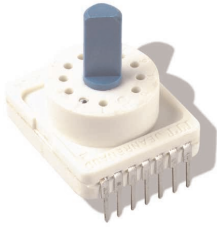


# C&K RTA Series 1-4 Poles Coded Rotary Switches



## Features/Benefits

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

## Typical Applications

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

## Specifications

CONTACT RATING: 5 AMPS  
 ELECTRICAL LIFE: 10,000 operations.  
 OPERATING TORQUE: 5 Ncm±20%.  
 END STOP TORQUE: > 6 Ncm.  
 CONTACT RESISTANCE: < 150 mΩ  
 INSULATION RESISTANCE: 10<sup>9</sup> Ω  
 DIELECTRIC STRENGTH: 500 V rms

**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: PETP Thermoplastic  
 STATIONARY CONTACTS & TERMINALS: Nickel alloy, gold or silver plated.  
 ROTOR: Printed circuit, gold or silver plated.  
 CODING PLATE: PA thermoplastic  
 ACTUATOR: Polysulfon thermoplastic  
 BUSHING: Washer: PA. Nut: Brass.  
 HARDWARE: Stop pin: Aluminum. Ball & Spring: Stainless steel.

## 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-9 thru K-11. For additional options not shown in catalog, consult Customer Service Center.



**Designation**  
**RTAP** (STD.) With Pc pins  
**RTAC** (STD.) With solder lugs

**Indexing**  
**22.5** (STD.) 22.5 index (coded only)  
**30** (STD.) 30° index (12 positions max.)  
**36** (STD.) 36° index (10 positions max.)

**Switch Function**  
**112S** (STD.) SP, 30° Index, 12 pos. no stop  
**110S** (STD.) SP, 36° Index, 10 pos. no stop  
**102B02** SP, 30° /36° Index, 2 pos.  
**103B03** SP, 30° /36° Index, 3 pos.  
**104B04** SP, 30° /36° Index, 4 pos.  
**105B05** SP, 30° Index, 5 pos.  
**106B06** SP, 30° /36° Index, 6 pos.  
**107B07** SP, 30° /36° Index, 7 pos.  
**108B08** SP, 30° /36° Index, 8 pos.  
**109B09** SP, 30° /36° Index, 9 pos.  
**110B10** (STD.) SP, 30° /36° Index, 10 pos.  
**111B11** SP, 30° Index, 11 pos.  
**112B12** (STD.) SP, 30° Index, 12 pos.  
**206S** (STD.) DP, 30° Index, 6 pos. no stop  
**205S** (STD.) DP, 36° Index, 5 pos. no stop  
**202B02** DP, 30° /36° Index, 2 pos.  
**203B03** DP, 30° /36° Index, 3 pos.  
**204B04** DP, 30° /36° Index, 4 pos.  
**205B05** DP, 30° /36° Index, 5 pos.  
**206B06** (STD.) DP, 30° Index, 6 pos.  
**303S** 3P, 30° /36° Index, 3 pos. no stop  
**302B02** 3P, 30° /36° Index, 2 pos.  
**303B03** 3P, 30° /36° Index, 3 pos.  
**402S** 4P, 30° /36° Index, 2 pos. no stop  
**402B02** 4P, 30° /36° Index, 2 pos.

**Mounting Style**  
**SD** (STD.) Without  
**AD** (STD.) With

**Actuator (max.)**  
**25** (STD.) .984 (25,0)  
**50** 1.97 (50,0)  
**F** (STD.) Screwdriver slot  
**M25** Flat shaft, .984 (25,0)  
**M50** Flat shaft, 1.97 (50,0)

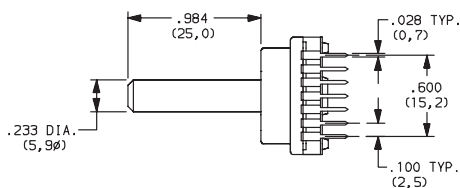
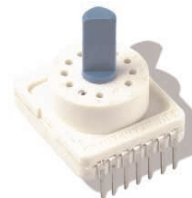
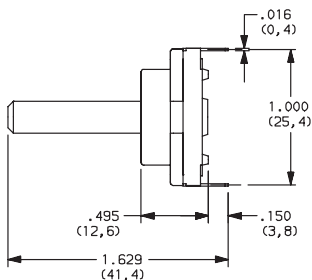
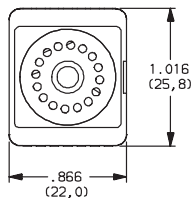
**Contact Material**  
**S** (STD.) Silver plated  
**G** Gold plated

**BCS** (STD.) Direct + complement, 30° /36° Index, no stop  
**BS** (STD.) Direct, 22.5° Index, no stop  
**GS** Gray, 22.5° Index, no stop  
**BCB** Direct + complement, with stop (indicate position)  
**GB** Gray, 22.5° Index, with stop (indicate position)  
**BB** Direct, 22.5° Index, with stop (indicate position)

# C&K RTA Series 1-4 Poles Coded Rotary Switches

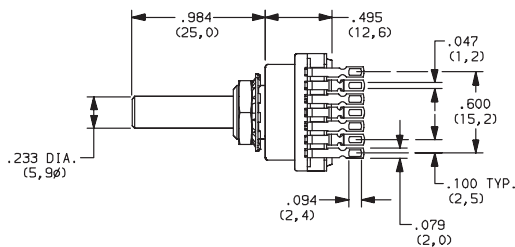
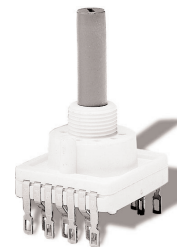
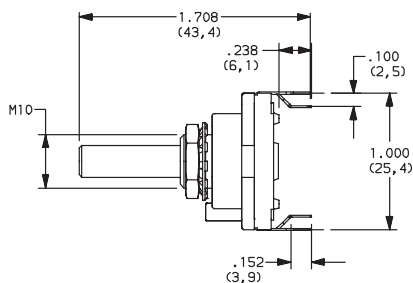
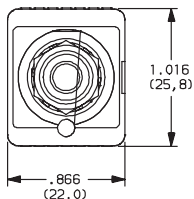
## DESIGNATION

### RTAP (STD.) WITH PC PINS



| PART NUMBER     | FUNCTION                      | INDEX |
|-----------------|-------------------------------|-------|
| RTAP22.5BSSD25S | Binary                        | 22.5  |
| RTAP30112SSD25S | SP<br>12 positions<br>no stop | 30    |
| RTAP36110SSD25S | SP<br>10 positions<br>no stop | 36    |

### RTAC (STD.) WITH SOLDER LUGS



| PART NUMBER     | FUNCTION                      | INDEX |
|-----------------|-------------------------------|-------|
| RTAC22.5BSAD25S | Binary                        | 22.5  |
| RTAC30112SAD25S | SP<br>12 positions<br>no stop | 30    |
| RTAC36110SAD25S | SP<br>10 positions<br>no stop | 36    |



Rotary

## INDEXING

**22.5** (STD.) 22.5 index, 16 positions max.

**30** (STD.) 30 index, 12 positions max.

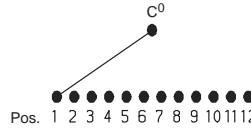
**36** (STD.) 36 index, 10 positions max.

# C&K RTA Series 1-4 Poles Coded Rotary Switches

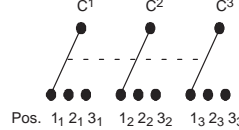
## SWITCH FUNCTION

| NO. POLES | MODEL NO.    | SWITCH FUNCTION         | INDEX     |
|-----------|--------------|-------------------------|-----------|
| SP        | 112S         | 12 Positions<br>No Stop | 30°       |
|           | 110S         | 10 Positions<br>No Stop | 36°       |
|           | 102B02       | 2 Positions             | 30° / 36° |
|           | 103B03       | 3 Positions             | 30° / 36° |
|           | 104B04       | 4 Positions             | 30° / 36° |
|           | 105B05       | 5 Positions             | 30°       |
|           | 106B06       | 6 Positions             | 30° / 36° |
|           | 107B07       | 7 Positions             | 30° / 36° |
|           | 108B08       | 8 Positions             | 30° / 36° |
|           | 109B09       | 9 Positions             | 30° / 36° |
|           | 110B10       | 10 Positions            | 30° / 36° |
|           | 111B11       | 11 Positions            | 30°       |
| 112B12    | 12 Positions | 30°                     |           |

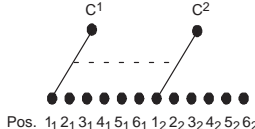
SP MODELS SCHEMATIC



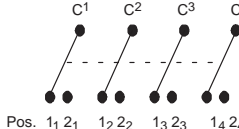
3P MODELS SCHEMATIC



DP MODELS SCHEMATIC



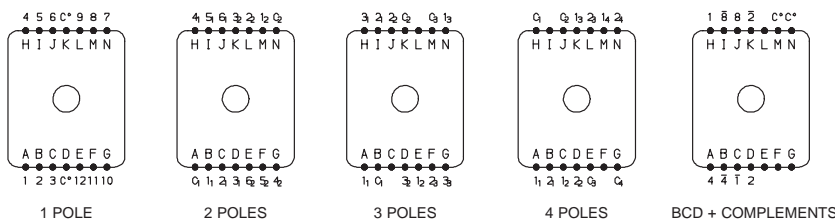
4P MODELS SCHEMATIC



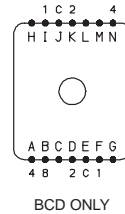
| NO. POLES | MODEL NO.   | SWITCH FUNCTION        | INDEX     |
|-----------|-------------|------------------------|-----------|
| DP        | 206S        | 6 Positions<br>No Stop | 30°       |
|           | 205S        | 5 Position<br>No Stop  | 36°       |
|           | 202B02      | 2 Positions            | 30° / 36° |
|           | 203B03      | 3 Positions            | 30° / 36° |
|           | 204B04      | 4 Positions            | 30° / 36° |
|           | 205B05      | 5 Positions            | 30° / 36° |
| 206B06    | 6 Positions | 30°                    |           |
| 3P        | 303S        | 3 Positions<br>No Stop | 30° / 36° |
|           | 302B02      | 2 Positions            | 30° / 36° |
|           | 303B03      | 3 Positions            | 30° / 36° |
| 4P        | 402S        | 3 Positions<br>No Stop | 30° / 36° |
|           | 402B02      | 2 Positions            | 30° / 36° |

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

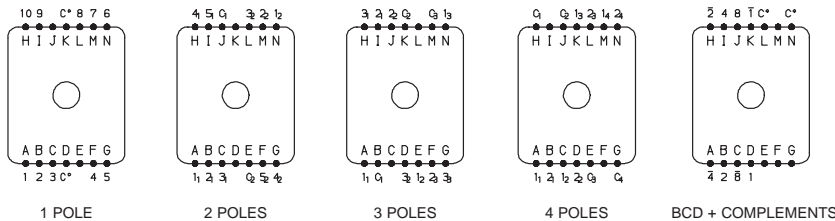
### 30 INDEXING ANGLE PCB LAYOUT



### 22.5 INDEXING ANGLE PCB LAYOUT



### 36 INDEXING ANGLE PCB LAYOUT



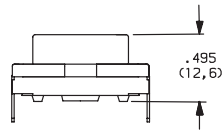
NOTE: Layout view from component side.

# C&K RTA Series 1-4 Poles Coded Rotary Switches

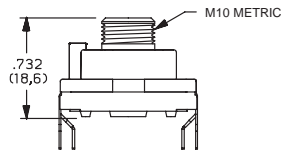
## MOUNTING STYLE



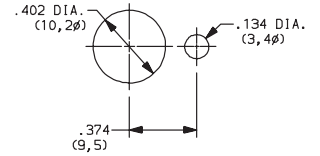
**SD** (STD.) WITHOUT BUSHING



**AD** (STD.) WITH BUSHING



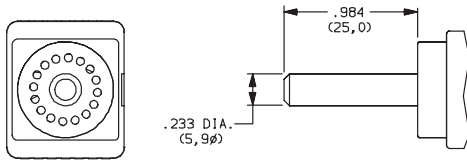
PANEL MOUNTING



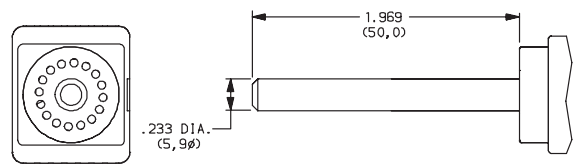
## ACTUATOR



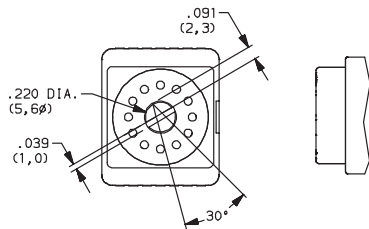
**25** (STD.) 0,25 mm (.984)



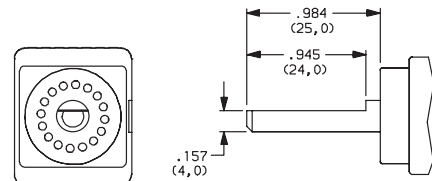
**50** 0,50 mm (1.97)



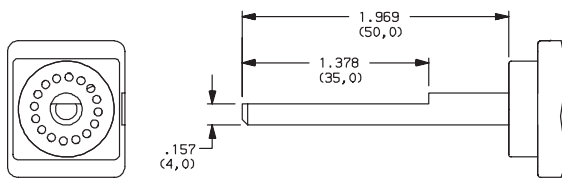
**F** (STD.) SCREWDRIVER SLOT



**M25** FLAT SHAFT



**M50** FLAT SHAFT



## CONTACT MATERIAL



| OPTION CODE     | CONTACT AND TERMINAL MATERIAL | RATINGS                        |                                                                                   |
|-----------------|-------------------------------|--------------------------------|-----------------------------------------------------------------------------------|
| <b>S</b> (STD.) | SILVER                        | LOW LEVEL/DRY CIRCUIT          | SWITCH: 150 mA maximum, 60 V nominal. POWER: 5 VA maximum. CARRY: 5 AMPS maximum. |
| <b>G</b>        | GOLD                          | LOW LEVEL/DRY CIRCUIT OR POWER | SWITCH: 20 mA maximum, 25 V nominal. POWER: 0.5 VA maximum. CARRY: 1 AMP maximum. |