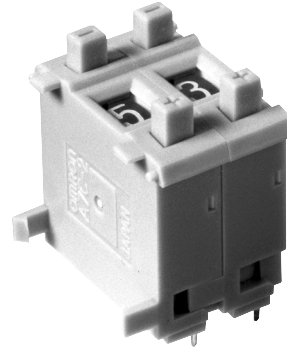


### Easy-to-Assemble Thumbwheel Switch Designed Specially for Printed Circuit Boards

- The transparent window plate fitted in the readout section protects dial characters from dust and prevents wear by incorrect handling
- Plus (+) and minus (–) pushbuttons for positive forward and reverse rotation of each digital wheel
- The contact section is of dust-proof construction
- Switch units can be assembled simply by fitting the integral hook coupler of each unit into the mating unit, thus eliminating the need of nuts and bolts for assembly



### Ordering Information

#### ■ SWITCH UNITS

Output Code	Part number			
	Back mounting PC board		Front mounting PC board	
	Light gray case	Black case	Light gray case	Black case
06 (binary code)	–	<b>A7CN-106-1</b>	<b>A7CN-206</b>	<b>A7CN-206-1</b>

#### ■ ACCESSORIES

Accessory	Part number			
	For back mounting type switch assembly		For front mounting type switch assembly	
	Light gray	Black	Light gray	Black
End Cap	–	<b>A7CN-1M-1</b>	<b>A7CN-2M</b>	<b>A7CN-2M-1</b>
Spacer	–	<b>A7CN-1P□-1</b>	<b>A7CN-2P□</b>	<b>A7CN-2P□-1</b>

- 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; however, the window plate is made of polycarbonate 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	°C
D	H	L	PCS
E	g	Q	x 10 SEC
F	kg	T	0
G	mm		

# 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 250 VDC) between nonconnected terminals 1,000 MΩ min. (at 250 VDC) between each terminal and noncurrent-carrying part	
Dielectric strength	250 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	450 g max.	
Vibration	10 to 55 Hz, 1.5 mm double amplitude	
Shock	490 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	30,000 operations (steps) min.
	Electrical	20,000 operations (steps) min.
Weight (per unit)	Approx. 1.5 g	

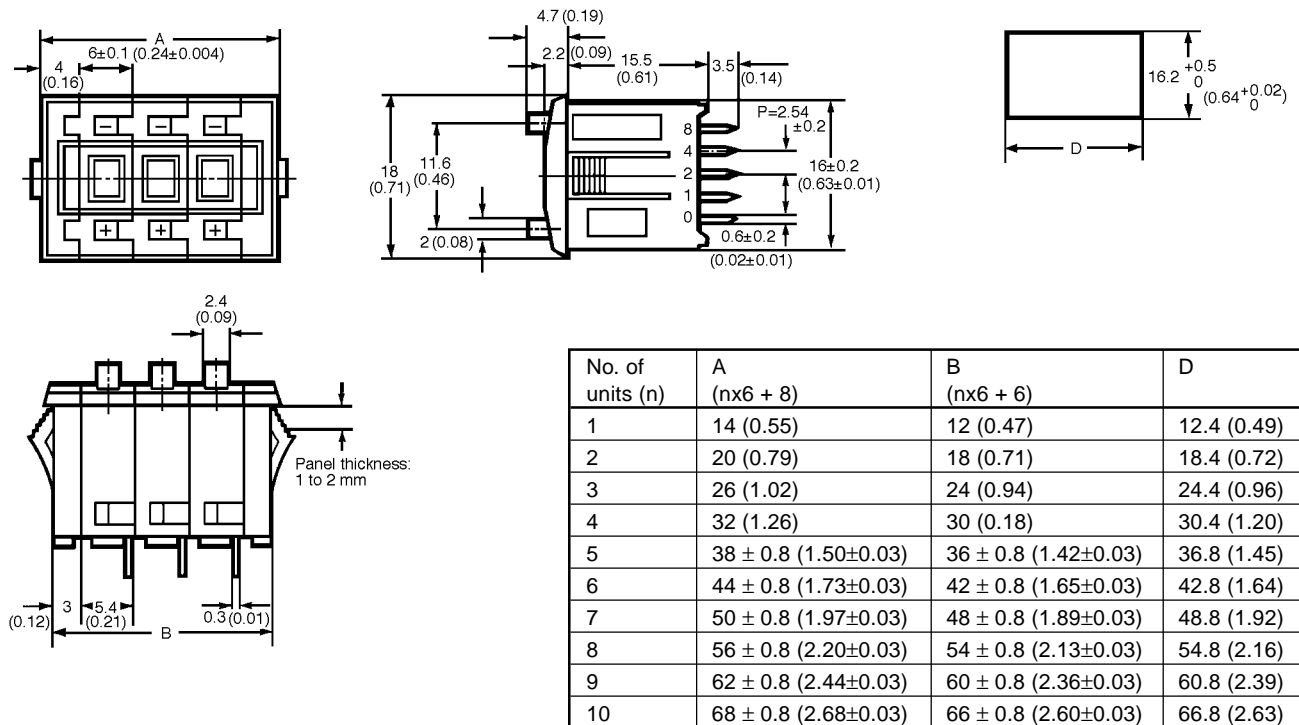
Note: Data shown are of initial value.

## Dimensions

Unit: mm (inch)

### SWITCH UNITS

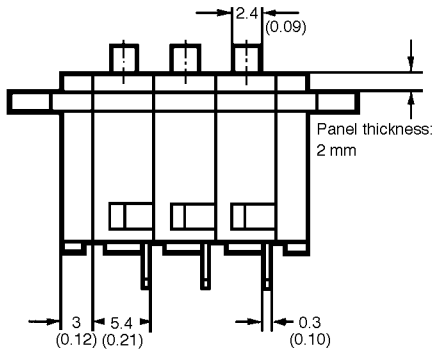
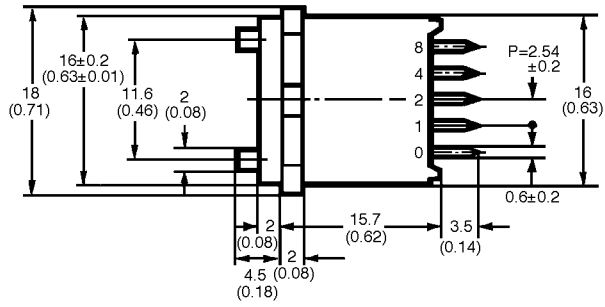
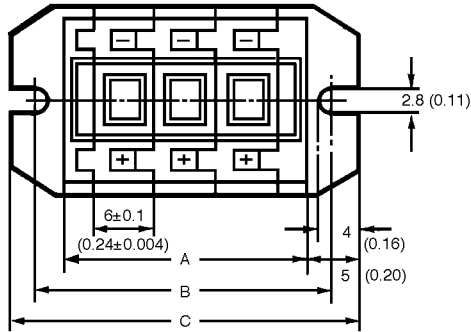
#### A7CN-206(-1)



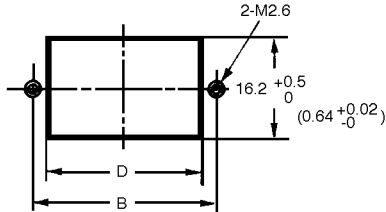
Note: 1. Unless otherwise specified, a tolerance of ± 0.4 mm applies to all dimensions.

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

A7CN-106-1



Panel cutout



No. of units (n)	A (nx6 + 6)	B (nx6 + 11)	C (nx6 + 16)	D
1	12 (0.47)	17 (0.67)	22 (0.87)	12.4 (0.49)
2	18 (0.71)	23 (0.91)	28 (1.10)	18.4 (0.72)
3	24 (0.94)	29 (1.14)	34 (1.34)	24.4 (0.96)
4	30 (1.18)	35 (1.38)	40 (1.57)	30.4 (1.20)
5	36 ± 0.8 (1.42±0.03)	41 (1.61)	46 ± 0.8 (1.81±0.03)	36.8 (1.45)
6	42 ± 0.8 (1.65±0.03)	47 (1.85)	52 ± 0.8 (2.05±0.03)	42.8 (1.69)
7	48 ± 0.8 (1.89±0.03)	53 (2.09)	58 ± 0.8 (2.28±0.03)	48.8 (1.92)
8	54 ± 0.8 (2.13±0.03)	59 (2.32)	64 ± 0.8 (2.52±0.03)	54.8 (2.16)
9	60 ± 0.8 (2.36±0.03)	65 (2.56)	70 ± 0.8 (2.76±0.03)	60.8 (2.39)
10	66 ± 0.8 (2.60±0.03)	71 (2.80)	76 ± 0.8 (3.00±0.03)	66.8 (2.63)

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

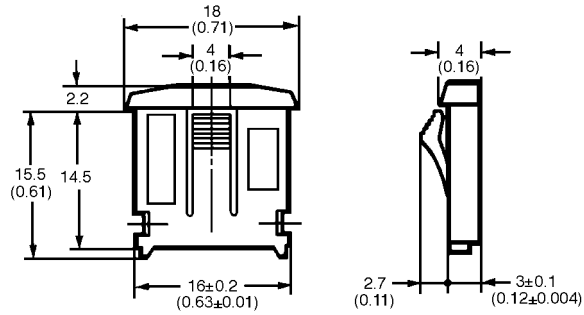
2. Each model number applies to a single switch unit and does not apply to the switch assembly as shown in the drawings.

Unit: mm (inch)

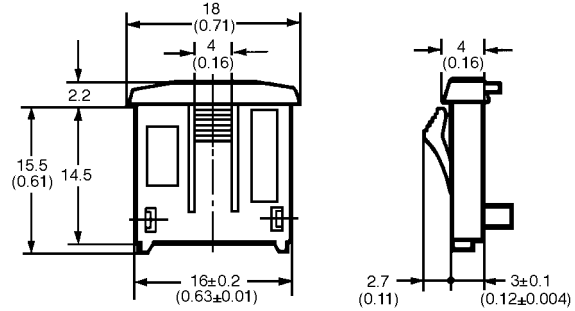
■ END CAPS

A7CN-2M-1

[left]

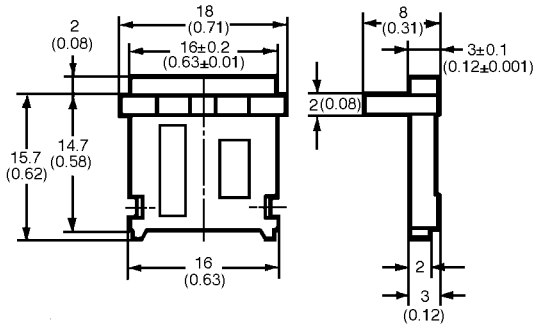


[right]

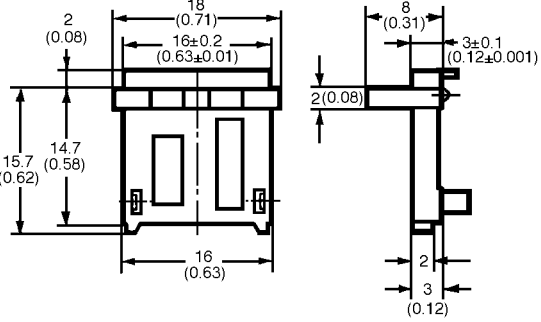


A7CN-1M-1

[left]



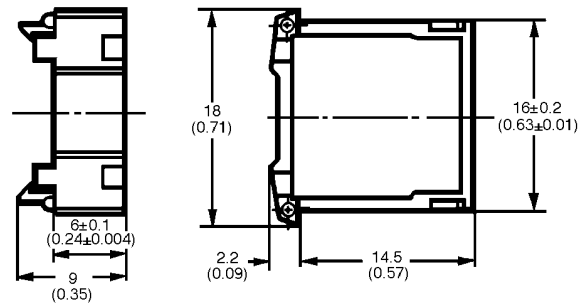
[right]



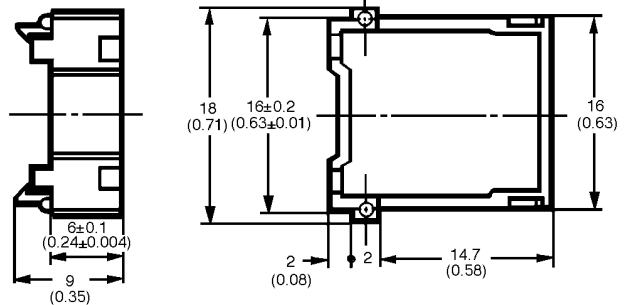
Note: End caps are attached to each end of the switch assembly and used to secure the switch assembly to a mounting panel.

■ SPACERS

A7CN-2P□-1

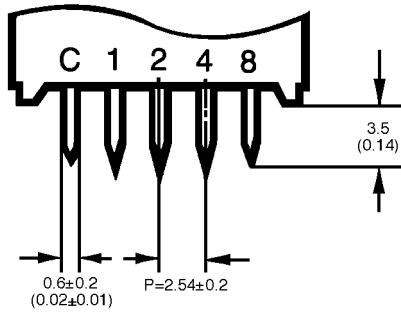


A7CN-1P□-1



■ TERMINALS

A7CN-106-1, A7CN-206



## 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.**

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04/01

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