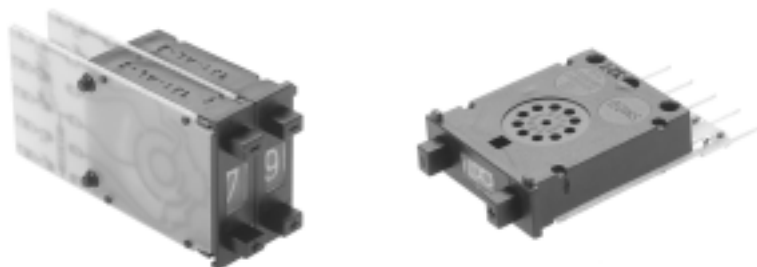


SMCD SERIES MINIATURE PUSHWHEEL SWITCHES



FEATURES

- Miniature pushwheel switches with large visible readout characters.
- Models available with ESD protection - consult factory.
- Bi-directional snap action detent pushbutton mechanism.
- Black housing and drum with white printing.
- Gangable front and rear mounting models with spacers and side covers.
- Gold wiping action contacts.
- P.C. board options include solderable lands.

SMCD SPECIFICATIONS

Panel mounting hole:	
Height	.945"(24mm)
Width	.315"(8mm)
Installed depth with p.c. board:	
Short	1.260"(32mm)
Long	1.654"(42mm)
Insertion from front	yes
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
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 IEC 68, parts 2-6	yes
Shock DIN 40046, part 7	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)
- L.E.D. illumination (transparent wheel)
- Red digits
- Decimal point
- Special codes or printing
- Gray housing
- See sockets at end of Pushwheel section.

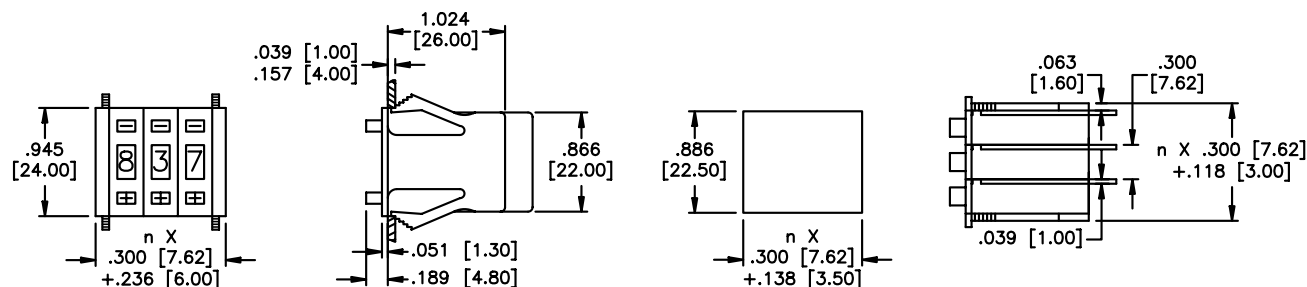
SMCD SERIES MINIATURE PUSHWHEEL SWITCHES

TRUTH TABLES

CODE 131 BCD						CODE 137 BCD COMP.						CODE 400 CHANGE-OVER				CODE 301 HEXADECIMAL						CODE 111 DECIMAL												
	C	1	2	4	8		C	$\bar{1}$	$\bar{2}$	$\bar{4}$	$\bar{8}$		C	A+	A-		1	2	4	8	C		C	0	1	2	3	4	5	6	7	8	9	
0	●					0	●	●	●	●	●		+		●		0					●		0	●	●								
1	●	●				1	●			●	●	●	+	●		●	1	●						1	●									
2	●		●			2	●	●			●	●	+	●	●		2		●			●		2	●		●							
3	●	●	●			3	●			●	●		+	●		●	3	●	●			●		3	●		●	●						
4	●			●		4	●	●	●		●		+	●	●		4			●		●		4	●			●						
5	●	●			●	5	●		●		●		+	●		●	5	●		●	●	●		5	●				●					
6	●		●	●		6	●	●			●		+	●	●		6		●	●		●		6	●				●	●				
7	●	●	●	●		7	●				●		+	●		●	7	●	●	●		●		7	●					●	●			
8	●				●	8	●	●	●	●		+	●	●		8				●	●		8	●							●			
9	●	●			●	9	●		●	●		-	●		●	9	●			●	●		9	●							●	●		
A			●													A		●			●													
B		●	●													B	●	●			●													
C				●												C			●		●													
D		●			●											D	●		●	●	●													
E			●	●												E		●	●	●	●													
F		●	●	●	●											F	●	●	●	●	●													

MECHANICAL OUTLINE WITH PANEL CUT-OUT & MOUNTING

n = number of switches



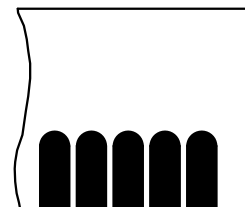
PIN CONNECTIONS

● 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 L.E.D. illumination only.

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

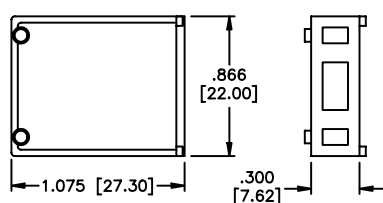
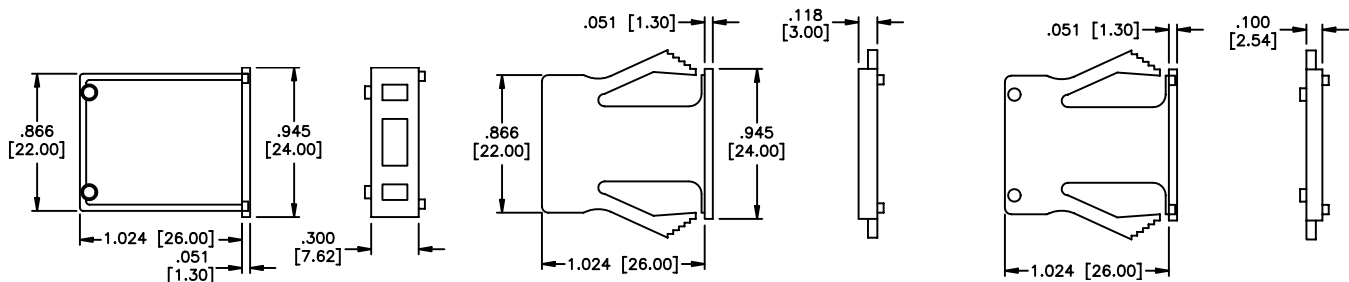
	111	0	1	2	3	4	C	5	6	7	8	9	Pitch .079"(2mm)
AK	111bl	+ 0	1	2	3	4	C	5	6	7	8	9	Pitch .067"(1.7mm)
		+					-						
AL	111bl	0	1	2	3	4	C	5	6	7	8	9	Pitch .079"(2mm)



●	131	1	2	4	8	C
	301	1	2	4	8	C

SPECIFICATIONS SUBJECT TO CHANGE WITHOUT NOTICE

LS p.c. board w/solder pins



Technical drawing of a mechanical part with dimensions in inches and millimeters. The drawing shows a side view of a component with a central rectangular section and two angled, stepped sections on either side. The dimensions are as follows:

- Top horizontal dimension: .217 [5.50]
- Right horizontal dimension: .118 [3.00]
- Left vertical dimension: .866 [22.00]
- Central vertical dimension: .472 [12.00]
- Right vertical dimension: .945 [24.00]
- Bottom horizontal dimension: 1.024 [26.00]

Technical drawing of a mechanical part showing front, top, and side views with dimensions in inches and millimeters.

Front View Dimensions:

- Top width: .217 [5.50]
- Bottom width: 1.024 [26.00]
- Internal width: .472 [12.00]
- Internal height: .945 [24.00]

Top View Dimensions:

- Right side width: .100 [2.54]