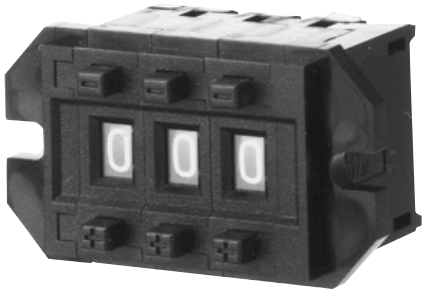
OMRON

Thumbwheel Switch

A7CN

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

	Part Number			
	Back mounting PC board		Front mounting PC board	
Output Code	Light gray case	Black case	Light gray case	Black case
06 (binary code)	–	**A7CN-106-1**	**A7CN-206**	**A7CN-206-1**

■ ACCESSORIES

	Part Number			
	For back mounting type switch assembly		For front mounting type switch assembly	
Accessory	Light gray	Black	Light gray	Black
End Cap	–	**A7CN-1M-1**	**A7CN-2M**	**A7CN-2M-1**
Spacer	–	**A7CN-1P□-1**	**A7CN-2P□**	**A7CN-2P□-1**

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		

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^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	30,000 operations (steps) min.
	Electrical	20,000 operations (steps) min.
Weight (per unit)		Approx. 1.5 g

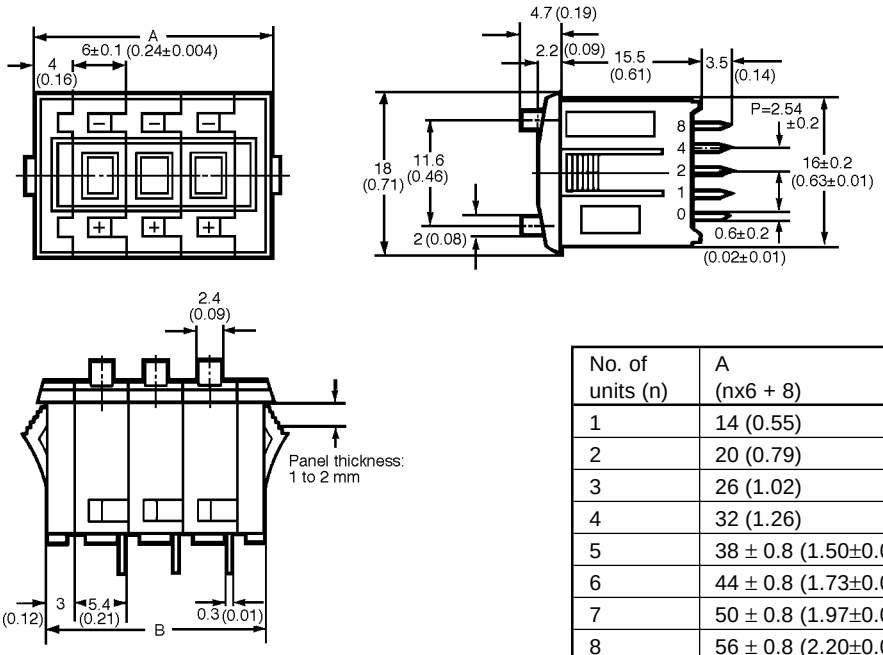
Note: Data shown are of initial value.

Dimensions

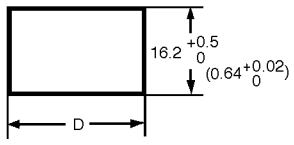
Unit: mm (inch)

■ SWITCH UNITS

A7CN-206(-1)



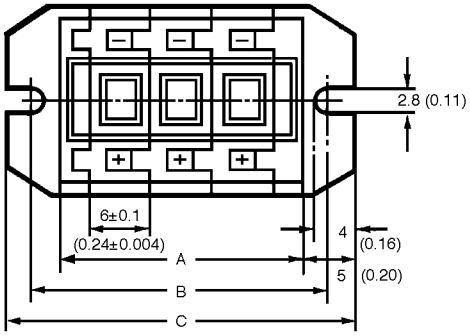
Panel cutout

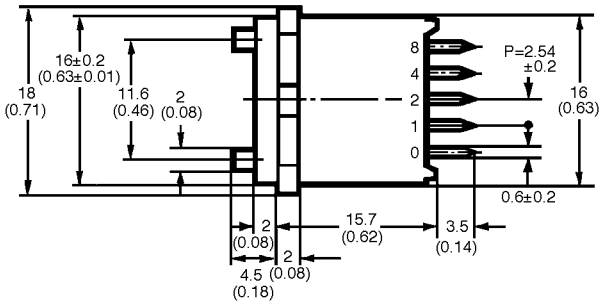


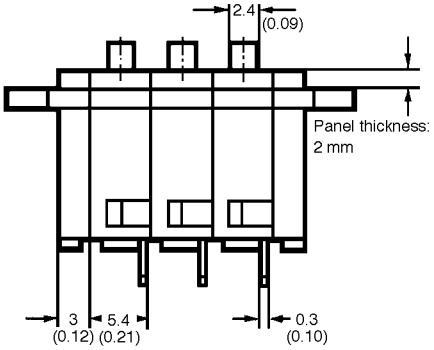
No. of units (n)	A (nx6 + 8)	B (nx6 + 6)	D
1	14 (0.55)	12 (0.47)	12.4 (0.49)
2	20 (0.79)	18 (0.71)	18.4 (0.72)
3	26 (1.02)	24 (0.94)	24.4 (0.96)
4	32 (1.26)	30 (0.18)	30.4 (1.20)
5	38 ± 0.8 (1.50±0.03)	36 ± 0.8 (1.42±0.03)	36.8 (1.45)
6	44 ± 0.8 (1.73±0.03)	42 ± 0.8 (1.65±0.03)	42.8 (1.64)
7	50 ± 0.8 (1.97±0.03)	48 ± 0.8 (1.89±0.03)	48.8 (1.92)
8	56 ± 0.8 (2.20±0.03)	54 ± 0.8 (2.13±0.03)	54.8 (2.16)
9	62 ± 0.8 (2.44±0.03)	60 ± 0.8 (2.36±0.03)	60.8 (2.39)
10	68 ± 0.8 (2.68±0.03)	66 ± 0.8 (2.60±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.

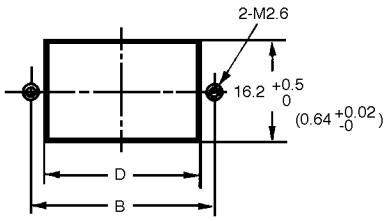
A7CN-106-1







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.

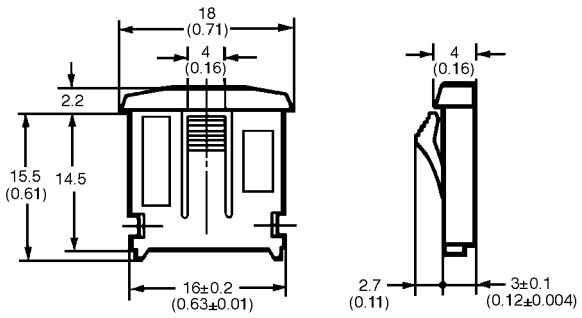
2. Each model number applies to a single switch unit and does not apply to the switch assembly as shown in the drawings.

UNIT: mm (inch)

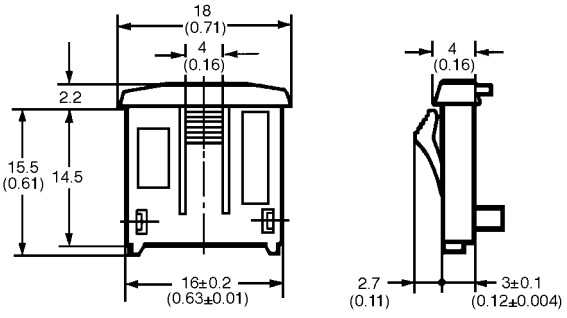
■ END CAPS

A7CN-2M-1

[left]

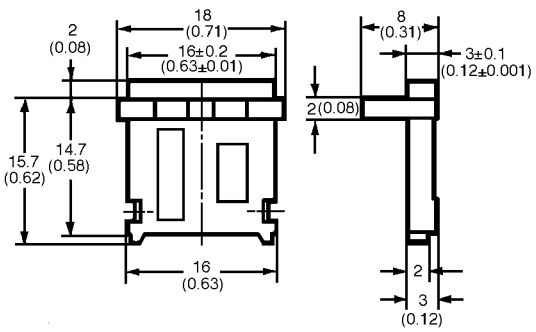


[right]

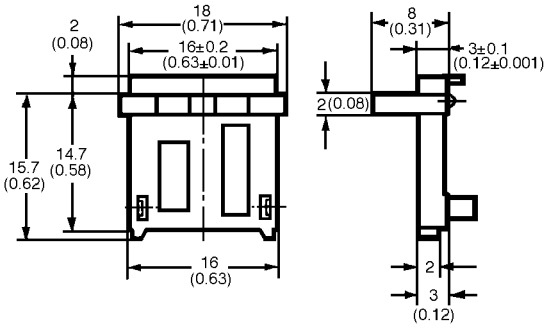


A7CN-1M-1

[left]



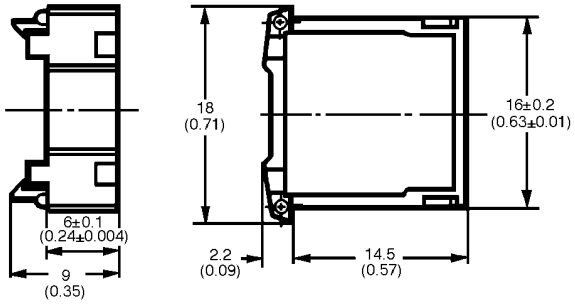
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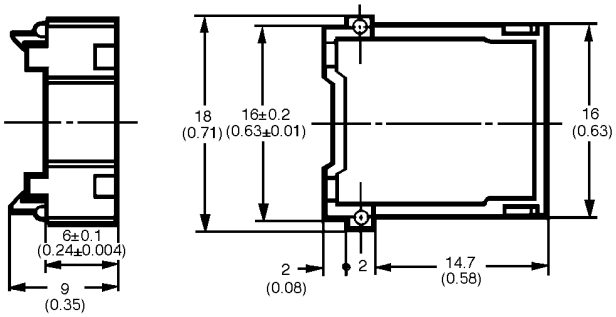
Note: End caps are attached to each end of the switch assembly and used to secure the switch assembly to a mounting panel.

■ SPACERS

A7CN-2P□-1

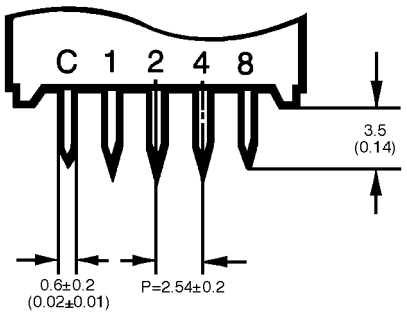


A7CN-1P□-1



■ TERMINALS

A7CN-106-1, A7CN-206



Hints on Correct Use

Refer to HINTS ON CORRECT USE under the Gene ral In formation section.

OMRON

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