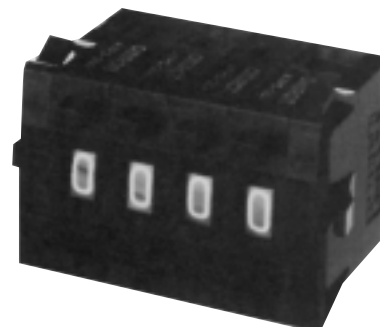


Thumbwheel Switch

A7P

Easy-to-Assemble Thumbwheel Switch with Forward and Reverse Rotation

- 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
- Switch units can be assembled simply by fitting the integral hook coupler of each unit into the mating unit, thus eliminating need of nuts and bolts for assembly



Ordering Information

■ SWITCH UNITS

Output Code	Part Number			
	High-grade front mounting solder terminals		Popular front mounting solder terminals	
	Light gray case	Black case	Light gray case	Black case
03 (decimal code)	A7PH-203	A7PH-203-1	A7PS-203	A7PS-203-1
06 (binary code) (binary code w/+, – display)	A7PH-206	A7PH-206-1	A7PS-206	A7PS-206-1
	A7PH-206-PM	A7PH-206-PM-1	A7PS-206-PM	A7PS-206-PM-1
07 (binary code w/diode provision)	A7PH-207	A7PH-207-1	A7PS-207	A7PS-207-1
19 (decimal code w/diode provision)	A7PH-219	A7PH-219-1	A7PS-219	A7PS-219-1
54 (binary code hexadecimal)	A7PH-254	A7PH-254-1	A7PS-254	A7PS-254-1
55 (binary code hexadecimal, w/component adding provision)	–	–	A7PS-255	A7PS-255-1

■ ACCESSORIES

Accessory	Part Number	
	For front mounting type switch assembly	
	Light gray	Black
End Cap	A7P-M	A7P-M-1
Spacer	A7P-P□	A7P-P□-1
Connector	Solder terminals	NRT-C
	PC terminals	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	°C
D	H	L	PCS
E	g	Q	x10 SEC
F	kg	T	0
G	mm	U	Decimal Point

Characteristics

		A7PH	A7PS
Switching capacity		10μA to 0.15 A 125 VAC/28 VDC (resistive load)	1 mA to 0.1 A 50 VAC/28 VDC (resistive load)
Carry current		3 A max.	1 A max.
Contact resistance		200 mΩ max.	
Insulation resistance		100 MΩ min. (at 500 VDC) between nonconnected terminals	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		650 g max.	
Vibration		10 to 55 Hz, 1.5 mm double amplitude	
Shock		500 m/s ² (approx. 50 G)	
Ambient temperature	Operating	-10° to 65°C	
	Storage	-20° to 80°C	
Humidity		85% RH max. (at 40°C)	
Service life	Mechanical	2,000,000 operations (steps) min.	100,000 operations (steps) min.
	Electrical	1,000,000 operations (steps) min.	50,000 operations (steps) min.
Weight (per unit)		Approx. 9.2 g	Approx. 8.6 g

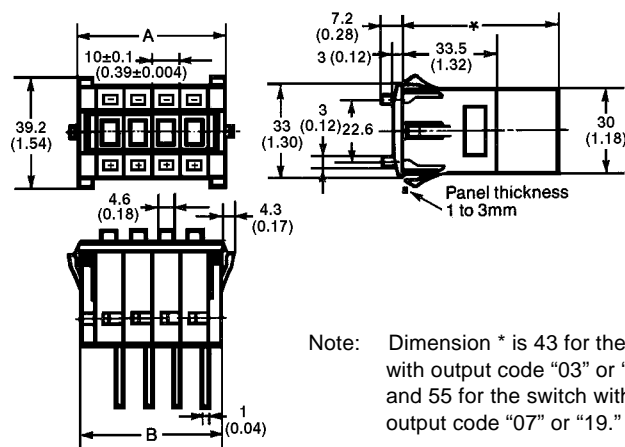
Note: Data shown are of initial value.

Dimensions

Unit: mm (inch)

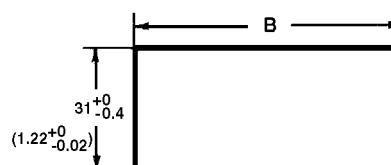
SWITCH UNITS

A7PH-□, A7PS-□



Note: Dimension * is 43 for the switch with output code "03" or "06," and 55 for the switch with output code "07" or "19."

Panel cutout

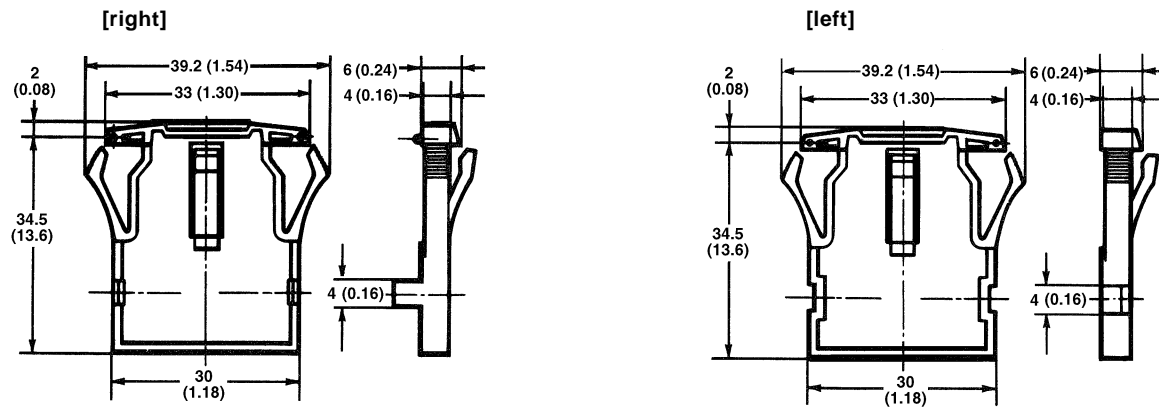


No. of units (n)	A (10n + 12)	B (10n + 9)
1	22 (0.87)	20 (0.79)
2	32 (1.26)	30 (1.18)
3	42 (1.65)	40 (1.57)
4	52 (2.05)	50 (1.97)
5	62 (2.44)	60 (2.36)
6	72 ± 0.8 (2.83 ± 0.03)	70 ± 0.8 (2.76 ± 0.03)
7	82 ± 0.8 (3.23 ± 0.03)	80 ± 0.8 (3.15 ± 0.03)
8	92 ± 0.8 (3.62 ± 0.03)	90 ± 0.8 (3.54 ± 0.03)
9	102 ± 0.8 (4.02 ± 0.03)	100 ± 0.8 (3.94 ± 0.03)
10	112 ± 0.8 (4.41 ± 0.03)	110 ± 0.8 (4.33 ± 0.03)

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

A7P-M, A7P-M-1

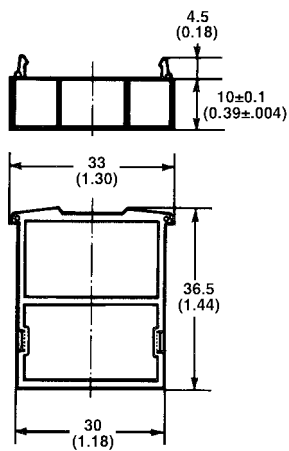


Note: 1. Unless otherwise specified, a tolerance of ± 0.4 mm applies to all dimensions.

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

■ SPACERS

A7P-P□, A7P-P□-1

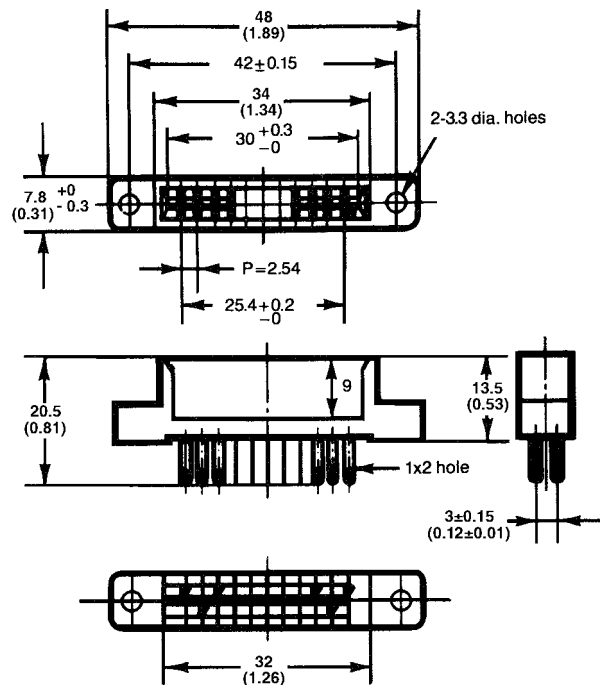


Note: Unless otherwise specified, a tolerance of ± 0.4 mm applies to all dimensions.

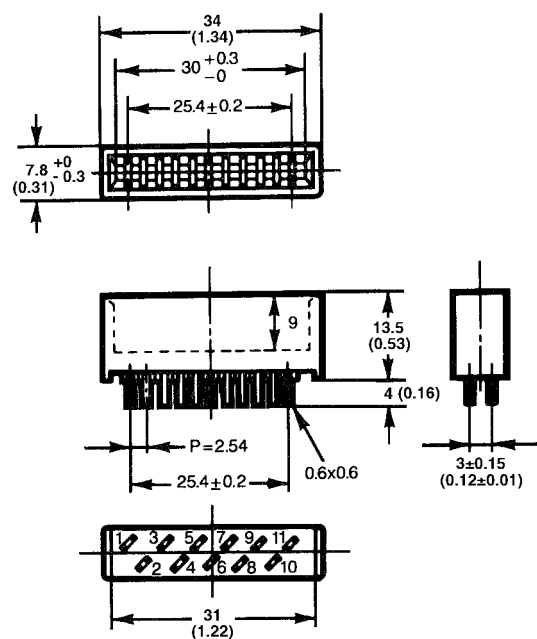
Unit: mm

CONNECTORS

NRT-C



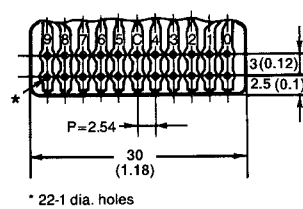
NRT-CP



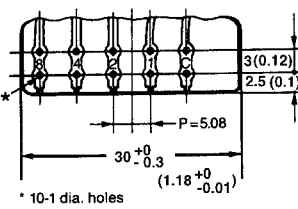
Note: Unless otherwise specified, a tolerance of ± 0.4 mm applies to all dimensions.

TERMINALS

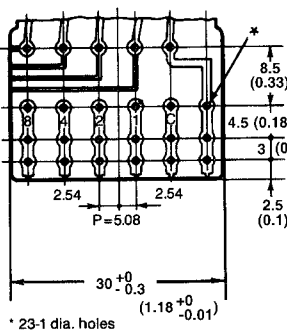
A7P□-203-□



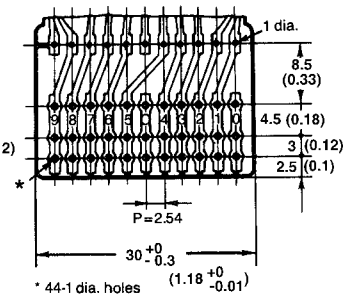
A7P□-206-□



A7P□-207-□



A7P□-219-□



Hints on Correct Use

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

OMRON

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