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±30% (with 1 module).
MECHANICAL STOP RESISTANCE: > 70 Ncm.
BUSHING MOUNTING TORQUE: 100 Ncm.
CONTACT RESISTANCE: < 100 mΩ.
INSULATION RESISTANCE: > 10^9 Ω
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

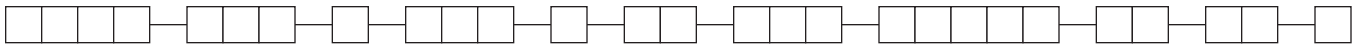
All models are RoHS compliant and compatible.

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.



Designation
RTBH

Indexing
- **15** 15°
- **22.5** 22.5°
- **30** 30°
- **36** 36°

Number of Switch Functions**
- **1** 1 Function
- **2** 2 Functions

Switch Function
Number of Poles (first digit)
Maximum Position (second & third digit)
or code (binary code = B, complement = C, direct +complement = BC)
- **B** Binary code
- **116** 22.5 index, SP, 16 positions
- **112** 30 index, SP, 12 positions
- **206** DP, 6 positions
- **C** Complement
- **BC** Direct + complement

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** Shaft with flat

Actuator Option Angle*
- **(NONE)**
- **K0** 0° angle
- **K60** 60° angle
- **K90** 90° angle
- **K120** 120° angle
- **K180** 180° angle
- **K270** 270° angle

Actuator Length
- **25** 25 mm (.984)

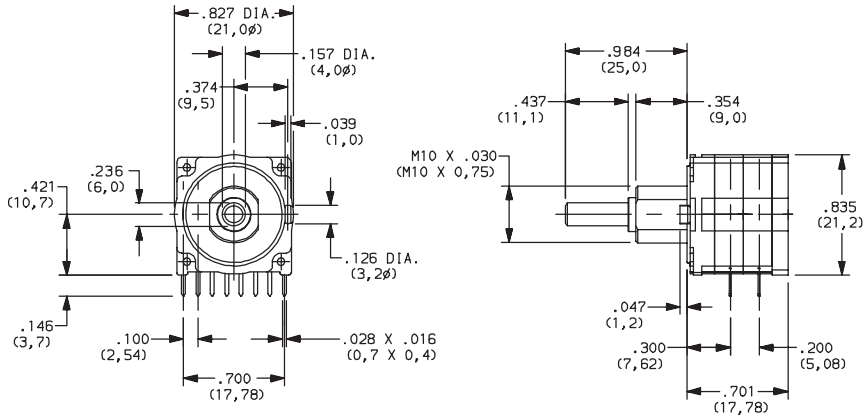
Contact Material
- **S** Silver plated
- **G** Gold plated

* 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

DESIGNATION

RTBH



INDEXING

15 15° index

22.5 22.5° index

30 30° index

36 36° index

NUMBER OF SWITCH FUNCTIONS

1 1 FUNCTION

2 2 FUNCTIONS

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

Third Angle Projection

Dimensions are shown: Inch (mm)
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

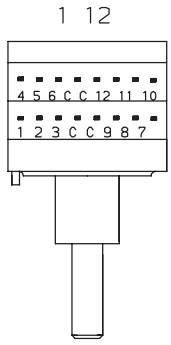
B BINARY CODE, 15 /22.5 /30 /36

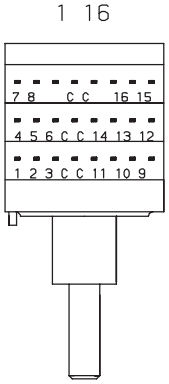
C COMPLEMENT, 15 /22.5 /30 /36

BC DIRECT + COMPLEMENT, 15 /22.5 /30 /36

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	●																								●





Third Angle Projection

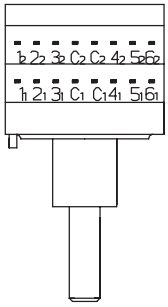
Dimensions are shown: Inch (mm)
Specifications and dimensions subject to change

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	●						●	●						●

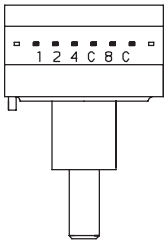
2 6



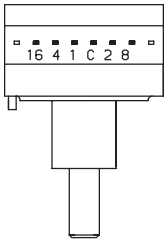
BINARY DIRECT CODE

	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



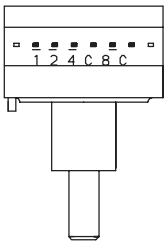
B24



COMPLEMENT BINARY CODE

	C	$\overline{1}$	$\overline{2}$	$\overline{4}$	$\overline{8}$	$\overline{16}$
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



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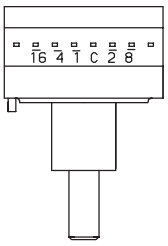
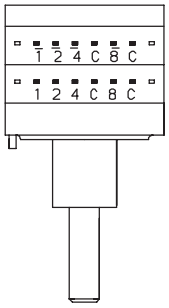


DIRECT AND COMPLEMENT BINARY CODE

	C	1	2	4	8	16	C	$\overline{1}$	$\overline{2}$	$\overline{4}$	$\overline{8}$	$\overline{16}$
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



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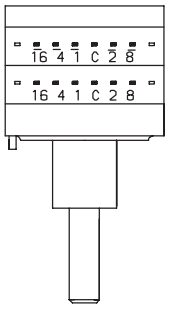


Third Angle Projection

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

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

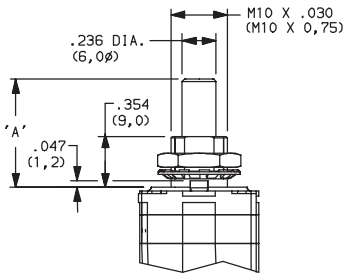
STOPS

B STOP WITH NUMBER OF POSITIONS

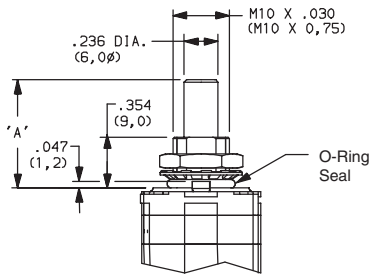
S WITHOUT

MOUNTING STYLE

AD STANDARD BUSHING FOR PANEL MOUNT

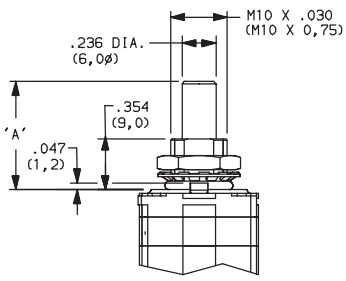


DE SEALED BUSHING FOR PANEL MOUNT

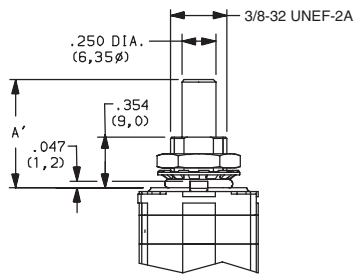


SHAFT DIAMETER

D6 6 mm (.236)

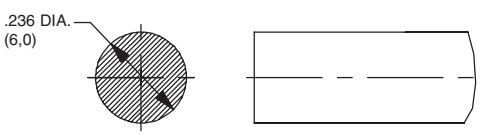


D63 6.35 mm (.250)

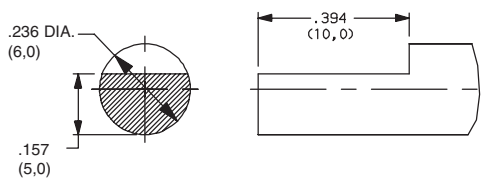


OPTION OF SHAFT

(NONE)



M10X5 FLAT

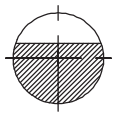


Third Angle Projection

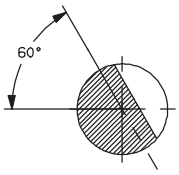
Dimensions are shown: Inch (mm)
Specifications and dimensions subject to change

ACTUATOR OPTION ANGLE

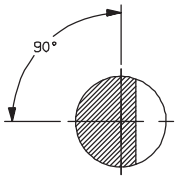
(NONE)



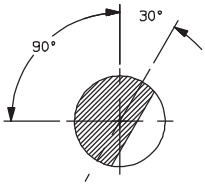
K0 0 ANGLE



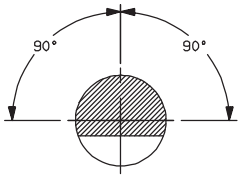
K60 60°



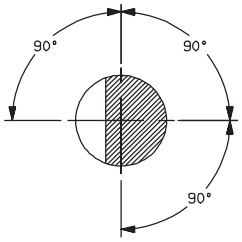
K90 90°



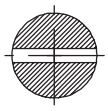
K120 120°



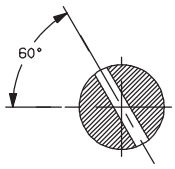
K180 210°



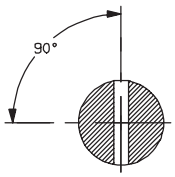
K270 300°



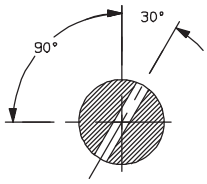
K0 (STD.) 0 ANGLE



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.

Third Angle Projection

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