

# 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  $\Omega$  typ. @ 2-4 V DC, 100 mA.

INSULATION RESISTANCE:  $10^9 \Omega$  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).

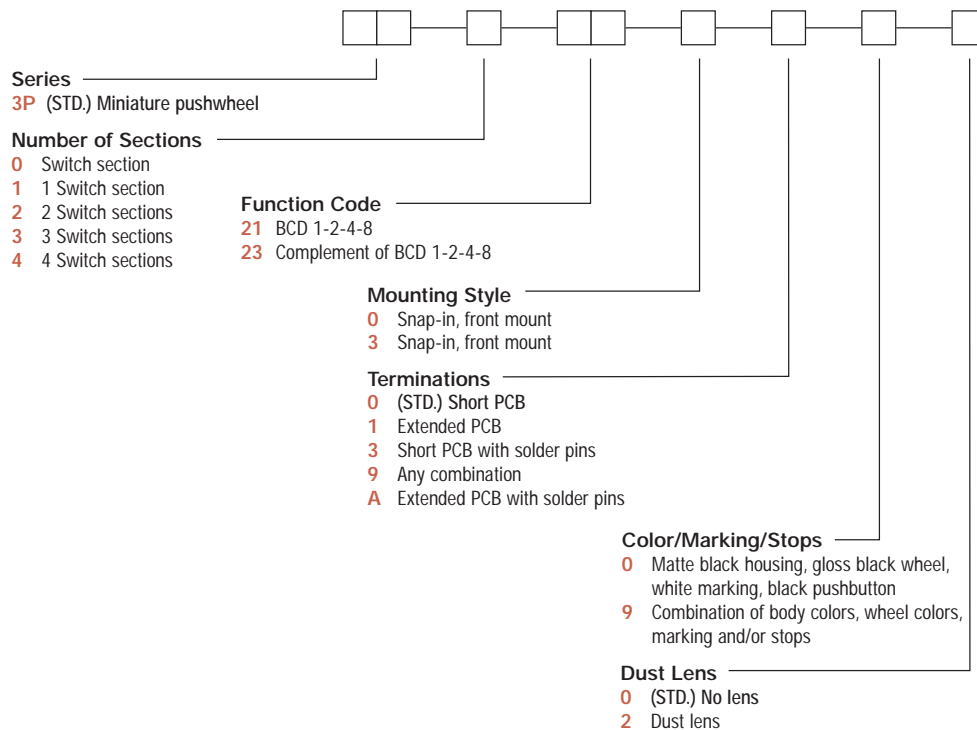
ROTOR CONTACTS: Gold over nickel over copper alloy.

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

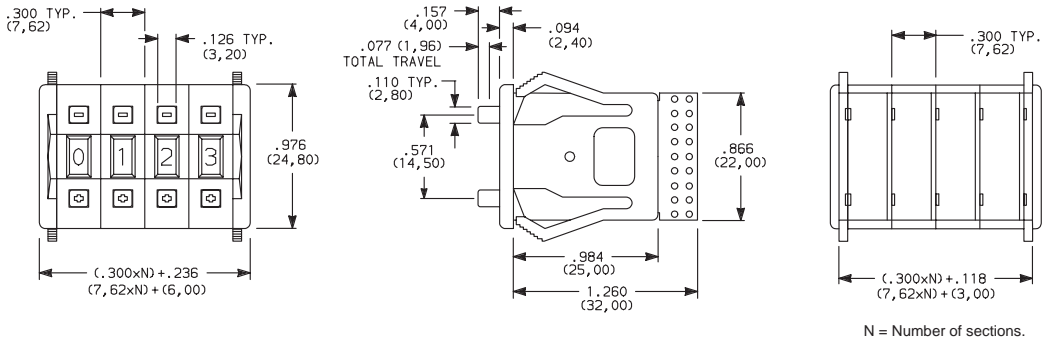
To order, simply select desired option from each category and place in the appropriate box. Available options are shown and described on pages M-17 thru M-19. For additional options not shown in catalog, consult Customer Service Center. Consult factory for illumination availability.



# 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			
	1	2	4	8
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.

**NOTE:** For terminal location diagrams, see page M-19.



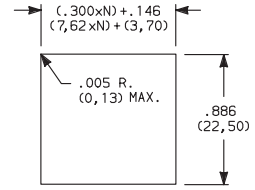
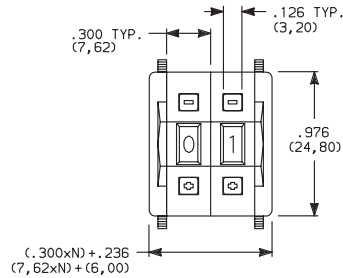
Dimensions are shown: IN (mm)  
Dimensions subject to change



# C&K 3P Series Miniature Pushwheel Switches

## MOUNTING STYLE

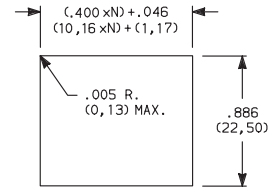
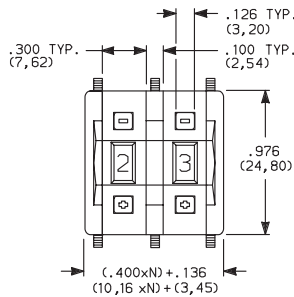
- 0 SNAP-IN FRONT MOUNT,  
SECTION PITCH: .300 (7,62) EACH SECTION



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)

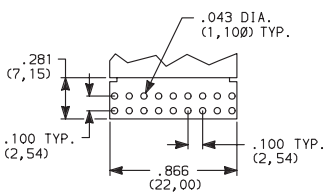


N = Number of sections.

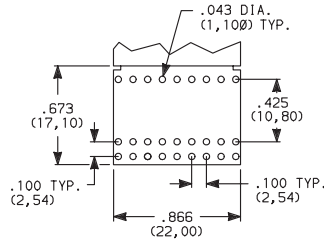
Recommended panel thickness:  
.039-.156  
(0,99-3,95)

## TERMINATIONS

- 0 (STD.) SHORT PCB

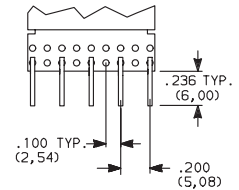


- 1 EXTENDED PCB WITH PROVISION  
FOR COMPONENTS



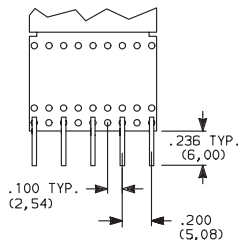
Signal traces cut, except for common(s).

- 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.

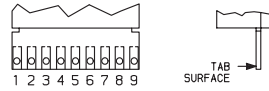
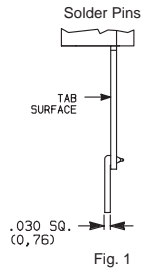
PC Board 1/32" (0,79) thick.

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

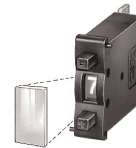


## COLOR/MARKING/STOPS

- 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.)



Thumbwheel & Pushwheel



M

# 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



M

# 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 \_\_\_\_\_

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

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

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

CUSTOMER PRINT REVISION:

DETAILS:

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="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="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="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="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="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="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="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="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="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="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"/> <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 \_\_\_\_

