

# C&K 3U Series Tiny Pushwheel Switches

## Features/Benefits

- *Tiny size saves space*
- *10 and 16 position models available*
- *ESD clip available on select models*
- *Snap-in front mount saves assembly time*

## Typical Applications

- *Computer peripherals*
- *Test equipment*
- *Instrumentation*



## Specifications

CONTACT RATING:  
 CARRY: 1 AMP continuous.  
 SWITCH: 0.4 VA max., 100 mA max., 28 V DC max.  
 OPERATING VOLTAGE: 50 mV to 28 V DC.  
 ELECTRICAL LIFE: 1,000,000 actuations.  
 CONTACT RESISTANCE: Below 300 m Ω typ. @  
 2-4 V DC, 100 mA.  
 INSULATION RESISTANCE: 10<sup>9</sup> Ω min. (dry).  
 DIELECTRIC STRENGTH: 500 Vrms min. @ sea level  
 between common terminal and any output.  
 OPERATING TEMPERATURE: -10°C to 65°C.

## Materials

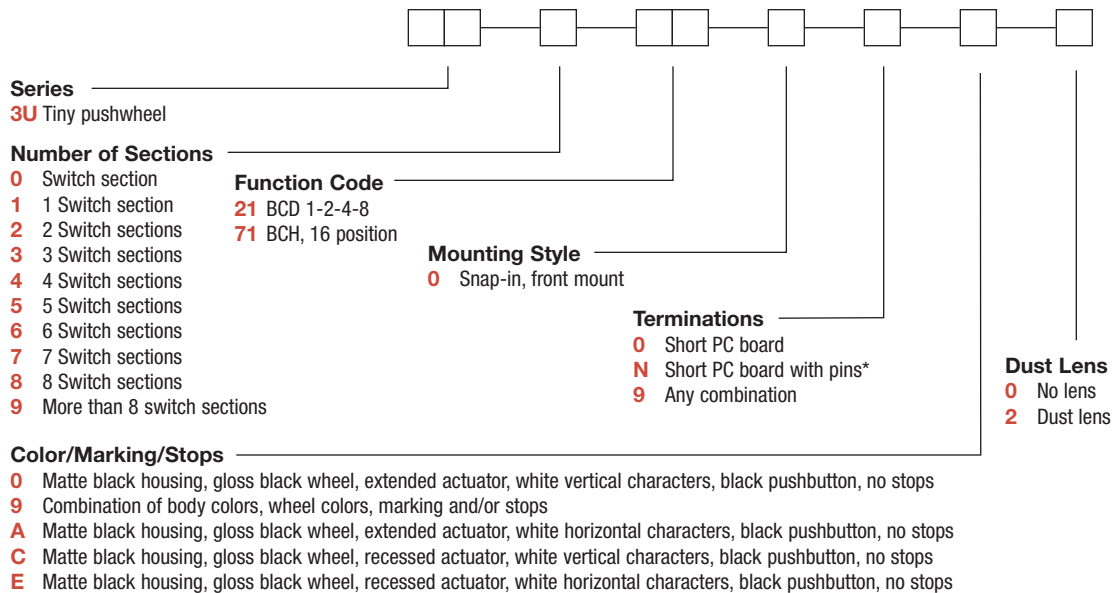
HOUSING: Polyester (UL 94V-0).  
 PUSHWHEEL: Polycarbonate.  
 PUSHBUTTON: Polyester (UL 94V-0).  
 ROTOR CONTACTS: Gold over nickel over copper alloy.  
 STATOR CONTACTS: Hard gold over nickel over copper epoxy fiberglass.

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

Note: All models listed are RoHS compliant. See Technical Data section of this catalog for RoHS compliant and compatible definitions and specifications.

## 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 N-4 thru N-6. For additional options not shown in catalog, consult Customer Service Center. Consult factory for illumination availability.



\* Note: Termination option N (RoHS compliant) replaces termination option 3 (non-RoHS compliant).

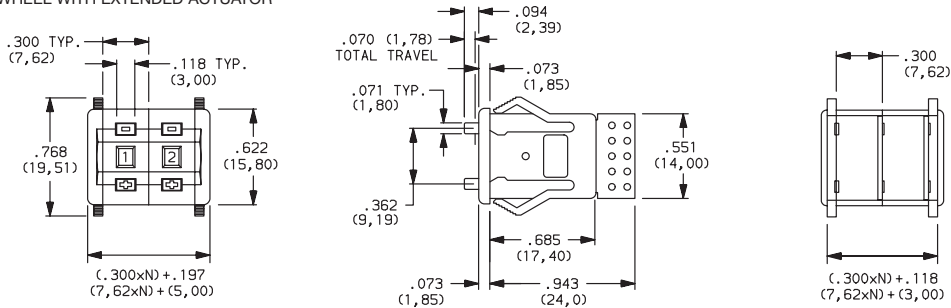
Thumbwheel & Pushwheel



# C&K 3U Series Tiny Pushwheel Switches

## SERIES

**3U** 1/2" TINY PUSHWHEEL WITH EXTENDED ACTUATOR



N = Number of sections.

## NUMBER OF SECTIONS

- 0** Switch section only, no endplates.
- 1-8** Number of switch sections in assembly, includes endplates.
- 9** More than 8 switch sections, specify on CONFIGURATION FORM, page N-7 and consult Customer Service Center.

**NOTE:** Endplates and blank sections available separately, see page N-6.

## FUNCTION CODE

**21** BCD 1-2-4-8, 10 POSITION

W H E E L	SIGNALS CONN. TO COMM. SIG. C				
	1	2	4	8	C
0					●
1	●				●
2		●			●
3	●	●			●
4			●		●
5	●		●		●
6	●	●	●		●
7	●	●	●	●	●
8				●	●
9	●			●	●
	1	2	3	4	5
	TERM. LOCATION				

Available Terminations: 0, N  
See figs. 2 & 3, page N-5.

**71** BINARY CODED HEXADECIMAL,  
16 POSITION

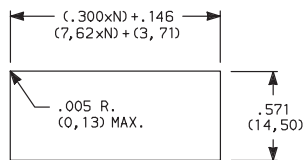
W H E E L	SIGNALS CONN. TO COMM. SIG. C				
	1	2	4	8	C
0					●
1	●				●
2		●			●
3	●	●			●
4			●		●
5	●		●		●
6	●	●	●		●
7	●	●	●	●	●
8				●	●
9	●			●	●
A		●		●	●
B	●			●	●
C			●	●	●
D	●		●	●	●
E		●		●	●
F	●	●	●	●	●
	2	3	4	5	1
	TERM. LOCATION				

Available Terminations: 0, N  
See fig. 2, page N-5.

**NOTE:** ESD pin available, consult Customer Service Center.  
For terminal location diagrams, see page N-5.

## MOUNTING STYLE

**0** SNAP-IN FRONT MOUNTING

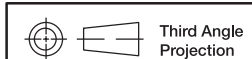


N = Number of sections  
Recommended panel thickness:  
.039-.156  
(0,99-3,95)

Thumbwheel & Pushwheel



N

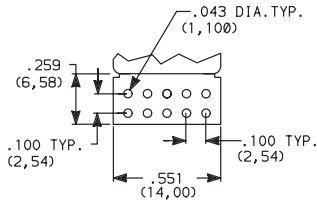


Dimensions are shown: Inch (mm)  
Specifications and dimensions subject to change

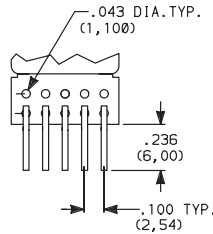
# C&K 3U Series Tiny Pushwheel Switches

## TERMINATIONS

**0** SHORT PC BOARD



**N** SHORT PC BOARD, TYPE 0 WITH SOLDER PINS



**9** ANY COMBINATION OF TERMINATION CONFIGURATION OR SPECIAL TERMINATIONS.

Specify on configuration form, page N-7 and consult Customer Service Center.

Note: Termination option N (RoHS compliant) replaces termination option 3 (non-RoHS compliant).

PC Board 1/32" (0,79) thick.

**NOTE:** All terminal holes shown may not be present for all function codes consult Customer Service Center.

## Terminal Location Numbers

SOLDER PINS

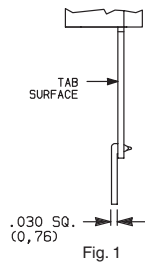


Fig. 2

**NOTE:** See function codes, page N-4 for signal locations.

## COLOR/MARKING/STOPS

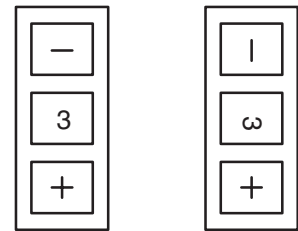
**0** MATTE BLACK HOUSING (Gloss black wheel with extended actuator, white vertical characters, black pushbuttons, no stops.)

**9** SPECIAL COLORS, MARKINGS FOR HOUSING OR WHEEL, STOPS (Specify on CONFIGURATION FORM, page N-7 and consult Customer Service Center.)

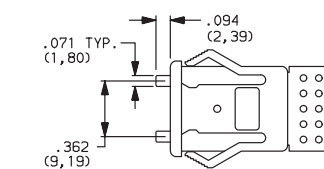
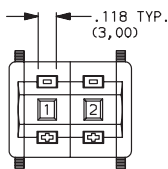
**A** MATTE BLACK HOUSING (Gloss black wheel with white horizontal characters, extended actuator, black pushbuttons, no stops.)

**C** MATTE BLACK HOUSING (Gloss black wheel with white vertical characters, recessed actuator, black pushbuttons, no stops.)

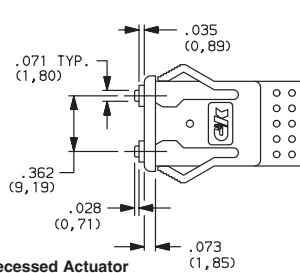
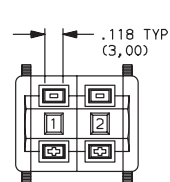
**E** MATTE BLACK HOUSING (Gloss black wheel with white horizontal characters, recessed actuator, black pushbuttons, no stops.)



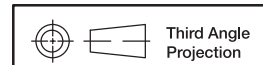
Vertical Characters Horizontal Characters



Extended Actuator



Recessed Actuator



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



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## DUST LENS

- 0 NO LENS
- 2 DUST LENS (Protects character face of the wheel from abrasion and dust.)

## AVAILABLE HARDWARE

Blank section, .302 THK.  
(Replaces active section.)



PART NO.  
**123B02000** BLACK

End plates



LEFT-with hole



RIGHT-with pin

PART NO.  
**113B02000** LEFT-BLACK  
**114B02000** RIGHT-BLACK

One left and one right  
piece required for  
complete assembly.

Thumbwheel & Pushwheel



N

# C&K 3U Series Tiny Pushwheel Switches

## Configuration Form

GRAY SHADED AREAS TO BE FILLED IN BY CUSTOMER SERVICE.

CATALOG PART NO.

**3 U**

C&K PART NUMBER

C&K PART NUMBER

COMPANY NAME \_\_\_\_\_

CUSTOMER PRINT REVISION:

ADDRESS \_\_\_\_\_ TEL.# \_\_\_\_\_

CUSTOMER CONTACT \_\_\_\_\_ DATE \_\_\_\_\_

DETAILS:

ORIGINATED BY \_\_\_\_\_ SALES REP. \_\_\_\_\_

PUSHWHEEL SECTIONS	NO. OF SEC.	FUNCTION CODE- TERMINATIONS- COLOR/MARKING/STOPS/SEAL- ILLUMINATION	DESCRIBE IN APPROPRIATE ROW
ENTER OPTION CODES IN APPROPRIATE BOXES. FUNCTION CODES INCLUDE BLANK SECTIONS (SEE PAGE M-4).			
<b>1</b>	<b>1</b>	3 U - <input type="text"/> <input type="text"/> - <input type="text"/> <input type="text"/> <input type="text"/>	
<b>2</b>	<b>2</b>	3 U - <input type="text"/> <input type="text"/> - <input type="text"/> <input type="text"/> <input type="text"/>	
<b>3</b>	<b>3</b>	3 U - <input type="text"/> <input type="text"/> - <input type="text"/> <input type="text"/> <input type="text"/>	
<b>4</b>	<b>4</b>	3 U - <input type="text"/> <input type="text"/> - <input type="text"/> <input type="text"/> <input type="text"/>	
<b>5</b>	<b>5</b>	3 U - <input type="text"/> <input type="text"/> - <input type="text"/> <input type="text"/> <input type="text"/>	
<b>6</b>	<b>6</b>	3 U - <input type="text"/> <input type="text"/> - <input type="text"/> <input type="text"/> <input type="text"/>	
<b>7</b>	<b>7</b>	3 U - <input type="text"/> <input type="text"/> - <input type="text"/> <input type="text"/> <input type="text"/>	
<b>8</b>	<b>8</b>	3 U - <input type="text"/> <input type="text"/> - <input type="text"/> <input type="text"/> <input type="text"/>	
<b>9</b>	<b>9</b>	3 U - <input type="text"/> <input type="text"/> - <input type="text"/> <input type="text"/> <input type="text"/>	
<b>0</b>	<b>10</b>	3 U - <input type="text"/> <input type="text"/> - <input type="text"/> <input type="text"/> <input type="text"/>	
<b>1</b>	<b>11</b>	3 U - <input type="text"/> <input type="text"/> - <input type="text"/> <input type="text"/> <input type="text"/>	

QUALITY CONTROL INSTRUCTIONS

PRODUCTION APPROVAL      DATE

Q.C. APPROVAL      DATE

REV.      INITIALS      DATE

FOR SWITCHES WITH MORE THAN 11 SECTIONS, CONTINUE ON ADDITIONAL SHEETS.

SPECIAL INSTRUCTIONS OR SPECIFICATIONS:

SHEET \_\_\_\_ OF \_\_\_\_



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

Thumbwheel & Pushwheel

