# **OMRON**® Thumbwheel Switch

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

	Part number			
	Front mounting solder terminals			
	Stopper pin provided		Stopper pin not provided	
Output Code	Light gray case	Black case	Light gray case	Black case
03 (decimal code)	-	-	A7BS-203	A7BS-203-1
06 (binary code)	A7BS-206-S	A7BS-206-S-1	A7BS-206	A7BS-206-1
(binary code w/+, – display)	-	-	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

		Part number			
			For front mounting type switch assembly terminals		
Accessory		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
А	Hot stamp	E	g	К	°C
	not required	F	kg	L	PCS
В	SEC	G	mm	Q	x 10 SEC
С	MIN	Н	cm	Ŧ	•
D	Н	J	m		0



A7BS

## Specifications \_

### ■ 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 <sup>2</sup> (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)

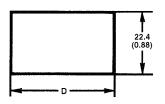
 SWITCH UNITS A7BS-206(-1) A7BS-207(-1)

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)].

218

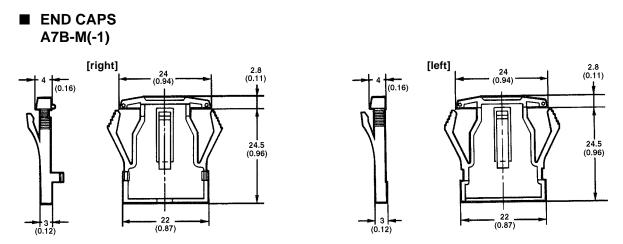
■ PANEL CUTOUT



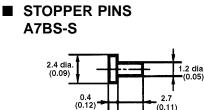
No. of units (n)	A (8n + 8)	B (8n + 6)	D
1	16 (0.63)	14 (0.55)	14.4 (0.57)
2	24 (0.94)	22 (0.87)	22.4 (0.88)
3	32 (1.26)	30 (1.18)	30.4 (1.20)
4	40 (1.57)	38 (1.50)	38.4 (1.51)
5	$48 \pm 0.8 \; (1.89 \pm 0.03)$	$46 \pm 0.8 \; (1.81 \pm 0.03)$	46.8 (1.84)
6	$56 \pm 0.8 \; (2.20 \pm 0.03)$	$54 \pm 0.8 \; (2.13 \pm 0.03)$	54.8 (2.16)
7	$64\pm0.8~(2.52\pm0.03)$	$62\pm 0.8\;(2.44\pm 0.03)$	62.8 (2.47)
8	$72\pm0.8~(2.83\pm0.03)$	$70\pm 0.8\;(2.76\pm 0.03)$	70.8 (2.79)
9	$80 \pm 0.8 \; (3.15 \pm 0.03)$	$78\pm0.8\;(3.07\pm0.03)$	78.8 (3.10)
10	$88\pm 0.8~(3.46\pm 0.03)$	$86\pm 0.8\;(3.39\pm 0.03)$	86.8 (3.42)

Note: 1. Unless otherwise specified, a tolerance of  $\pm$  0.4 mm applies to all dimensions.

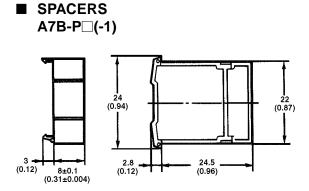
2. Each model number applies to a single switch unit and not to the switch assembly as shown in the drawings.



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



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



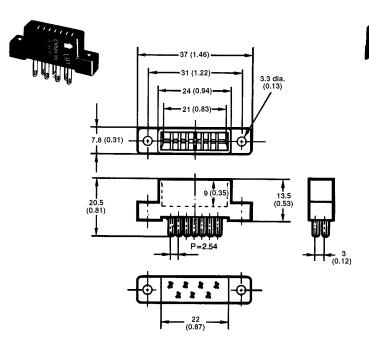
(0.11)

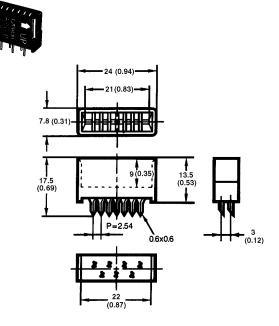
A7B-CP

Unit: mm (inch)

#### ■ CONNECTORS

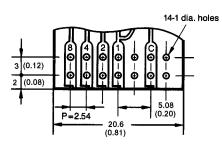
#### A7B-C



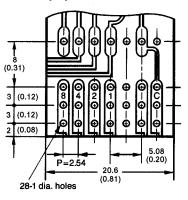


#### ■ TERMINALS

A7BS-206(-1)



A7BS-207(-1)



### Hints on Correct Use

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

NOTE: DIMENSIONS ARE SHOWN IN MILLIMETERS. To convert millimeters to inches divide by 25.4.



OMRON ELECTRONICS LLC.

One East Commerce Drive Schaumburg, IL 60173 **1-800-55-OMRON** 

Cat. No. GC SW6

04/01

**OMRON ON-LINE** 

Global - http://www.omron.com USA - http://www.omron.com/oei Canada - http://www.omron.com/oci

Specifications subject to change without notice.

**OMRON CANADA, INC.** 

= A7BS

885 Milner Avenue Scarborough, Ontario M1B 5V8 **416-286-6465** 

Printed in the U.S.A.