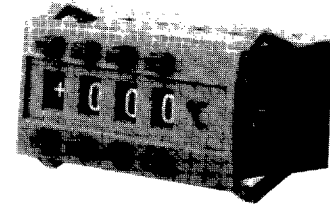


Thumbwheel Switch

A7B

Reliable Thumbwheel with Easy-to-Mount Assembly

- Dustproof construction ensures highly reliable performance at low voltage and very small current even under adverse environmental conditions
- Plus (+) and minus (-) pushbuttons for positive forward and reverse rotation of each digital wheel



Ordering Information

SWITCH UNITS

Output Code	Part Number			
	Front mounting solder terminals			
	Stopper pin provided		Stopper pin not provided	
	Light gray case	Black case	Light gray case	Black case
03 (decimal code)	-	-	A7BS-203	A7BS-203-1
06 (binary code) (binary code w/+, - display)	A7BS-206-S	A7BS-206-S-1	A7BS-206	A7BS-206-1
	-	-	A7BS-206-PM	A7BS-206-PM-1
07 (binary code w/diode provision)	A7BS-207-S	A7BS-207-S-1	A7BS-207	A7BS-207-1
19 (decimal code w/component adding provision)	-	-	A7BS-219	A7BS-219-1
54 (binary code hexadecimal)	-	-	A7BS-254	A7BS-254-1
55 (binary code hexadecimal, w/component adding provision)	-	-	A7BS-255	A7BS-255-1

ACCESSORIES

Accessory	Part Number		
	For front mounting type switch assembly terminals		
	Light gray	Black	
End Cap	A7B-M	A7B-M-1	
Spacer	A7B-P	A7B-P -1	
Connector	Solder terminal	A7B-C	A7B-C
	PC terminal	A7B-CP	A7B-CP

- Note: 1. When placing your order, please specify the model numbers and quantities of required switch units, end caps, and spacers, respectively. (Note that switch units and accessories are not factory-assembled for shipment.)
2. Type with a suffix -S in their type number are provided with two stopper pins (Type A7BS-S: used in pairs) as standard accessories.
3. Switch case, end cap, and spacer are made of polyacetal resin; however, the window plate is polycarbonate resin.
4. One of the following alphabetic codes must be filled into the boxed part of the model number to specify a legend to be hot stamped on the required spacer.
5. End caps come as a set -- left and right.

Code	Legend	Code	Legend	Code	Legend
A	Hot stamp not required	E	g	K	°C
B	SEC	F	kg	L	PCS
C	MIN	G	mm	Q	x 10 SEC
D	H	H	cm	T	0
		J	m		

Characteristics

Switching capacity		1 mA to 0.1 A 50 VAC/28 VDC (resistive load)
Carry current		1 A (max.)
Contact resistance		200 mΩ max.
Insulation resistance		10 MΩ min. (at 500 VDC) between nonconnected terminals 1,000 MΩ min. (at 500 VDC) between each terminal and noncurrent-carrying part
Dielectric strength		600 VAC, 50/60 Hz for 1 minute between nonconnected terminals 1,000 VAC, 50/60 Hz for 1 minute between each terminal and noncurrent-carrying part
Operating force		550 g max.
Vibration		10 to 55 Hz, 1.5 mm double amplitude
Shock		500 m/s ² (approx. 50 G)
Ambient temperature	Operating	-10° to 65°C
	Storage	-20° to 80°C
Humidity		45% to 85% RH max.
Service life	Mechanical	100,000 operations (steps) min.
	Electrical	50,000 operations (steps) min.
Weight (per unit)		Approx. 4.1 g

Note: Data shown are of initial value.

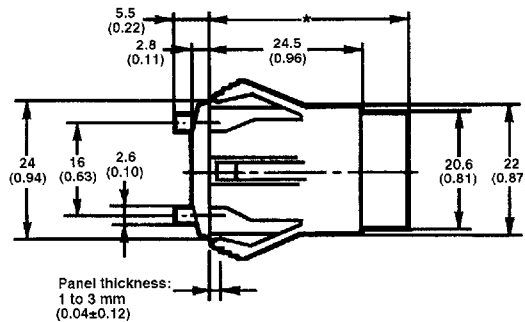
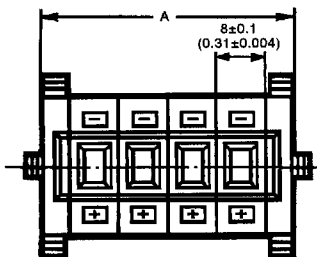
Dimensions

Unit: mm (inch)

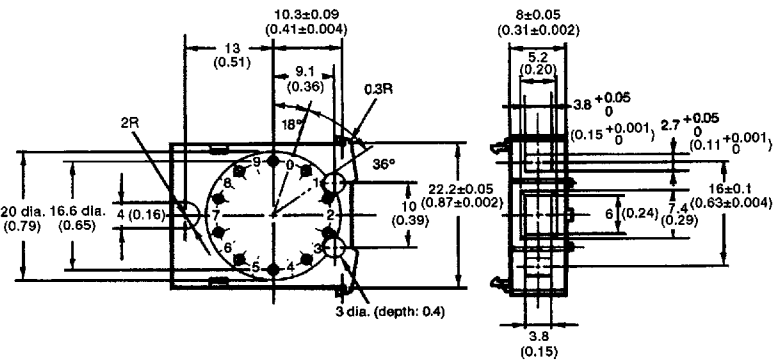
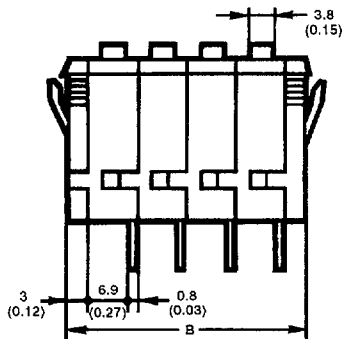
SWITCH UNITS

A7BS-206(-1)

A7BS-207(-1)

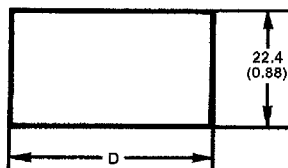


A7BS-20□-S(-1)



Note: Dimension * is 32.5 (1.28) for the switch with output code "06" [i.e., A7BS-206(-1)], and 43.5 (1.71) for the switch with output code "07" [i.e., A7BS-207(-1)].

Panel cutout

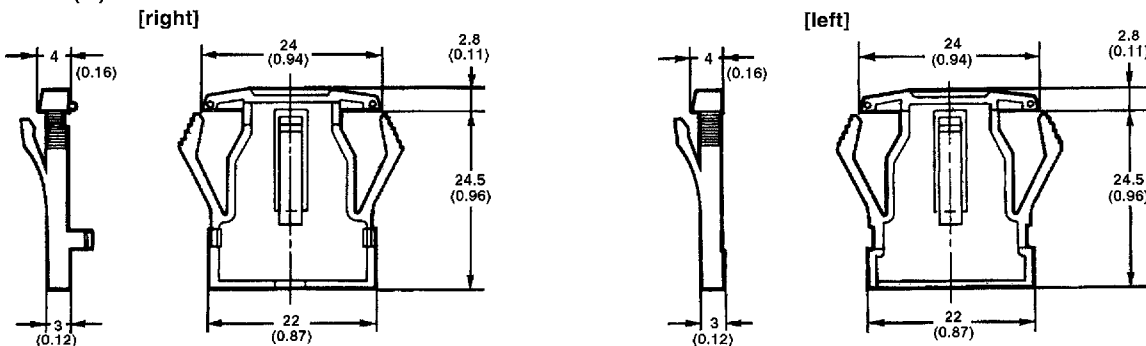


No. of units (n)	A (8n + 8)	B (8n + 6)	D
1	16 (0.63)	14 (0.55)	14.4 (0.57)
2	24 (0.94)	22 (0.87)	22.4 (0.88)
3	32 (1.26)	30 (1.18)	30.4 (1.20)
4	40 (1.57)	38 (1.50)	38.4 (1.51)
5	48 ± 0.8 (1.89 ± 0.03)	46 ± 0.8 (1.81 ± 0.03)	46.8 (1.84)
6	56 ± 0.8 (2.20 ± 0.03)	54 ± 0.8 (2.13 ± 0.03)	54.8 (2.16)
7	64 ± 0.8 (2.52 ± 0.03)	62 ± 0.8 (2.44 ± 0.03)	62.8 (2.47)
8	72 ± 0.8 (2.83 ± 0.03)	70 ± 0.8 (2.76 ± 0.03)	70.8 (2.79)
9	80 ± 0.8 (3.15 ± 0.03)	78 ± 0.8 (3.07 ± 0.03)	78.8 (3.10)
10	88 ± 0.8 (3.46 ± 0.03)	86 ± 0.8 (3.39 ± 0.03)	86.8 (3.42)

- Note: 1. Unless otherwise specified, a tolerance of ± 0.4 mm applies to all dimensions.
 2. Each model number applies to a single switch unit and not to the switch assembly as shown in the drawings.

■ END CAPS

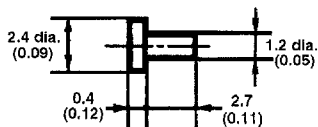
A7B-M(-1)



Note: End caps are attached to each end of the switch assembly and used to secure the switch assembly to a mounting panel.

■ STOPPER PINS

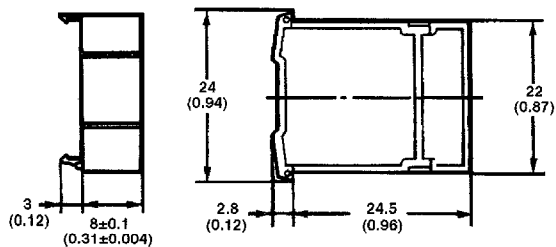
A7BS-S



Note: Types with Suffix -S in their type numbers are provided with two stopper pins as standard accessories.

■ SPACERS

A7B-P_(-1)

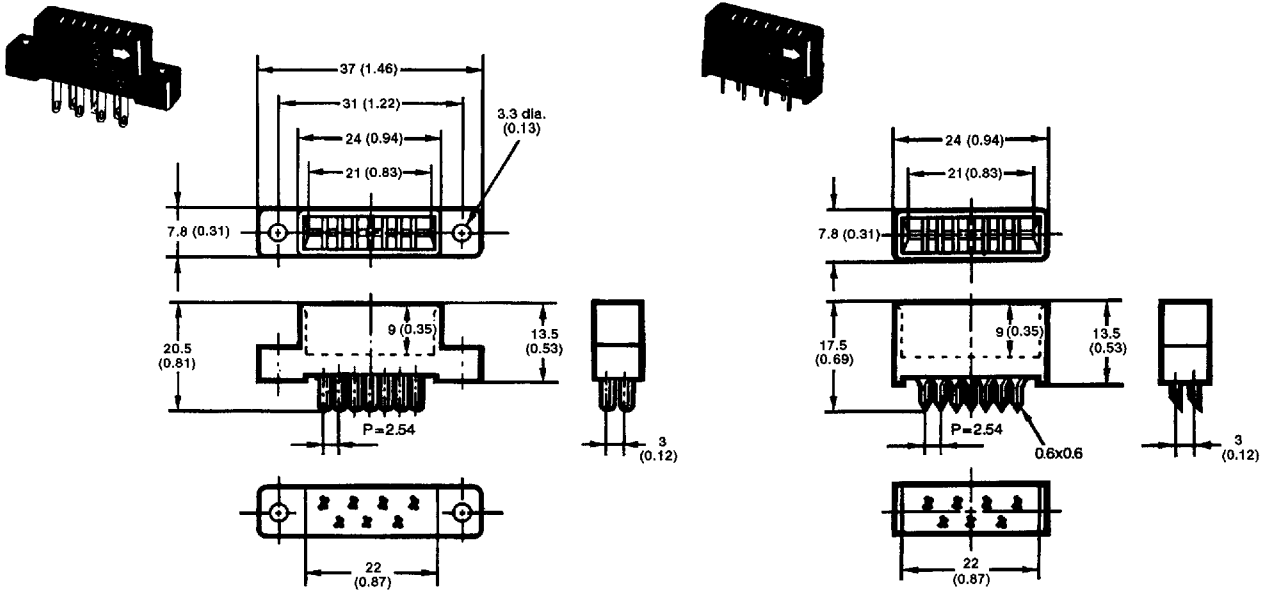


Unit: mm (inch)

CONNECTORS

A7B-C

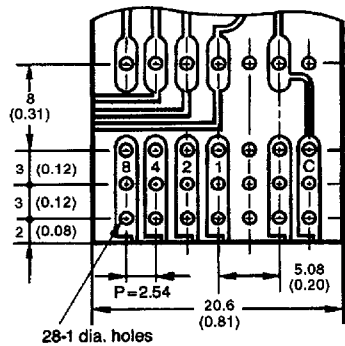
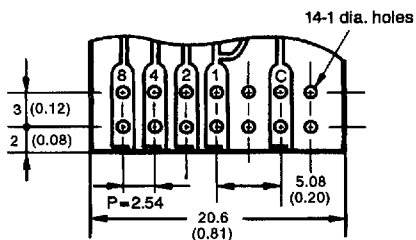
A7B-CP



TERMINALS

A7BS-206(-1)

A7BS-207(-1)



Hints on Correct Use

Refer to HINTS ON CORRECT USE under the General Information section.