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: 10^9 Ω min. (dry).

DIELECTRIC STRENGTH: 500 Vrms min. @ sea level between common terminal and any output.

OPERATING TEMPERATURE: –10ºC to 65ºC.

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.

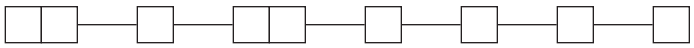
NOTE: Specifications and materials listed above are for switches with standard options. For information on specific and custom switches, consult Customer Service Center.

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.



Series
3U 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 Snap-in, front mount

Terminations
0 Short PC board
N Short PC board with pins*
9 Any combination

Dust Lens
0 No lens
2 Dust lens

Color/Marking/Stops
0 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

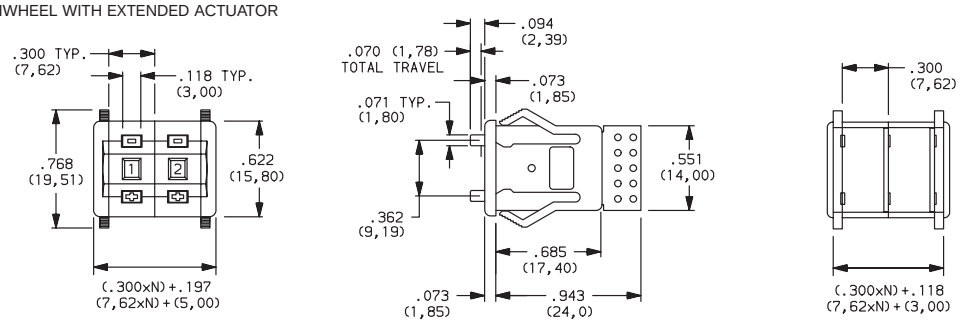
* Note: Termination option N (RoHS compliant) replaces termination option 3 (non-RoHS compliant).

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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

WHEEL	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

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	●	●	●	●	●
	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)

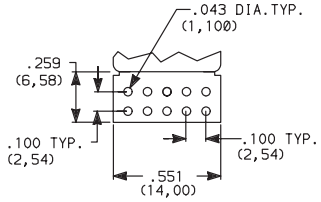
Third Angle Projection

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

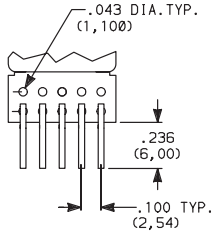
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TERMINATIONS

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

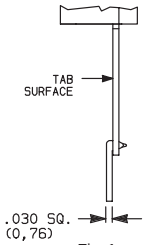


Fig. 1

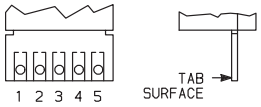


Fig. 2

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

COLOR/MARKING/STOPS

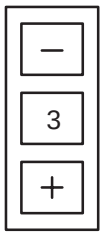
0 MATTE BLACK HOUSING (Gloss black wheel with extended actuator, white vertical characters, black pushbuttons, no stops.)

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

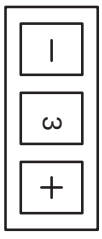
A MATTE BLACK HOUSING (Gloss black wheel with white horizontal characters, extended actuator, black pushbuttons, no stops.)

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

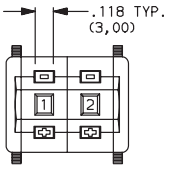
E MATTE BLACK HOUSING (Gloss black wheel with white horizontal characters, recessed actuator, black pushbuttons, no stops.)

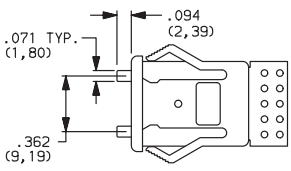


Vertical Characters

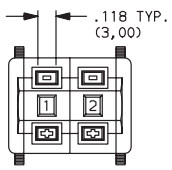


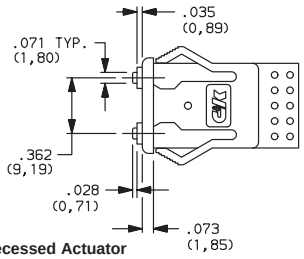
Horizontal Characters





Extended Actuator





Recessed Actuator

Third Angle Projection

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

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3U Series
Tiny Pushwheel Switches

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.

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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 _____

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 ENTER OPTION CODES IN APPROPRIATE BOXES. FUNCTION CODES INCLUDE BLANK SECTIONS (SEE PAGE M-4).	DESCRIBE IN APPROPRIATE ROW
1	1	3 U – – –	
2	2	3 U – – –	
3	3	3 U – – –	
4	4	3 U – – –	
5	5	3 U – – –	
6	6	3 U – – –	
7	7	3 U – – –	
8	8	3 U – – –	
9	9	3 U – – –	
0	10	3 U – – –	
1	11	3 U – – –	

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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