

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**

Typical Applications

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

Specifications

CONTACT RATING: S Contact material: Switch: 250mA, 5VA
resistive load. Carry: 5 AMPS

ELECTRICAL LIFE: Up to 25,000 operations.

OPERATING TORQUE: 5Ncm \pm 30% (with 1 module).

MECHANICAL STOP RESISTANCE: > 70 Ncm.

BUSHING MOUNTING TORQUE: 100 Ncm.

CONTACT RESISTANCE: $< 100 \text{ m}\Omega$.

INSULATION RESISTANCE: $> 10^9 \Omega$

DIELECTRIC STRENGTH: 500 V rms.

Materials

HOUSING: PBT thermoplastic and PC thermoplastic

STATIONARY CONTACTS & TERMINALS: Nickel alloy, gold or silver plated, insert molded in PBT thermoplastic.

ROTOR: Printed circuit, gold or silver plated.

ACTUATOR: Steel

BUSHING: Brass

HARDWARE: Stop pin and spring: Stainless steel

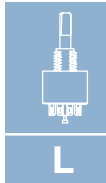
All models are RoHS compliant and compatible.

NOTE: For the latest information regarding RoHS compliance, please go to: www.ittcannon.com/rohs.

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-27 thru L-31. For additional options not shown in catalog, consult Customer Service Center.



Rotary

The diagram illustrates the structure of a 16-digit alphanumeric code, with each digit having a specific function as detailed in the table below.

Digit Position	Function	Options
1	Designation	RTBH
2	Indexing	15 15° 22.5 22.5° 30 30° 36 36°
3	Number of Switch Functions**	1 1 Function 2 2 Functions
4	Switch Function	
5	Number of Poles (first digit)	
6	Maximum Position (second & third digit)	
7	or code (binary code = B, complement = C, direct + complement = BC)	
8	Stops	B Stop with number of positions S Without
9	Mounting Style	AD Standard bushing for panel mount DE Sealed bushing for panel mount
10	Shaft Diameter	D6 6 mm (.236) D63 6.35 mm (.250)
11	Option of Shaft	(NONE) M10X5 Shaft with flat
12	Actuator Option Angle*	(NONE) K0 0° angle K60 60° angle K90 90° angle K120 120° angle K180 180° angle K270 270° angle
13	Actuator Length	25 25 mm (.984)
14	Contact Material	S Silver plated G Gold plated

* Other angles available by request
 ** Several functions can be combined. For more information consult us.

* Other angles available by request

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



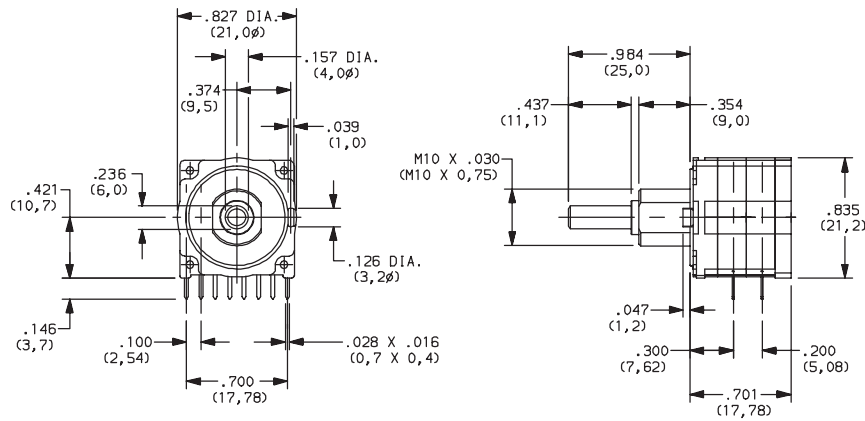
Dimensions are shown: Inch (mm)
Specifications and dimensions subject to change

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

DESIGNATION



RTBH



INDEXING



- 15** 15° index
- 22.5** 22.5° index
- 30** 30° index
- 36** 36° index



Rotary

NUMBER OF SWITCH FUNCTIONS



- 1** 1 FUNCTION
- 2** 2 FUNCTIONS

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



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Specifications and dimensions subject to change

C&K RTBH Series

1-2 Pole Coded Rotary Switches

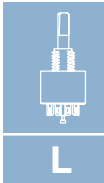
NUMBER OF POLES / POSITIONS 

- 116** 22.5 INDEX, SP, 16 POSITIONS
- 112** 30 INDEX, SP, 12 POSITIONS
- 206** 30 INDEX, DP, 6 POSITIONS
- B** BINARY CODE, 15 /22.5 /30 /36
- C** COMPLEMENT, 15 /22.5 /30 /36
- BC** DIRECT + COMPLEMENT, 15 /22.5 /30 /36

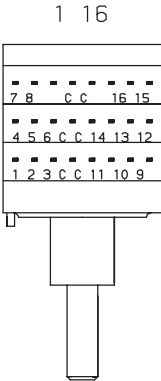
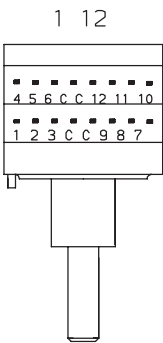
www.DataSheet4U.com

SINGLE POLE FUNCTION

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



Rotary



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Specifications and dimensions subject to change

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

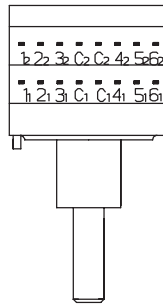
NUMBER OF POLES / POSITIONS



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	●						●	●						●

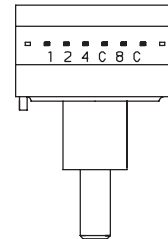
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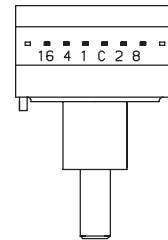
BINARY DIRECT CODE

	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	●	●	●	●		●

B10 B12 B16



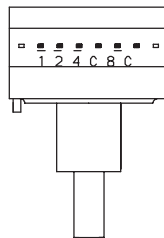
B24



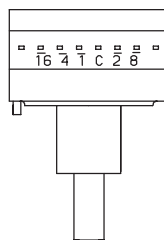
COMPLEMENT BINARY CODE

	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	●	●	●	●	●	●

C10 C12 C16



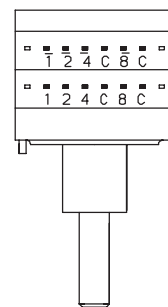
C24



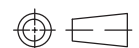
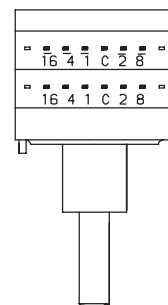
DIRECT AND COMPLEMENT BINARY CODE

	C	1	2	4	8	16	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	●	●	●	●			●	●	●	●		

BC10 BC12 BC16



BC24



Third Angle
Projection

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



C&K RTBH Series

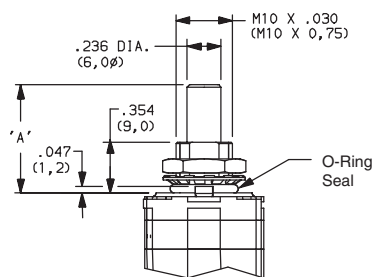
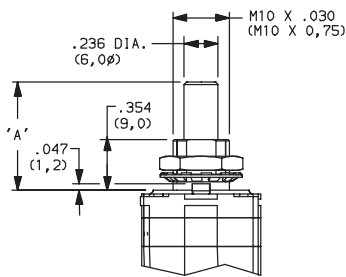
1-2 Pole Coded Rotary Switches

STOPS

- B STOP WITH NUMBER OF POSITIONS
- S WITHOUT

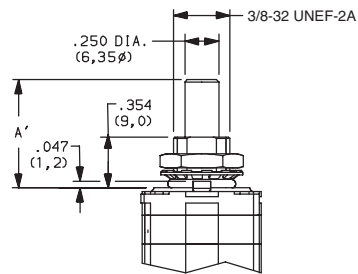
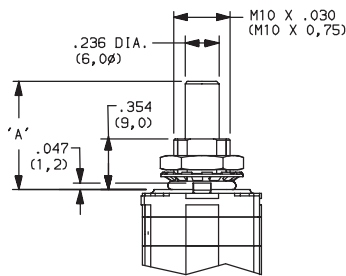
MOUNTING STYLE

- AD STANDARD BUSHING FOR PANEL MOUNT
- DE SEALED BUSHING FOR PANEL MOUNT



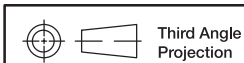
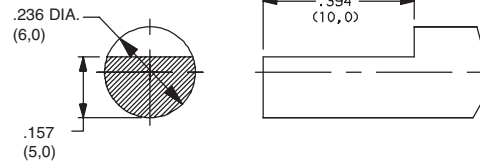
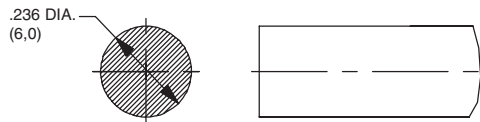
SHAFT DIAMETER

- D6 6 mm (.236)
- D63 6.35 mm (.250)



OPTION OF SHAFT

- (NONE)
- M10X5 FLAT



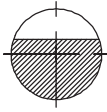
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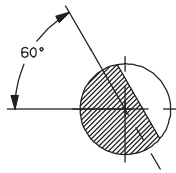
ACTUATOR OPTION ANGLE



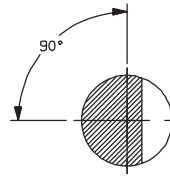
(NONE)



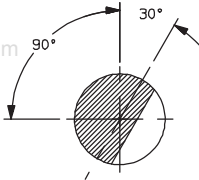
K0 0° ANGLE



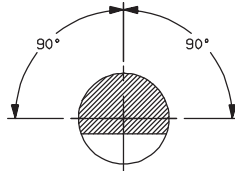
K60 60°



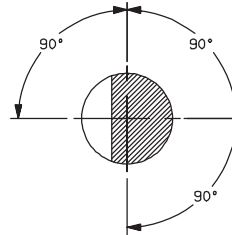
K90 90°



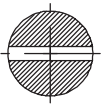
K120 120°



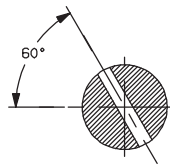
K180 210°



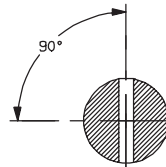
K270 300°



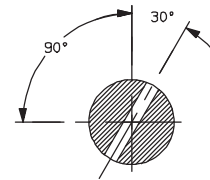
K0 (STD.) 0° ANGLE



K60 60°



K90 90°



K120 120°

ACTUATOR LENGTH



25 0,25 mm (.984) STANDARD SHAFT

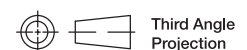
Other lengths available by request.

CONTACT MATERIAL



OPTION CODE	RoHS COMPLIANT*	RoHS COMPATIBLE*	CONTACT AND TERMINAL MATERIAL	RATING	
S	YES	YES	SILVER	LOW LEVEL/DRY CIRCUIT	SWITCH: 250 mA, POWER: 5 VA; CARRY: 5 AMPS
G	YES	YES	GOLD	LOW LEVEL/DRY CIRCUIT OR POWER	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.



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