

# 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**

	Part Number	Part Number	
	Front mounting solde	Front mounting solder terminals	
Output Code	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

		Part Number		
			For front mounting type switch assembly terminals	
Accessory		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
Α	Hot stamp not required	Н	cm
В	SEC	J	m
С	MIN	K	۰C
D	Н	L	PCS
E	g	Q	x 10 SEC
F	kg	_	0
G	mm	'	U

## Characteristics.

Switching capacity		1 mA to 0.1 A 50 VAC/28 VDC (resistive load)
Carry current		1 A (max.)
Contact resistance		200 m $Ω$ max.
Insulation resistance		10 M $\Omega$ min. (at 500 VDC) between nonconnected terminals 1,000 M $\Omega$ 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 <sup>2</sup> (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

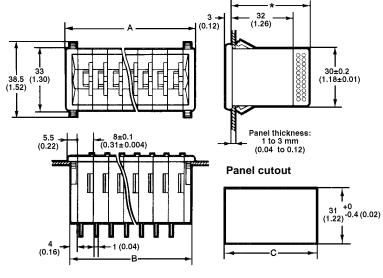
Note: Data shown are of initial value.

### Dimensions.

Unit: mm (inch)

#### **■ SWITCH UNITS**

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



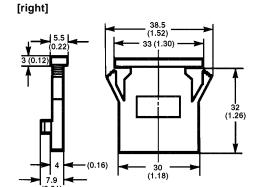
No. of	А	В	С
units (n)	(8n + 11)	(8n + 8)	(B + 1)
1	19 (0.75)	16 (0.63)	17 (0.67)
2	27 (1.06)	24 (0.94)	25 (0.98)
3	35 (1.38)	32 (1.26)	33 (1.30)
4	43 (1.69)	40 (1.57)	41 (1.66)
5	51 ± 0.8	$48 \pm 0.8$	49 (1.93)
	$(2 \pm 0.03)$	$(1.89 \pm 0.03)$	
6	59 ± 0.8	$56 \pm 0.8$	57 (2.24)
	$(2.32 \pm 0.03)$	$(2.20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

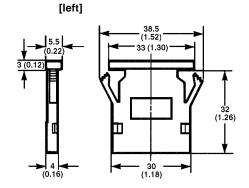
Note: Dimension \* is 41.5 (1.63) for the switch with output code "03" or "06," and 53.5 (2.11) for the switch with output code "07" or "19."

- Note: 1. Unless otherwise specified, a tolerance of  $\pm$  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.

#### **■ END CAPS**

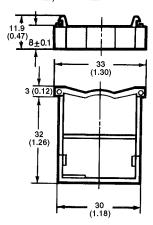
#### A7AS-M, A7AS-M-1



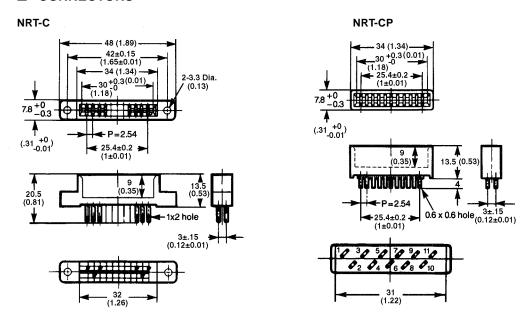


#### **■ SPACERS**

#### NRT-P□, NRT-P□-1



### **■** CONNECTORS



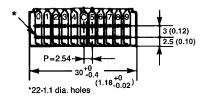
Note: 1. Unless otherwise specified, a tolerance of  $\pm$  0.4 mm applies to all dimensions.

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

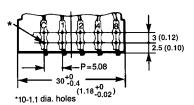
Unit: mm (inch)

#### **■ TERMINALS**

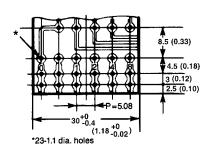
A7AS-203-□



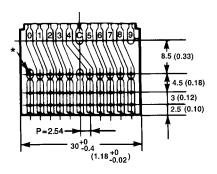
#### A7AS-206-□



#### A7AS-207-□



#### A7AS-219-□



### Hints on Correct Use \_\_\_\_

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

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