P60A & P60AS SERIES
ROTARY DIP SWITCHES

FEATURES

- **New 4 + 1 terminal layout.**
- **Completely sealed for process compatibility.**
- **Ultra-compact size with 10 or 16 positions.**
- **Precision designed detent action.**
- **Thru-hole (P60A Series) & SMT (P60AS Series) models.**
- **High reliability & long life.**
- **Clockwise or counterclockwise settable.**
- **Solder coated terminals.**

GENERAL SPECIFICATIONS

ELECTRICALS

Operating voltage	24 VDC max.
Contact rating, static	400 mA max.
Contact rating, dynamic	150 mA max.
Test voltage	250V 50Hz/1 min.
Initial contact resistance	< 100 milliohms
Insulation resistance	> 100 megohms

MECHANICALS, THERMALS

Torque	0.98 inch-oz. min. (0.7 Ncm min.)
Expected life	10,000 switching operations
Contact force	15 grams min.
Operating temperature range	-20°C to 85°C

SOLDERING RECOMMENDATIONS

Hand soldering	340°C max. for 2 seconds max. (40 watt iron max.)
Wave soldering	260°C max. for 10 seconds max.
Reflow soldering (SMT)	215°C max. for 40 seconds max.
Solvent washing	Freons or alcohol. (Do not use chlorinated solvents)
Aqueous cleaning	Deionized water preferred

MATERIALS

Base	UL94V-O, high temperature thermoplastic
Cover	UL94V-O, high temperature thermoplastic
Actuator	Nylon
Contacts	Gold over nickel plated stainless steel
Terminals	Solder coated copper
Terminal sealing	Molded-in
Actuator seal	'O'-ring

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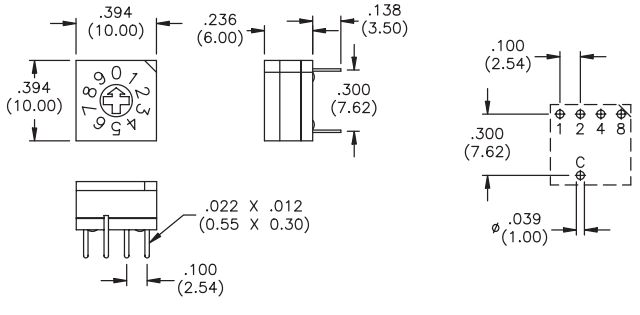
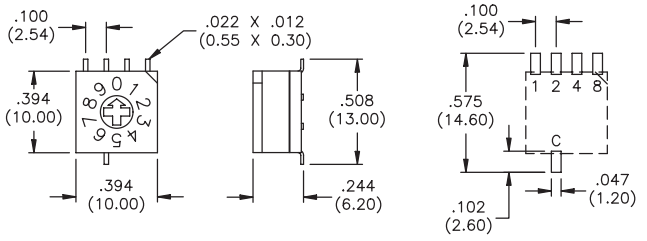
Thru-hole and SMT Printed Circuit Models		Model No. Thru-hole Mounting (see fig. 1)	Model No. Surface Mounting (see fig. 2)
Code (see truth tables pg. G22)	**Positions**		
Binary Coded Decimal	10	**P60A701**	**P60AS701**
Complement of BCD	10	**P60A702**	**P60AS702**
Binary Coded Hexadecimal	16	**P60A703**	**P60AS703**
Complement of BCH	16	**P60A706**	**P60AS706**

Figure 1



Mechanical outline P.C. hole pattern

Figure 2



Mechanical outline P.C. pad layout

APEM, 63 NECK ROAD, HAVERHILL, MA USA 01835-0788 TOLL FREE: (877) 246-7890 FAX: (978) 372-3534 E-mail: info@apem.com

STANDARD OPTIONS BY SERIES:

Series		P60A	P60AS
Actuators			
3	Spindle	X	X*
5	Segment wheel	X	X*
7	Cross shaped slot	X	X
Codes			
01	BCD	X	X
02	BCD complement	X	X
03	Hexadecimal	X	X
06	Hexadecimal Comp.	X	X
Terminals			
None	Straight	X	
V	Crimped	X	
L508	Rt. angle 5.08 (.200")	X	
None	SMT		X

*** -** Assemble after soldering process.

ORDER GUIDE:

Make selections from the above table in sequence to specify a complete model number.

Note that 'None' indicates that no option suffix is required.

Example; **P60A301V**

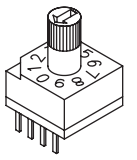
Series Actuator — Terminals Code

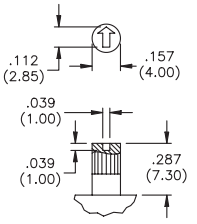
New!

P60A & P60AS SERIES

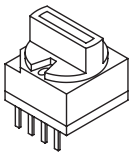
ACTUATORS

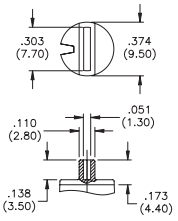
3 Spindle



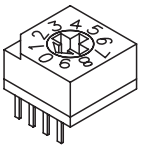


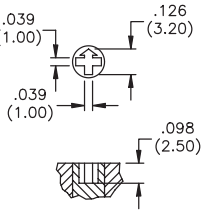
5 Segment wheel





7 Cross shaped slot





See page G19 for optional Operating Elements.

SPECIFICATIONS SUBJECT TO CHANGE WITHOUT NOTICE.

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CODES

NOTE: For each dial position in tables, Common terminals (C) are connected to terminal number(s) indicated - i.e. - none or combinations of 1, 2, 4 or 8. Each model in this series has 2 Common terminals.

BINARY CODED DECIMAL (01)
10 Positions

Dial No.	1	2	4	8
0				
1	●			
2		●		
3	●	●		
4			●	
5	●		●	
6		●	●	
7	●	●	●	
8				●
9	●			●

COMP. OF BINARY CODED DECIMAL (02)
10 Positions

Dial No.	1	2	4	8
0	●	●	●	●
1		●	●	●
2	●		●	●
3			●	●
4	●	●		●
5		●		●
6	●			●
7				●
8	●	●	●	
9		●	●	

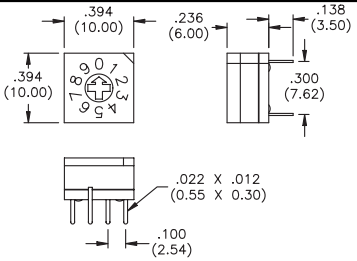
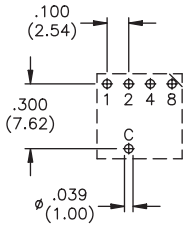
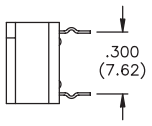
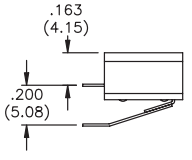
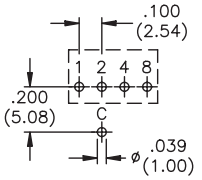
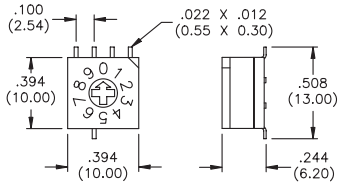
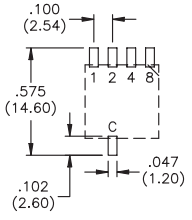
BINARY CODED HEXADECIMAL (03)
16 Positions

Dial No.	1	2	4	8
0				
1	●			
2		●		
3	●	●		
4			●	
5	●		●	
6		●	●	
7	●	●	●	
8				●
9	●			●
A		●		●
B	●	●		●
C			●	●
D	●		●	●
E		●	●	●
F	●	●	●	●

COMP. OF BINARY CODED HEXADEC. (06)
16 Positions

Dial No.	1	2	4	8
0	●	●	●	●
1		●	●	●
2	●		●	●
3			●	●
4	●	●		●
5		●		●
6	●			●
7				●
8	●	●	●	
9		●	●	
A	●		●	
B			●	
C	●	●		
D		●		
E	●			
F				

MECHANICAL OUTLINES

Terminal option suffix*:		Mtg. hole pattern:
NONE Straight terminals		
V Crimped terminals		
L508 Right angle terminals		
NONE SMT terminals		

* 'None' indicates no option suffix is required.