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 K-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 Ω 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 & 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 Cer

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 K-6 for additional contact materials.

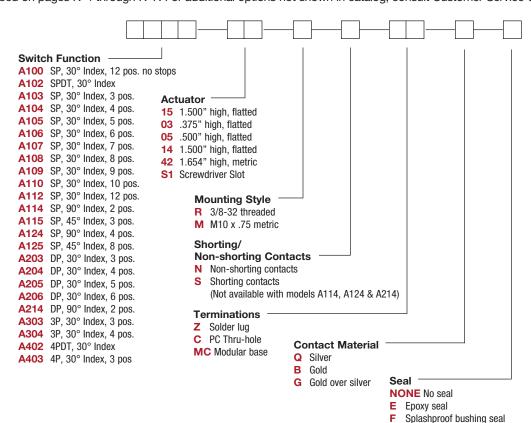
STATIONARY CONTACTS & TERMINALS: Q contact material: Brass, silver plated. See page K-6 for additional contact materials.

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

TERMINAL SEAL: Epoxy.

Build-A-Switch

To order, simply select desired option from each category and place in the appropriate box. Available options are shown and described on pages K-4 through K-7. For additional options not shown in catalog, consult Customer Service Center.





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

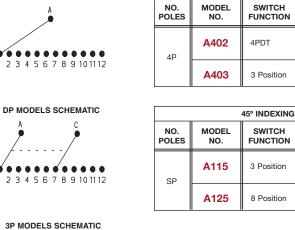
K Epoxy & splashproof bushing seal

K-3

SWITCH FUNCTION

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

SP MODELS SCHEMATIC											
	A										
					_	•					
	/	/	/								
									1.0		
- 1	2	3	4	5	Ь	1	В	9	10	11	12



3F WODELS SCHEWATIC					
A	B	/	C •		
1 2 3 4	567				
4P MOI					
	В	С	D		
A	D		D		
,	7	7	7		

90° INDEXING					
NO. POLES	MODEL NO.	SWITCH FUNCTION	TERMINALS		
SP	A114	2 Position	A,1,4*		
<u> </u>	A124	4 Position	A,1,4,7,10		
DP	A214	2 Position	A,C,1,4,7,10		

30° INDEXING

TERMINALS

A,B,C,D,1,2,4,5,7,

TERMINALS

A,1,2,4,5,7,8,10,11

8,10,11

A,1,2,4*

All Terminals

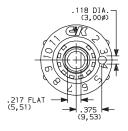
TERMINAL NUMBERS

Terminal numbers molded on bottom of housing.



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

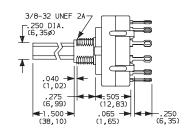
3P MODELS

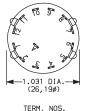


NOTE: * These models with 'C' or 'MC' terminations have additional terminal no. 9

as switch support only. This terminal is not connected electrically inside switch.

All models $_{\textbf{C}}$ $\mbox{N}_{\mbox{US}}$ with all options when ordered with 'G' or 'Q' contact material, see page K-6.





TERM. NOS. MOLDED ON HOUSING



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



ACTUATOR -100000

15 1.500" HIGH

03 .375" HIGH

05 .500" HIGH

14 1.500" HIGH

42 1.654" METRIC

\$1 SCREWDRIVER SLOT

A Series





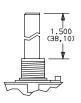






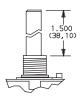
1-4 Pole Rotary Switches















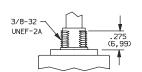
NOTE: Actuators shown in position 1, fully CCW.

MOUNTING STYLE



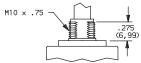
R 3/8-32 THREAD

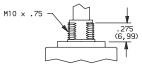
M10 x .75 METRIC



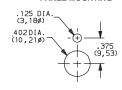
PANEL MOUNTING

.125 DIA. (3,18ø)



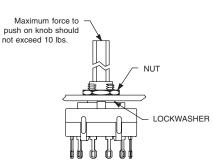


PANEL MOUNTING



METRIC BUSHING

TYPICAL INSTALLATION



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



NON-SHORTING CONTACTS (break-before-make)

3/8 IN. BUSHING

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



4 dec 17

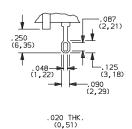
A Series

1-4 Pole Rotary Switches

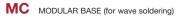
TERMINATIONS ---

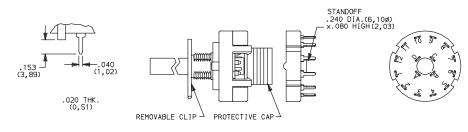


Z SOLDER LUG



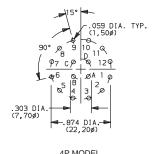
C PC THRU-HOLE



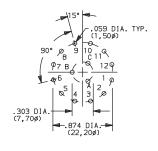


NOTE: Switches with 'C' or 'MC' terminations have additional terminal no. 9 as switch support only. This terminal is not connected electrically inside switch. Solder and clean switch base on PC board with other components, then snap on housing/actuator assembly. See page K-7 for installation instructions.

PC MOUNTING

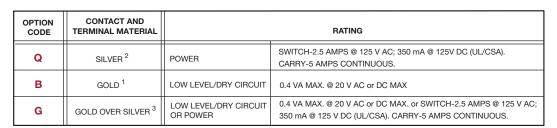


4P MODEL SP MODEL (omit terminals B, C & D) DP MODEL (omit terminals B & D)



3P MODEL

CONTACT MATERIAL



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

MOVABLE CONTACTS: Copper alloy, with gold plate over nickel plate. STATIONARY CONTACTS & TERMINALS: Brass, with gold plate over nickel plate.

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

³ MOVABLE 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 c 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

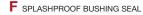


A Series 1-4 Pole Rotary Switches

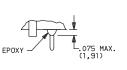
FUNCTION ----

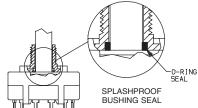






K EPOXY & SPLASHPROOF BUSHING SEAL





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

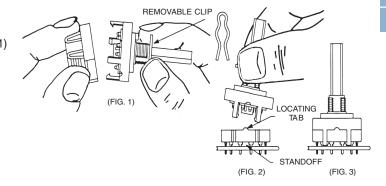
- 1. Insert switch base only into PC board.
- 2. Do not bend terminals.
- 3. Wave soldering recommended at 500F solder temperature.
- 4. Hand solder at 500F, 10 sec. max./terminal.

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)

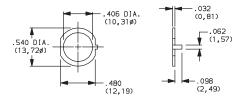
Cleaning

- 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.



AVAILABLE HARDWARE

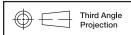
Stop ring



PART NO. 767B00201

Material: Brass Finish: Nickel plated





www.ckswitches.com

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

Mouser Electronics

Authorized Distributor

Click to View Pricing, Inventory, Delivery & Lifecycle Information:

C&K Components:

A112-03-R-S-C-Q A206S1RNZBK

C&K Switches:

A20605RNZGF A11405RNZGK A403-03-R-S-C-B-K A20615RNCQE A10615RSZQ A10015RSCQ A114-05-R-N-Z-Q A30415RNZB A20605RNZQ A30403RNZQ A11205RNCQ A10451RNZQ A10315RSZQ A40303RNCQK A40305RNCQ A10205RNZQ A10251RNZQ A10305RNCQ A10305RNCQ A10403RSZGE A10603RNCQ A11015RNZQ A11251RNCQ A11503RNCB A12542MNCQ A20314RNCQ A20403RNCQ A20505RNZGK A30405RNZQ A30415RNZQE A40203RSZQ A40251RNZQ A40303MNCQF A40351RNCQ A40315RNZQ A10003MNZBE A10003MNZGE A10003RNCQ A10005RNZQ A10015RSZQ A10042MNCB A10051RNCQ A10205RNCB A10303RSZQ A10305RNCGF A10351RNCG A10405RNCQ A10415RSZQ A10442RNZG A10515RSZQ A10615MNCQE A10615MNZQE A10615RNZQ A10651RNMCB A10651RNMCB A10651RNMCG A10703MNCQ A10703RNCQ A10803MNCBF A10803RNCQ A10815RSZQ A10851RNCG A11003RNZQE A11205RNMCBK A11205RSCB A11215MNCBK A11215MNCQE A11215MNZQE A11215MNZQE A11215MNCBK A11242MNZQ A11242MNZQ A11403RNZQK A11405RNZQK A11451RNZQ A11505RNZQK A12403MNZB A12405MNCQE A12405MNZB A12405MNZQ A12415MNZB A12442MNZQ A12515MNCQE A12542MNZQ A12542MSZQ A20305RNCB A20315RNCG A20351RNZGE A20403RSCQ A20403RSZQ A20405RSZBK A20405RSZQ A20615RNZQK A20642MNZG A20605RSZQ A20615RNZQK A20642MNZG A20605RSZQ A20615RNZQK A20642MNZG