OMRON

Thumbwheel Switch

A7AS

Easy-to-Assemble Thumbwheel Switch

- Dustproof construction ensures highly reliable performance at low voltage and very small current even under adverse environmental conditions
- Switch units can be assembled simply by fitting the integral hook coupler of each unit into the mating unit, thus eliminating the need of bolts and nuts for assembly



Ordering Information

■ SWITCH UNITS

Output Code	Part Number	
	Front mounting solder terminals	
	Light gray case	Black case
03 (decimal code)	**A7AS-203**	**A7AS-203-1**
06 (binary code)	**A7AS-206**	**A7AS-206-1**
(binary code w/+, – display)	**A7AS-206-PM**	**A7AS-206-PM-1**
07 (binary code w/diode provision)	**A7AS-207**	**A7AS-207-1**
19 (decimal code w/diode provision)	**A7AS-219**	**A7AS-219-1**
22 (compliment of BCD)	**A7AS-222**	**A7AS-222-1**

■ ACCESSORIES

Accessory		Part Number	
		For front mounting type switch assembly terminals	
		Light gray	Black
End Cap		**A7AS-M**	**A7AS-M-1**
Spacer		**NRT-P□**	**NRT-P□-1**
Connector	Solder terminal	**NRT-C**	**NRT-C**
	PC terminal	**NRT-CP**	**NRT-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. Switch case, end cap, and spacer are made of polyacetal resin.
3. 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.
4. End caps come as a set -- left and right.

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

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		400 g max.
Vibration		10 to 55 Hz, 1.5 mm double amplitude
Shock		500 m/s^2 (approx. 50 G)
Ambient temperature	Operating	-40° to 85°C
	Storage	-40° to 85°C
Humidity		85% RH max.
Service life	Mechanical	1,000,000 operations (steps) min.
	Electrical	50,000 operations (steps) min.
Weight (per unit)		Approx. 7.6 g

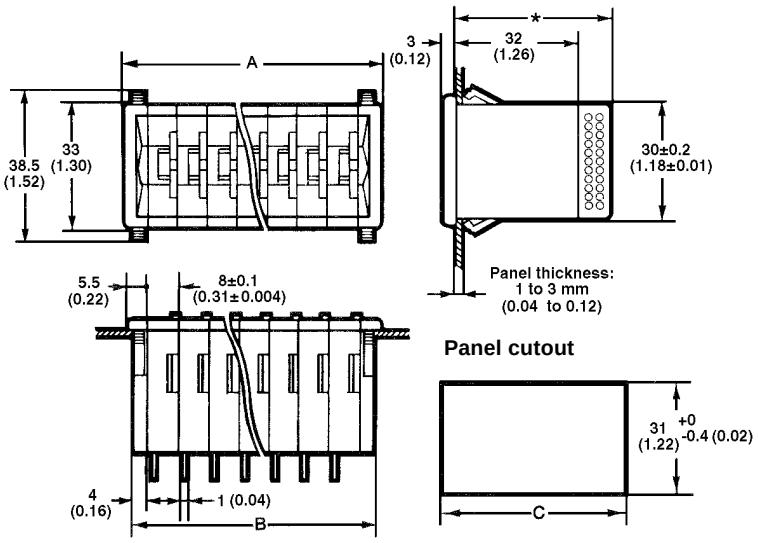
Note: Data shown are of initial value.

Dimensions

Unit: mm (inch)

■ SWITCH UNITS

A7AS-203(-1), A7AS-206(-1)
A7AS-207(-1), A7AS-219(-1)
A7AS-222(-1)



No. of units (n)	A (8n + 11)	B (8n + 8)	C (B + 1)
1	19 (0.75)	16 (0.63)	17 (0.67)
2	27 (1.06)	24 (0.94)	25 (0.98)
3	35 (1.38)	32 (1.26)	33 (1.30)
4	43 (1.69)	40 (1.57)	41 (1.66)
5	51 ± 0.8 (2 ± 0.03)	48 ± 0.8 (1.89 ± 0.03)	49 (1.93)
6	59 ± 0.8 (2.32 ± 0.03)	56 ± 0.8 (2.20 ± 0.03)	57 (2.24)
7	67 ± 0.8 (2.64 ± 0.03)	64 ± 0.8 (2.52 ± 0.03)	65 (2.56)
8	75 ± 0.8 (2.95 ± 0.03)	72 ± 0.8 (2.83 ± 0.03)	73 (2.87)
9	83 ± 0.8 (3.27 ± 0.03)	80 ± 0.8 (3.15)	81 (3.19)
10	91 ± 0.8 (3.58 ± 0.03)	88 ± 0.8 (3.46 ± 0.03)	89 (3.50)

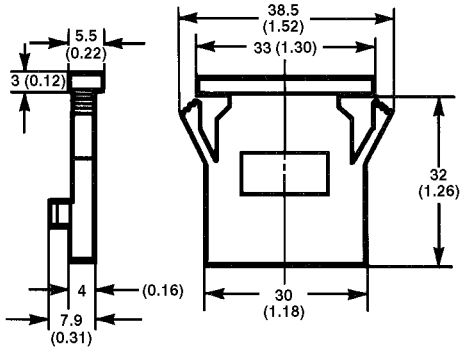
Note: Dimension * is 41.5 (1.63) for the switch with output code “03” or “06,” and 53.5 (2.11) for the switch with output code “07” or “19.”

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.

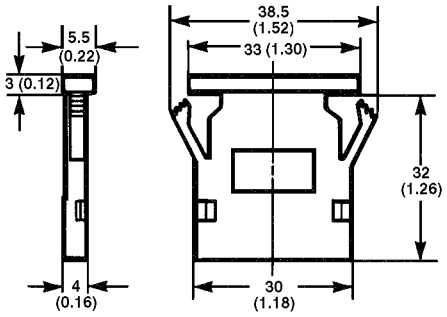
■ END CAPS

A7AS-M, A7AS-M-1

[right]

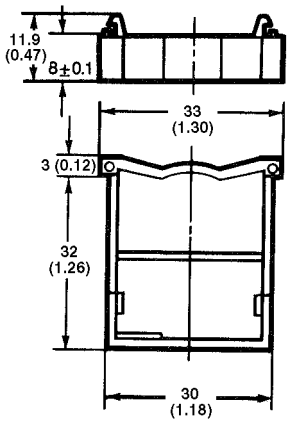


[left]



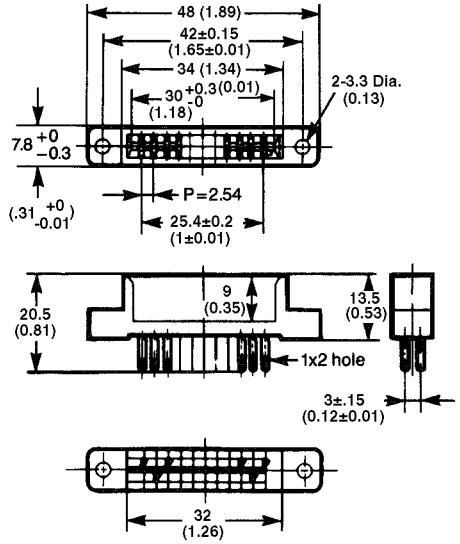
■ SPACERS

NRT-P□, NRT-P□-1

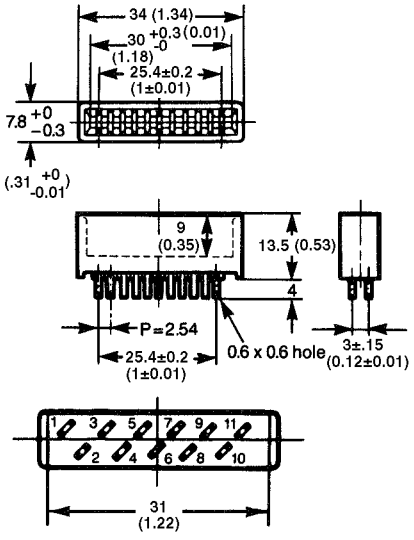


■ CONNECTORS

NRT-C



NRT-CP



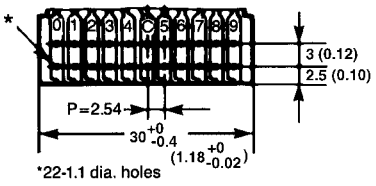
Note: 1. Unless otherwise specified, a tolerance of ± 0.4 mm applies to all dimensions.

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

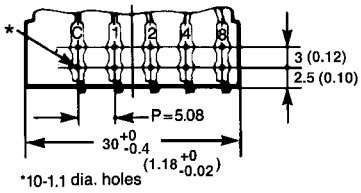
Unit: mm (inch)

■ TERMINALS

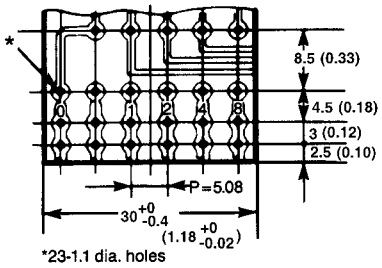
A7AS-203-□



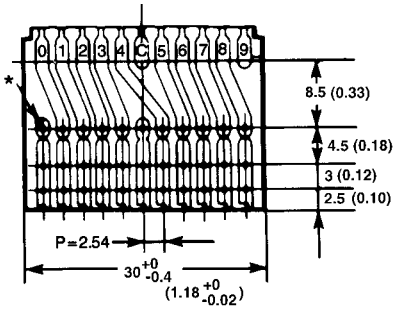
A7AS-206-□



A7AS-207-□



A7AS-219-□



Hints on Correct Use

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

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