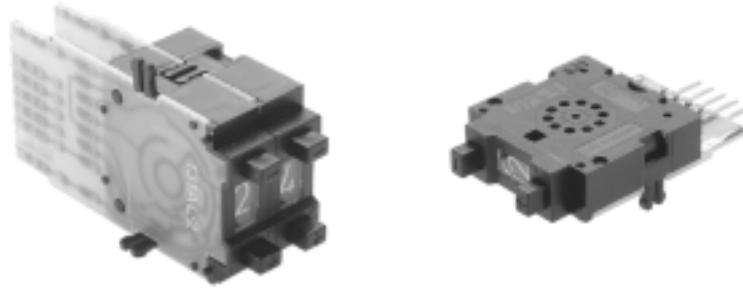


# DPS8 SERIES MINIATURE PUSHWHEEL SWITCHES



## FEATURES

- Lower cost miniature pushwheel switches with large visible readout characters
- Bi-directional snap action detent pushbutton mechanism
- Black housing and drum with white printing
- Gangable rear mounting models with spacers and side covers
- Gold wiping action contacts
- PC board options include solderable lands

## DPS8 SPECIFICATIONS

Panel mounting hole:	
Height	.709"(18mm)
Width	.315"(8mm)
Installed depth with pc board:	
Short	1.260"(32mm)
Long	1.614"(41mm)
Insertion from front	no
Insertion from rear	yes

## CODES

Code	positions	marking	
111 Decimal	10	0-9	see truth tables
131 BCD	10	0-9	see truth tables
137 BCD comp	10	0-9	see truth tables
141 BCD + comp	10	0-9	see truth tables
301 Hexadecimal	16	0-9, A-F(0-15)	see truth tables
400 change-over	10	+,-,+,-,etc..	see truth tables

## ELECTRICAL DATA

Operating voltage:	40 V max.
Contact load, static:	1 A max.
Contact load, dynamic:	100 mA max.
Contact resistance (type AK):	less than 100 mOhm

## TECHNICAL DATA

Operating temperature range:	-20°C to 80°C
Electric life, min. switching cycles	1,000,000
Actuation force, approx (oz.):	14
Weight, approx. (grams):	4
Character height:	10 digit .193" (4.9mm)
	16 digit .134" (3.4mm)
Audible click	yes
Vibration DIN EN 60068-2-6	yes
Shock DIN EN 60068-2-27	yes

## MATERIALS

Body:	PPO
PC board:	FR 4 DIN 40802 IEC 249-2, Contact surface gold over nickel on copper
Sliding contact:	Gold over nickel on copper alloy

## STANDARD COLORS

Housing, Drum, Printing	
2 = black 3 = white	2,2,3

Other special features are available upon request including:

- Factory or customer set stops (10 digit models)
- LED illumination (transparent drum)
- Red digits
- Decimal point
- Special codes or printing
- Gray housing
- See sockets at end of Pushwheel section.

SPECIFICATIONS SUBJECT TO CHANGE WITHOUT NOTICE

# DPS8 SERIES MINIATURE PUSHWHEEL SWITCHES

## TRUTH TABLES

CODE 131 BCD		C	1	2	4	8
0	●					
1	●	●				
2	●		●			
3	●	●	●			
4	●			●		
5	●	●			●	
6	●	●	●	●		
7	●	●	●	●	●	
8	●					●
9	●	●				●

CODE 137 BCD COMP.		C	$\bar{1}$	$\bar{2}$	$\bar{4}$	$\bar{8}$
0	●	●	●	●	●	●
1	●	●	●	●	●	●
2	●	●	●	●	●	●
3	●	●	●	●	●	●
4	●	●	●	●	●	●
5	●	●	●	●	●	●
6	●	●	●	●	●	●
7	●	●	●	●	●	●
8	●	●	●	●	●	●
9	●	●	●	●	●	●

CODE 400 CHANGE-OVER		C	A+	A-
+	●	●	●	●
-	●	●	●	●
+	●	●	●	●
-	●	●	●	●
+	●	●	●	●
-	●	●	●	●
+	●	●	●	●
-	●	●	●	●
+	●	●	●	●
-	●	●	●	●

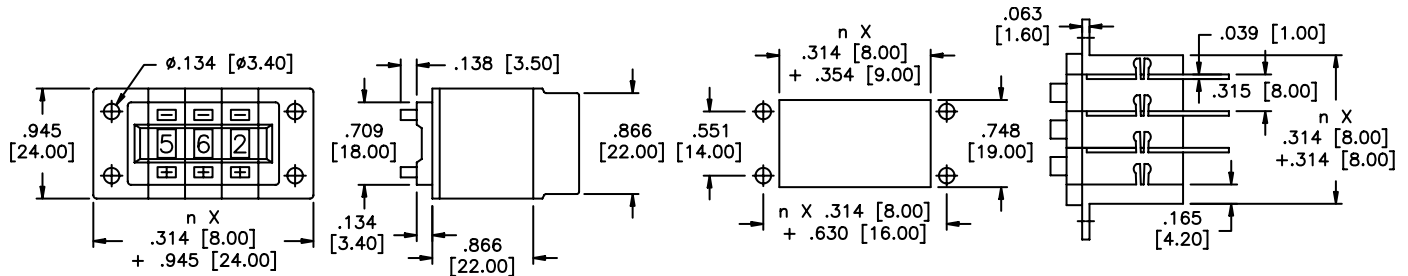
CODE 301 HEXADECIMAL		1	2	4	8	C
0	●					●
1	●	●				●
2	●	●	●			●
3	●	●	●	●		●
4	●	●	●	●	●	●
5	●	●	●	●	●	●
6	●	●	●	●	●	●
7	●	●	●	●	●	●
8	●	●	●	●	●	●
9	●	●	●	●	●	●
A	●	●	●	●	●	●
B	●	●	●	●	●	●
C	●	●	●	●	●	●
D	●	●	●	●	●	●
E	●	●	●	●	●	●
F	●	●	●	●	●	●

CODE 111 DECIMAL		C	0	1	2	3	4	5	6	7	8	9
0	●	●										
1	●	●	●									
2	●	●	●	●								
3	●	●	●	●	●							
4	●	●	●	●	●	●						
5	●	●	●	●	●	●	●					
6	●	●	●	●	●	●	●	●				
7	●	●	●	●	●	●	●	●	●			
8	●	●	●	●	●	●	●	●	●	●		
9	●	●	●	●	●	●	●	●	●	●	●	

CODE 141 BCD + COMP.		C	1	2	4	8	$\bar{1}$	$\bar{2}$	$\bar{4}$	$\bar{8}$
0	●	●					●	●	●	●
1	●	●	●				●	●	●	●
2	●	●	●	●			●	●	●	●
3	●	●	●	●	●		●	●	●	●
4	●	●	●	●	●	●	●	●	●	●
5	●	●	●	●	●	●	●	●	●	●
6	●	●	●	●	●	●	●	●	●	●
7	●	●	●	●	●	●	●	●	●	●
8	●	●	●	●	●	●	●	●	●	●
9	●	●	●	●	●	●	●	●	●	●

## MECHANICAL OUTLINE WITH PANEL CUT-OUT & MOUNTING

n = number of switches



## PIN CONNECTIONS

● The switching mode is shorting - i.e. - even during actuation, at least one output is connected to input C.

● "bl" is used for models ordered with LED illumination only.

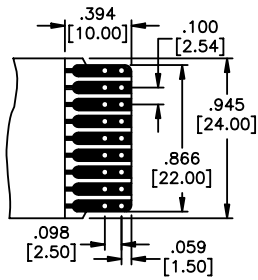
AK	131	137	141	301	400	111	111bl
	+	+	1	+	+	0	+
			$\bar{1}$			1	0
			2			2	1
			$\bar{2}$			3	2
			4			4	3
			$\bar{4}$			5	4
			8			6	5
			$\bar{8}$			7	6
			C			8	7
			A+			9	8
			A-			-	9
			-			-	-

131	C	1	2	4	8
301	C	1	2	4	8

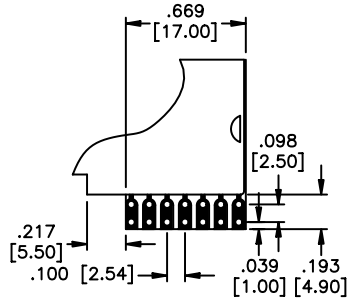
131	C	1	2	4	8		
137	C	$\bar{1}$	$\bar{2}$	$\bar{4}$	$\bar{8}$		
301	C	1	2	4	8		
400	C		+	-			
131bl	+	C	1	2	4	8	-

# DPS8 SERIES MINIATURE PUSHWHEEL SWITCHES

## PRINTED CIRCUIT OPTIONS

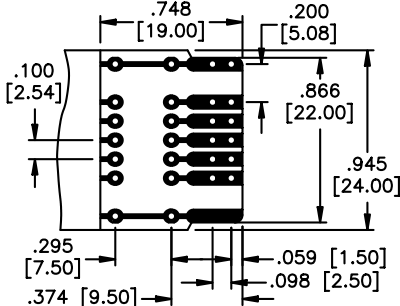


**AK** short pc board



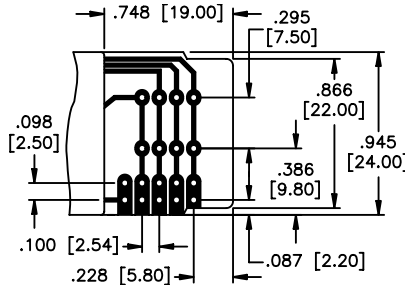
**AKU** short pc board

PC boards have .039" (1mm) holes and are suitable for soldering or socket connection (with the exception of LED illumination option).

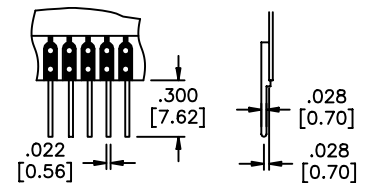


**AL** long pc board

For BCD models, the output traces are supplied disconnected



**ALU** long pc board



**LS** pc board w/solder pins

**Ordering information:** Below is an order format that enables you to 'build your own switch' and specify the correct switch model number by simply selecting from available options shown and filling in the boxes. Consult factory for fully assembled switches.

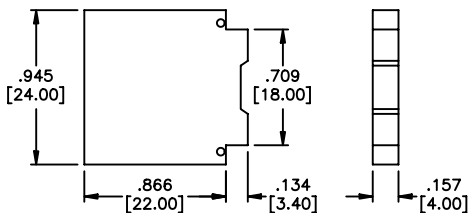
### 'BUILD YOUR OWN SWITCH' ORDER FORMAT

Series model	Code	PC board	Terminations	Standard colors
D P S 8	<input type="text"/> <input type="text"/> <input type="text"/>	<input type="text"/> <input type="text"/> <input type="text"/>	<input type="text"/> <input type="text"/>	<input type="text"/>
	1 1 1 Decimal 1 3 1 BCD 1 3 7 BCD comp. 1 4 1 BCD +comp. 3 0 1 Hexadecimal. 4 0 0 Change-over	A K Short A K U Short (rt. angle) A L Long A L U Long (rt. angle)	(NONE) L S With pc solder pins	Black housing. & drum, white lettering.

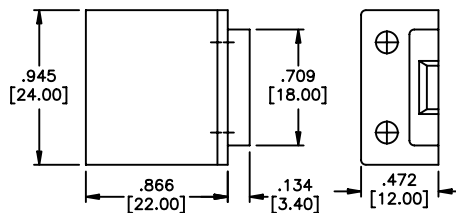
Example of complete model no.: **DPS8131ALLS2**  
 Order SP12 as a separate line item for limit stop pin (for 10 position models only).

## ACCESSORIES

Order separately



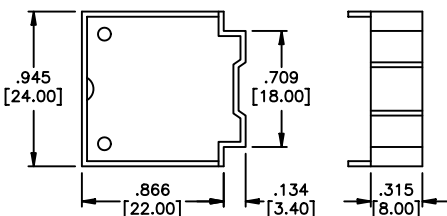
**DPS8A2** Spacer



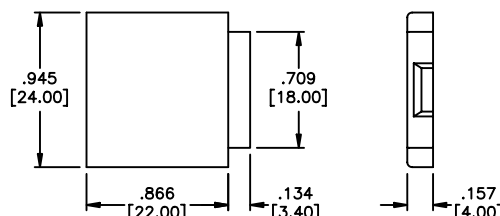
**DPS8PW2** Pair of side covers

### DPS8L2 Dummy switches

These are empty plastic housings with the same dimensions as DPS8 model (see outline). Use to fill hole where switch is not needed.



**DPS8L2** Dummy housing



**DPS8P2** Pair of side covers

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