

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*
- *Illuminated backlighting available*

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: $10^9 \Omega$ min. (dry).
DIELECTRIC STRENGTH: 500 Vrms min. @ sea level
between common terminal and any output.
OPERATING TEMPERATURE: -10°C to 65°C.

Materials

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

Series 3U (STD.) Tiny pushwheel	Number of Sections 0 Switch section 1 1 Switch section 2 2 Switch sections 3 3 Switch sections 4 4 Switch sections 5 5 Switch sections 6 6 Switch sections 7 7 Switch sections 8 8 Switch sections 9 More than 8 switch sections
Function Code 21 BCD 1-2-4-8 71 BCH, 16 position	Mounting Style 0 (STD.) Snap-in, front mount
Terminations 0 (STD.) Short PC board 3 Short PC board 9 Any combination	Dust Lens 0 (STD.) No lens 2 Dust lens
Color/Marking/Stops 0 (STD.) Matte black housing, gloss black wheel, extended actuator, white vertical characters, black pushbutton, no stops 9 Combination of body colors, wheel colors, marking and/or stops A Matte black housing, gloss black wheel, extended actuator, white horizontal characters, black pushbutton, no stops C Matte black housing, gloss black wheel, recessed actuator, white vertical characters, black pushbutton, no stops E Matte black housing, gloss black wheel, recessed actuator, white horizontal characters, black pushbutton, no stops	

Thumbwheel & Pushwheel

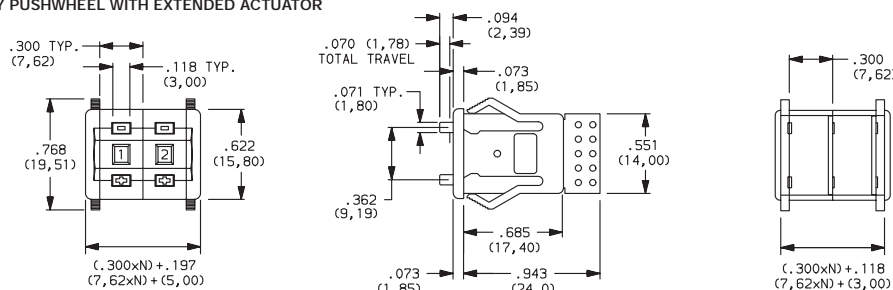


M

C&K 3U Series Tiny Pushwheel Switches

SERIES

3U (STD.) 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 M-7 and consult Customer Service Center.

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

FUNCTION CODE

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

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

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

71 BINARY CODED HEXADECIMAL, 16 POSITION

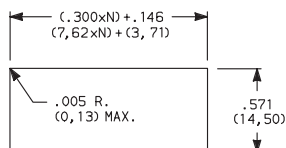
WHEEL	SIGNALS CONN. TO COMM. SIG. C				
	1	2	4	8	C
0					●
1	●				●
2		●			●
3	●	●			●
4			●		●
5	●			●	●
6		●	●		●
7	●	●	●		●
8				●	●
9	●				●
A		●			●
B	●				●
C			●		●
D	●			●	●
E		●	●		●
F	●	●	●		●
TERM. LOCATION					
	2	3	4	5	1

Available Terminations: 0, 3
See fig. 2, page M-5.

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

MOUNTING STYLE

0 (STD.) SNAP-IN FRONT MOUNTING



N = Number of sections

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

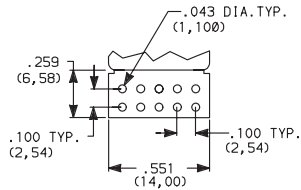


Third Angle Projection
 Dimensions are shown: IN (mm)
 Dimensions subject to change

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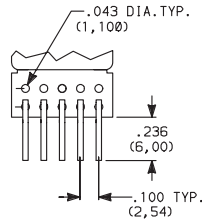
TERMINATIONS

0 (STD.) SHORT PC BOARD



Not available with illuminated models.

3 SHORT PC BOARD, TYPE 0 WITH SOLDER PINS



Not available with illuminated models..

9 ANY COMBINATION OF TERMINATION CONFIGURATION OR SPECIAL TERMINATIONS.

Specify on configuration form, page M-7 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.

Terminal Location Numbers

SOLDER PINS

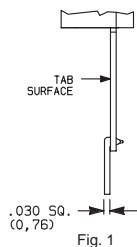


Fig. 1



Fig. 2

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

COLOR/MARKING/STOPS

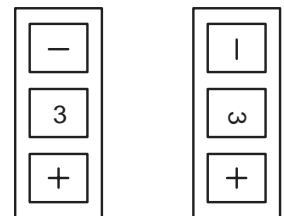
0 (STD.) MATTE BLACK HOUSING (Gloss black wheel with extended actuator, white vertical characters, black pushbuttons, no stops.)

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

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

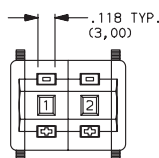
C MATTE BLACK HOUSING (Gloss black wheel with white vertical characters, recessed actuator, black pushbuttons, no stops.)

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

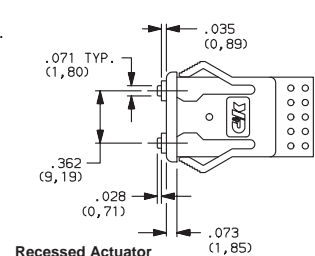
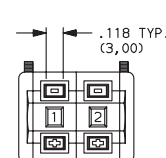
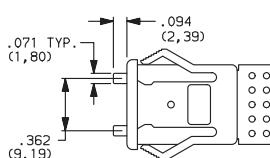


Vertical Characters

Horizontal Characters



Extended Actuator



Recessed Actuator



Third Angle Projection

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

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DUST LENS



- 0 (STD.) 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
123B09000 GRAY

End plates



LEFT-with hole



RIGHT-with pin

PART NO.
113B02000 LEFT-BLACK
113B09000 LEFT-GRAY
114B02000 RIGHT-BLACK
114B09000 RIGHT-GRAY

One left and one right
piece required for
complete assembly.



Configuration Form

GRAY SHADED AREAS TO BE FILLED IN BY CUSTOMER SERVICE.

CATALOG PART NO.

3	U								
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C&K PART NUMBER

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C&K PART NUMBER

COMPANY NAME _____

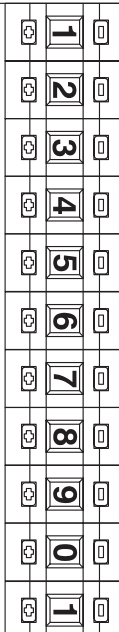
ADDRESS _____ TEL.# _____

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-4).</small>	DESCRIBE IN APPROPRIATE ROW
	1	3 U - <input type="text"/> <input type="text"/> - <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/>		
	2	3 U - <input type="text"/> <input type="text"/> - <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/>		
	3	3 U - <input type="text"/> <input type="text"/> - <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/>		
	4	3 U - <input type="text"/> <input type="text"/> - <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/>		
	5	3 U - <input type="text"/> <input type="text"/> - <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/>		
	6	3 U - <input type="text"/> <input type="text"/> - <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/>		
	7	3 U - <input type="text"/> <input type="text"/> - <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/>		
	8	3 U - <input type="text"/> <input type="text"/> - <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/>		
	9	3 U - <input type="text"/> <input type="text"/> - <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/>		
	0	3 U - <input type="text"/> <input type="text"/> - <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/>		
	1	3 U - <input type="text"/> <input type="text"/> - <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/>		

QUALITY CONTROL INSTRUCTIONS

PRODUCTION APPROVAL

DATE

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Q.C. APPROVAL

DATE

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REV.

INITIALS

DATE

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

SPECIAL INSTRUCTIONS OR SPECIFICATIONS:

SHEET ____ OF ____

Mouser Electronics

Authorized Distributor

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[113B02000](#) [114B02000](#)