

# 3P Series Miniature Pushwheel Switches



## Features/Benefits

- Snap-in front mount design for easy assembly
- 10 position models 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.

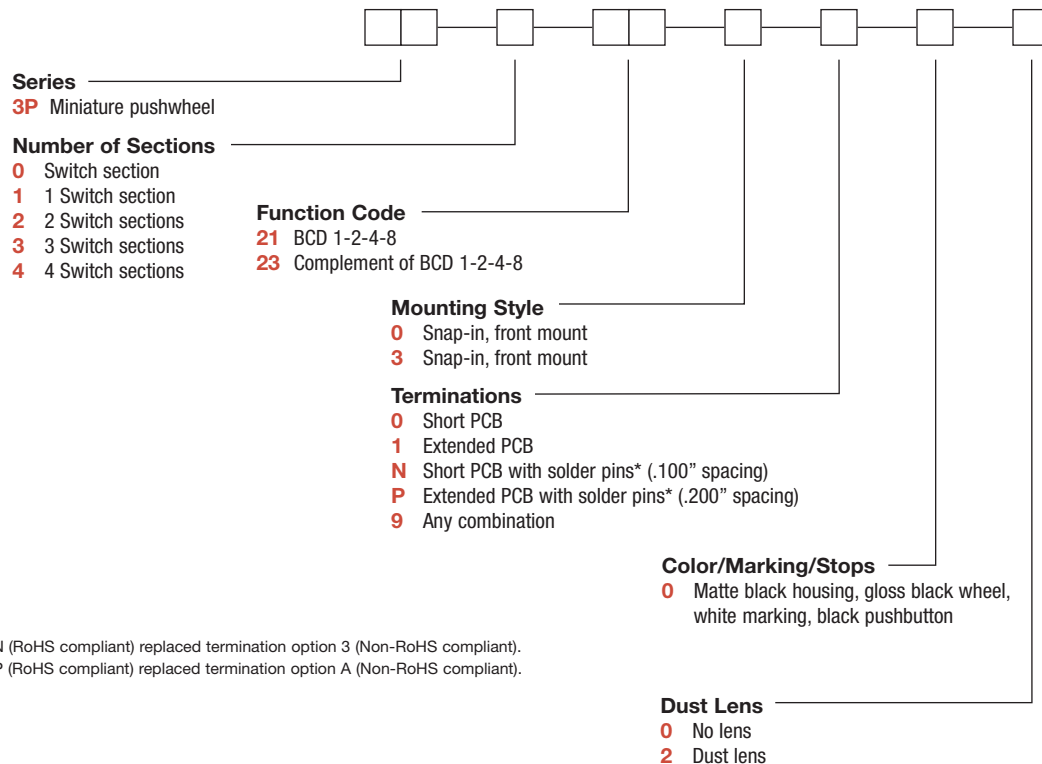
**NOTE:** Specifications and materials listed above are for switches with standard options. For information on specific and custom switches, consult Customer Service Center.

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 M-12 thru M-15. For additional options not shown in catalog, consult Customer Service Center.

Consult factory for illumination availability.



\* Note: Termination option N (RoHS compliant) replaced termination option 3 (Non-RoHS compliant).  
Termination option P (RoHS compliant) replaced termination option A (Non-RoHS compliant).

Thumbwheel & Pushwheel

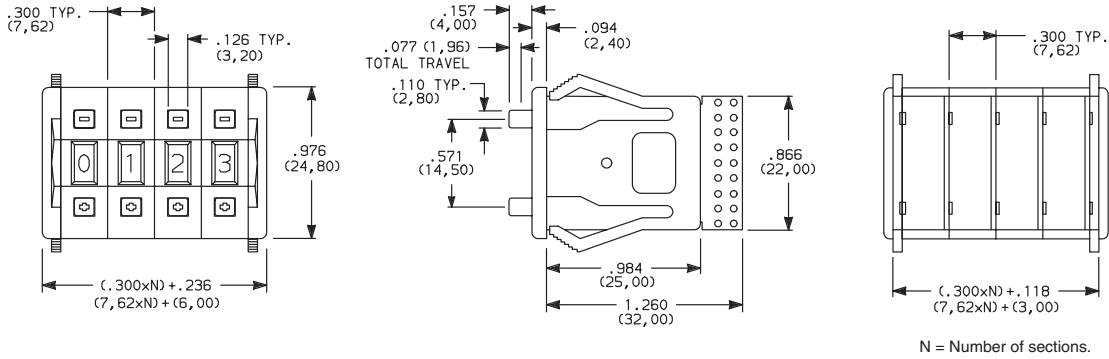


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# 3P Series Miniature Pushwheel Switches

SERIES

**3P** 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-14.

## 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	3	5	7	9
	TERM. LOCATION				

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

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

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

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

**NOTE:** For terminal location diagrams, see page M-14.

Thumbwheel & Pushwheel



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Third Angle  
Projection

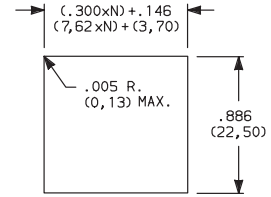
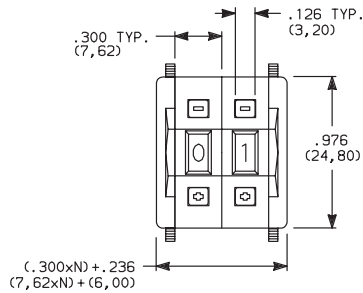
Dimensions are shown: Inches (mm)  
Specifications and dimensions subject to change



# 3P Series Miniature Pushwheel Switches

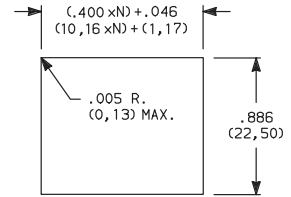
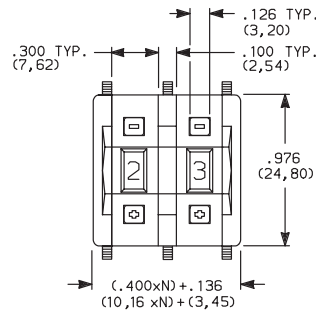
## MOUNTING STYLE

- 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)

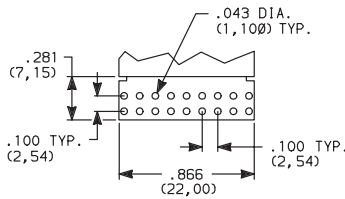
- 3** SNAP-IN FRONT MOUNT WITH SPACER,  
SECTION PITCH: .400 (70,16) EACH SECTION, LAST SECTION .300 (7,62)



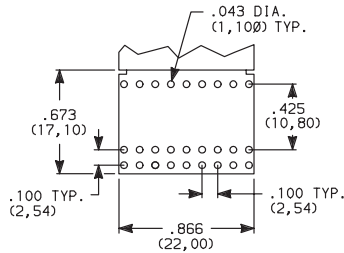
N = Number of sections.  
Recommended panel thickness:  
.039-.156  
(0,99-3,95)

## TERMINATIONS

- 0** SHORT PCB

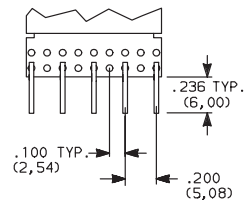


- 1** EXTENDED PCB WITH PROVISION  
FOR COMPONENTS



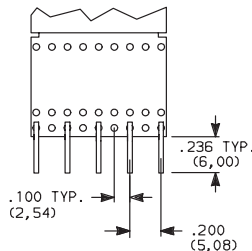
Signal traces cut, except for common(s).

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



For terminal location numbers, see next page.

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



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

Specify on configuration form, page M-15  
and consult Customer Service Center.

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

\*\* Note: Termination option N (RoHS compliant) replaced termination option 3 (Non-RoHS compliant).  
Termination option P (RoHS compliant) replaced termination option A (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.



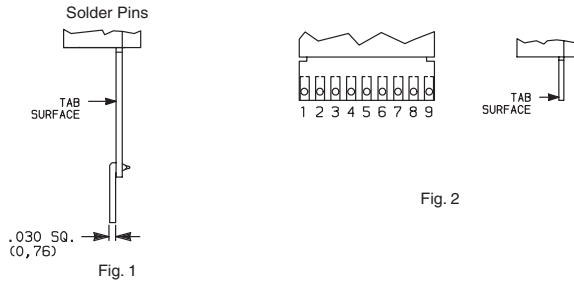
Third Angle  
Projection  
Dimensions are shown: Inches (mm)  
Specifications and dimensions subject to change



# 3P Series Miniature Pushwheel Switches

## TERMINATIONS

### Terminal Location Numbers



## COLOR/MARKING/STOPS

- 0 MATTE BLACK HOUSING (Gloss black wheel with white characters, black pushbuttons, no stops.)

## DUST LENS

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



## AVAILABLE HARDWARE

Blank sections, .300 THK.



PART NO.  
663702000 BLACK

End plates



LEFT-with hole



RIGHT-with pin

PART NO.  
623502000 LEFT-BLACK  
623602000 RIGHT-BLACK

One left and one right  
piece required for  
complete assembly.

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



PART NO.  
663602000 BLACK

Thumbwheel & Pushwheel



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Stop pins



PART NO.  
657800000



Dimensions are shown: Inches (mm)

Specifications and dimensions subject to change

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

Thumbwheel & Pushwheel



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