

# C&K 3P Series Miniature Pushwheel Switches



## Features/Benefits

- Snap-in front mount design for easy assembly
- 10 position models available
- Illuminated backlighting available

## Typical Applications

- Test & measurement equipment
- Industrial machinery
- Computer peripherals

## 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: 100,000 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

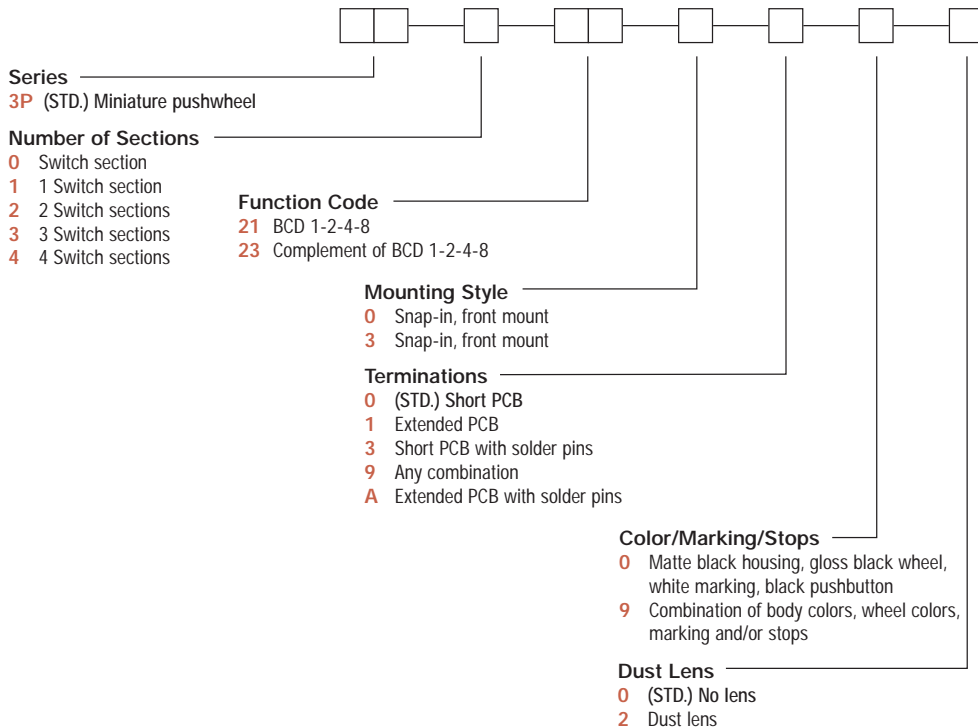
HOUSING: Polycarbonate (UL 94V-0).  
 PUSHWHEEL: Polycarbonate (UL 94V-0).  
 PUSHBUTTON: Polycarbonate (UL 94V-0).  
 ROTOR CONTACTS: Gold over nickel over copper alloy.  
 STATOR CONTACTS: Hard gold over nickel over copper  
 on epoxy fiberglass.

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

## 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 M-17 thru M-19. For additional options not shown in catalog, consult Customer Service Center. Consult factory for illumination availability.

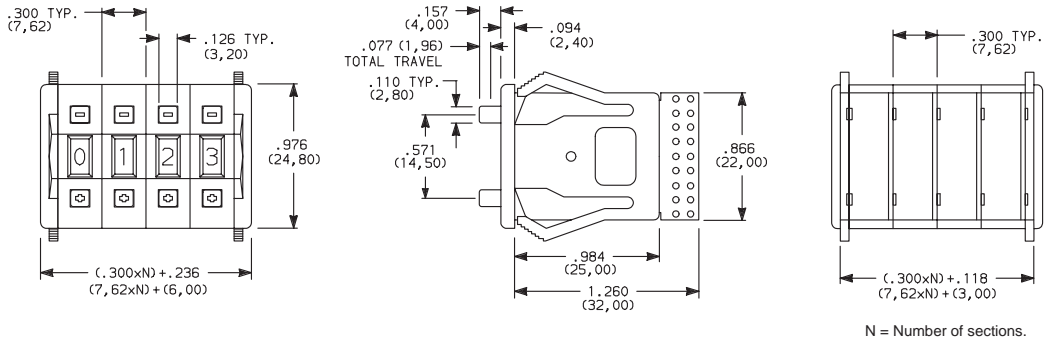
Thumbwheel & Pushwheel



# C&K 3P Series Miniature Pushwheel Switches

## SERIES

**3P** (STD.) MINIATURE PUSHWHEEL SWITCH



## NUMBER OF SECTIONS

- 0** Switch section only, no endplates.
- 1-4** Number of switch sections in assembly, includes endplates.

**NOTE:** Endplates and blank sections available separately, see page M-20.

## FUNCTION CODE

- 21** BCD 1-2-4-8, 10 POSITION
- 23** COMPLEMENT OF BCD 1-2-4-8, 10 POSITION

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

Available Terminations: A, 0, 1, 3  
See figs. 2 & 3, page M-19.

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

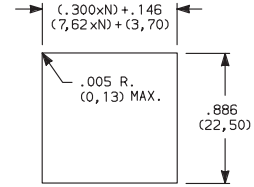
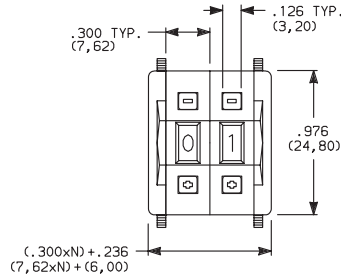
Available Terminations: 0, 1, 3  
See figs. 2 & 3, page M-19.



# C&K 3P Series Miniature Pushwheel Switches

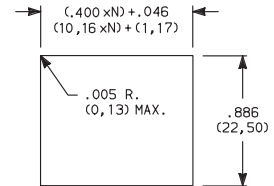
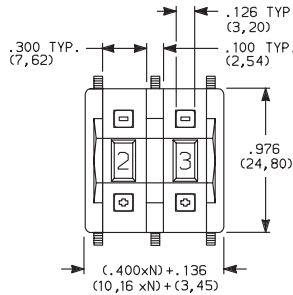
## MOUNTING STYLE

- 0** SNAP-IN FRONT MOUNT,  
SECTION PITCH: .300 (7,62) EACH SECTION



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

- 3** SNAP-IN FRONT MOUNT WITH SPACER,  
SECTION PITCH: .400 (70,16) EACH SECTION, LAST SECTION .300 (7,62)

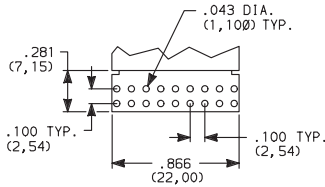


N = Number of sections.  
Recommended panel thickness:  
.039-.156  
(0,99-3,95)

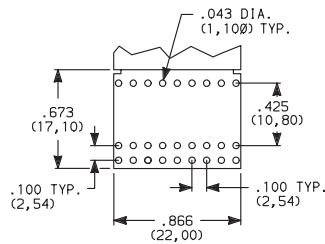
Thumbwheel & Pushwheel

## TERMINATIONS

- 0** (STD.) SHORT PCB

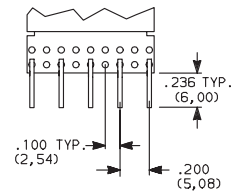


- 1** EXTENDED PCB WITH PROVISION  
FOR COMPONENTS



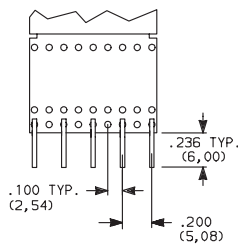
Signal traces cut, except for common(s).

- 3** SHORT PCB, TYPE 0 WITH SOLDER PINS



For terminal location numbers, see next page.

- A** EXTENDED PCB, TYPE 1 WITH  
SOLDER PINS



For terminal location numbers, see next page.  
Signal traces cut, except for common(s).

- 9** ANY COMBINATION OF TERMINATION  
CONFIGURATIONS OR SPECIAL TERMINATIONS

Specify on configuration form, page M-21  
and consult Customer Service Center.

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

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

# C&K 3P Series Miniature Pushwheel Switches

## TERMINATIONS

Terminal Location Numbers

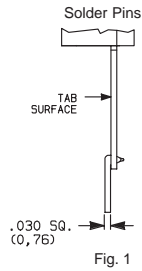


Fig. 1

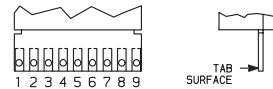


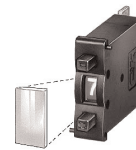
Fig. 2

## COLOR/MARKING/STOPS

- 0 (STD.) MATTE BLACK HOUSING (Gloss black wheel with white characters, black pushbuttons, no stops)
- 9 SPECIAL COLORS, MARKINGS FOR HOUSING OR WHEEL, STOPS (Specify on CONFIGURATION FORM, page M-21 and consult Customer Service Center).

## DUST LENS

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



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# C&K 3P Series Miniature Pushwheel Switches

## AVAILABLE HARDWARE

Blank sections, .300 THK.



PART NO.  
663702000 BLACK  
663709000 GRAY

End plates



LEFT-with hole

RIGHT-with pin

PART NO.  
623502000 LEFT-BLACK  
623509000 LEFT-GRAY  
623602000 RIGHT-BLACK  
623609000 RIGHT-GRAY

One left and one right  
piece required for  
complete assembly.

Spacers, .100 THK.  
(Makes section pitch .400)



PART NO.  
663602000 BLACK  
663609000 GRAY

Stop pins



PART NO.  
657800000

Terminal connector



PART NO.  
630000000

Fits 0, 1  
terminations only.

Thumbwheel & Pushwheel



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# C&K 3P Series Miniature Pushwheel Switches

## Configuration Form

GRAY SHADED AREAS TO BE FILLED IN BY CUSTOMER SERVICE.

CATALOG PART NO.

**3 P**

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 <small>ENTER OPTION CODES IN APPROPRIATE BOXES. FUNCTION CODES INCLUDE BLANK SECTIONS (SEE PAGE M-17).</small>	DESCRIBE IN APPROPRIATE ROW
<input type="checkbox"/> 1 <input type="checkbox"/>	1	3 P - <input type="text"/> <input type="text"/> - <input type="text"/> <input type="text"/> <input type="text"/>	
<input type="checkbox"/> 2 <input type="checkbox"/>	2	3 P - <input type="text"/> <input type="text"/> - <input type="text"/> <input type="text"/> <input type="text"/>	
<input type="checkbox"/> 3 <input type="checkbox"/>	3	3 P - <input type="text"/> <input type="text"/> - <input type="text"/> <input type="text"/> <input type="text"/>	
<input type="checkbox"/> 4 <input type="checkbox"/>	4	3 P - <input type="text"/> <input type="text"/> - <input type="text"/> <input type="text"/> <input type="text"/>	
<input type="checkbox"/> 5 <input type="checkbox"/>	5	3 P - <input type="text"/> <input type="text"/> - <input type="text"/> <input type="text"/> <input type="text"/>	
<input type="checkbox"/> 6 <input type="checkbox"/>	6	3 P - <input type="text"/> <input type="text"/> - <input type="text"/> <input type="text"/> <input type="text"/>	
<input type="checkbox"/> 7 <input type="checkbox"/>	7	3 P - <input type="text"/> <input type="text"/> - <input type="text"/> <input type="text"/> <input type="text"/>	
<input type="checkbox"/> 8 <input type="checkbox"/>	8	3 P - <input type="text"/> <input type="text"/> - <input type="text"/> <input type="text"/> <input type="text"/>	
<input type="checkbox"/> 9 <input type="checkbox"/>	9	3 P - <input type="text"/> <input type="text"/> - <input type="text"/> <input type="text"/> <input type="text"/>	
<input type="checkbox"/> 0 <input type="checkbox"/>	10	3 P - <input type="text"/> <input type="text"/> - <input type="text"/> <input type="text"/> <input type="text"/>	
<input type="checkbox"/> 1 <input type="checkbox"/>	11	3 P - <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 \_\_\_\_

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