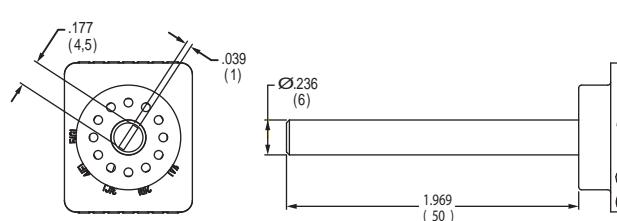
## 1-4 Poles Coded Rotary Switches

### ACTUATOR

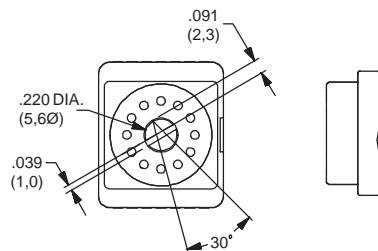
**25N** .984 (25,0) WITH SCREWDRIVER SLOT



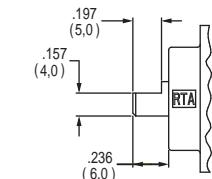
**50N** 1.97 (50,0) WITH SCREWDRIVER SLOT



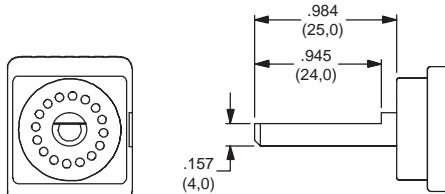
**FLS** FLUSH SHAFT WITH SCREWDRIVER SLOT AND POSITION INDICATOR



**06F** .236 (6,0) SHAFT WITH FLAT



**25F** .984 (25,0) SHAFT WITH FLAT



Rotary

### CONTACT MATERIAL

OPTION CODE	CONTACT AND TERMINAL MATERIAL	RATING	
<b>S</b>	SILVER	LOW LEVEL/DRY CIRCUIT	SWITCH: 150 mA MAXIMUM, 60 V NOMINAL. POWER: 5 VA MAXIMUM. CARRY-5 AMPS MAXIMUM.
<b>P</b>	GOLD	LOW LEVEL/DRY CIRCUIT OR POWER	SWITCH: 20 mA MAXIMUM, 25 V NOMINAL. POWER: 0.5 VA MAXIMUM. CARRY: 1 AMP MAXIMUM.

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

### AVAILABLE HARDWARE

Stop pins



PART NO.  
**Y200300200P**

NOTE: Additional nuts and lockwashers available separately, see section "Technical Data and Additional Hardware".



Third Angle  
Projection

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

**C&K**

# M Series Half-inch Rotary Switches



## Features/Benefits

- Multi-pole and multi-positions
- Panel and PCB mounting
- Stainless steel actuator
- Non-shorting contacts
- RoHS Compliant

## Typical Applications

- Test equipment
- Industrial equipment
- Medical equipment



## Specifications

CONTACT RATING: Q contact material: Carry-6 AMPS continuous. Switch-250 mA max. @ 125 V AC or 28 DC. Non-shorting contacts standard. See page L-16 for additional ratings.

ELECTRICAL LIFE: 10,000 make-and-break cycles at 150 mA, 125 V AC or 28 DC.

CONTACT RESISTANCE: Below 20 mΩ typ. initial @ 2-4 V DC, 100 mA, for both silver and gold plated contacts.

INSULATION RESISTANCE:  $10^{10}$  Ω min.

DIELECTRIC STRENGTH: 600 Vrms min. @ sea level.

OPERATING & STORAGE TEMPERATURE: -30°C to 85°C.

OPERATING TORQUE: 4-7 ounces-inches typ. initial.

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

**NOTE:** Specifications and materials listed above are for switches with standard options. For information on specific and custom switches, consult Customer Service Center.

## Materials

HOUSING AND BUSHING: Zinc alloy, bright zinc plated, with clear chromate finish.

ACTUATOR: Zinc alloy, nickel plated or stainless steel.

BASE: Diallylphthalate (DAP) or melamine phenolic, with insert molded terminals.

ROTOR: Glass filled polyester (UL 94V-0).

MOVABLE CONTACTS:

Non-shorting: Q contact material: Copper alloy, silver plated. See page L-16 for additional contact materials.

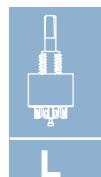
STATIONARY CONTACT & ALL TERMINALS: Q contact material: Copper alloy, silver plated. All terminals insert molded. All terminals present regardless of number of switch positions. See page L-16 for additional contact materials.

CONTACT SPRING: Music wire, phosphate coated.

STOP PIN: Stainless steel.

STOP RING: Brass.

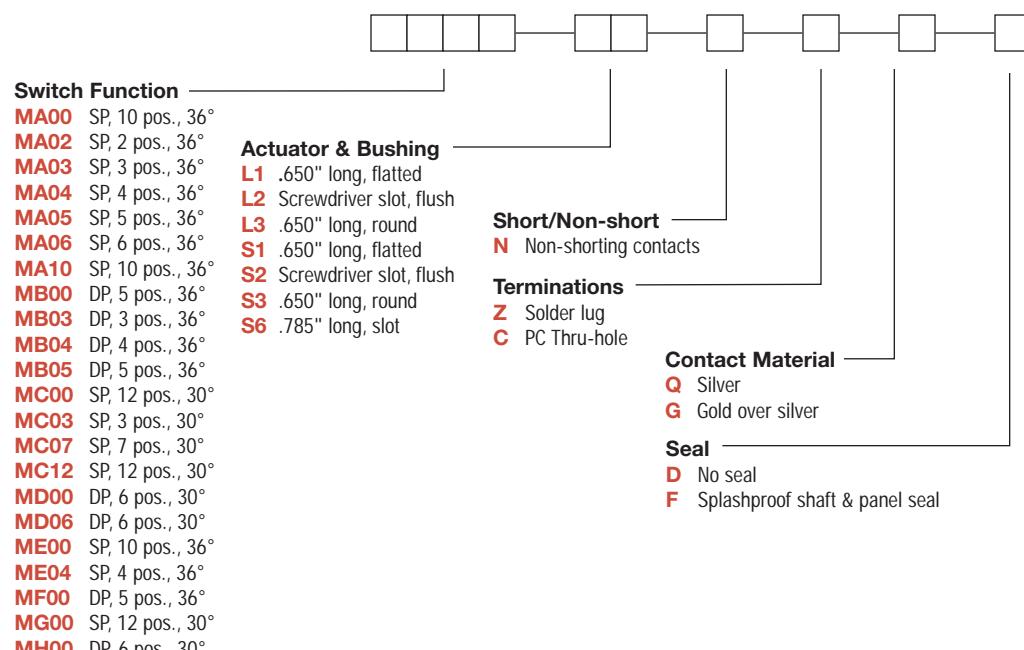
HARDWARE: Nut: Brass, nickel plated; Lockwasher: Steel, nickel plated.



Rotary

## 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 L-14 thru L-18. For additional options not shown in catalog, consult Customer Service Center.



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

# M Series

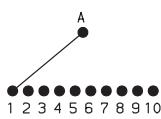
## Half-inch Rotary Switches

### SWITCH FUNCTION

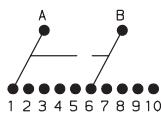


36° INDEXING			
NO. POLES	MODEL NO. WITH STOP PINS	MODEL NO. WITH STOP RINGS	SWITCH FUNCTION
SP	<b>MA00</b>	<b>ME00</b>	10 Positions No Stops
	<b>MA02</b>	—	2 Positions
	<b>MA03</b>	—	3 Positions
	<b>MA04</b>	<b>ME04</b>	4 Positions
	<b>MA05</b>	—	5 Positions
	<b>MA06</b>	—	6 Positions
	<b>MA10</b>	—	10 Positions
DP	<b>MB00</b>	<b>MF00</b>	5 Positions No Stops
	<b>MB03</b>	—	3 Positions
	<b>MB04</b>	—	4 Positions
	<b>MB05</b>	—	5 Positions

SP MODELS 36° INDEXING SCHEMATIC



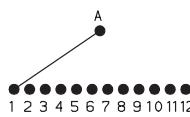
DP MODELS 36° INDEXING SCHEMATIC



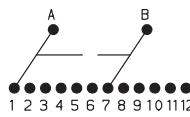
30° INDEXING

NO. POLES	MODEL NO. WITH STOP PINS	MODEL NO. WITH STOP RINGS	SWITCH FUNCTION
SP	<b>MC00</b>	<b>MG00</b>	12 Positions No Stops
	<b>MC03</b>	—	3 Positions
	<b>MC07</b>	—	7 Positions
	<b>MC12</b>	—	12 Positions
DP	<b>MD00</b>	<b>MH00</b>	6 Positions No Stops
	<b>MD06</b>	—	6 Positions

SP MODELS 30° INDEXING SCHEMATIC



DP MODELS 30° INDEXING SCHEMATIC

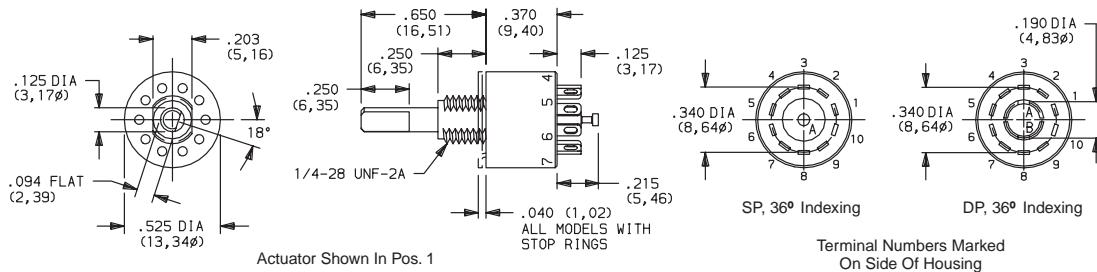


All models with all options when ordered with S1-SB stainless steel actuator options.

**NOTE:** Number of positions or stops preset at factory (NOTE: MX00 models have full 360 rotation with no stops. Stop pins or stop rings supplied for user-selectable stops, see above). All terminals present regardless of number of switch positions. Hardware is available separately, see section "Technical Data and Additional Hardware".

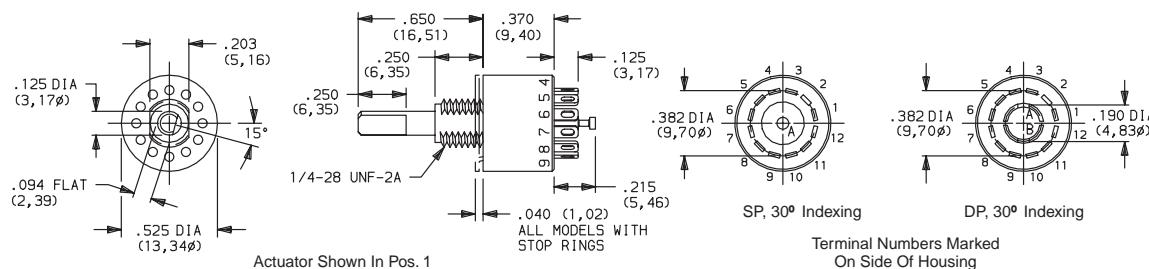
L

Rotary



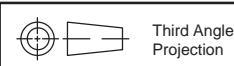
Terminal Numbers Marked  
On Side Of Housing

Part number shown: MA00L1NZQD



Terminal Numbers Marked  
On Side Of Housing

Part number shown: MC00L1NZQD



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

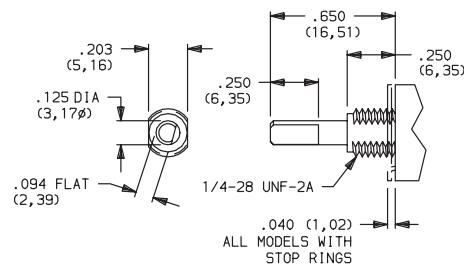
**C&K**

# M Series Half-inch Rotary Switches

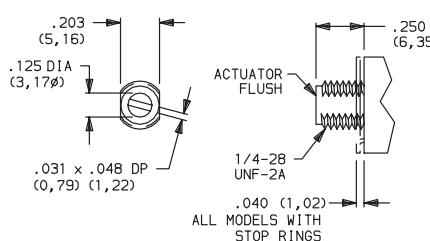
## ACTUATOR (ZINC ALLOY)



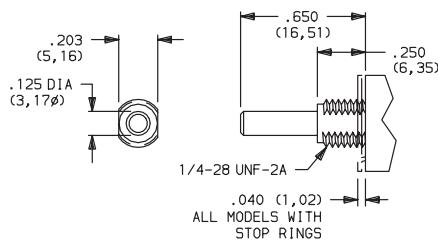
**L1** .650" LONG, FLATTED



**L2** SCREWDRIVER SLOT, FLUSH



**L3** .650" LONG, ROUND

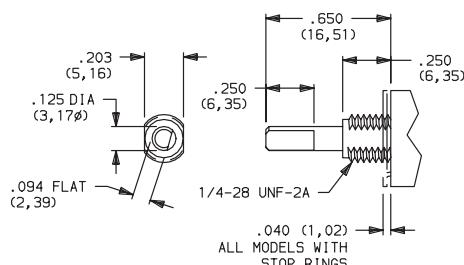


All actuators shown in pos. 1

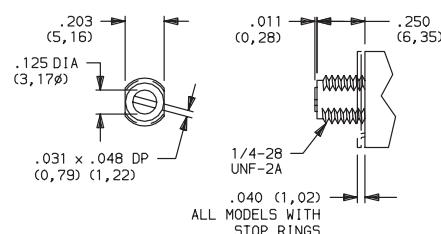
## ACTUATOR (STAINLESS STEEL)



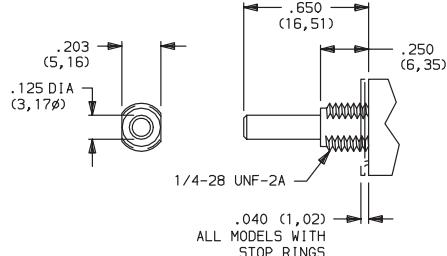
**S1** .650" LONG, FLATTED



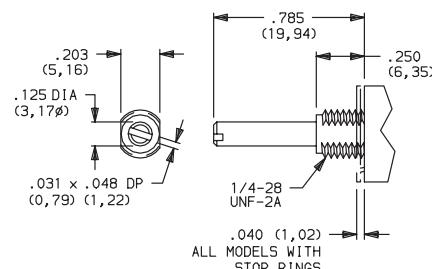
**S2** SCREWDRIVER SLOT, FLUSH



**S3** .650" LONG, ROUND

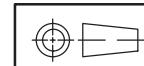


**S6** .785" LONG, SLOT



All actuators shown in pos. 1

All models UL/CSA when ordered with stainless steel actuators.



Third Angle  
Projection

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



Rotary

# M Series Half-inch Rotary Switches

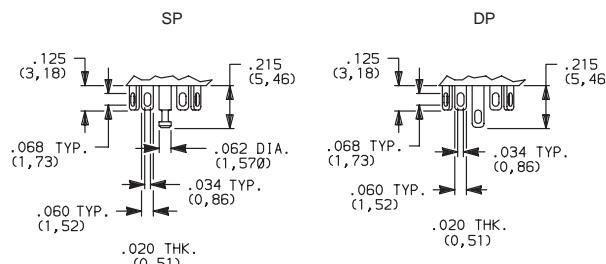
## SHORTING/NON-SHORTING CONTACTS

**N** NON-SHORTING CONTACTS

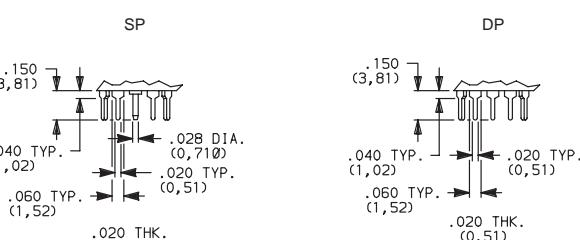
Break-before-make

## TERMINATIONS

**Z** SOLDER LUG

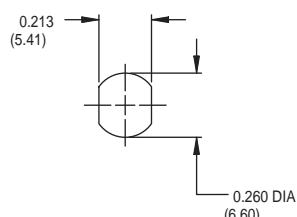


**C** PC THRU-HOLE

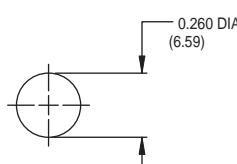


## PANEL MOUNTING

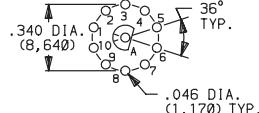
WITH FLATS



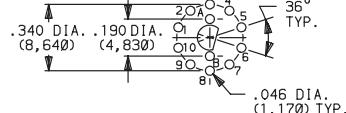
WITHOUT FLATS



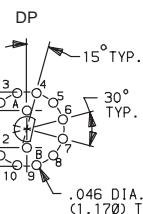
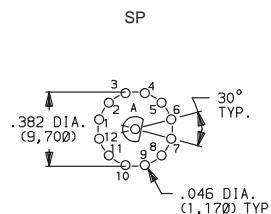
SP



DP



## PC MOUNTING 30° INDEXING



Actuators and schematics shown in pos. 1.

## CONTACT MATERIAL

OPTION CODE	CONTACT MATERIAL	TERMINAL PLATING	RATING	
			POWER	SWITCH: 250 mA @ 125 V AC or 28 V DC.
<b>Q</b>	SILVER <sup>1,2</sup>	SILVER <sup>2</sup>		CARRY: 6 AMPS CONTINUOUS. SWITCH: 250 mA @ 125 V AC or 28 V DC.
<b>G</b>	GOLD OVER SILVER <sup>3,4</sup>	GOLD <sup>4</sup>	LOW LEVEL/DRY CIRCUIT OR POWER	0.4 VA MAX. @ 20 V AC or DC MAX. or, CARRY: 6 AMPS CONTINUOUS. SWITCH: 250 mA @ 125 V AC or 28 V DC.

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

<sup>1</sup> MOBILE CONTACTS: Non-shorting: Copper alloy, silver plated.  
Shorting: Zinc alloy, silver plated.

**NOTE:** Any models supplied with Q, G contact material are RoHS compliant.

<sup>2</sup> STATIONARY CONTACTS & ALL TERMINALS: Copper alloy, silver plated.

All models  when ordered with S1-S6 stainless steel actuator options.

<sup>3</sup> MOBILE CONTACTS: Non-shorting: Copper alloy, with gold plate over nickel plate, over silver plate.  
Shorting: Zinc alloy, with gold plate

<sup>4</sup> STATIONARY CONTACTS & ALL TERMINALS: Copper alloy, with gold plate over nickel plate over silver plate.



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

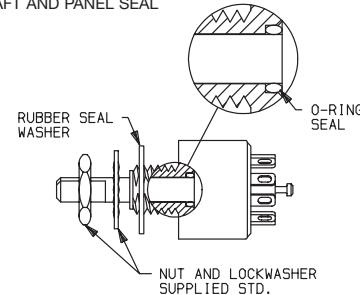
**C&K**

# M Series Half-inch Rotary Switches

## SEAL

**D** NO EPOXY SEAL

**F** SPLASHPROOF SHAFT AND PANEL SEAL



### Setting Stops With Stop Pins

#### MA00, MB00, MC00 & MD00 Models Only:

The number of switch positions or stops are adjustable by means of stop pins provided with each switch. Switches are normally shipped with stop pins and hardware in bulk, not installed. Without stop pins, switches have full 360° rotation and no stops. Note that all two pole models begin to repeat when actuated 180° or more.

To set stops, refer to figures 1 & 2. Orient switch so that terminal no. 1 is as shown. Turn actuator to position 1, using flats on bushing and terminal no. 1 as reference. Install CCW stop pin in hole designated 'X'. Install second stop pin in hole number corresponding to the number of positions desired. Note that two pole models will begin to repeat when actuated 180° or more. To retain stop pins, use adhesive mylar washer included; see figure 3.

All models except MX00 models have number of switch positions or stops pre-set at factory and are not adjustable.

#### Hardware:

Two stop pins, mounting nut, and lockwasher supplied standard.

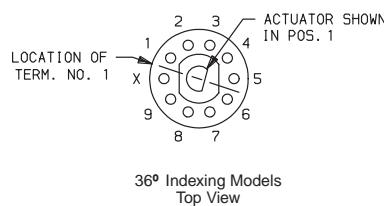


Fig. 1

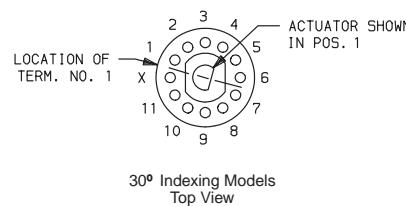


Fig. 2

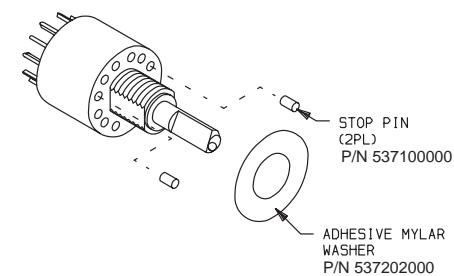
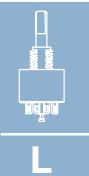


Fig. 3



Rotary

### Setting Stops With Stop Rings

#### ME00, MF00, MG00 & MH00 Models Only:

The number of switch positions or stops are adjustable by means of stop rings provided with each switch. These models are normally shipped with stop rings and hardware in bulk, not installed. Without stop rings, switches have full 360° rotation and no stops. Note that all two pole models begin to repeat when actuated 180° or more.

To set stops refer to figures 4 & 5. Orient switch so that terminal no. 1 is as shown. Turn actuator to pos. 1 using flats on bushing and terminal no. 1 as reference. See figure 6 and install inner stop ring with short tab in hole designated 'X'. Install outer stop ring with long tab in hole number corresponding to the number of positions desired. Note that all two pole models begin to repeat when actuated 180° or more. Use mounting nut and lockwasher to retain stop rings.

#### All MEXX, MFXX, MGXX & MHXX Models (Except MX00 models):

Number of switch positions or stops are preset at factory, but are user adjustable.

#### Hardware:

Two stop rings, mounting nut and lockwasher supplied standard.

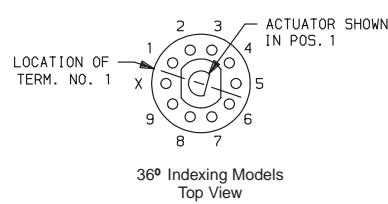


Fig. 4

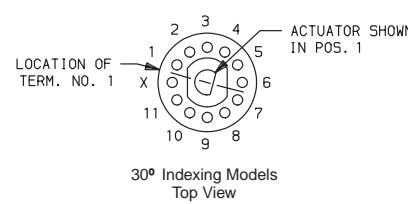


Fig. 5

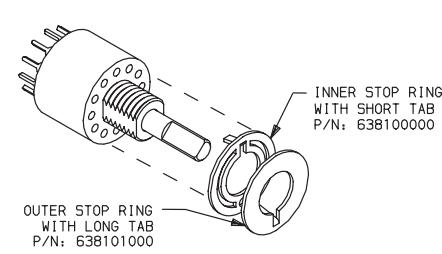


Fig. 6

**C&K**

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

[www.ck-components.com](http://www.ck-components.com)

# RBP12 Series

## 1-6 Pole Miniature Rotary Switches



### Features/Benefits

- **Rotary switch for low current**
- **Shaft perpendicular to PCB**
- **Index mechanism included in thickness of switch**
- **Several actuation modes**
- **Low profile**
- **RoHS Compliant**

### Typical Applications

- **Medical**
- **Instrumentation**
- **Appliances**

### Electrical Data

	Silver (S)	Gold (G)
Switching mode	MBB-BBM	MBB-BBM
Max. switching power	Make Before Break, Break Before Make	
Max. switching current	5 VA (resistive)	0.5 VA (resistive)
Max. carrying current	130 mA	20 mA
Contact resistance	3 A	3 A
Dielectric strength at 50 Hz	< 15 m ohms between contacts or contacts and ground	< 25 m ohms
Nominal voltage	1000 V	1000 V
Number of operations	1000 V	1000 V
Insulation resistance between contacts and contacts and frame (500 Vcc)	150 V rms	150 V rms
	15,000	20,000
	> 5 x 10 <sup>9</sup> ohms	> 5 x 10 <sup>9</sup> ohms

### Mechanical Data

Max. number of banks	1
Operating torque	2.5 Ncm ± 25% (1 pole)
Stop strength	> 40 Ncm
End stop	With/without or mobile
Contact material	Silver, Gold
Insulating material	Thermoplastic

**NOTE:** Specifications and materials listed above are for switches with standard options. For information on specific and custom switches, consult Customer Service Center.

### Environmental data

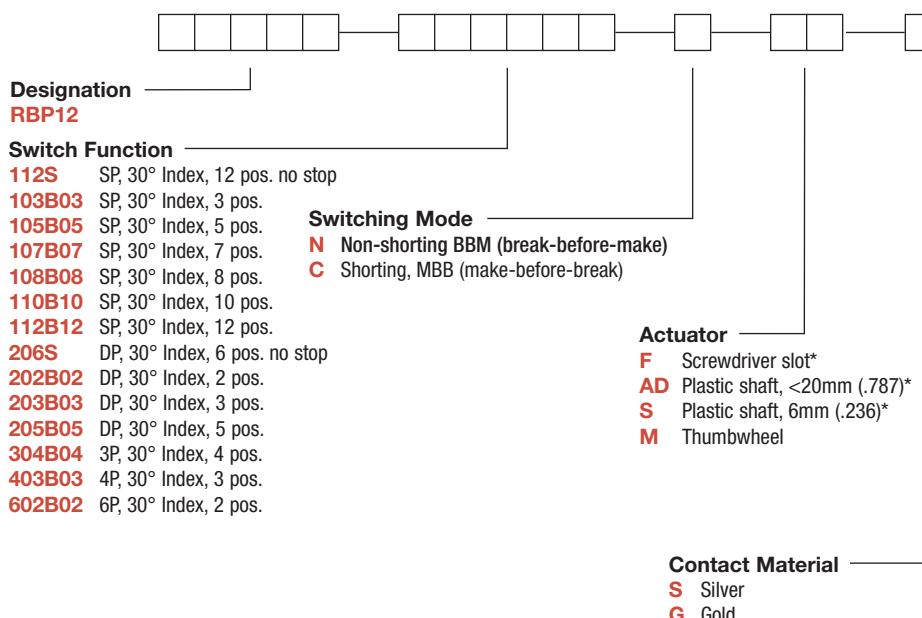
Storage temperature	- 25°C to + 70°C	- 25°C to + 85°C
Salt spray	NA	48 H

### Further data

Solderability	Hand: 350°C/5 s	Wave: 260°C/5 s max.
Cleaning	Cleaning of modules prohibited	

### 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 L-19 thru L-21. For additional options not shown in catalog, consult Customer Service Center.



\*Option: Metallic shaft available by request



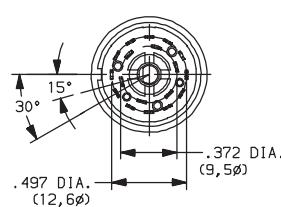
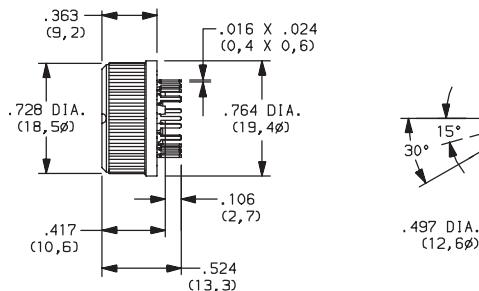
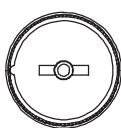
Dimensions are shown: Inch (mm)  
Specifications and dimensions subject to change

# RBP12 Series 1-6 Pole Miniature Rotary Switches

## DESIGNATION



**RBP12**

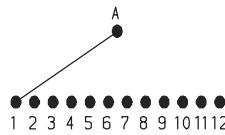


## SWITCH FUNCTION

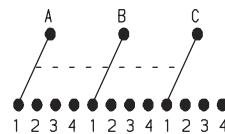


30° INDEXING		
NO. POLES	MODEL NO.	SWITCH FUNCTION
SP	<b>112S</b>	12 Position No Stops
	<b>103B03</b>	3 Positions
	<b>105B05</b>	5 Positions
	<b>107B07</b>	7 Positions
	<b>108B08</b>	8 Positions
	<b>110B10</b>	10 Positions
	<b>112B12</b>	12 Positions
DP	<b>206S</b>	6 Positions No Stop
	<b>202B02</b>	3 Positions
	<b>203B03</b>	3 Positions
	<b>205B05</b>	5 Positions

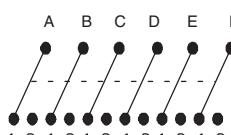
### SP MODELS SCHEMATIC



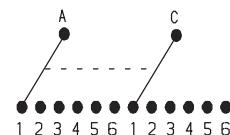
### 3P MODELS SCHEMATIC



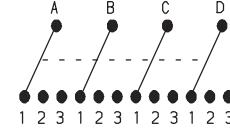
### 6P MODELS SCHEMATIC



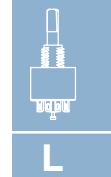
### DP MODELS SCHEMATIC



### 4P MODELS SCHEMATIC

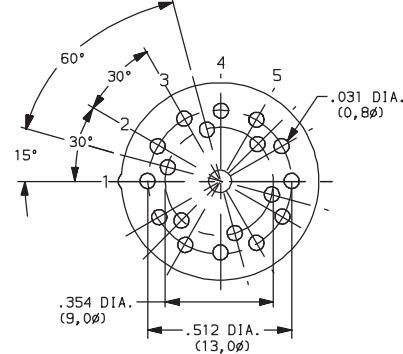
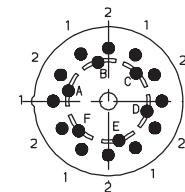
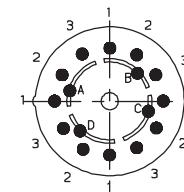
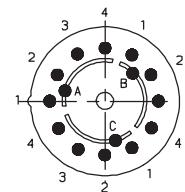
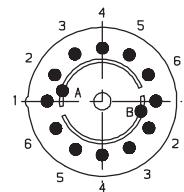
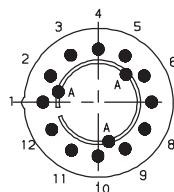


30° INDEXING		
NO. POLES	MODEL NO.	SWITCH FUNCTION
3P	<b>304B04</b>	4 Positions
4P	<b>403B03</b>	3 Positions
6P	<b>602B02</b>	2 Positions



Rotary

### PC LAYOUTS



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

**C&K**

# RBP12 Series

## 1-6 Pole Miniature Rotary Switches

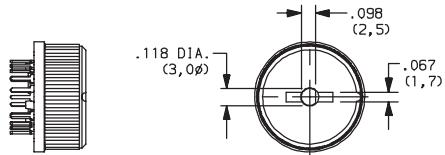
### SWITCHING MODE

**N** NON-SHORTING, BBM (break-before-make)

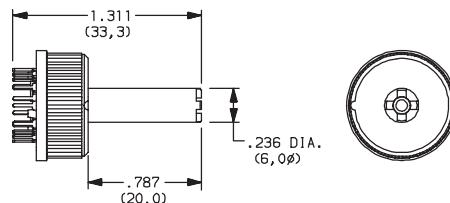
**C** SHORTING, MBB (make-before-break)

### ACTUATOR

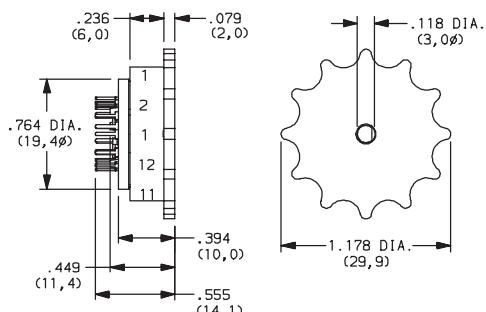
**F** SCREWDRIVER SLOT



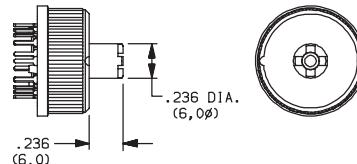
**AD** PLASTIC SHAFT, <20 mm (.787)



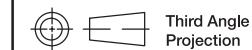
**M** THUMBWHEEL



**S** PLASTIC SHAFT, 6 mm (.236)



Rotary



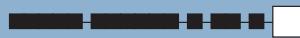
Dimensions are shown: Inch (mm)

Specifications and dimensions subject to change

**C&K**

# RBP12 Series 1-6 Pole Miniature Rotary Switches

## CONTACT MATERIAL

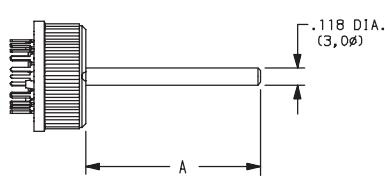


OPTION CODE	CONTACT AND TERMINAL MATERIAL	RATING	
<b>S</b>	SILVER	LOW LEVEL/DRY CIRCUIT	SWITCH: 130 mA, POWER: 5 VA MAXIMUM. CARRY: 3 AMPS
<b>G</b>	GOLD	LOW LEVEL/DRY CIRCUIT OR POWER	SWITCH: 20 mA, POWER: 0.5 VA MAXIMUM. CARRY: 3 AMPS

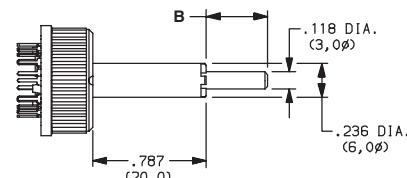
\* Note: See Technical Data section of this catalog for RoHS compliant and compatible definition and specifications.

## AVAILABLE HARDWARE

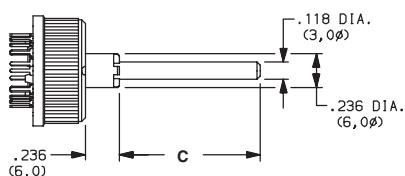
F + FA SHAFT



AD + FA SHAFT



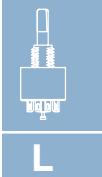
S + FA SHAFT



PART NUMBER	"A"
Y460P0067FP	.394 (10,0)
Y460P0060FP	.590 (15,0)
Y460P0090FP	.787 (20,0)
Y460320100P	.984 (25,0)
Y460P0018FP	1.969 (50,0)
Y460P0022FP	2.756 (70,0)

**NOTE:** FA metallic shaft, consult customer service for available lengths.

Rotary



Third Angle Projection

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

**C&K**

# RTBH Series

## 1-2 Pole Coded Rotary Switches



### Features/Benefits

- **Totally sealed**
- **Detent angles, 15, 22.5, 30 and 36**
- **Multi pole**
- **Coding functions**
- **Robust construction**
- **RoHS Compliant**

### Typical Applications

- **Telecommunications**
- **Military**
- **Instrumentation**
- **Heavy-duty industrial equipment**

### Electrical Data

	Silver	Gold
SWITCHING MODE:	BBM*	BBM*
MAX. SWITCHING POWER:	5VA	0.2VA
Max. SWITCHING CURRENT:	250 mA	20 mA
MIN. SWITCHING CURRENT:	10 mA	1 mA
MAX. CARRYING CURRENT:	5A	1A
MAX. VOLTAGE:	25V	25V
MIN. VOLTAGE:	5V	1V
BOUNCE:	<5ms	<5ms
CONTACT RESISTANCE after life:	<100mΩ	<100mΩ
DIALECTRIC STRENGTH between contacts or contacts and frame:	500 V rms	500 V rms
INSULATION RESISTANCE between contacts or contacts and frame:	>10 <sup>9</sup> Ω	>10 <sup>9</sup> Ω

### Mechanical Data

NUMBER OF BANKS:	1 to 4
OPERATING TORQUE:	5 Ncm±30% (with 1 module)
MECHANICAL STOP RESISTANCE:	>70 Ncm
BUSHING MOUNTING TORQUE:	100 Ncm

### Environmental Data

OPERATING TEMPERATURE:	-250C to +700C
STORAGE TEMPERATURE:	-400C to +850C
TOTALLY SEALED:	Immersion test acc. to MIL R22.097 F and NFC 20631/QF

\* BBM= Break Before Make (non-starting)

### Materials

HOUSING: PBT thermoplastic and PC thermoplastic  
 STATIONARY CONTACTS & TERMINALS: Nickel plated Brass with additional Gold or Silver plating, insert molded in PBT thermoplastic.  
 ROTOR: Printed circuit, gold or silver plated.  
 ACTUATOR: Steel  
 BUSHING: Brass  
 HARDWARE: Stop pin and spring: Stainless steel  
 All models are RoHS compliant and compatible.

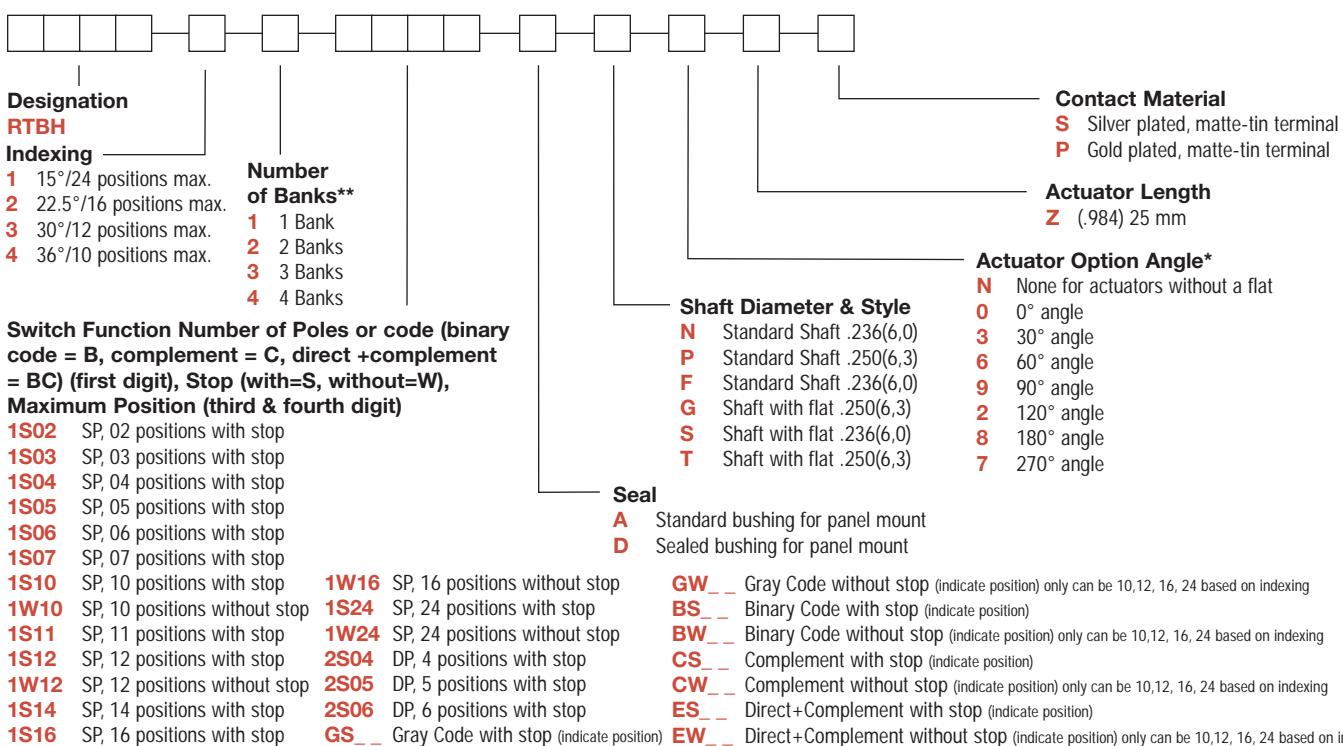
**NOTE:** Specifications and materials listed above are for switches with standard options.  
 For information on specific and custom switches, consult Customer Service Center.



### Rotary

### 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 L-23 thru L-27. For additional options not shown in catalog, consult Customer Service Center.



\* Other angles available by request

\*\* Several functions can be combined. For more information consult us.

\*\*\*Note: Metric diameter shafts are only available with metric diameter bushings, standard 1.250 inch diameter shafts are only available with standard 3/8 diameter bushings.

**NOTE:** S&T Shaft Diameter and Style are only available with Actuator Option angle 0, 6, 9, 2.



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

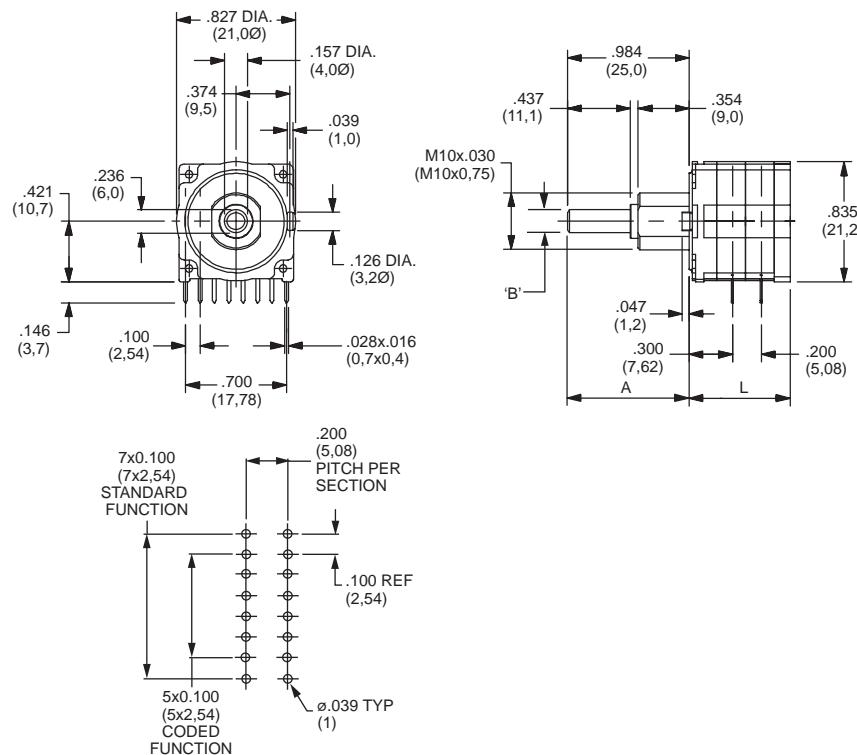
# RTBH Series

## 1-2 Pole Coded Rotary Switches

### DESIGNATION



**RTBH**



Dimensions L		
Number modules	L inch	L mm
<b>1</b>	0.500	12.7
<b>2</b>	0.700	17.78
<b>3</b>	0.900	22.86
<b>4</b>	1.10	27.94

Dimensions A		
A: (standard)	0.984 inch (25 mm)	

Dimensions B		
0.236 or 0.250 inch (0.6 or 6.35 mm)		

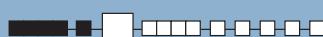
### INDEXING



- 1** 15° index/24 positions
- 2** 22.5° index/16 positions
- 3** 30° index/12 positions
- 4** 36° index/10 positions

Rotary

### NUMBER OF BANKS



- 1** 1 BANK
- 2** 2 BANKS
- 3** 3 BANKS
- 4** 4 BANKS

**NOTE:** Several functions can be combined. For more information consult customer service.



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

**C&K**

[www.ck-components.com](http://www.ck-components.com)

# RTBH Series

## 1-2 Pole Coded Rotary Switches

### SWITCH FUNCTION

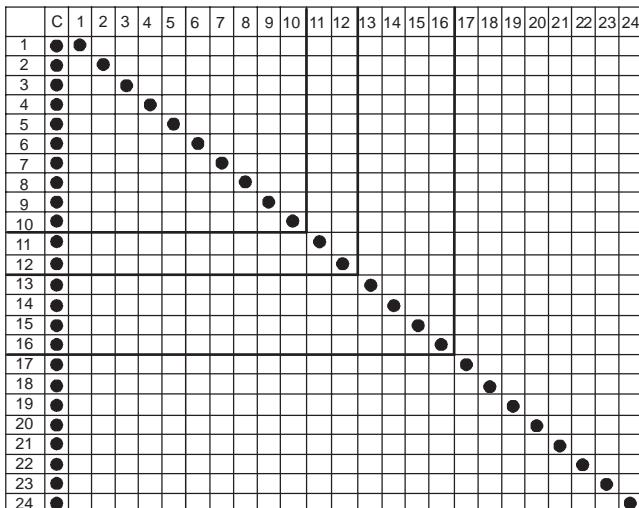


Switch Function Number of Poles or code (binary code = B, complement = C, direct +complement = BC)  
(first digit), Stop (with=S, without=W), Maximum Position (third & fourth digit)

**1S02** SP, 02 positions with stop  
**1S03** SP, 03 positions with stop  
**1S04** SP, 04 positions with stop  
**1S05** SP, 05 positions with stop  
**1S06** SP, 06 positions with stop  
**1S07** SP, 07 positions with stop  
**1S10** SP, 10 positions with stop  
**1W10** SP, 10 positions without stop  
**1S11** SP, 11 positions with stop  
**1S12** SP, 12 positions with stop  
**1W12** SP, 12 positions without stop  
**1S14** SP, 14 positions with stop  
**1S16** SP, 16 positions with stop  
**1W16** SP, 16 positions without stop  
**1S24** SP, 24 positions with stop  
**1W24** SP, 24 positions without stop

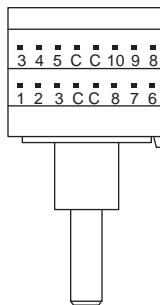
**2S04** DP, 4 positions with stop  
**2S05** DP, 5 positions with stop  
**2S06** DP, 6 positions with stop  
**GS\_** Gray Code with stop (indicate position)  
**GW\_** Gray Code without stop (indicate position) only can be 10,12, 16, 24 based on indexing  
**BS\_** Binary Code with stop (indicate position)  
**BW\_** Binary Code without stop (indicate position) only can be 10,12, 16, 24 based on indexing  
**CS\_** Complement with stop (indicate position)  
**CW\_** Complement without stop (indicate position) only can be 10,12, 16, 24 based on indexing  
**ES\_** Direct+Complement with stop (indicate position)  
**EW\_** Direct+Complement without stop (indicate position) only can be 10,12, 16, 24 based on indexing

**1** Single Pole Function 1S10, 1S12, 1S16, 1S24

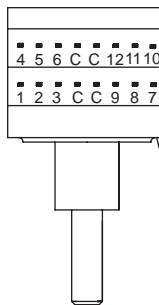


Rotary

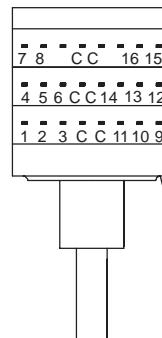
1S10



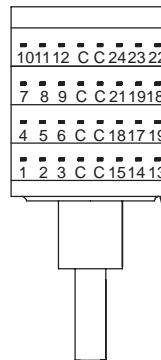
1S12



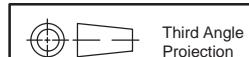
1S16



1S24



NOTE: Switch depicted from top down onto PCB.



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

**C&K**

# RTBH Series

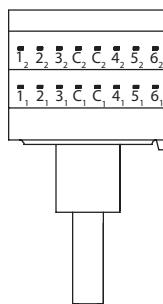
## 1-2 Pole Coded Rotary Switches

### SWITCH FUNCTION

#### 2 DOUBLE POLE FUNCTION

	C <sub>1</sub>	1 <sub>1</sub>	2 <sub>1</sub>	3 <sub>1</sub>	4 <sub>1</sub>	5 <sub>1</sub>	6 <sub>1</sub>	C <sub>2</sub>	1 <sub>2</sub>	2 <sub>2</sub>	3 <sub>2</sub>	4 <sub>2</sub>	5 <sub>2</sub>	6 <sub>2</sub>
1	●	●							●	●				
2	●		●						●		●			
3	●		●	●					●		●			
4	●		●		●				●		●	●		
5	●				●	●			●		●	●	●	
6	●					●	●		●		●	●	●	●

2S06

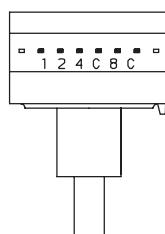


NOTE: Switch depicted from top down onto PCB.

#### B BINARY DIRECT CODE

	C	1	2	4	8	16
0	●					
1		●				
2		●	●			
3		●	●	●		
4		●	●	●	●	
5		●	●	●	●	●
6			●	●	●	●
7		●	●	●	●	●
8		●	●	●	●	●
9		●	●	●	●	●
10		●	●	●	●	●
11		●	●	●	●	●
12		●	●	●	●	●
13		●	●	●	●	●
14		●	●	●	●	●
15		●	●	●	●	●
16		●				
17		●				
18		●				
19		●				
20		●				
21		●				
22		●				
23		●				

BS10 BS12 BS16

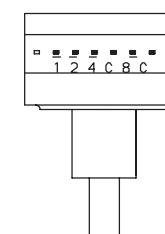


NOTE: Switch depicted from top down onto PCB.

#### C COMPLEMENT BINARY CODE

	C	1̄	2̄	4̄	8̄	16̄
0	●	●	●	●	●	●
1		●				
2		●	●			
3		●	●	●		
4		●	●	●	●	
5		●	●	●	●	●
6		●		●	●	●
7		●		●	●	●
8		●		●	●	●
9		●		●	●	●
10		●		●	●	●
11		●		●	●	●
12		●		●	●	●
13		●		●	●	●
14		●		●	●	●
15		●		●	●	●
16		●				
17		●				
18		●				
19		●				
20		●				
21		●				
22		●				
23		●				

CS10 CS12 CS16

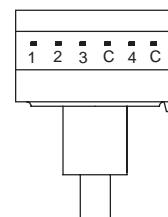


NOTE: Switch depicted from top down onto PCB.

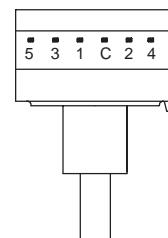
#### G GRAY CODE

	c	1	2	3	4	5
1	●					
2		●	●			
3		●	●	●		
4		●	●	●	●	
5		●	●	●	●	●
6		●	●	●	●	●
7		●	●	●	●	●
8		●	●	●	●	●
9		●	●	●	●	●
10		●	●	●	●	●
11		●	●	●	●	●
12		●	●	●	●	●
13		●	●	●	●	●
14		●	●	●	●	●
15		●	●	●	●	●
16		●				
17		●				
18		●				
19		●				
20		●				
21		●				
22		●				
23		●				
24		●				

GS10 GS12 GS16



GS24

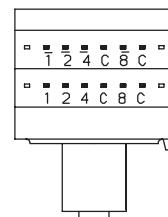


NOTE: Switch depicted from top down onto PCB.

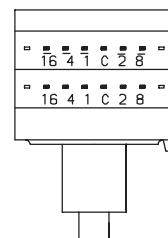
#### E DIRECT AND COMPLEMENT BINARY CODE

	C	1	2	4	8	16	C	1̄	2̄	4̄	8̄	16̄
0	●						●	●	●	●	●	●
1		●						●	●	●	●	●
2		●	●					●	●	●	●	●
3		●	●	●				●	●	●	●	●
4		●	●	●	●			●	●	●	●	●
5		●	●	●	●	●		●	●	●	●	●
6		●	●	●	●	●		●	●	●	●	●
7		●	●	●	●	●		●	●	●	●	●
8		●	●	●	●	●		●	●	●	●	●
9		●	●	●	●	●		●	●	●	●	●
10		●	●	●	●	●		●	●	●	●	●
11		●	●	●	●	●		●	●	●	●	●
12		●	●	●	●	●		●	●	●	●	●
13		●	●	●	●	●		●	●	●	●	●
14		●	●	●	●	●		●	●	●	●	●
15		●	●	●	●	●		●	●	●	●	●
16		●						●	●	●	●	●
17		●						●	●	●	●	●
18		●						●	●	●	●	●
19		●						●	●	●	●	●
20		●						●	●	●	●	●
21		●						●	●	●	●	●
22		●						●	●	●	●	●
23		●						●	●	●	●	●

ES10 ES12 ES16



ES24



NOTE: Switch depicted from top down onto PCB.

**C&K**

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

[www.ck-components.com](http://www.ck-components.com)



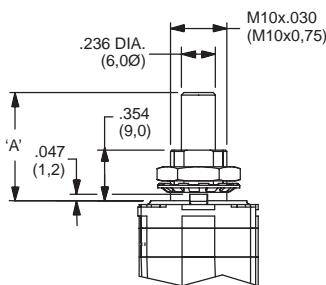
Rotary

# RTBH Series

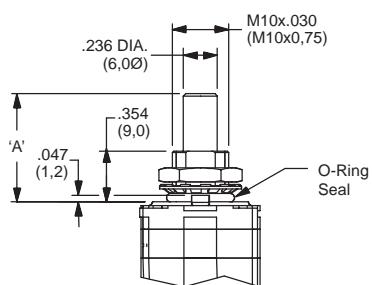
## 1-2 Pole Coded Rotary Switches

### SEAL

**A** STANDARD BUSHING FOR PANEL MOUNT

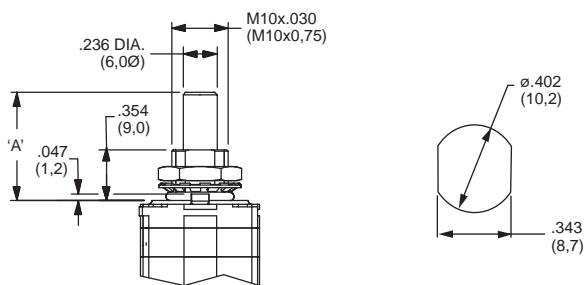


**D** SEALED BUSHING FOR PANEL MOUNT

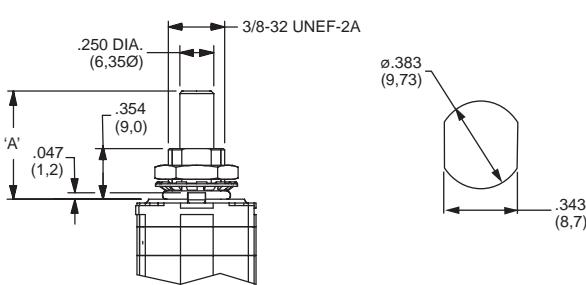


### SHAFT DIAMETER & STYLE

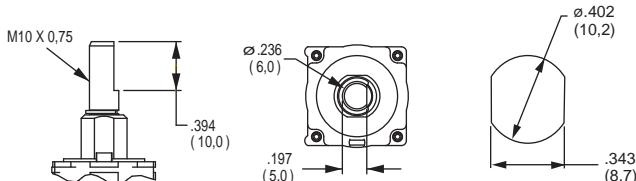
**N** METRIC SHAFT 0.236 (6,0)



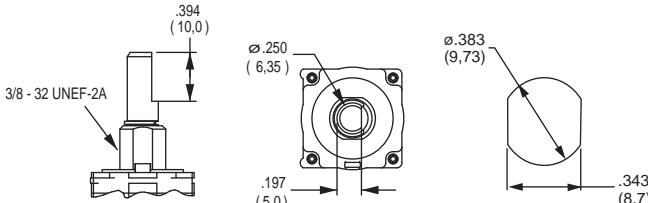
**P** STANDARD SHAFT 0.25 (6,3)



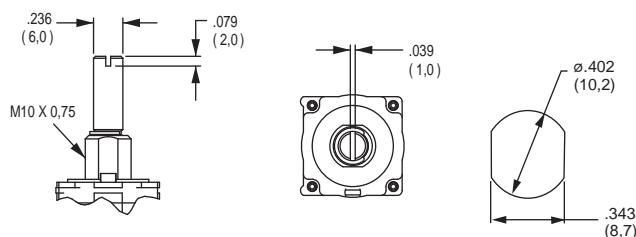
**F** METRIC SHAFT WITH FLAT 0.236 (6,0)



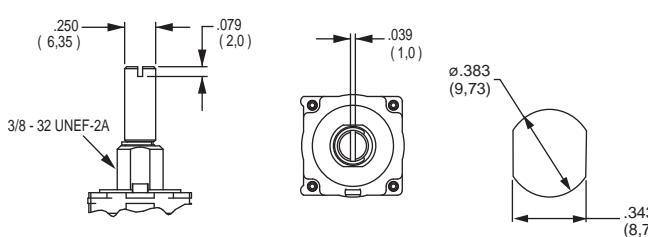
**G** STANDARD SHAFT WITH FLAT 0.25 (6,3)



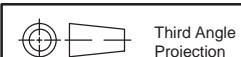
**S** METRIC SHAFT WITH FLAT 0.236 (6,0)



**T** STANDARD SHAFT WITH FLAT 0.25 (6,3)



\*\*Note: Metric diameter shafts are only available with metric diameter bushings, standard 1.250 inch diameter shafts are only available with standard 3/8 diameter bushings.



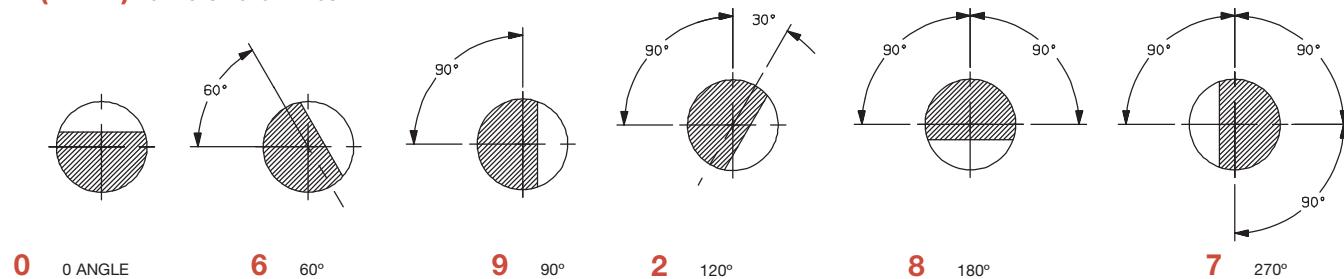
Dimensions are shown: Inch (mm)  
Specifications and dimensions subject to change

# C&K RTBH Series 1-2 Pole Coded Rotary Switches

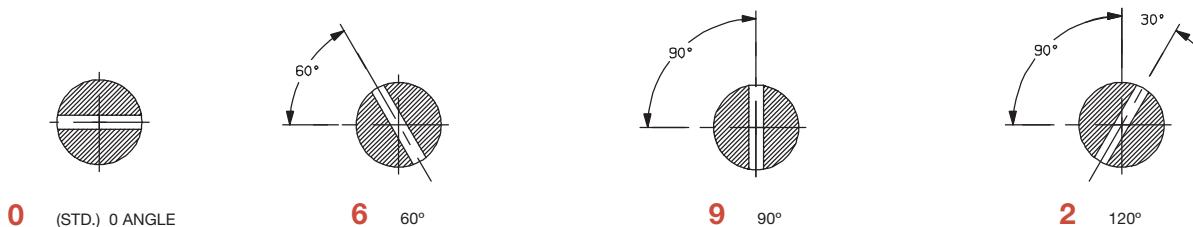
## ACTUATOR OPTION ANGLE

SHAFT WITH FLAT OPTIONS

**N (None)** FOR ACTUATORS WITHOUT A FLAT



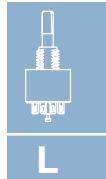
SHAFT WITH SLOT OPTIONS



## ACTUATOR LENGTH

**Z** (.984) 0.25 mm STANDARD SHAFT

Other lengths available by request.



Rotary

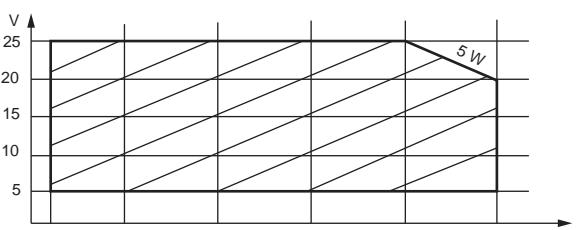
## CONTACT MATERIAL

OPTION CODE	CONTACT AND TERMINAL MATERIAL	RATING
<b>S</b>	SILVER	SWITCH: 250 mA, POWER: 5 VA; CARRY: 5 AMPS
<b>P</b>	GOLD	SWITCH: 20 mA, POWER: 0.2 VA; CARRY: 1 AMP

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

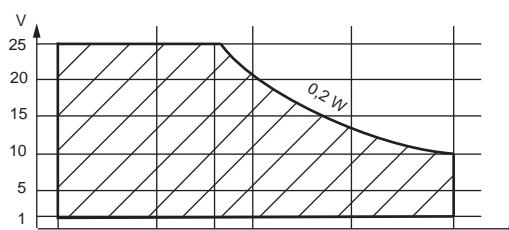
### SWITCHING POWER

**S** (SILVER CONTACTS)



Switching power: 5 W  
Max. voltage: 25 V  
Min. voltage: 5 V  
Max. switching current: 250 mA  
Min. switching current: 10 mA

**P** (GOLD CONTACTS)



Switching power: 0.2 W  
Max. voltage: 25 V  
Min. voltage: 1 V  
Max. switching current: 20 mA  
Min. switching current: 1 mA



Third Angle Projection

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

**C&K**

# RTBV Series

## 1-2 Pole Coded Rotary Switches



### Features/Benefits

- **Totally sealed**
- **Detent angles, 15, 22.5, 30 and 36**
- **Multi pole**
- **Coding functions**
- **Robust construction**
- **RoHS Compliant**

### Typical Applications

- **Telecommunications**
- **Military**
- **Instrumentation**
- **Heavy-duty industrial equipment**

### Electrical Data

	Silver	Gold
SWITCHING MODE:	BBM*	BBM*
MAX. SWITCHING POWER:	5VA	0.2VA
MAX. SWITCHING CURRENT:	250 mA	20 mA
MIN. SWITCHING CURRENT:	10 mA	1 mA
MAX. CARRYING CURRENT:	5A	1A
MAX. VOLTAGE:	25V	25V
MIN. VOLTAGE:	5V	1V
BOUNCE:	<5ms	<5ms
CONTACT RESISTANCE after life:	<100mΩ	<100mΩ
DIELECTRIC STRENGTH between contacts or contacts and frame:	500 V rms	500 V rms
INSULATION RESISTANCE between contacts or contacts and frame:	>10 <sup>9</sup> Ω	>10 <sup>9</sup> Ω

### Mechanical Data

NUMBER OF BANKS:	1 to 10
OPERATING TORQUE:	5 Ncm±30% (with 1 module)
MECHANICAL STOP RESISTANCE:	>70 Ncm
BUSHING MOUNTING TORQUE:	100 Ncm

### Environmental Data

OPERATING TEMPERATURE:	-25°C to +70°C
STORAGE TEMPERATURE:	-40°C to +85°C
TOTALLY SEALED:	Immersion test acc. to MIL R22.097 F and NFC 20631/QF

\* BBM= Break Before Make (non-starting)

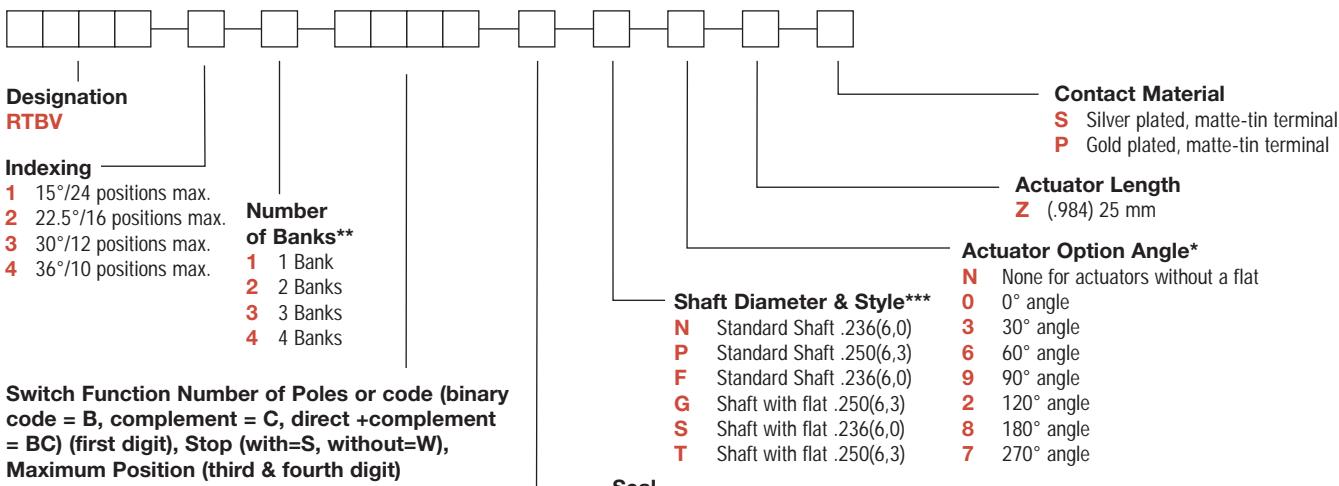
### Materials

HOUSING: PBT thermoplastic and PC thermoplastic  
 STATIONARY CONTACTS & TERMINALS: Nickel plated Brass with additional Gold or Silver plating, insert molded in PBT thermoplastic.  
 ROTOR: Printed circuit, gold or silver plated.  
 ACTUATOR: Steel  
 BUSHING: Brass  
 HARDWARE: Stop pin and spring: Stainless steel  
 All models are RoHS compliant and compatible.

**NOTE:** Specifications and materials listed above are for switches with standard options. For information on specific and custom switches, consult Customer Service Center.



### Rotary



**Switch Function Number of Poles or code (binary code = B, complement = C, direct +complement = BC) (first digit), Stop (with=S, without=W), Maximum Position (third & fourth digit)**

1S02	SP, 02 positions with stop	1S14	SP, 14 positions with stop
1S03	SP, 03 positions with stop	1S16	SP, 16 positions with stop
1S04	SP, 04 positions with stop	1W16	SP, 16 positions without stop
1S05	SP, 05 positions with stop	1S24	SP, 24 positions with stop
1S06	SP, 06 positions with stop	1W24	SP, 24 positions without stop
1S07	SP, 07 positions with stop	2S04	DP, 4 positions with stop
1S10	SP, 10 positions with stop	2S05	DP, 5 positions with stop
1W10	SP, 10 positions without stop	2S06	DP, 6 positions with stop
1S11	SP, 11 positions with stop		
1S12	SP, 12 positions with stop		
1W12	SP, 12 positions without stop		

\* Other angles available by request

\*\* Several functions can be combined. For more information consult us.

\*\*\*Note: Metric diameter shafts are only available with metric diameter bushings, standard 1.250 inch

meter shafts are only available with standard 3/8 diameter bushings.

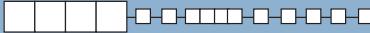
NOTE: S&T Shaft Diameter and Style are only available with Actuator Option angle 0, 6, 9, 2.



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

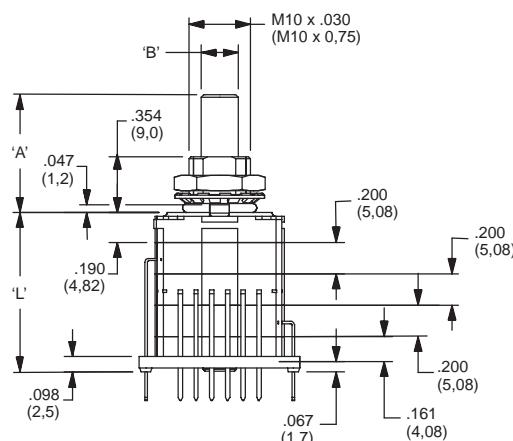
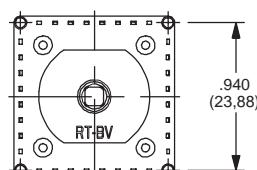
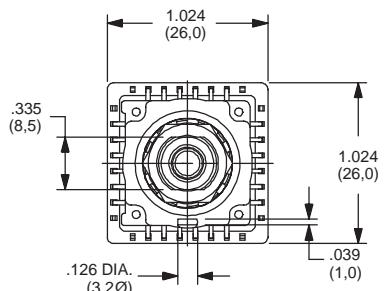
# RTBV Series 1-2 Pole Coded Rotary Switches

## DESIGNATION



**RTBV**

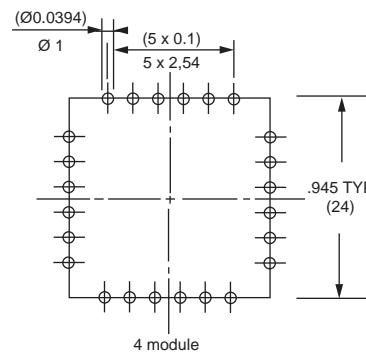
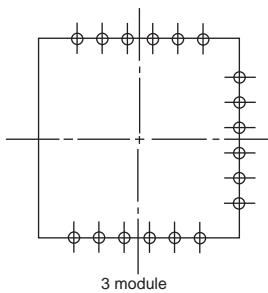
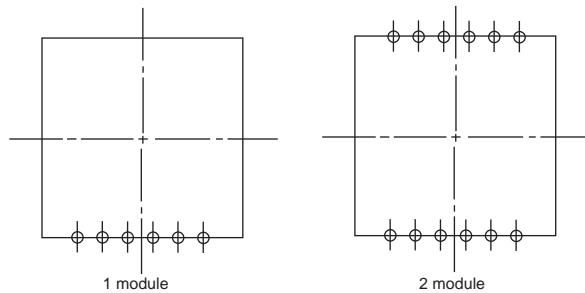
DIMENSIONAL DRAWINGS



Dimensions L		
Number modules	L inch	L mm
<b>1</b>	0.419	10.65
<b>2</b>	0.619	15.73
<b>3</b>	0.819	20.81
<b>4</b>	1.02	25.89

Dimensions A		
A: (standard)	0.984 inch (25 mm)	
Dimensions B		
0.236 or 0.250 inch (0.6 or 6.35 mm)		



## INDEXING



- 1** 15° index/24 positions
- 2** 22.5° index/16 positions
- 3** 30° index/12 positions
- 4** 36° index/10 positions



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

**C&K**

# RTBV Series

## 1-2 Pole Coded Rotary Switches

### NUMBER OF BANKS

- 1** 1 BANK
- 2** 2 BANKS
- 3** 3 BANKS
- 4** 4 BANKS

NOTE: Several functions can be combined. For more information consult customer service.

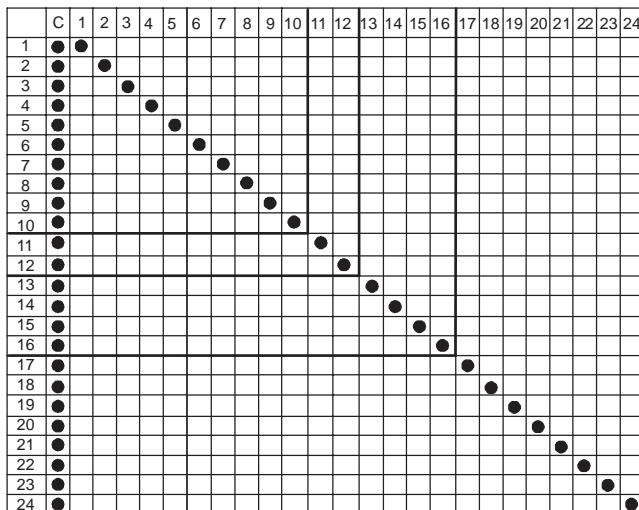
### SWITCH FUNCTION

**Switch Function Number of Poles or code (binary code = B, complement = C, direct +complement = BC) (first digit), Stop (with=S, without=W), Maximum Position (third & fourth digit)**

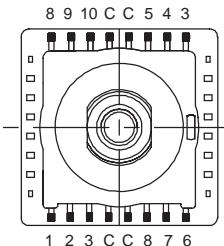
- 1S02** SP, 02 positions with stop
- 1S03** SP, 03 positions with stop
- 1S04** SP, 04 positions with stop
- 1S05** SP, 05 positions with stop
- 1S06** SP, 06 positions with stop
- 1S07** SP, 07 positions with stop
- 1S10** SP, 10 positions with stop
- 1W10** SP, 10 positions without stop
- 1S11** SP, 11 positions with stop
- 1S12** SP, 12 positions with stop
- 1W12** SP, 12 positions without stop
- 1S14** SP, 14 positions with stop
- 1S16** SP, 16 positions with stop
- 1W16** SP, 16 positions without stop

- 1S24** SP, 24 positions with stop
- 1W24** SP, 24 positions without stop
- 2S04** DP, 4 positions with stop
- 2S05** DP, 5 positions with stop
- 2S06** DP, 6 positions with stop
- GS\_** Gray Code with stop (indicate position)
- GW\_** Gray Code without stop (indicate position) only can be 10,12, 16, 24 based on indexing
- BS\_** Binary Code with stop (indicate position)
- BW\_** Binary Code without stop (indicate position) only can be 10,12, 16, 24 based on indexing
- CS\_** Complement with stop (indicate position)
- CW\_** Complement without stop (indicate position) only can be 10,12, 16, 24 based on indexing
- ES\_** Direct+Complement with stop (indicate position)
- EW\_** Direct+Complement without stop (indicate position) only can be 10,12, 16, 24 based on indexing

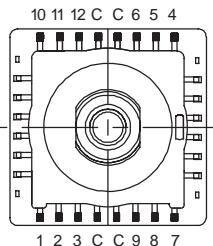
**1** Single Pole Function 1S10, 1S12, 1S16, 1S24



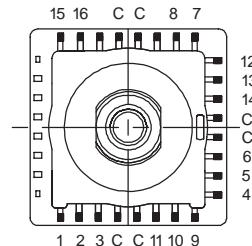
**1S10**



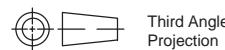
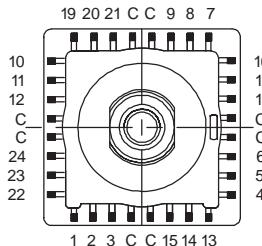
**1S12**



**1S16**



**1S24**



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

**C&K**

# RTBV Series

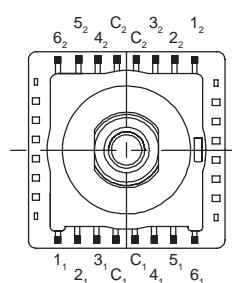
## 1-2 Pole Coded Rotary Switches

### SWITCH FUNCTION

#### 2 DOUBLE POLE FUNCTION

	$C_1$	$1_1$	$2_1$	$3_1$	$4_1$	$5_1$	$6_1$	$C_2$	$1_2$	$2_2$	$3_2$	$4_2$	$5_2$	$6_2$
1	●	●							●	●				
2	●		●						●	●	●			
3	●		●						●	●	●			
4	●		●						●	●	●			
5	●				●	●				●	●	●		
6	●				●	●				●	●	●		●

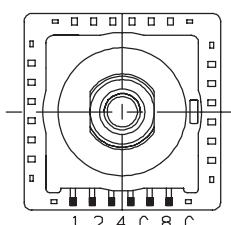
2S06



#### B BINARY DIRECT CODE

	$C$	1	2	4	8	16
0	●					
1		●	●			
2		●		●		
3		●	●	●		
4		●			●	
5		●	●		●	
6		●			●	●
7		●	●	●	●	
8		●				●
9		●	●			●
10		●	●	●		●
11		●	●		●	●
12		●				●
13		●	●	●		●
14		●				●
15		●	●	●		●
16		●				●
17		●				●
18		●				●
19		●	●	●		●
20		●				●
21		●	●	●		●
22		●	●	●		●
23		●	●	●		●

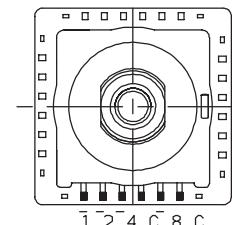
BS10 BS12 BS16



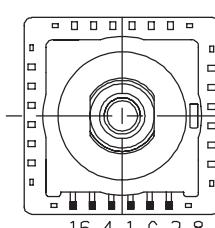
#### C COMPLEMENT BINARY CODE

	$C$	$\bar{1}$	$\bar{2}$	$\bar{4}$	$\bar{8}$	$\bar{16}$
0	●					
1		●				
2		●	●			
3		●	●	●		
4		●			●	
5		●	●		●	
6		●			●	●
7		●	●	●	●	●
8		●				●
9		●	●			●
10		●			●	●
11		●	●		●	●
12		●				●
13		●	●	●		●
14		●				●
15		●	●	●		●
16		●				●
17		●				●
18		●				●
19		●	●			●
20		●				●
21		●	●			●
22		●	●	●		●
23		●	●	●		●

CS10 CS12 CS16



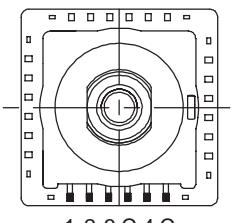
CS24



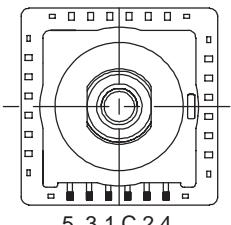
#### G GRAY CODE

	$C$	1	2	3	4	5
1	●					
2		●	●			
3		●	●	●		
4		●			●	
5		●	●	●	●	
6		●				●
7		●	●			●
8		●				●
9		●	●			●
10		●				●
11		●	●			●
12		●				●
13		●	●	●		●
14		●	●	●		●
15		●				●
16		●				●
17		●				●
18		●				●
19		●	●			●
20		●				●
21		●	●			●
22		●	●	●		●
23		●	●	●		●
24		●	●	●		●

GS10 GS12 GS16

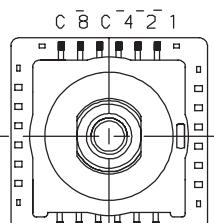


GS24

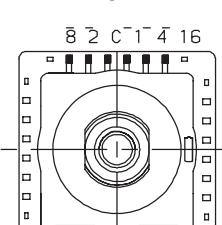


	$C$	1	2	4	8	16	$C$	$\bar{1}$	$\bar{2}$	$\bar{4}$	$\bar{8}$	$\bar{16}$
0	●						●	●	●	●	●	●
1		●	●				●	●	●	●	●	●
2		●		●			●	●	●	●	●	●
3		●	●	●			●	●	●	●	●	●
4		●			●		●	●	●	●	●	●
5		●	●		●		●	●	●	●	●	●
6		●				●	●	●	●	●	●	●
7		●	●	●		●	●	●	●	●	●	●
8		●				●	●	●	●	●	●	●
9		●	●			●	●	●	●	●	●	●
10		●				●	●	●	●	●	●	●
11		●	●			●	●	●	●	●	●	●
12		●				●	●	●	●	●	●	●
13		●	●	●		●	●	●	●	●	●	●
14		●				●	●	●	●	●	●	●
15		●	●	●		●	●	●	●	●	●	●
16		●				●	●	●	●	●	●	●
17		●				●	●	●	●	●	●	●
18		●				●	●	●	●	●	●	●
19		●	●			●	●	●	●	●	●	●
20		●				●	●	●	●	●	●	●
21		●	●			●	●	●	●	●	●	●
22		●	●	●		●	●	●	●	●	●	●
23		●	●	●		●	●	●	●	●	●	●
24		●	●	●		●	●	●	●	●	●	●

ES10 ES12 ES16



ES24

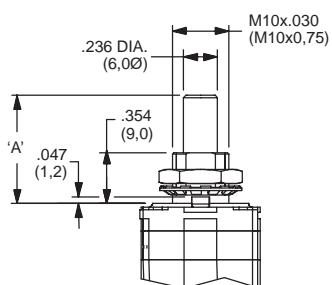


# RTBV Series

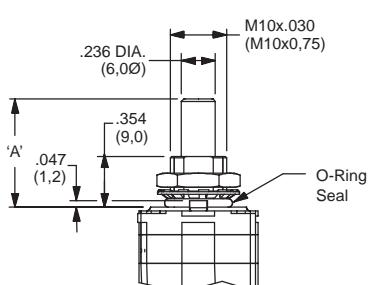
## 1-2 Pole Coded Rotary Switches

### SEAL

**A** STANDARD BUSHING FOR PANEL MOUNT

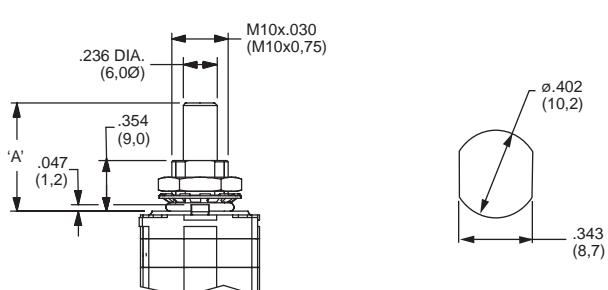


**D** SEALED BUSHING FOR PANEL MOUNT

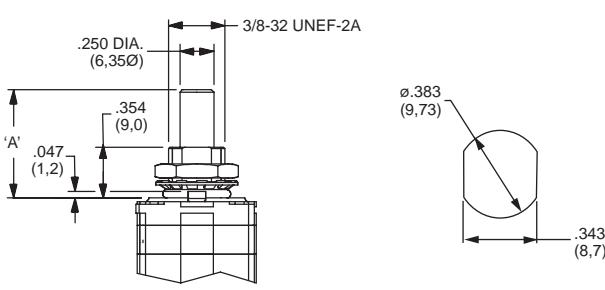


### SHAFT DIAMETER & STYLE

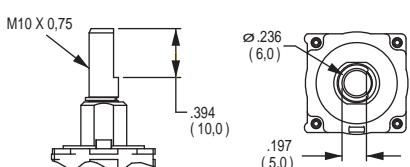
**N** STANDARD SHAFT 0.236 (6,0)



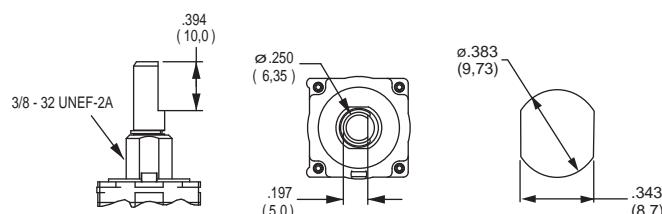
**P** STANDARD SHAFT 0.250( 6,3)



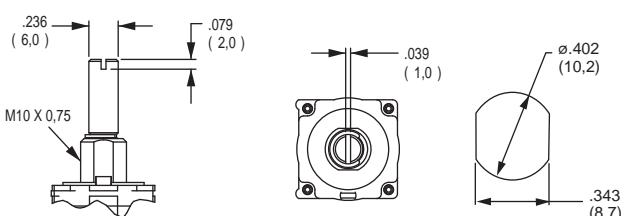
**F** SHAFT WITH FLAT 0.236 (6,0)



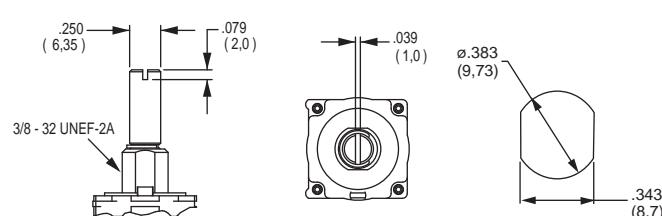
**G** SHAFT WITH FLAT 0.250 (6,3)



**S** SHAFT WITH SLOT 0.236 (6,0)



**T** SHAFT WITH SLOT 0.250 (6,3)



\*\*\*Note: Metric diameter shafts are only available with metric diameter bushings, standard 1.250 inch diameter shafts are only available with standard 3/8 diameter bushings.



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

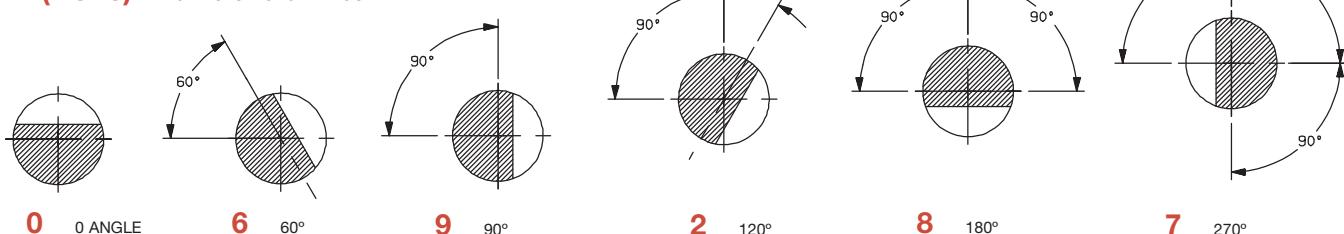
# RTBV Series

## 1-2 Pole Coded Rotary Switches

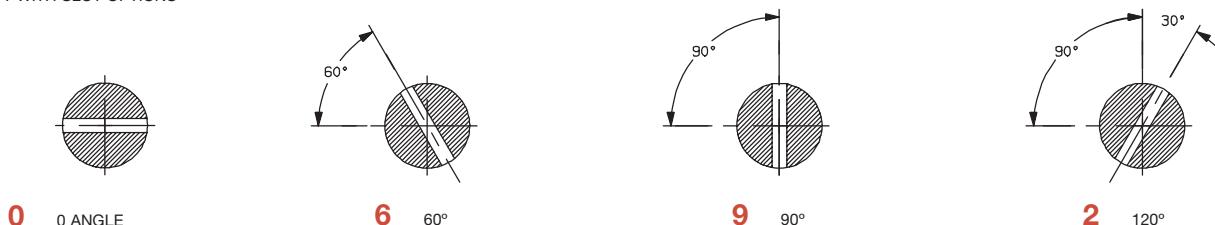
### ACTUATOR OPTION ANGLE

SHAFT WITH FLAT OPTIONS

**N (None)** FOR ACTUATORS WITHOUT A FLAT



SHAFT WITH SLOT OPTIONS



\* Note: S&T Shaft Diameter and Style are only available with Actuator Option Angle 0, 6, 9, 2.

### ACTUATOR LENGTH

**Z** (.984) 0.25 mm STANDARD SHAFT

Other lengths available by request.

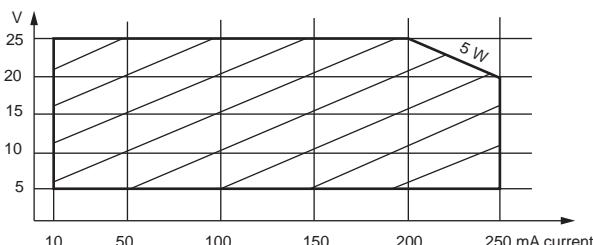
### CONTACT MATERIAL

OPTION CODE	CONTACT AND TERMINAL MATERIAL	RATING
<b>S</b>	SILVER	SWITCH: 250 mA, POWER: 5 VA; CARRY: 5 AMPS
<b>P</b>	GOLD	SWITCH: 20 mA, POWER: 0.2 VA; CARRY: 1 AMP

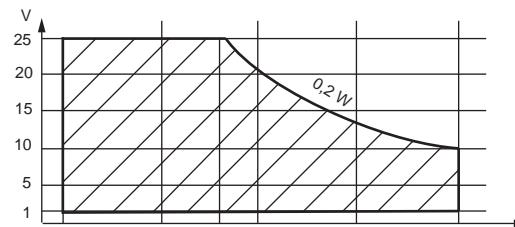
\* Note: See Technical Data section of this catalog for RoHS compliant and compatible definition and specifications.

#### SWITCHING POWER

**S** (SILVER CONTACTS)



**P** (GOLD CONTACTS)



**C&K**



Third Angle Projection

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

[www.ck-components.com](http://www.ck-components.com)

# R Series ROTA-SLIDE® Rotary Switches



## Features/Benefits

- Multi-pole and multi-position
- Positive detent
- Panel and PCB mounting
- Enclosed
- RoHS Compliant

## Typical Applications

- Ceiling fans
- Industrial equipment
- Portable tools



## Specifications

CONTACT RATING: Q contact material: 5 AMPS @ 125 V AC; 2.5 AMPS @ 250 V AC; 0.5 AMP @ 125 V DC; 1/8 HP @ 125 and 250 VAC (UL/CSA).

See page L-36 for additional ratings.

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

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

INSULATION RESISTANCE: 10<sup>9</sup> Ω min.

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

INDEXING: 36°-one contact models, 10 position max.; two contact models, 5 position max.

OPERATING & STORAGE TEMPERATURE: -30°C to 95°C

## Materials

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

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

CONTACTS & TERMINALS: Q contact material: Copper, silver plated. See page L-36 for additional contact materials.

CONTACT SPRING: Music wire or stainless steel.

MOUNTING NUT: Steel, zinc plated.

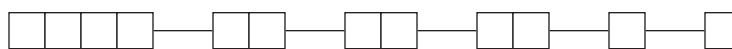
TERMINAL SEAL: Epoxy.

**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 L-35 and L-36. For additional options not shown in catalog, consult Customer Service Center.



### Switch Function

**R100** SP, 36° Index, 10 pos. no stops

**R103** SP, 36° Index, 3 pos.

**R104** SP, 36° Index, 4 pos.

**R108** SP, 36° Index, 8 pos.

**R203** DP, 36° Index, 3 pos.

**R204** DP, 36° Index, 4 pos.

**R205** DP, 36° Index, 5 pos.

### Actuator

**07** .500" high with .156" flat

**05** .375" high with .156" flat

**15** Screwdriver slot without bushing

### Mounting Style

**RR** 3/8-32 threaded bushing

**RN** PC without bushing

**RS** PC without bushing

### Terminations

**03** Solder lug with hole

**01** Solder lug with notch

**02** PC Thru-hole

**WC** Wire Lead

### Contact Material

**Q** Silver

**B** Gold

### Seal

**NONE** No seal

**E** Epoxy seal

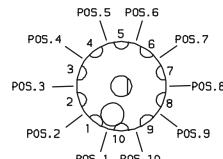
# R Series ROTA-SLIDE® Rotary Switches

## SWITCH FUNCTION



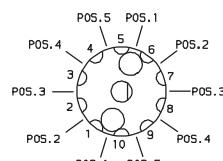
SP MODELS 36° INDEXING			
NO. POLES	MODEL NO.	SWITCH FUNCTION	TERMINALS
SP	<b>R100</b>	10 Position No Stops	All Terminals
	<b>R103</b>	3 Position	10-1-2-3
	<b>R104</b>	4 Position	10-1-2-3-4
	<b>R108</b>	8 Position	10-1-2-3-4-5-6-7-8

### SP MODELS 36° INDEXING SCHEMATIC

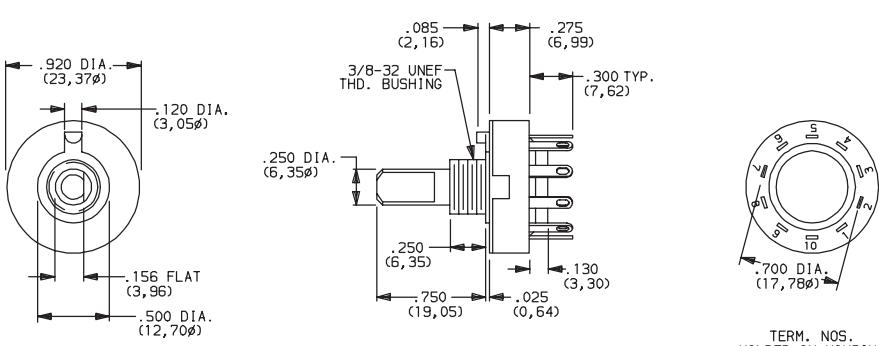


DP MODELS 36° INDEXING			
NO. POLES	MODEL NO.	SWITCH FUNCTION	TERMINALS
DP	<b>R203</b>	3 Position	10-1-2-3,5-6-7-8
	<b>R204</b>	4 Position	All Terminals
	<b>R205</b>	5 Position	All Terminals

### DP MODELS 36° INDEXING SCHEMATIC

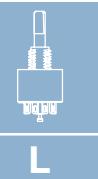


**NOTE:** Break-before-make contacts. Actuators and contacts are shown in position 1. No common terminal is present. Switching function is provided by movable contacts shorting adjacent pairs of stationary contacts.



TERM. NOS.  
MOLDED ON HOUSING

Part number show: R10007RR03Q

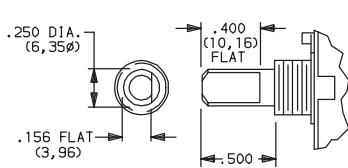


Rotary

## ACTUATOR

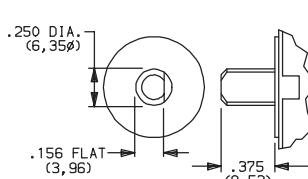


**07** .500" HIGH WITH .156" FLAT



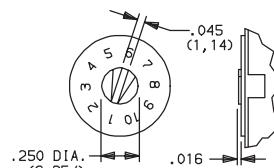
Shown with 'RR' mounting style.  
For mounting styles without bushing,  
add .250 (6,35) to actuator length.

**05** .375" HIGH WITH .156" FLAT



Shown with 'RN' mounting style.

**15** SCREWDRIVER SLOT



Arrow on actuator marked red (std.).  
Shown with 'RS' mounting style.

**C&K**



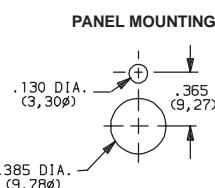
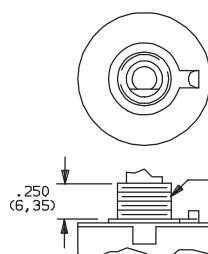
Third Angle  
Projection

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

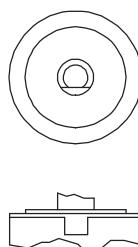
# R Series ROTA-SLIDE® Rotary Switches

## MOUNTING STYLE

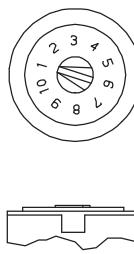
**RR** 3/8-32 THREADED BUSHING



**RN** PC WITHOUT BUSHING



**RS** PC SCREWDRIVER SLOT WITHOUT BUSHING

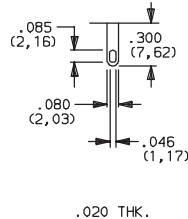


Mounting nut included (part number 175000100).

Position numbers and characters are molded on housing.

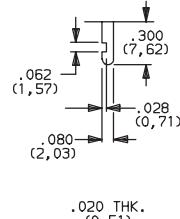
## TERMINATIONS

**03** SOLDER LUG WITH HOLE



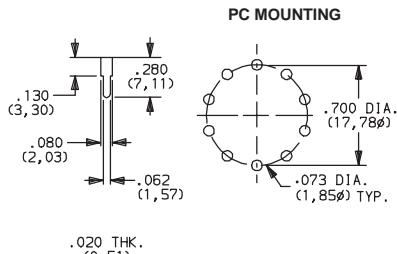
.020 THK.  
(0,51)

**01** SOLDER LUG WITH NOTCH



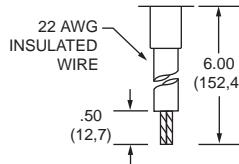
.020 THK.  
(0,51)

**02** PC THRU-HOLE



.020 THK.  
(0,51)

**WC** WIRE LEAD



## CONTACT MATERIAL

OPTION CODE	CONTACT AND TERMINAL MATERIAL	RATING	
<b>Q</b>	SILVER <sup>2</sup>	POWER	5 AMPS @ 125 V AC; 2.5 AMPS @ 250 V AC; 0.5 AMP @ 125 V DC (UL/CSA); 1/8 HP @ 125 and 250 VAC (UL/CSA).
<b>B</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.)

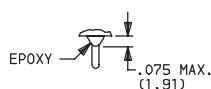
NOTE: Any models supplied with Q, B or G contact material are RoHS compliant.

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

## SEAL

**NONE** NO SEAL

**E** EPOXY SEAL



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

**C&K**

# 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 L-40 for additional ratings.

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

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

INSULATION RESISTANCE: 10<sup>9</sup> Ω 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 L-40 for additional contact materials.

TERMINALS: Q contact material: Copper, silver plated. See page L-39 for additional contact materials.

CONTACT SPRING: Music wire or stainless steel.

MOUNTING NUT: Brass, nickel plated.

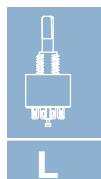
TERMINAL SEAL: Epoxy.

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

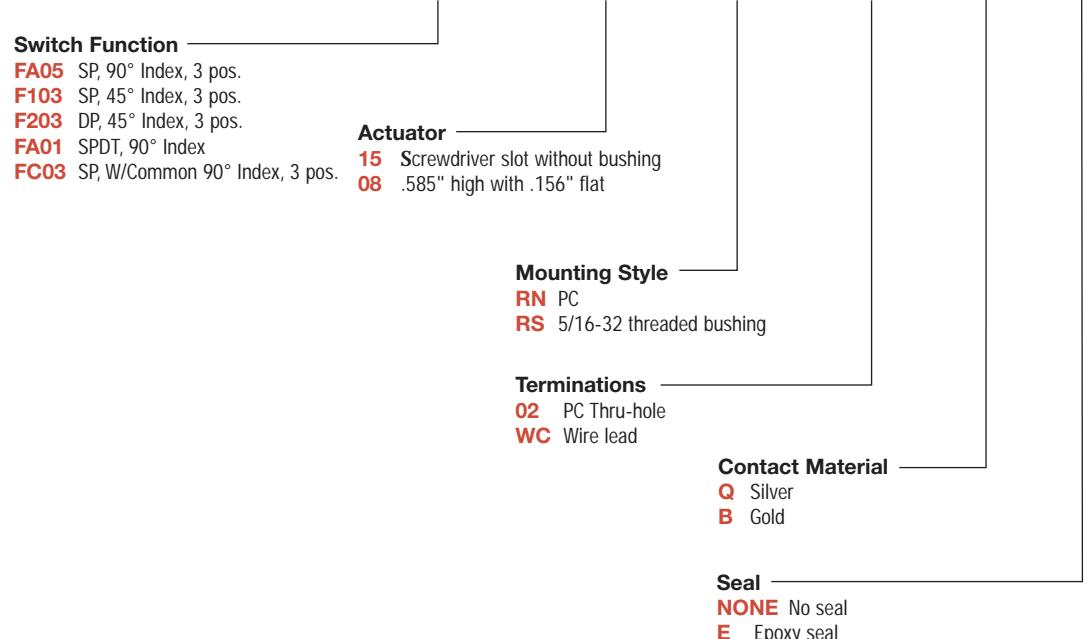
**NOTE:** Specifications and materials listed above are for switches with standard options. For information on specific and custom switches, consult Customer Service Center.

## 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 L-38 thru L-40. For additional options not shown in catalog, consult Customer Service Center.



Rotary



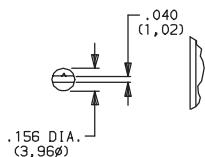
Dimensions are shown: Inch (mm)  
 Specifications and dimensions subject to change



# F Series Miniature ROTA-SLIDE® Rotary Switches

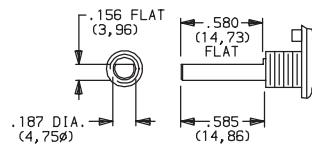
## ACTUATOR

**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.

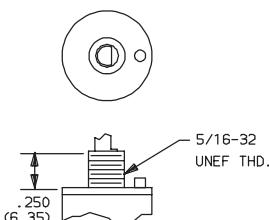
## MOUNTING STYLE

**RN** PC



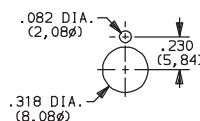
PC mount, no bushing, position numbers molded standard. Shown with '15' actuator; not available with '08' actuator or FCXX models.

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

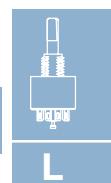


Panel mount, with 5/16 in-32 threaded bushing. Mounting nut (P/N 175020201) included. Must be ordered with '08' actuator option.

### PANEL MOUNTING

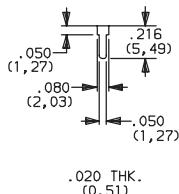


### 5/16 IN. BUSHING

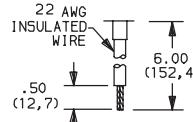


## TERMINATIONS

**02** PC THRU-HOLE



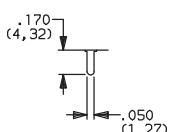
**WC** WIRE LEAD



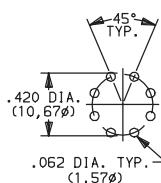
### F1XX, F2XX & FAXX Models

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

**02** PC THRU-HOLE



### PC MOUNTING



### FCXX Models



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

# F Series

## Miniature ROTA-SLIDE® Rotary Switches

### CONTACT MATERIAL

OPTION CODE	CONTACT AND TERMINAL MATERIAL	RATING	
<b>Q</b>	SILVER <sup>2</sup>	POWER	4 AMPS @ 125 V AC or 28 V DC; 2 AMPS @ 250 V AC (UL/CSA).
<b>B</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).

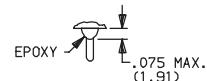
**NOTE:** Any models supplied with Q or B contact material are RoHS compliant.

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

### SEAL

**NONE** NO SEAL

**E** EPOXY SEAL



Not available on FCXX models.



Rotary

**C&K**



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

# H Series Power ROTA-SLIDE® Rotary Switches

## Features/Benefits

- Multi-pole and multi-position
- Positive detent
- Power switching up to 12 AMPS
- Value added capability
- RoHS Compliant

## Typical Applications

- Small appliances
- Industrial equipment
- Elevators



Models Available

## Specifications

CONTACT RATING: 12 Amps @ 125 V AC; 6 AMPS @ 250 V AC;  
1 AMP @ 125 V DC (UL/CSA).

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

INSULATION RESISTANCE:  $10^9 \Omega$  min.

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

INDEXING: 45°-one contact models, 8 positions max.; two contact  
models, 4 positions max.

OPERATING & STORAGE TEMPERATURE: -30°C to 95°C

## Materials

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

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

CONTACTS & TERMINALS: Copper, silver plated.

CONTACT SPRING: Music wire or stainless steel.

MOUNTING NUT: Steel, zinc plated.

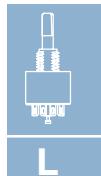
TERMINAL SEAL: Epoxy.

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

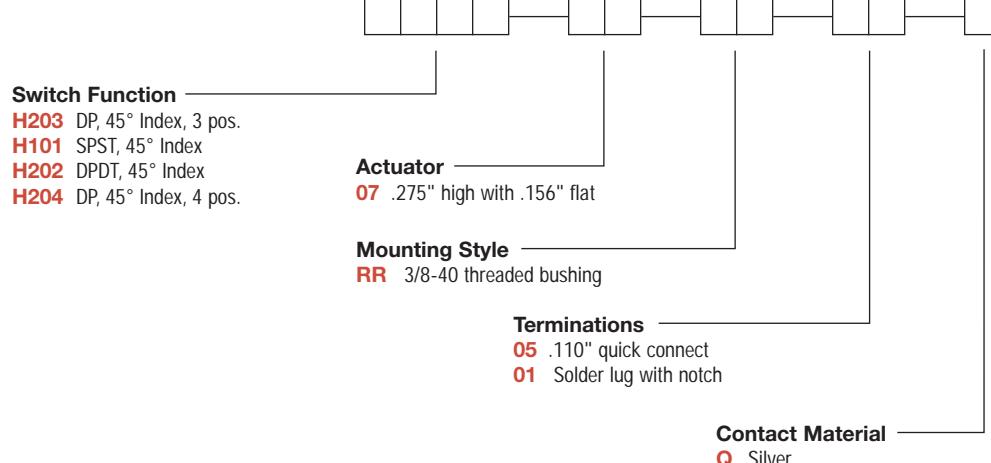
**NOTE:** Specifications and materials listed above are for switches with standard options.  
For information on specific and custom switches, consult Customer Service Center.

## 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 L-42 thru L-43. For additional options not shown in catalog, consult Customer Service Center.



Rotary



# H Series Power ROTA-SLIDE® Rotary Switches

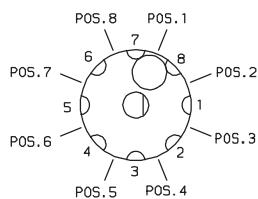
## SWITCH FUNCTION



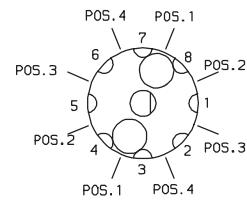
SP MODELS 45° INDEXING			
NO. POLES	MODEL NO.	SWITCH FUNCTION	TERMINALS
SP	<b>H101</b>	SPST	8-1

DP MODELS 45° INDEXING			
NO. POLES	MODEL NO.	SWITCH FUNCTION	TERMINALS
DP	<b>H202</b>	DPDT	7-8-1, 3-4-5
	<b>H203</b>	3 Position	All Terminals
	<b>H204</b>	4 Position	All Terminals

SP MODELS 45° INDEXING  
SCHEMATIC



DP MODELS 45° INDEXING  
SCHEMATIC

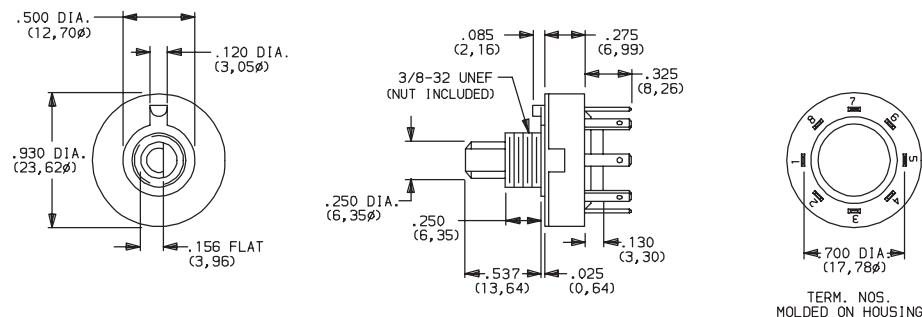


NOTE: Break-before-make contacts. Terminal numbers are molded on bottom of housing. Actuators and contacts are shown in position 1. No common terminal is present. Switching function is provided by movable contacts shorting adjacent pairs of stationary contacts.

All models with all options.



Rotary

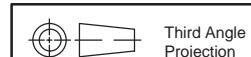
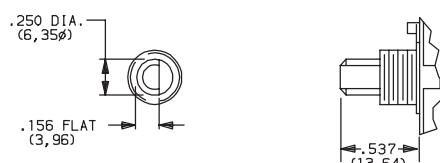


Part number shown: H10107RR05Q

## ACTUATOR



**07** .275" HIGH WITH .156" FLAT



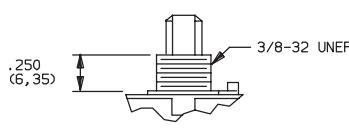
Dimensions are shown: Inch (mm)  
Specifications and dimensions subject to change

**C&K**

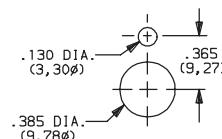
# H Series Power ROTA-SLIDE® Rotary Switches

## MOUNTING STYLE

**RR** 3/8-32 THREADED BUSHING



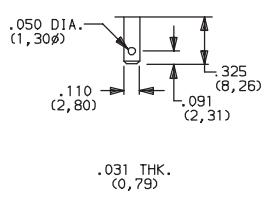
PANEL MOUNTING



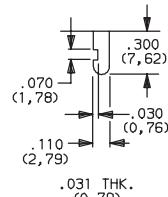
Mounting nut included (part number 175000100).

## TERMINATIONS

**05** SOLDER LUG WITH HOLE



**01** SOLDER LUG WITH NOTCH



Not available on models with 90° indexing.

## CONTACT MATERIAL

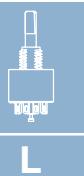
OPTION CODE	CONTACT AND TERMINAL MATERIAL	RATING	
		POWER	12 AMPS @ 125 V AC; 6 AMPS @ 250 V AC; 1 AMP @ 125 V DC.
<b>Q</b>	SILVER <sup>1</sup>		

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

<sup>1</sup> CONTACTS & TERMINALS: Copper, silver plated.

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

All models   with all options.



Rotary

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Third Angle Projection

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

[www.ck-components.com](http://www.ck-components.com)

# P Series Low Profile Key Switches



## Features/Benefits

- Low profile design
- Multi-pole and multi-position
- Panel and PCB mounting
- Variety of termination styles
- RoHS Compliant

## Typical Applications

- CATV
- Low cost security devices
- Lawn equipment



## Specifications

CONTACT RATING: Q contact material: 4 AMPS @ 125 V AC or 28 V DC; 2 AMPS @ 250 V AC (UL/CSA). See page L-46 for additional ratings.

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

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

INSULATION RESISTANCE: 10<sup>9</sup> Ω min.

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

INDEXING: 45° or 90°, 2-3 positions. Other functions available, consult Customer Service Center.

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

## Materials

HOUSING: One piece, 6/6 nylon (UL94V-2), black. Finish, matte.

KEY: One nickel plated brass key.

CONTACTS AND TERMINALS: Q contact material: Copper, silver plated. See page L-46 for additional contact materials.

CONTACT SPRING: Music wire or stainless steel.

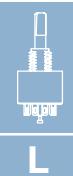
TERMINAL SEAL: Epoxy.

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

**NOTE:** Specifications and materials listed above are for switches with standard options. For information on specific and custom switchlocks, 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 L-45 thru L-46. For additional options not shown in catalog, consult Customer Service Center.



L

Rotary

Switch Function  
**P10113** SP, 90° Index, Keypull pos. 1  
**P20013** DP, 45° Index, Keypull pos. 1  
**P20113** DP, 90° Index, Keypull pos. 1  
**P1011U** SP, 90° Index, keypull pos. 1 & 2  
**P2011U** DP, 90° Index, keypull pos. 1 & 2

Keying  
3 One nickel plated brass key  
2 Two nickel plated brass keys  
Type  
**W** Low profile key switch

Finish  
**M** Matte finish

Terminations  
**03** Solder lug with hole  
**02** PC Thru-hole  
**WC** Wire lead

Mounting Style  
**N** With nut

Contact Material  
**Q** Silver  
**B** Gold  
**G** Gold over silver

Seal  
**NONE** No seal  
**E** Epoxy seal

Color  
**2** Black



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

# P Series Low Profile Key Switches

## SWITCH FUNCTION



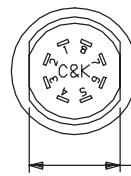
NO. POLES	MODEL NO.	CONNECTED TERMINALS (see terminal location below.)			KEY PULL POSITIONS	SWITCH CONFIGURATION	INDEXING
		POS.1	POS. 2	POS. 3			
DP	P20013	8-1,4-5	1-2,5-6	2-3, 6-7	Position 1	POS.1	45°
SP DP	P10113 P20113	8-1 8-1,4-5	1-3 1-3,5-7		Position 1	POS.1	
SP DP	P1011U P2011U	8-1 8-1,4-5	1-3 1-3,5-7		Position 1 & 2	POS.1	90°

### LEGEND

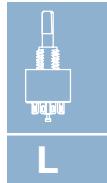
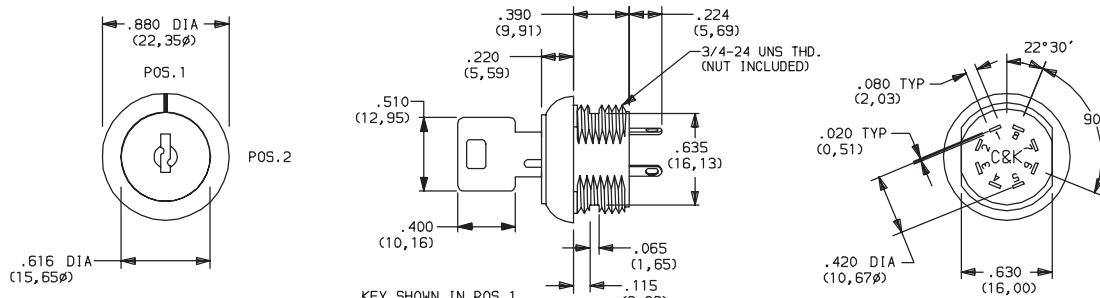
- = Detent Positions (45° or 90°).
- = Key pull possible in these positions.
- ○ = Stop positions.

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

### TERMINAL NUMBERS



Terminal numbers  
molded on bottom  
of housing.



Rotary

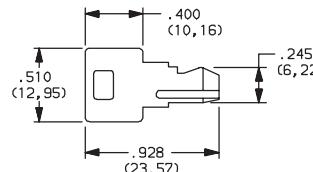
## KEYING



**3** ONE NICKEL PLATED BRASS KEY

**2** TWO NICKEL PLATED BRASS KEYS

**NOTE:** All models provided with the same key code.  
For replacement keys or special features, consult Customer Service Center.

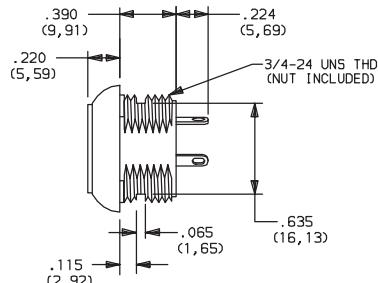


LOCK COLOR

## TYPE

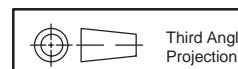


**W** LOW PROFILE KEY SWITCH



OPTION CODE	COLOR
<b>2</b>	BLACK

**NOTE:** Standard housing color is black.  
Special colors or mixed housing and key plug colors available, consult Customer Service Center.



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

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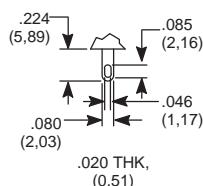
# P Series Low Profile Key Switches

## FINISH

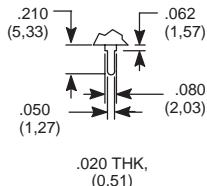
**M** MATTE FINISH

## TERMINATIONS

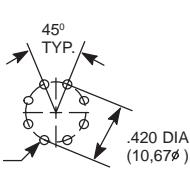
**03** SOLDER LUG WITH HOLE



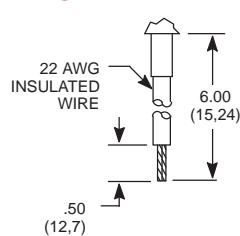
**02** PC THRU-HOLE



**PC MOUNTING**



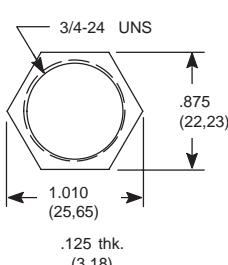
**WC** WIRE LEAD



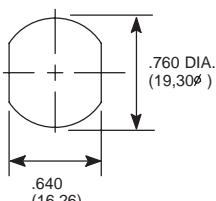
Black wire standard, other colors, gages, and lengths available, consult Customer Service Center. UL style 1015.

## MOUNTING STYLE

**N** WITH NUT



PANEL MOUNTING



MOUNTING STYLE	PANEL THICKNESS
N (with nut)	.215 (5.46) max.

Nut part number: 175050700

Rotary

## CONTACT MATERIAL

OPTION CODE	CONTACT AND TERMINAL MATERIAL	RATING	
<b>Q</b>	SILVER <sup>2</sup>	POWER	4 AMPS @ 125 V AC or 28 V DC; 2 AMPS @ 250 AC V AC (UL/CSA).
<b>B</b>	GOLD <sup>1</sup>	LOW LEVEL/DRY CIRCUIT	0.4 VA MAX. @ 20 V AC or DC MAX
<b>G</b>	GOLD OVER SILVER <sup>3</sup>	LOW LEVEL/DRY CIRCUIT OR POWER	0.4 VA MAX. @ 20 V AC or DC MAX. or 4 AMPS @ 125 V AC or 28 V DC; 2 AMPS @ 250 V AC (UL/CSA)

\* 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).

<sup>3</sup> CONTACTS & TERMINALS: Copper, with gold plate over silver plate.

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

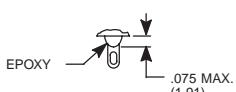
**NOTE:** All models  with all options when ordered with 'G' or 'Q' contact material.

**NOTE:** 'G' contact material is equivalent to both 'B' and 'Q' contact materials.

## SEAL

**NONE** NO SEAL

**E** EPOXY SEAL



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

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